DEATH VALLEY NATIONAL MONUMENT

(Furnace Creek Area—Water Rights and Related Matters)

HEARINGS

BEFORE A

SUBCOMMITTEE OF THE COMMITTEE ON GOVERNMENT OPERATIONS HOUSE OF REPRESENTATIVES

EIGHTY-EIGHTH CONGRESS

SECOND SESSION

JANUARY 27, 28, 29; MARCH 23, AND APRIL 21, 1964

Printed for the use of the
Committee on Government Operations



WATER RESOURCES

DEATH VALLEY NATIONAL MONUMENT

(Furnace Creek Area—Water Rights and Related Matters)

HEARINGS

BEFORE A

SUBCOMMITTEE OF THE COMMITTEE ON GOVERNMENT OPERATIONS HOUSE OF REPRESENTATIVES

EIGHTY-EIGHTH CONGRESS

SECOND SESSION

JANUARY 27, 28, 29; MARCH 23, AND APRIL 21, 1964

Printed for the use of the
Committee on Government Operations

U.S. GOVERNMENT PRINTING OFFICE
35-429 WASHINGTON : 1965

COMMITTEE ON GOVERNMENT OPERATIONS

WILLIAM L. DAWSON, Illinois, *Chairman*

CHET HOLIFIELD, California
JACK BROOKS, Texas
L. H. FOUNTAIN, North Carolina
PORTER HARDY, JR., Virginia
JOHN A. BLATNIK, Minnesota
ROBERT E. JONES, Alabama
EDWARD A. GARMATZ, Maryland
JOHN E. MOSS, California
DANTE B. FASCELL, Florida
HENRY S. REUSS, Wisconsin
JOHN S. MONAGAN, Connecticut
RICHARD E. LANKFORD, Maryland
TORBERT H. MACDONALD, Massachusetts
J. EDWARD ROUSH, Indiana
WILLIAM S. MOORHEAD, Pennsylvania
CORNELIUS E. GALLAGHER, New Jersey
WILLIAM J. RANDALL, Missouri
BENJAMIN S. ROSENTHAL, New York

R. WALTER RIEHLMAN, New York
GEORGE MEADER, Michigan
CLARENCE J. BROWN, Ohio
FLORENCE P. DWYER, New Jersey
ROBERT P. GRIFFIN, Michigan
GEORGE M. WALLHAUSER, New Jersey
JOHN B. ANDERSON, Illinois
OGDEN R. REID, New York
FRANK J. HORTON, New York
BILL STINSON, Washington
ROBERT McCLORY, Illinois
ALBERT W. JOHNSON, Pennsylvania

CHRISTINE RAY DAVIS, *Staff Director*
JAMES A. LANIGAN, *General Counsel*
MILES Q. ROMNEY, *Associate General Counsel*
J. P. CARLSON, *Minority Counsel*
RAYMOND T. COLLINS, *Minority Professional Staff*

SPECIAL SUBCOMMITTEE ON DEATH VALLEY NATIONAL MONUMENT

JOHN E. MOSS, California, *Chairman*

WILLIAM S. MOORHEAD, Pennsylvania
ROBERT McCLORY, Illinois

PHINEAS INDRITZ, *Chief Counsel*
SIDNEY McCLELLAN, *Assistant Counsel*
JOSEPHINE SCHEIBER, *Research Analyst*

CONTENTS

Hearings held— Page

Monday, January 27, 1964, Sacramento, Calif. 1–119
Tuesday, January 28, 1964, Sacramento, Calif. 121–229
Wednesday, January 29, 1964, Sacramento, Calif. 231–314
Monday, March 23, 1964, Washington, D.C. 315–379
Tuesday, April 21, 1964, Washington, D.C. 381–454

Testimony of—

Ackerman, Wesley A., secretary, Death Valley Hotel Co., and secretary, United States Borax & Chemical Corp. 231
Albright, Horace M., former Director, National Park Service. 285
Binnewies, Fred W., superintendent, Point Reyes National Seashore, National Park Service. 152
Gerstley, James M., president, Death Valley Hotel Co., and vice chairman, United States Borax & Chemical Corp. 305
Hill, Sanford, Chief, Western Office of Design and Construction, National Park Service. 6, 138
Hilton, Elton M., former chief of maintenance, San Francisco office, National Park Service; accompanied by George W. Norgard, regional architect, National Park Service. 121
Horne, Frank, regional solicitor, Department of the Interior. 95
Kunkel, Fred, district geologist, Ground Water Branch, U.S. Geological Survey, Sacramento, Calif. 64
Lee, Donald E., Chief, Division of Land and Water Rights, National Park Service. 435
McDonough, Martin, attorney and consultant, Sacramento, Calif. 96
Manbey, Bernard F., former regional chief of lands, National Park Service, San Francisco, Calif. 263
Merriam, Lawrence C., former regional director, National Park Service. 234
Robinson, T. W., research engineer, U.S. Geological Survey, Menlo Park, Calif. 78
Wilson, Roger F., cadastral surveyor, Bureau of Land Management, Department of the Interior; accompanied by Beverly W. Capell, cadastral surveyor, and Linn S. Spaulding, supervisory highway engineer, Western Office, Division of Design and Construction, National Park Service. 219
Wirth, Conrad L., former Director, National Park Service. 318, 342, 381, 412

Letters, statements, etc., submitted for the record by—

Albright, Horace M., former Director, National Park Service: Document D–47.3—Letter from Horace M. Albright, to Hon John E. Moss, March 3, 1964. 302
Binnewies, Fred W., superintendent, Point Reyes National Seashore, National Park Service:
Document D–42—Telegram from Conrad L. Wirth, Director, National Park Service, to the superintendent, Death Valley National Monument, February 20, 1957. 197
Excerpts from D Documents:
Document D–28—Memorandum from Lawrence C. Merriam, regional director, National Park Service, limited to official use, November 2, 1956. 169
Document D–47—Memorandum from Horace M. Albright, U.S. Potash Co., Inc., New York, N.Y., in regard to Death Valley, February 21, 1957. 198, 199
Document D–51—Memorandum: Summary of discussions with Director Wirth, March 25, 1957. 204

Letters, statements, etc.—Continued
Gerstley, J. M., president, Death Valley Hotel Co., Ltd., Los Angeles, Calif.:
Memorandum from J. M. Gerstley, to Hon. John E. Moss, February 5, 1964 — Page 308
Interoffice correspondence, Los Angeles, Calif., September 8, 1961 — 309
Map—Lands at Furnace Creek involved in exchange with national monument — 310
Interoffice correspondence, Los Angeles, Calif., September 13, 1961 — 311
Interoffice correspondence, Los Angeles, Calif., September 14, 1961 — 312
Hill, Sanford, chief, Western Office of Design and Construction, National Park Service:
Description of facilities—
Grapevine District — 20
Ryan Junction and Daylight Pass — 20
Wildrose — 20
Ashford — 21
Emigrant Junction — 21
Outlying campgrounds — 21
Cow Creek residential and utility area — 32
Document D–51.1—Memorandum: Visit to Death Valley, March 1957, May 2, 1960 — 147
Excerpt — 146, 147
Excerpt from Document D–3—Memorandum: Location of permanent headquarters, Death Valley, April 24, 1956 — 62
Exhibit 1.—Location map of Death Valley — 8
Exhibit 2.—Topographic map of Death Valley National Monument — 10
Exhibit 3.—Aerial photograph of Death Valley National Monument, Cow Creek area — 30
Exhibit 4.—Aerial photograph of Death Valley National Monument, Furnace Creek area — 14
Exhibit 5.—Visitation chart — 16
Exhibit 6.—Map, general development plan of Death Valley National Monument — 18
Exhibit 7.—Map, Cow Creek maintenance area, Death Valley National Monument — 23
Exhibit 8.—Interim master plan, Furnace Creek residential utility area — 27
Exhibit 9.—Landscape, Cow Creek residential area — 29
Exhibit 10.—Map, Cow Creek residential area — 31
Exhibit 11.—Map showing Cow Creek and Furnace Creek vicinity utilities — 35
Exhibit 12.—Map, public use area—Furnace Creek — 37
Exhibit 13.—Map, redevelopment Texas Spring campground — 39
Exhibit 14.—Map showing Cow Creek area and Furnace Creek area — 33
Exhibit 15.—Furnace Creek area—Land status — 41
Exhibit 16.—Special base map, Death Valley National Monument — 43
Photographs—
Proposed Furnace Creek headquarters site, view from east of Furnace Creek Inn — 25
Proposed site of National Park headquarters at Furnace Creek in Death Valley National Monument — 26
Texas Spring task force report — 40
Travel figures, Death Valley National Monument — 15

Letters, statements, etc.—Continued
Indritz, Phineas, chief counsel, Special Subcommittee on Death Valley National Monument: Page
Chart—Visitor center attendance, 1961–63, by month 50
Death Valley development study task force report to the regional director, May 21, 1962 53
Excerpt from Death Valley development study task force report 57
Letter from Douglas J. McFarlane (for Charles F. MacGowan, Director, Office of Saline Water), to Phineas Indritz, June 8, 1964 91
Visits, visitor days, and overnight visits; Death Valley National Monument, 1952–75 49
Kunkel, Fred, district geologist, Ground Water Branch, U.S. Geological Survey, Sacramento, Calif.: Report—A brief summary of ground water in the Furnace Creek Wash area, Death Valley National Monument, 1963 65
Lanigan, James A., general counsel, Government Operations Committee:
Excerpt from testimony of Conrad L. Wirth 385, 387
Excerpts from D Documents:
Document D–30—Letter from Horace M. Albright, former Director, National Park Service, to Conrad L. Wirth, November 1, 1956 384
Document D–39—Letter from Horace M. Albright, U.S. Potash Co., Inc., New York, N.Y., to Conrad L. Wirth, February 4, 1957 386
Document D–47.1—Memorandum from Horace M. Albright, former Director, National Park Service, to Conrad L. Wirth, March 6, 1957 386
Letter from Horace M. Albright, former Director, National Park Service, to James A. Lanigan, April 2, 1964 382
Letter from James A. Lanigan to Horace M. Albright, March 24, 1964 381
Memorandum from A. van V. Dunn, Chief, Water Resources Section, National Park Service, to Director, National Park Service, March 11, 1957 389, 395
Lee, Donald E., Chief, Division of Land and Water Rights, National Park Service: Statement by James M. Gerstley re additional water use 452
McClory, Hon. Robert, a Representative in Congress from the State of Illinois:
Excerpts from D Documents:
Document D–39—Letter from Horace M. Albright, former Director, National Park Service, to Conrad L. Wirth, February 4, 1957 340
Document D–59—Statement re lease with the Death Valley Hotel Co 246, 251
Document D–66—Letter from Conrad L. Wirth, former Director, National Park Service, to James M. Gerstley, May 17, 1957 429
Document D–71—Letter from Conrad L. Wirth, former Director, National Park Service, to Horace M. Albright, June 26, 1957 430
Statement by Hon. Wayne N. Aspinall, a Representative in Congress from the State of Colorado, January 8, 1964, re the retirement of Conrad L. Wirth 436
Editorial from the Washington Evening Star entitled "Mr. Park Service" 437
Editorial from the Memphis Press-Scimitar entitled "In Appreciation of 'Connie' Wirth" 438
Editorial from the Wheeling (W. Va.) News-Registar entitled "A Career Ends" 439
Editorial from the Roanoke Times entitled "A Public Service Well Done" 439
Editorial from the Conservation News entitled "Mission 66—A Testimony to Vision of 'Connie' Wirth" 440

Letters, statements, etc.—Continued
McDonough, Martin, attorney and consultant Sacramento, Calif.:
Memorandum from Martin McDonough, attorney and consultant to the Special Subcommittee on Death Valley National Monument, to Hon. John E. Moss re Death Valley Water Rights— Page 97
Memorandum re Death Valley Water Rights:
Excerpt from 1955 grant of easements pursuant to Public Law 284 of 1952— 105
Excerpt from original appropriation act— 107
Excerpt from Supreme Court Case, *Haight* v. *Costanich*— 107
Excerpt from the President's order creating—
Public Water Reserve No. 13, June 25, 1910— 104
Public Water Reserve No. 107, April 17, 1926— 104
General location map of Furnace Creek drainage area— 98
Geological Survey statement recommending withdrawal— 104
Production of water by the five sources involved— 103
Moss, Hon. John E., a Representative in Congress from the State of California, and chairman, Special Subcommittee on Death Valley National Monument:
Comparison of water volumes, Death Valley, Calif— 91
Document D–30—Letter from Horace M. Albright, U.S. Potash Co., Inc., New York, N.Y., to Conrad L. Wirth, November 1, 1956— 298
Excerpt— 336
Document D–32—Death Valley Museum—discussion with Superintendent Binnewies, November 16, 1956— 180
Document D–34—Telegram from Conrad L. Wirth, Director, National Park Service, to the regional director, region 4, National Park Service, November 26, 1956— 299
Document D–43.1—Memorandum: Letter from Horace M. Albright, U.S. Potash Co., Inc., New York, N.Y., in regard to Death Valley, February 15, 1957— 212
Document D–49—Memorandum: Inspection of proposed sewage system by State and county health service, March 6, 1957— 212
Excerpt— 213
Document D–59.7—Letter from Leslie W. Scott, Fred Harvey Co., Chicago, Ill., to Hon. John E. Moss, January 7, 1963, with attachments— 243
Document D–88a—Letter from J. D. Stern, vice president and general manager, Death Valley Hotel Co., Ltd., to L.C. Merriam, March 19, 1958— 313
Document D–92—Telegram from Hillory A. Tolson, Acting Director, National Park Service, to J. D. Stern, March 28, 1958— 312
Excerpts from D Documents:
Document D–3—Memorandum from the regional chief of maintenance and the regional architect, to the regional director, April 25, 1956, re location of permanent headquarters, Death Valley— 63
Document D–18—Supplement to Mission 66 prospectus—Death Valley Permament Headquarters location, May 21, 1956— 252
Document D–20—Memorandum: New headquarters location—Death Valley National Monument, May 17, 1956— 441
Document D–23—State of California Budget Act of 1956, item 401.2, approved April 13, 1956— 151
Document D–29—Memorandum from Conrad L. Wirth, Director, National Park Service, to the superintendent of Death Valley, November 6, 1956— 300
Document D–31—Memorandum, letter from Conrad L. Wirth, Director, National Park Service, to Horace M. Albright, November 6, 1956— 294, 295, 336
Document D–32—Memorandum, Death Valley Museum—discussion with Superintendent Binnewies, November 15, 1956— 176

Letters, statements, etc.—Continued
Moss, Hon. John E., etc.—Continued
Excerpts from D Documents—Continued
Page
Document D–38—Memorandum from A. van V. Dunn, chief, Water Resources Section, to the regional director, region 4, February 8, 1957 ... 397, 399
Document D–39—Letter from Horace M. Albright, former Director, National Park Service, to Conrad L. Wirth, February 4, 1957 ... 252, 336
Document D–48—Memorandum: Headquarters location, Death Valley, February 21, 1957 ... 209
Document D–72—Letter from Horace M. Albright, U.S. Potash Co., Inc., New York, N.Y., to Conrad L. Wirth, July 9, 1957 ... 297
Document D–83—Letter from Horace M. Albright, U.S. Potash Co., Inc., New York, N.Y., to Senator Thomas H. Kuchel, February 6, 1958 ... 300, 306
Excerpt from act creating National Park Service Advisory Board (69 Stat. 666) ... 294, 301
Excerpt from Death Valley development study task force report ... 59
Excerpt from Department of the Interior statement about negotiations of any contract re rights to the use of water ... 317
Excerpt from 16 U.S.C. 463, approved August 21, 1935 ... 294
Excerpt from testimony of Fred W. Binnewies ... 372
Excerpt from testimony of Horace M. Albright ... 336
Excerpt from testimony of J. M. Gerstley ... 375
Excerpt from the Holy Bible—Matthew, chapter 6, 24th verse ... 405
Excerpt of letter from Hon. William L. Dawson, chairman, Government Operations Committee, re subcommittee jurisdiction, August 23, 1963 ... 1, 315
Excerpt of letter from Horace M. Albright, former Director, National Park Service, to Conrad L. Wirth, February 4, 1957 ... 252
Excerpt of memorandum from Robert S. Luntey, to the Director, National Park Service, May 24, 1963 ... 124
Letters from Hon. John E. Moss, to Hon Stewart L. Udall:
December 6, 1963 ... 56
December 30, 1963 ... 56
Letter from Hon. John E. Moss, to John A. Carver, Jr., January 16, 1962 ... 93
Letters from John A. Carver, Jr., Assistant Secretary of the Interior, to Hon. John E. Moss—
March 23, 1962 ... 93
January 23, 1963 ... 94
Letter (with table) from W. A. Ackerman, Secretary, United States Borax & Chemical Co., to Phineas Indritz, April 29, 1964 ... 383
Material concerning major planning change in the national parks:
Letter from Hon. Stewart L. Udall, Secretary of the Interior, to Hon. John E. Moss, April, 8, 1964 ... 366
Summary, major planning changes, Conrad L. Wirth ... 366
Memorandum for the files from Miles Q. Romney, April 16, 1964 ... 367
Memorandum: Area management survey report, Death Valley, N. Mex., March 12, 1957 ... 254
Memorandum: Management survey, Death Valley National Monument, February 5, 1957 ... 254
Present and proposed permanent organization, Death Valley National Monument ... 258
Memorandum from the Chief, Water Resources Section, National Park Service, to the Director, March 11, 1957 ... 378
Opinion memorandum from the field solicitor at San Francisco, Calif., September 16, 1958, re water rights ... 396
Statement by the regional solicitor of the National Park Service re agreement of the hotel company and the United States to the use of waters from the named sources ... 316

Letters, statements, etc.—Continued
Nolan, Thomas B., Director, Geological Survey, Department of the Interior: Page
Figure 1.—Log of well 27 N/1E–16 R1, Death Valley, Calif. 90
Letter from Thomas B. Nolan to Hon. John E. Moss, March 30, 1964 85
Results of drilling test well 27N/1E–16R1 near Furnace Creek Ranch in Death Valley National Monument 87
Table 1.—Chemical analyses of water from well 27N/1E–16R1, Death Valley National Monument, Calif. 89
Table 5.—Chemical analyses of spring waters in the Furnace Creek Wash area 85
Robinson, T. W., research engineer, U.S. Geological Survey, Menlo Park, Calif.: Chart—Test well, Furnace Creek 82
Romney, Miles Q., associate general counsel, Government Operations Committee:
Document D–3—Memorandum: Location of permanent headquarters, Death Valley, April 24, 1956 126
Excerpt 128
Document D–17—Memorandum: Location of permanent headquarters, April 10, 1956 159
Document D–20—Memorandum: New headquarters location—Death Valley National Monument, May 17, 1956 143
Excerpt 138
Document D–22—Memorandum: Mission 66 prospectus, July 27, 1955 161
Document D–27—Memorandum: Proposed visitor center site, July 11, 1956 167
Document D–29—Memorandum: Proposed visit of Horace M. Albright, November 6, 1956 183
Document D–30—Letter from Horace M. Albright, U.S. Potash Co., New York, N.Y., to Conrad L. Wirth, November 1, 1956 183
Excerpt 323
Document D–31—Letter from Conrad L. Wirth, Director, National Park Service, to Horace M. Albright, November 6, 1956 184
Excerpt 325
Document D–33—Memorandum: Visit of Horace M. Albright, November 23, 1956 185
Excerpt 327
Document D–34—Telegram from Conrad L. Wirth, Director, National Park Service, to regional director, region 4, November 26, 1956 186
Excerpt 185, 332
Document D–35—Letter from Conrad L. Wirth, Director, National Park Service, to Horace M. Albright, December 28, 1956 187
Document D–36—Memorandum: Location of headquarters, Death Valley, January 3, 1957 187
Excerpt 333
Document D–39—Letter from Horace M. Albright, U.S. Potash Co., Inc., New York, N.Y., to Conrad L. Wirth, February 4, 1957 190
Excerpt 327, 333, 384
Document D–43—Memorandum: Letter from Horace M. Albright, U.S. Potash Co., Inc., New York, N.Y., re Death Valley, February 21, 1957 195
Document D–43.1—Memorandum from Thomas C. Vint, Chief, Division of Design and Construction, National Park Service, to the regional director of region 4, February 15, 1957 340
Document D–47—Memorandum: Letter from Horace M. Albright, U.S. Potash Co., Inc., New York, N.Y., in regard to Death Valley, February 21, 1957 200
Document D–48—Memorandum from Conrad L. Wirth, former Director, National Park Service, to the regional director, February 21, 1957 202, 342

Letters, statements, etc.—Continued
Romney, Miles Q., etc.—Continued
Document D–50—Letter from J. D. Stern, vice president and general manager, Death Valley Hotel, Ltd., to Fred W. Binnewies, March 13, 1957 — Page 203
Document D–51—Memorandum: Summary of discussions with Director Wirth, March 25, 1957 — 204
Document D–59.2—Special rates paid by Lawrence C. Merriam and Sanford Hill, National Park Service, for accommodations at Furnace Creek Inn, Death Valley National Monument, during 1957 — 237
Document D–59.5—Memorandum: Department policy as to gift acceptance and bestowal, May 24, 1956 — 240
Document D–64—Appraisal, Death Valley Hotel Co., Ltd., parcels No. F, G, and H, and U.S. Government lands, parcels No. 1, 2, and 3, Death Valley National Monument, April 1, 1958 — 271
Document D–74—Letter from Horace M. Albright, former Director, National Park Service, to Conrad L. Wirth, August 5, 1957 — 417
Document D–78—Memorandum: Comments on recent visit to Death Valley National Monument, December 27, 1957 — 280
Document D–95—Memorandum: Transmittal of appraisals covering 90-acre tract and other lands figuring in possible exchange, Furnace Creek Ranch area, Death Valley, April 24, 1958 — 268
Document D–95a—Appraisal, museum site, Death Valley National Monument, April 1, 1958 — 268
Document D–109—Memorandum: Proposed filling station at Furnace Creek Ranch, November 25, 1958 — 283
Excerpts from D Documents:
Document D–21—Memorandum: Proposal to locate park headquarters at Furnace Creek and to develop Cow Creek into a visitor use area, June 18, 1956 — 144
Document D–27a—Memorandum: Proposed site for visitor center, Death Valley, July 25, 1956 — 167
Document D–28—Memorandum from Lawrence C. Merriam, regional director, limited to official use, November 2, 1956 — 169
Document D–37.1—Visitor center, Death Valley National Monument, February 13, 1957 — 261
Document D–42—Telegram from Conrad L. Wirth, former Director, National Park Service, to the regional director, February 20, 1957 — 341
Document D–47.1—Memorandum from Horace M. Albright, former Director, National Park Service, to Conrad L. Wirth, March 6, 1957 — 344, 345
Document D–51.1—Memorandum from chief of Western Office of Design and Construction, to the Director, May 2, 1960 — 356
Document D–59.5—Memorandum from Assistant Director Tolson, May 24, 1956 — 351
Document D–66—Letter from Conrad L. Wirth, former Director, National Park Service, to James Gerstley, May 17, 1957 — 408
Document D–68—Letter from Conrad L. Wirth, former Director, National Park Service, to Horace M. Albright, May 14, 1957 — 416
Document D–71—Letter from Conrad L. Wirth, former Director, National Park Service, to Horace M. Albright, June 26, 1957 — 411
Document D–73—Letter from Conrad L. Wirth, former Director, National Park Service, to Horace M. Albright, July 25, 1957 — 416

Letters, statements, etc.—Continued
Romney, Miles Q., etc.—Continued
Excerpts from D Documents—Continued
Document D–83—Letter from Horace M. Albright, U.S. Potash Co., Inc., New York, N.Y., to Senator Thomas H. Kuchel, February 6, 1958 — Page 329
Document D–93—Report to the House Interior Affairs Committee re Mission 66, April 18, 1958 — 408
Document D–179—Excerpt of letter from Acting Director Demaray, to the regional director, region 4, February 23, 1951 — 421
Document D–181—Letter from Sanford Hill, chief, Western Office of Design and Construction, National Park Service, to the Director, May 17, 1951 — 423
Document D–188—Testimony of Conrad L. Wirth before the House Committee on Interior and Insular Affairs, October 18, 1951 — 418
Excerpt from opinion of Martin McDonough, attorney and consultant, re grants of easements, pursuant to the 1952 act — 422
Excerpt from testimony of Conrad L. Wirth — 342
Excerpt from testimony of Horace M. Albright — 324, 328
Excerpt from testimony of Martin McDonough — 422
Excerpt of letter from Horace M. Albright, former Director, National Park Service, to Senator Thomas H. Kuchel, February 6, 1958 — 329
Excerpt of letter from the Geological Survey, to the subcommittee, March 30, 1964 — 391
Letter from A. Clark Stratton, Associate Director, National Park Service, to Hon. John E. Moss, April 20, 1964 — 412
Letter from Jackson E. Price, Assistant Director, National Park Service, to Hon. John E. Moss, April 16, 1964 — 443
Opinion of E. T. Scoyen, Acting Director, National Park Service, concerning a reconnaissance survey for relocation of State Route 190 — 446
Recorded question asked by James A. Lanigan, general counsel, Government Operations Committee, and reply by Sanford Hill and Lawrence Knowles — 444
Stratton, A. Clark, Acting Director, National Park Service, Department of the Interior: Letter from A. C. Stratton, to Hon. John E. Moss — 424
Memorandum—Comparative values of lands in Death Valley National Monument, August 2, 1951 — 425
Memorandum—Comparative values of those lands involved in proposed exchange of lands involved in airport site, Death Valley National Monument, August 7, 1951 — 425
Memorandum—Comparative value of airport site land exchange, Death Valley National Monument, August 10, 1951 — 426
Memorandum—Estimated values of lands and rights-of-way in connection with H.R. 4515 which provides for the acquisition by exchange of certain lands in Death Valley National Monument, August 30, 1951 — 427
Wilson, Roger F., Cadastral surveyor, Bureau of Land Management, Department of the Interior: Memorandum from Roger F. Wilson, to the Director, re Dependent resurvey, T27N R1E SBM, California, December 1963 — 220
Wirth, Conrad L., former Director, National Park Service:
Excerpts from D Documents:
Document D–21—Memorandum: Proposal to locate park headquarters at Furnace Creek and to develop Cow Creek into a visitor use area, June 18, 1956 — 323
Document D–39—Letter from Horace M. Albright, U.S. Potash Co., Inc., New York, N.Y., to Conrad L. Wirth, February 4, 1957 — 333, 340
Document D–66—Letter from Conrad L. Wirth, former Director, National Park Service, to James Gerstley, May 17, 1954 — 416
Document D–179—Excerpt of letter from Acting Director Demaray, to the regional director, region 4, February 23, 1951 — 421

Letters, statements, etc.—Continued
Wirth, Conrad L., etc.—Continued
Excerpts from D Documents—Continued
Document D–186—Memorandum from T. R. Goodwin, superintendent, Death Valley National Monument, to Conrad L. Wirth, August 10, 1951 — Page 419
Excerpt from Document NM–DV–2084–A—Memorandum entitled "Furnace Creek Residential and Utility Area" — 320
Excerpt of Comptroller General's letter re Conrad L. Wirth's visit to Death Valley National Monument — 347
Travel voucher, July 1, 1956 — 347
Map—Cow Creek-Furnace Creek region — 360
Map—Cow Creek residential area — 362

APPENDIXES

Appendix 1—Documents Received Directly From Death Valley Hotel Co., Ltd.

Excerpt of letter from John Ryan, Pacific Coast Borax Co., to William L. Locke, September 25, 1908 — 455
Letter from William L. Locke, Pacific Coast Borax Co., to John Ryan, September 30, 1910 — 455
Statement attributed to Clarence M. Rasor, Pacific Coast Borax Co., re early history of Greenland Ranch (also known as Furnace Creek Ranch) — 455
Excerpt from general report, New York office, Pacific Coast Borax Co., March 1912 — 458
Letter from Fred W. Corkill, Pacific Coast Borax Co., Inyo County, Calif., to William L. Locke, January 27, 1913 — 459
List of trees and vines furnished Pacific Coast Borax Co., March 15, 1906 — 460–461
Letter from Fred W. Corkill, Pacific Coast Borax Co., Inyo County, Calif., to W. L. Locke, March 14, 1913 — 462
Memorandum from William L. Locke, Pacific Coast Borax Co., to John Ryan, April 8, 1913 — 462
Letter from John Ryan, Pacific Coast Borax Co., to W. L. Locke, April 9, 1913 — 462
Letter from Fred W. Corkill, Pacific Coast Borax Co., Inyo County, Calif., to William L. Locke, April 11, 1913 — 463
Letter from John Ryan, Pacific Coast Borax Co., to William L. Locke, April 14, 1913 — 463
Letter from Fred W. Corkill, Pacific Coast Borax Co., to W. Garner Smith, June 22, 1913 — 464
Letter from Fred W. Corkill, Pacific Coast Borax Co., Inyo County, Calif., to W. L. Locke, January 30, 1914 — 464
Letter from Fred W. Corkill, Pacific Coast Borax Co., Inyo County, Calif., to William L. Locke, February 15, 1914 — 465
Excerpt from annual report, 1919–20, of Mine Suprintendent J. Boyd, Ryan, Calif., to Pacific Coast Borax Co., October 30, 1920 — 465
Excerpt from annual report, 1920–21, of Mine Superintendent J. Boyd, Ryan, Calif., to Pacific Coast Borax Co., October 27, 1921 — 466
Excerpt from annual report, 1922–1923, of Mine Superintendent J. Boyd, Ryan, Calif., to Pacific Coast Borax Co., November 5, 1923 — 466
Letter from C. E. Cook, Calizona Date Palm, Indio, Calif., to F. M. Jenifer, June 3, 1924 — 466
Letter from Frank M. Jenifer, Pacific Coast Borax Co., New York, N.Y., to C. R. Dudley, June 12, 1924 — 466
Agreement between C. E. Cook and Pacific Coast Borax Co., June 15, 1925 — 467
Letter from J. Boyd, mine superintendent, Ryan, Calif., to Prof. J. Le Conte, February 25, 1925 — 467
Letter from Frank M. Jenifer, Pacific Coast Borax Co., to C. B. Zabriskie, September 15, 1925 — 468
Letter from Harry P. Gower, Pacific Coast Borax Co., Inyo County, Calif., to Frank M. Jenifer, September 19, 1925 — 469
Map—Sketch of Headwater Springs of Greenland Ranch water supply showing proposed additions, H. P. Grower, September 19, 1925 — faces p. 469

Page
Letter from C. B. Zabriskie, Pacific Coast Borax Co., New York, N.Y., to Frank N. Jenifer, September 21, 1925 469
Letter from Harry P. Gower, Pacific Coast Borax Co., Inyo County, Calif., to Frank M. Jenifer, November 6, 1925 470
Letter from Frank M. Jenifer, Pacific Coast Borax Co., to Harry P. Gower, November 11, 1925 471
Letter from Frank M. Jenifer, Pacific Coast Borax Co., to C. B. Zabriskie, January 8, 1926 471
Letter from C. B. Zabriskie, Pacific Coast Borax Co., New York, N.Y., to Frank M. Jenifer, January 13, 1926 471
Letter from Harry P. Gower, Pacific Coast Borax Co., Inyo County, Calif., to Frank M. Jenifer, April 22, 1926 472
Letter from Frank M. Jenifer, Pacific Coast Borax Co., New York, N.Y., to Clarence M. Rasor, April 26, 1926 472
Letter from Clarence M. Rasor, Pacific Coast Borax Co., Los Angeles, Calif., to Frank M. Jenifer, May 4, 1926 472
Letter from Frank M. Jenifer, Pacific Coast Borax Co., to C. B. Zabriskie, September 18, 1926 472
Letter from C. B. Zabriskie, vice president and general manager, Pacific Coast Borax Co., New York, N.Y., to Frank M. Jenifer, September 24, 1926 473
Letter from Harry P. Gower, Pacific Coast Borax Co., Inyo County, Calif., to Frank M. Jenifer, December 18, 1926 473
Amount of pipe required for water line to Furnace Creek Inn 473
Letter from Frank M. Jenifer, Pacific Coast Borax Co., to W. E. Hinchman, December 28, 1926 474
Letter from Harry P. Gower, Pacific Coast Borax Co., Inyo County, Calif., to Frank M. Jenifer, January 20, 1927 474
Letter from Albert C. Martin, architect, Los Angeles, Calif., by Arthur McArthur, to Pacific Coast Borax Co., February 1, 1927 474
Report from Harry S. Bliss re Furnace Creek Inn, January 22, 1927 474
Report from Harry S. Bliss re Furnace Creek Inn, January 29, 1927 475
Letter from C. M. Rasor, Pacific Coast Borax Co., Los Angeles, Calif., to C. B. Zabriskie, February 4, 1957 475
Letter from Harry P. Gower, Pacific Coast Borax Co., Inyo County, Calif., to Frank M. Jenifer, January 21, 1928 476
Letter from Frank M. Jenifer, Pacific Coast Borax Co., to C. B. Zarbiskie, October 30, 1928 477
Letter from C. B. Zabriskie, vice president and general manager, Pacific Coast Borax Co., New York, N.Y., to Frank M. Jenifer, November 12, 1928 477
Letter from Frank M. Jenifer, Pacific Coast Borax Co., to C. B. Zabriskie, November 14, 1928 478
Letter from Harry P. Gower, superintendent, Pacific Coast Borax Co., Death Valley, Inyo County, Calif., to F. M. Jenifer, March 19, 1933 478
Letter from Harry P. Gower, Pacific Coast Borax Co., Death Valley, Inyo County, Calif., to Frank M. Jenifer, July 10, 1935 479
Letter from Frank M. Jenifer, vice president and general manager, Pacific Coast Borax Co., to Harry P. Gower, July 18, 1935 479
Letter from Harry P. Gower, Pacific Coast Borax Co., Death Valley, Inyo County, Calif., to Frank M. Jenifer, August 4, 1935 479
Letter from Harry P. Gower, superintendent, Pacific Coast Borax Co., Death Valley, Inyo County, Calif., to Frank M. Jenifer, April 19, 1936 480
Letter from Harry P. Gower, superintendent, Pacific Coast Borax Co., Death Valley, Inyo County, Calif., to Frank M. Jenifer, April 23, 1936 480
Letter from Harry P. Gower, Pacific Coast Borax Co., Death Valley, Inyo County, Calif., to Frank M. Jenifer, June 6, 1936 481
Letter from Nelson Taylor, Taylor and Taylor, engineers, Los Angeles, Calif., to Pacific Coast Borax Co., April 6, 1937 482
Letter from Frank M. Jenifer, vice president and general manager, Pacific Coast Borax Co., to Nelson Taylor, April 9, 1937 482
Letter from Harry P. Gower, superintendent, Pacific Coast Borax Co., Death Valley, Inyo County, Calif., to Frank M. Jenifer, January 27, 1938 483
Letter from Frank M. Jenifer, Pacific Coast Borax Co., to Borax Consolidated Ltd., February 3, 1938 483
Letter from Harry P. Gower, superindendent, Pacific Coast Borax Co., Death Valley, Inyo County, Calif., to Frank M. Jenifer, May 16, 1940 484

Page
Letter from Frank M. Jenifer, Pacific Coast Borax Co., to managing directors, Borax Consolidated, Ltd., September 3, 1940 485
Letter from C. M. Rasor, Los Angeles, Calif., to Frank M. Jenifer, October 21, 1940 485
Letter from Frank M. Jenifer, Pacific Coast Borax Co., Los Angeles, Calif., to managing directors, Borax Consolidated, Ltd., October 30, 1940 485
"History of Furnace Creek Ranch and Water Rights," by Clarence M. Rasor, October 1941 487
Letter from Harry P. Gower, Pacific Coast Borax Co., Death Valley, Calif., to Frank M. Jenifer, August 12, 1942 489
Memorandum from Ralph S. Brown, Death Valley Hotel Co., Ltd., Los Angeles, Calif., to P. J. O'Brien, re Death Valley water, February 6, 1956, with attached charts 490
Letter from Ralph S. Brown, Death Valley Hotel Co., Ltd., Los Angeles, Calif., to Ray Goe, June 19, 1956 496
Memorandum from Ralph S. Brown, Death Valley Hotel Co., Ltd., Los Angeles, Calif., to J. M. Gerstley, July 11, 1956, with attachments 497
Memorandum from Ralph S. Brown, Death Valley Hotel Co., Ltd., Los Angeles, Calif., to P. J. O'Brien, August 20, 1957 507
Letter from J. D. Stern, vice president and general manager, Death Valley Hotel Co., Ltd., Los Angeles, Calif., to Fred Binnewies, December 20, 1957 512
Memorandum from James N. Allan, Death Valley Hotel Co., Ltd., Los Angeles, Calif., to James M. Gerstley, January 7, 1959 512
Domestic water 514
Irrigation water 514
"History of Water Production at Furnace Creek," by Harry P. Gower, Pacific Coast Borax Co., May 2, 1960 515
Letter from Ralph S. Brown, geologist-hydrologist, Death Valley Hotel Co., Ltd., Los Angeles, Calif., to W. M. Childs, August 29, 1960 520
Water supply and water use, Furance Creek Ranch and Furance Creek Inn, Death Valley, Calif., August 30, 1960 522
Memorandum from W. A. Ackerman, secretary, Death Valley Hotel Co., Ltd., Los Angeles, Calif., to J. M. Gerstley, January 3, 1963, with attached charts 564
Letter from Ray J. Coleman, Death Valley Hotel Co., Ltd., Los Angeles, Calif., to Phineas Indritz, February 4, 1963 564
"Water Developments of Death Valley Hotel Co., Ltd. (and Its Predecessors in Interest) at Furnace Creek Area, Death Valley, Calif., Diversions, Developments and Increase Thereof," by W. A. Ackerman, Secretary, Death Valley Hotel Co., Ltd., Los Angeles, Calif., February 13, 1963 578
"Death Valley Hotel Co., Ltd., Furnace Creek Inn and Ranch Water System," by E. D. Smith, January 1, 1963, including abstract of references 606
Letter from W. A. Ackerman, secretary, Death Valley Hotel Co., Ltd., Los Angeles, Calif., to Phineas Indritz, February 20, 1964, with enclosures covering nine 5-acre millsites 620
Map 65—Pacific Coast Borax Co., Furnace Creek Ranch, Inyo County, Calif., surveyed May 14, 1926 faces p. 623
Map 66—Pacific Coast Borax Co., topography and water supply of Furnace Creek Ranch, Inyo County, Calif., surveyed May 8–14, 1926 faces p. 623

APPENDIX 2—OTHER DOCUMENTS RELEVANT TO DEATH VALLEY NATIONAL MONUMENT

Topographic map showing Death Valley Hotel Co. properties in relation to tracts proposed for exchange and areas of public water reserves faces p. 624
Proclamation No. 2028 establishing Death Valley National Monument, February 11, 1933 624
Excerpt from Executive order establishing Public Water Reserve No. 13, California No. 1, December 1, 1913 625
Executive order, order of withdrawal, Public Water Reserve No. 107, April 17, 1926 625
Excerpt from interpretation No. 131 of Public Water Reserve No. 107, June 5, 1930 625

Decision by First Assistant Secretary E. C. Finney of the Department of the Interior rejecting application of Thomas Lowe to enter SW¼ Sec. 21, T. 3 N., R. 20 E., C.M., Oklahoma, to S½NE¼ and N½SW¼ Sec. 22, T. 27 N., R. 1 E., S.B.M., California, Visalia 019433, January 21, 1927 -- Page 626
Memorandum from E. C. Finney, First Assistant Secretary of the Interior re S½NE¼ Sec. 22, T. 27 N., R. 1, N½SE¼ E., Visalia 016166, 019433, February 18, 1927 -- 626
Letter from Secretary of the Interior Hubert Work to the President recommending release of the S½NE¼ and N½SE¼ Sec. 22, T. 27 N., R. 1 E., S.B.M., California, from withdrawal, February 21, 1927 -- 626
Petition of the Pacific Coast Borax Co. for the vacation of certain land embraced in Public Water Reserve No. 13, created by Executive order of December 1, 1913, act of June 25, 1910 (36 Stat. 847); before the General Land Office, Department of the Interior, December 11, 1928 -- 627
Map.—Exhibit A, Pacific Coast Borax Co., topography and water supply of Furnace Creek Ranch, Inyo County, Calif., surveyed May 8–14, 1926 -- faces p. 628
Letter from Acting Assistant Commissioner D. K. Parrott, General Land Office, Department of the Interior, rejecting application of Samuel Brown, Sacramento 023752, June 24, 1930 -- 628
An act to authorize the acquisition by exchange of certain properties within Death Valley National Monument, Calif., and for other purposes (66 Stat. 27), March 24, 1952 -- 629
Public Law 85–495, to authorize the acquisition by exchange of certain properties within Death Valley National Monument, Calif., and for other purposes, July 2, 1958 -- 629
National Park Service Drawing NM–DV 2123, Furnace Creek Airport site, Furnace Creek area, Death Valley National Monument, revised March 14, 1958 -- faces p. 630
Memorandum from regional solicitor, National Park Service, Sacramento, to field solicitor, National Park Service, San Francisco, re water rights, Furnace Creek area, Death Valley National Monument, August 13, 1958 -- 630
Memorandum approved by E. C. Finney, First Assistant Secretary of the Interior, to the Secretary of the Interior, re springs on public water reserves not subject to appropriation after establishment of the reserve, February 7, 1928 -- 631
Memorandum from T. R. Goodwin, superintendent, Death Valley National Monument, to Arno B. Cammerer, Director, National Park Service, October 9, 1940 -- 635
Memorandum from Hydraulic Engineer A. van V. Dunn to Associate Attorney Albert L. Johnson, February 27, 1941 -- 636
Memorandum from Assistant Regional Director Sanford Hill to Director Arthur E. Demaray of the National Park Service, May 17, 1951 -- 639
Grant of easements from United States of America to Borax Consolidated, Ltd., July 1, 1955 -- 640
Memorandum re conference held at the suggestion of Newton B. Drury, Director, National Park Service, February 27, 1941 -- 642
Letter from Death Valley National Monument Superintendent Fred W. Binnewies to Director, National Park Service, July 27, 1955 -- 644
Mission 66 prospectus, Death Valley National Monument, Department of the Interior, National Park Service, June 27, 1955 -- 645
Letter from Hon. Fred A. Seaton, Secretary of the Interior, to the Attorney General, April 12, 1960 -- 649
Letter from Malcolm Richard Wilkey, Assistant Attorney General, to Hon. Fred A. Seaton, April 21, 1960 -- 649
Notes by subcommittee staff relating to the memorandum by W. A. Ackerman entitled "Water Developments of Death Valley Hotel Co., Ltd., February 13, 1963" -- 650
Letter from Phineas Indritz, counsel, Special Subcommittee on Death Valley National Monument, to W. A. Ackerman, December 21, 1962 -- 651
Water developments of Death Valley Hotel Co. (and its predecessors in interest) at Furnace Creek area, Death Valley, Calif.:
Analysis, part A -- 652
Analysis, part B -- 658

DEATH VALLEY NATIONAL MONUMENT

(Furnace Creek Area—Water Rights and Related Matters)

MONDAY, JANUARY 27, 1964

HOUSE OF REPRESENTATIVES,
SPECIAL SUBCOMMITTEE ON
DEATH VALLEY NATIONAL MONUMENT
OF THE COMMITTEE ON GOVERNMENT OPERATIONS,
Sacramento, Calif.

The Special Subcommittee on Death Valley National Monument met, pursuant to call, at 10 a.m. in room 4202, State Capitol, Sacramento, Calif., Hon. John E. Moss (chairman of the special subcommittee) presiding.

Present: Representatives John E. Moss and Robert McClory.

Also present: Phineas Indritz, chief counsel; Sidney McClellan, assistant counsel; Miles Q. Romney, associate general counsel, Committee on Government Operations; and J. P. Carlson, minority counsel, Committee on Government Operations.

Mr. Moss. The subcommittee will be in order.

This is the Special Subcommittee on Death Valley National Monument, a subcommittee of the Committee on Government Operations of the U.S. House of Representatives. Among the duties of the Committee on Government Operations is studying the operation of activities of Federal agencies at all levels in order to determine whether such activities are being conducted economically, efficiently, and in compliance with law.

By letter of August 23, 1963, the chairman of the House Committee on Government Operations, Hon. William L. Dawson, defined the scope of this subcommittee's jurisdiction as follows, and I quote:

> The subcommittee is authorized and empowered to study and investigate, on behalf of the committee, all matters concerning the Death Valley National Monument within the jurisdiction of the committee and to prepare and recommend a report based thereon.

The subcommittee will, in the public hearings which begin today, examine the administration of the Death Valley National Monument by the National Park Service. We are interested in ascertaining whether the National Park Service has been fulfilling its responsibilities for the management of this national monument in conformity with law—whether the Department is safeguarding the Government's reserved and dedicated land and water resources—and whether the Department's management of the monument has always been in the public interest.

Visitor records of the Park Service show that Death Valley National Monument had over 604,000 total visitor-days in 1963. Estimates of future visitation indicate that by 1968, the monument will

have over 726,000 total visitor-days, and that by 1975, the total visitor-days will exceed 908,000, or more than 50 percent greater than in 1963.

Because Death Valley is desert country, the essential factor which will control the future growth and development of recreational resources in the monument is the availability of water.

According to a current official study and report by Messrs. Pistrang and Kunkel of the Geological Survey on the water resources of Death Valley National Monument, the total rate of flow of ground water in the Furnace Creek drainage area, excluding unrecoverable underflow, is 5 cubic feet per second. This is equivalent to 3,231,360 U.S. gallons per day, or enough to cover an acre of land almost 10 feet deep each day. Of this amount a half second-foot, or 323,136 gallons per day, is lost by evaporation and transpiration above the points of measurement and a one-tenth second-foot is being lost in undeveloped springs. The Death Valley Hotel Co., which owns the Furnace Creek Ranch and the Furnace Creek Inn, is diverting all the rest of the water—4.4 second-feet—or 2,843,597 U.S. gallons per day. The water diverted by the hotel company thus constitutes 97.78 percent of the estimated total usable water resources of the Furnace Creek drainage area.

The other principal user of water in the Furnace Creek drainage area is the National Park Service. However, pursuant to an understanding between the National Park Service and the Borax Co. reached late in 1940, the Park Service is limited to only 35 gallons per minute, from the total amount of water diverted by the company. This 35 gallons per minute is equivalent to 50,400 gallons per day, and is only 1.75 percent of the total water diverted in the Furnace Creek drainage area.

The Government Operations Committee has received information indicating (1) that a major portion of the water used by the hotel company comes from public lands which were reserved many years ago in order to prevent private appropriation and monopoly of water from the public lands, and (2) that the company has no legal title to much of these waters.

The Government Operations Committee also received information in 1959 indicating that certain officials of the National Park Service were planning to execute agreements to legalize the company's present control of virtually all of the monument's waters, without regard to the extent of the company's legal right to these waters. If such an agreement had been consummated under these conditions, there would have been not only a gigantic "giveaway" of a public resource, but also the National Park Service would have been prevented from effectively expanding tourist, camping, and other public facilities for the ever-increasing number of citizens who desire to visit and enjoy the desert wilderness and scenic splendors of Death Valley National Monument.

As a result of the inquiry into this matter begun by the Committee on Government Operations, the Department of the Interior started to take a second look at the consequences of such an agreement and, at the committee's request, deferred making any agreement which would have been binding upon the United States. The matter is

still pending in the Interior Department, and Chairman Dawson has directed this subcommittee to examine carefully into it.

Whatever legal rights the hotel company may possess began to arise in the 1880's when the predecessors of the Death Valley Hotel Co. constructed facilities and used water from public lands in Death Valley. Some of the water probably was beneficially used in compliance with State and Federal laws, and the hotel company may have valid title to such waters. However, when Executive order of December 1, 1913, established Public Water Reserve No. 13, all the waters then unappropriated on all or parts of six specific sections of public land in Death Valley were thereafter reserved from private appropriation. These waters became dedicated to public use, and no private title could be acquired in them after 1913 which could either exclude the Government from their use or prevent use by the general public pursuant to the regulations of the Federal Government applicable to the waters of such public water reserves. These six sections are 13, 14, 15, 22, 23, and 24, T. 27 N., R. 1 E., San Bernardino Base and Meridian, Calif., which will be shown in the course of the hearings on a large map.

Subsequently, the waters on an additional 120 acres in the Furnace Creek area of Death Valley were also reserved from private appropriation when the President, on April 17, 1926, issued an Executive order known as Public Water Reserve 107, withdrawing all the unappropriated waters on the public lands. The Department of the Interior, on June 5, 1930, issued Interpretation No. 131, specifically ruling that the 1926 Executive order applied to these 120 acres. These additional 120 acres are in sections 25 and 26, T. 27 N., R. 1 E., San Bernardino Base and Meridian, Calif., and are immediately south of the lands and waters which had been withdrawn in 1913.

As a result of these Executive orders, no private person could thereafter establish exclusive legal title, by appropriation or by other means, to any of the waters which had been reserved.

The subcommittee has information indicating that the rights to water established through actual beneficial use by the predecessors of the Death Valley Hotel Co.—as of 1913 from the six sections, and as of 1926 from the additional 120 acres—were far less than the amount the hotel company is now diverting. The subcommittee is further informed that the Furnace Creek Inn was constructed in trespass on the Public Water Reserve in 1926, that not until 1927 did the company obtain title to the 160-acre tract on which the inn is located, and that not until July 1955 did the company obtain easements, pursuant to a special act of March 24, 1952 (66 Stat. 27) for the waterlines, ditches, and conduits which the company and its predecessors had built across the public lands and public water reserves without compliance with the laws and regulations governing such facilities. The subcommittee, therefore, proposes to examine the nature and adequacy of the company's rights to use the waters from the public reserves.

The subcommittee also intends to examine into the efforts to make land exchanges and water rights agreements under the act of July 2, 1958 (72 Stat. 295; Public Law 85–495). The subcommittee will review the historical data of the company's actual beneficial use of

waters, since this information is essential to an adequate understanding of the legal rights of both the Government and the company in the waters of Death Valley to enable the parties to negotiate properly under the act of July 2, 1958, which authorizes an agreement for "finding, fixing, and establishing the respective rights" of the company and of the Government.

The subcommittee also desires to inquire into the chronic failure of the Department of the Interior to prepare a legal analysis setting forth its position on the extent of the Government's and the hotel company's rights to the use of the waters in the Furnace Creek drainage area. No such analysis seems ever to have been prepared, not even as a basis for discussing the adjustment of rights under the 1958 act. More than a year has gone by since the Assistant Secretary of the Interior informed us that he had requested from the Office of the Solicitor firm legal advice on the validity of various claims to water sources in the Furnace Creek locality, because, as he wrote, he was convinced the Department could make no intelligent decisions without such legal advice.

On March 18 and 20, 1963, the subcommittee furnished to the Department a large amount of additional factual material on water developments which we had recently obtained from the hotel company. We have repeatedly requested that the Department furnish us a statement on its legal position. While the Department has indicated that such a statement is in preparation, as late as last week we were unable to learn when it might be expected.

The subcommittee has information that certain National Park Service officials accepted free hotel accommodations at the Furnace Creek Inn at the very time they were negotiating with the hotel company concerning these valuable land and water rights, which the company was seeking to obtain from the Government.

The subcommittee will, in these hearings, examine whether such action constituted a violation of law or departmental directive.

The subcommittee will, furthermore, examine into what efforts were made to influence changes in the Park Service Mission 66 program for the development of Death Valley and the extent to which such changes adversely affected the public interest and the future development of Death Valley for the general interest of the public. The subcommittee will also seek to ascertain whether the Park Service's administrative decisions concerning construction of certain Government facilities in Death Valley were designed primarily for the benefit of the public.

The evidence and information obtained in these hearings will be studied and evaluated by the Committee on Government Operations in order to determine whether to recommend that the Secretary of the Interior, or the Congress, take action, including the enactment of necessary legislation or any other action, to deal with any of the problems or matters brought up in these hearings.

Each member of the subcommittee has two folders containing relevant information and papers, such as copies of the applicable laws, regulations, reports, correspondence, and so forth. As the hearing proceeds I expect that most of them will be inserted into the record at the appropriate place.

I would at this time like to introduce my colleague, a very distinguished Member of the House from the State of Illinois, the Honorable Robert McClory. Mr. McClory, do you have any statement?

Mr. McCLORY. Well, Mr. Chairman, I appreciate the introduction and the splendid opportunity to serve on this important subcommittee. I might say that there is a great deal of material to be investigated in addition to the matters to which you have already made specific reference, and it is my hope that we can approach this hearing objectively with the idea of unearthing a total factual background of the problem which we have, and further with the idea of recognizing that we are not the Department of Justice. We are not going to make a legal determination, but we are going to make a determination on the basis of the function of our subcommittee to determine whether or not the Department of the Interior has operated efficiently, properly, to the best interest of the United States, including the best economic interest; and, further, that if there is any matter which requires a legal determination that we will follow earlier recommendations, which this subcommittee and which the Department of the Interior have made, that such matters, regarding legal interpretations, shall be referred to the Department of Justice so that the various legal rights, the Government rights and the individual rights, the corporate rights, can be determined there. And I want to give you my assurance, Mr. Chairman, of the desire to cooperate, and that my cooperation will be entirely objective insofar as possible.

I am interested not only in protecting the Government's rights, but protecting also any individual rights which may be involved, whether they be individual rights of Government officials or employees, or individual rights of corporations or others whose rights may be involved and subjected to scrutiny here.

Mr. Moss. Thank you. The Chair wants to assure the gentleman and everyone else present that it is his desire that the subcommittee be highly objective. I would acknowledge here, as we undertake these hearings, that there is not, nor could there be, any partisan benefit to be derived from anything made a part of these records because the history of management and of negotiation dealings between the company and the Government go over a number of national administrations reflecting both political parties.

I regret that the other member of the subcommittee, the Honorable William Moorhead of Pennsylvania, is unable to be with us.

At this time I would like to call our first witness, Mr. Sanford Hill, Chief of the Western Office, Division of Design and Construction of the National Park Service.

Mr. Hill, will you be sworn?

(Sanford Hill, called as a witness on behalf of the Death Valley National Monument Special Subcommittee, was duly sworn.)

Mr. Moss. Will you identify yourself for the record?

TESTIMONY OF SANFORD HILL, CHIEF, WESTERN OFFICE OF DESIGN AND CONSTRUCTION, NATIONAL PARK SERVICE

Mr. HILL. Mr. Chairman and Mr. McClory, members of the subcommittee, I am Sanford Hill, Chief of the Western Office of Design and Construction of the National Park Service, U.S. Department of the Interior. Our office is located in San Francisco, Calif.

We are responsible for advance planning, including the preparation of master plans for each park, and the design and construction of buildings, utilities, roads, trails, and miscellaneous projects for the western national parks, including those in the States of Alaska and Hawaii, and serving the parks as far east as the States that border the Mississippi River on the west.

I have been in charge of the Western Office of Design and Construction since it was first established in 1954, and prior to that date I was assistant regional director in charge of Design and Construction for the western region located in San Francisco. During these two assignments starting in the western region in 1947, I have been closely associated with the planning, design, and development of Death Valley National Monument. In view of this background the Service has asked me to make this initial presentation covering the geography of the monument, particularly the Furnace Creek area, visitor use, and the existing and proposed developments, as requested in your letter to Secretary Udall dated December 30, 1963.

In order to save time I will briefly outline the coverage of each subject mentioned in your letter in the sequence mentioned. Since the material contained in this presentation has not been reviewed by any members of your staff until this morning, and as you have indicated a desire that this be reviewed, I will first briefly outline each subject describing the maps and plans to be exhibited. These exhibits are numbered in the upper right-hand corner for your ready reference if you wish to request additional information or if you may wish to ask questions later in these hearings. The numbers, you will see, are marked on the blue background so that you can call these exhibits back if you wish.

These exhibits include maps, plans, and aerial photographs that we hope will help orient the subcommittee members and clearly identify the geography and the existing and proposed developments. In the interest of saving time, Mr. Chairman, we have attempted in this presentation to develop the complete story of the National Park Service operations in a manner that will provide the subcommittee with a complete picture of the subjects you have requested.

The brief outline is as follows:

The presentation of the geography will include four exhibits—two maps showing in relief shading Death Valley National Monument and the surrounding geography of California and Nevada, access roads, mountain ranges, and important cities. This will also include access highways and roads within the monument. The two additional exhibits are aerial photographs of the present headquarters at Cow Creek and the Furnace Creek area. We believe these exhibits may be very useful throughout these hearings.

The visitor use presentation will include one exhibit along with necessary explanation of past and future predictions of visitation. This exhibit will provide the subcommittee with comparisons of visitation in other parks since the travel pattern in Death Valley has different characteristics because of the geography and resulting climate within the monument and the surrounding country. The extremely hot summers and mild winters reverse the normal travel pattern that exists in almost all of the other parks.

The development phases of this presentation will include a brief statement on the outlying developed areas, including concessions facilities, National Park Service developments, and sites designated for camping. This will be followed by detailed information on the story of developments—past, existing, and proposed—for the Cow Creek headquarters and the Furnace Creek area. This will be supplemented with maps and photographs which we hope, Mr. Chairman, will provide you and your subcommittee with a complete story of the past, existing, and proposed development for the two areas you are primarily interested in reviewing. Each important planning step will be identified in chronological order, and I believe with the exhibits this will provide you and your subcommittee with a well-rounded picture of Park Service operations as they relate to these subjects which you have asked us to present.

With your approval of this outline, Mr. Chairman, I will proceed with the presentation.

Mr. Moss. You may proceed.

Mr. Hill. Again, in the interest of saving time and in presenting a logical and orderly sequence of the rather complex series of planning and development steps or actions over a period of almost 31 years, I have prepared a written statement that I believe will assist in following this sequence and in gaining a clear picture of the development phases of Death Valley, particularly the Cow Creek and Furnace Creek areas. I have tried very conscientiously to brief this statement, in the interest of saving time, without eliminating important phases of this development story. I wish also to inform you that there will be some deviation from the prepared statement in explaining the various exhibits as we proceed.

THE GEOGRAPHY OF DEATH VALLEY

The geography of Death Valley is most interesting. Its history is fascinating and its scientific significance is recognized throughout this country and the world as a region that contains all the great divisions of geologic time, called eras, and nearly all their subdivisions, or periods. Its geographic location with its surrounding geography make it a unique desert area with unusual climatic conditions that require an understanding of nature's forces to fully appreciate this interesting national monument.

(Exhibit 1.—Location map of Death Valley follows:)

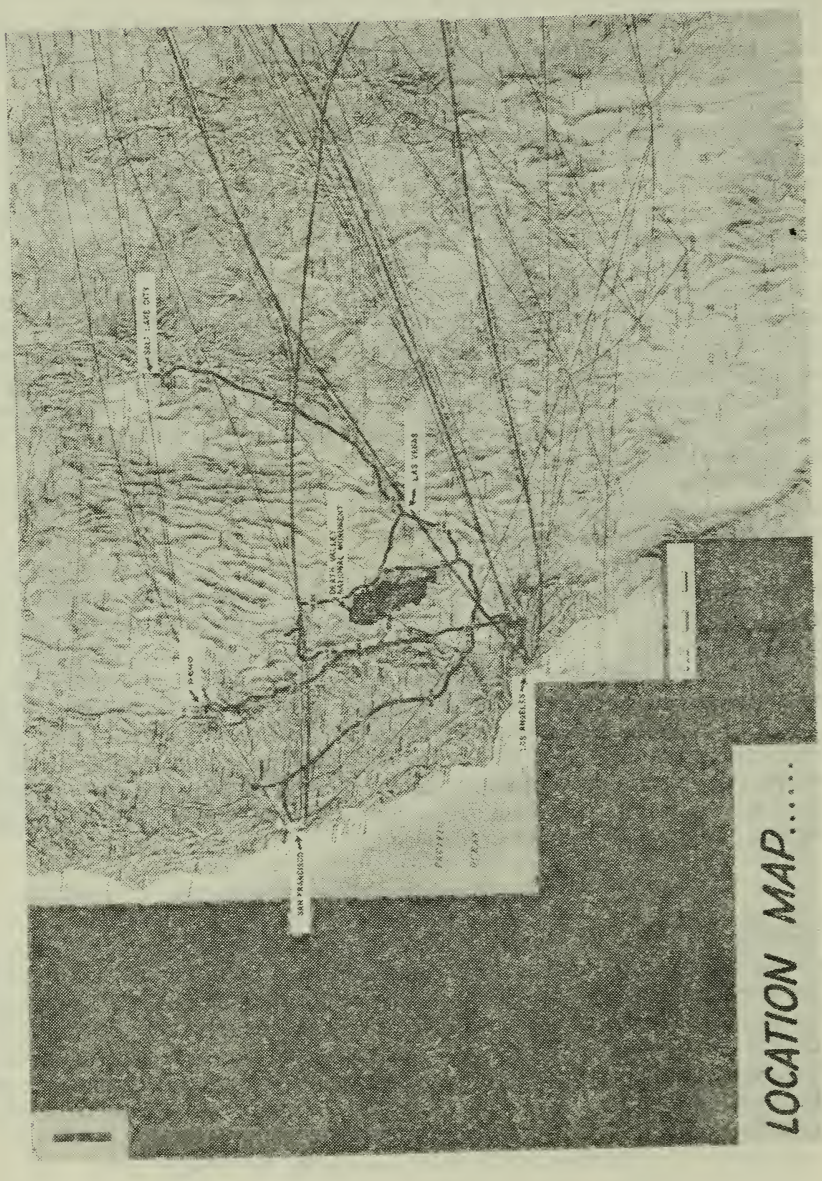


Exhibit 1.—Location Map of Death Valley

This will identify Death Valley in its location within California and Nevada, showing the relationship to the California-Nevada State line—the State line runs directly through this country [indicating on map]. The adjoining mountain ranges are the Sierra Nevadas and the California coast range, and the important cities San Francisco, Los Angeles, Las Vegas, Salt Lake, and Reno. It should be noted that the Sierra Nevada mountain range stands as almost a complete barrier to the rain laden storms from the Pacific. It joins the coast range at this point [indicating] and carries on down into southern California. This accounts for the minimum rainfall of approximately 2.03 inches per year and explains the scarcity of water within Death Valley.

I wish to call particular attention to the Cow Creek headquarters and the Furnace Creek area right in this vicinity [indicating], in relationship to the California-Nevada State line. This is the outline of the Death Valley which shows in relief the general geography of the country. I have found this most useful in orienting myself as far as directions are concerned when reviewing detailed maps of the monument. If you will keep in mind that the drainage areas that furnish water to the two important developed areas, Cow Creek and Furnace Creek—the drainage areas go up on these mountains on the side [indicating]—have their source on the mountain slopes adjoining the California-Nevada line, this will help keep these features properly oriented.

(Exhibit 2.—Topographic map of Death Valley National Monument follows:)

EXHIBIT 2.—TOPOGRAPHIC MAP OF DEATH VALLEY NATIONAL MONUMENT



This is a map of Death Valley National Monument with shading that indicates the interesting geography of this area. Two mountain ranges flank the valley for its full length of 140 miles: The Panamint Range on the west—that is this one [indicating]—and the Amargosa Range on the east which lies parallel and adjoining the California-Nevada State line. It is from the slopes of the Amargosa Range that water is provided for the two principal developments in which your subcommittee is interested.

This map also shows the area of Death Valley that is below sea level, an area of approximately 550 square miles. This is this shaded area through here [indicating]. The lowest point, which is 282 feet below sea level, is known as Badwater. This is down in this territory [indicating].

The road circulation for the monument consists of 443 miles of desert highway for visitor use. The main routes through the monument run east and west from Ryan Junction to Towne's Pass and Wildrose or Daylight Pass to Towne's Pass [indicating]. An entrance road from the town of Big Pine connects to the north-south monument road system just north of the Grapevine Ranger Station. This is the road that comes in from Big Pine. There is also an entrance in this vicinity that passes Scotty's Castle.

There are other spur roads to Dante's View and to Aguerreberry Point. These are points over on the mountain range where the public can go out and see additional views from the mountain. Other loop and spur roads take visitors into rugged, colorful canyons and scenic overlooks. The main north-south road passes Badwater. This is the main north-south road that passes Cow Creek, and Furnace Creek and continues on down, past Badwater with its elevation of 280 feet below sea level, permitting the visitor to view the folded salt flats. North of Stovepipe Wells the visitor can enjoy the great sand dunes of Death Valley. The great sand dunes are located in this area [indicating]. Ubehebe Crater is also accessible for the visitor. That's located at the north end of the monument. Stovepipe Wells, Scotty's Castle, and a small NPS concessioner at Wildrose, provide overnight accommodations in addition to that provided by the hotel company at Furnace Creek Inn and Furnace Creek Ranch. Stovepipe Wells is located here [indicating]; Scotty's Castle is in this location [indicating]; and the Park Service concession is located in this area [indicating].

The following are brief statements reporting other significant features relating to the geography of Death Valley.

The valley itself is about 140 miles long, ranging in width from 4 to 16 miles. Telescope Peak, immediately to the west, towers 11,331 feet above the lowest point.

Death Valley is famous for its consistently clear weather, minimum rainfall, and low relative humidity. The average number of clear days in a calendar year is 283, although 351 clear days were once recorded. The average annual precipitation during the past 15 years has been 2.03 inches.

Summer daytime temperatures in the valley itself are quite high. The maximum temperature of 134° Fahrenheit in the shade recorded in Death Valley was a world record until 1922 when 136.4 degrees Fahrenheit was recorded from Libya.

Folding (bending) and faulting (breaking and slipping) of the earth's crust are primarily responsible for the origin of the valley. It appears that a tremendous block of rock sand faulted, leaving an elongated fault basin or trough like those typically formed by erosion.

Death Valley was also the site of extensive volcanic activity. Great thicknesses of volcanic rocks accumulated on the Black Mountains, at Artist's Drive, and on the east slope of the Panamint Mountains. Ubehebe Crater is the result of a series of explosive eruptions which built up a cone with a crater one-half mile wide and 800 feet deep. The eruptions, believed to have occurred from 1,000 to 2,000 years ago, scattered volcanic ash for a radius of 3 miles from the crater.

At one stage late in the ice age, Death Valley contained a lake 100 miles long and 600 feet deep. As the ice age drew to a close, the climate of the world gradually became drier and warmer, and as the Sierra Nevada was thrust upward, this became increasingly important as a barrier to wind-carried moisture. As the lake water evaporated its salts became more concentrated.

Interbedded salt and water-bearing gravels are more than 1,000 feet thick on the Devil's Golf Course.

One of the interesting forces of nature occurs with the short but violent thunderstorms which occur during the summer. These cloudbursts are largely responsible for the rock-fragment cover that has greatly modified the appearance of the original fault basin. Sand, gravel, and boulders, washed in raging cloudburst torrents, are funneled through deep, constricted gorges. As the debris-laden water breaks out of the confines of these "hourglass" canyons, it spreads out, loses speed, and abruptly deposits the rock debris (alluvium) in

the shape of fans. In this manner the large, gently sloping alluvial fans that flank the valley's sides have been formed.

Wind, as well as water, has been active in producing other Death Valley features. Flowing water has carried the weathered granite particles from the mountains and spread them out on these alluvial fans. As the softer material eroded away, the resistant quartz, left exposed to the wind, was reduced to sand particles and then blown into piles that eventually became large dunes (which I have pointed out on the exhibit).

The arid desert conditions are the result of only 2 inches of rain per year and the extreme summer heat. While the plant life is sparse, the plant and animal life is extremely interesting. Desert bighorn, coyote, fox, bobcat, lizards, and many varieties of birds, make Death Valley their home.

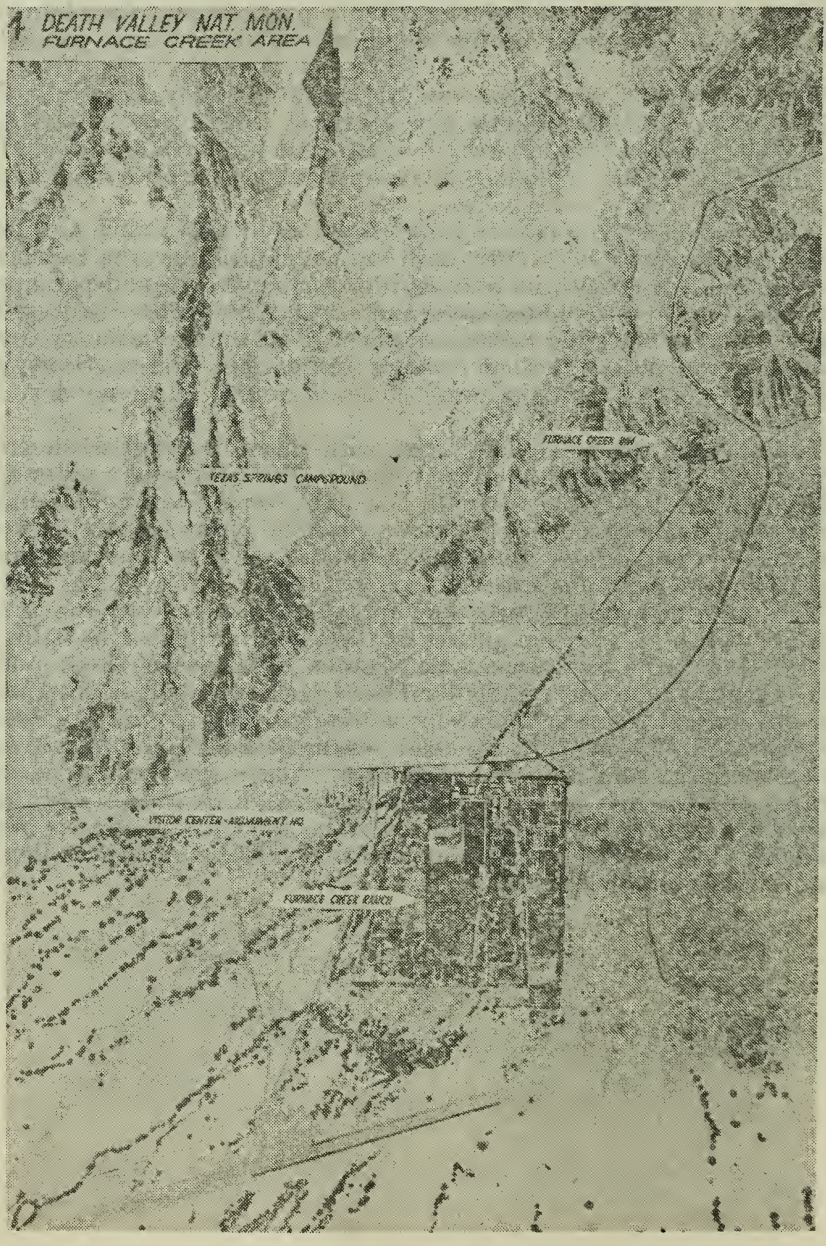
While the first white men to visit the valley in 1849 found it to be a horrifying experience in their dash to the gold country, the Indians had learned to live with its complexities for hundreds—and perhaps thousands—of years. Later, gold and silver mines were discovered and developed. Adding to the mystery of this desert country are the stories of Death Valley Scotty's secret gold mines. Scotty's friend and partner built the castle in a side canyon at the north end of the monument.

The pleasant winter climate along with the wide range of desert experiences will continue to draw visitors. Its 3,000 square miles of rugged mountains, tremendous alluvial fans, barren desert flats, and its magnificent and impressive views provide desert scenery at its best. This vastness and complete solitude of the desert evening are priceless recreational resources.

Now, at this point, I would merely like to point out the two exhibits which also present phases of the subjects which I have discussed—the two large aerial photographs of Furnace Creek and Cow Creek. I am sorry that our Cow Creek photograph does not have the complete area, but we have arranged this so that it gives, in general, the layout with the road system between the utility area at this location and the residential area. These are the residences located on the ridge up above the utility area [indicating]. By the way, these buildings were constructed under the CCC program. We do have some construction here under Mission 66, but I will explain that as we go into the subjects.

(Exhibit 4.—Aerial photograph of Death Valley National Monument, Furnace Creek area, follows:)

EXHIBIT 4.—AERIAL PHOTOGRAPH OF DEATH VALLEY NATIONAL MONUMENT, FURNACE CREEK AREA



The Furnace Creek aerial photograph is much more complete. The only thing missing here, in reference to development, is the site that was proposed for headquarters which lies up in this upper area just above this upper edge; but it shows the ranch, the Furnace Creek Inn, and the Texas Spring campground. The visitor center and the extension of the campground are in this area as proposed, but they will be covered in detail on other exhibits.

(Exhibit 5.—Visitation chart appears on p. 16.)

VISITOR USE—DEATH VALLEY

The visitor use pattern for Death Valley is an extreme contrast to the heavy increase of travel other parks have experienced since World War II. There has been a gradual increase, as shown on exhibit 5, and this will continue. The basic reason for this visitation pattern is the hot summer weather during which visitors seem to avoid Death Valley because of this extreme heat. This, of course, is the heavy travel season when school is not in session. School vacations at Christmas, semester break, and Easter bring increases of visitation to Death Valley. It has become very popular with science classes, especially during semester breaks.

Death Valley National Monument was established on February 11, 1933, and in 1935 recorded slightly more than 40,000 visits. This figure was doubled by 1940. During World War II visits dropped considerably, as indicated on exhibit 5, but 100,000 were reported in 1946, the first year following the war. Since that time the visitation has, with some slight fluctuations, gained steadily, 1963 being the peak year with 408,119 visits recorded. I do not think there is any need of going through the figures here.

(The typical travel figures are as follows:)

Travel figures, Death Valley National Monument

1935	42,061	1956	300,142	1961	397,900
1940	80,842	1957	333,428	1962	363,400
1945	31,112	1958	334,300	1963	408,119
1950	189,045	1959	335,700		
1955	342,233	1960	355,900		

Using the same rate of increase for the past 9 years as an average gain, we can project travel in 1965 to 420,000, reaching 500,000 by 1970. Anticipated travel by 1980—which is referred to, I believe, in your letter as the 15-year period—is 700,000. I believe this is the figure used by the Park Service task force in their report. That's in this line over here [indicating].

EXHIBIT 5.—VISITATION CHART

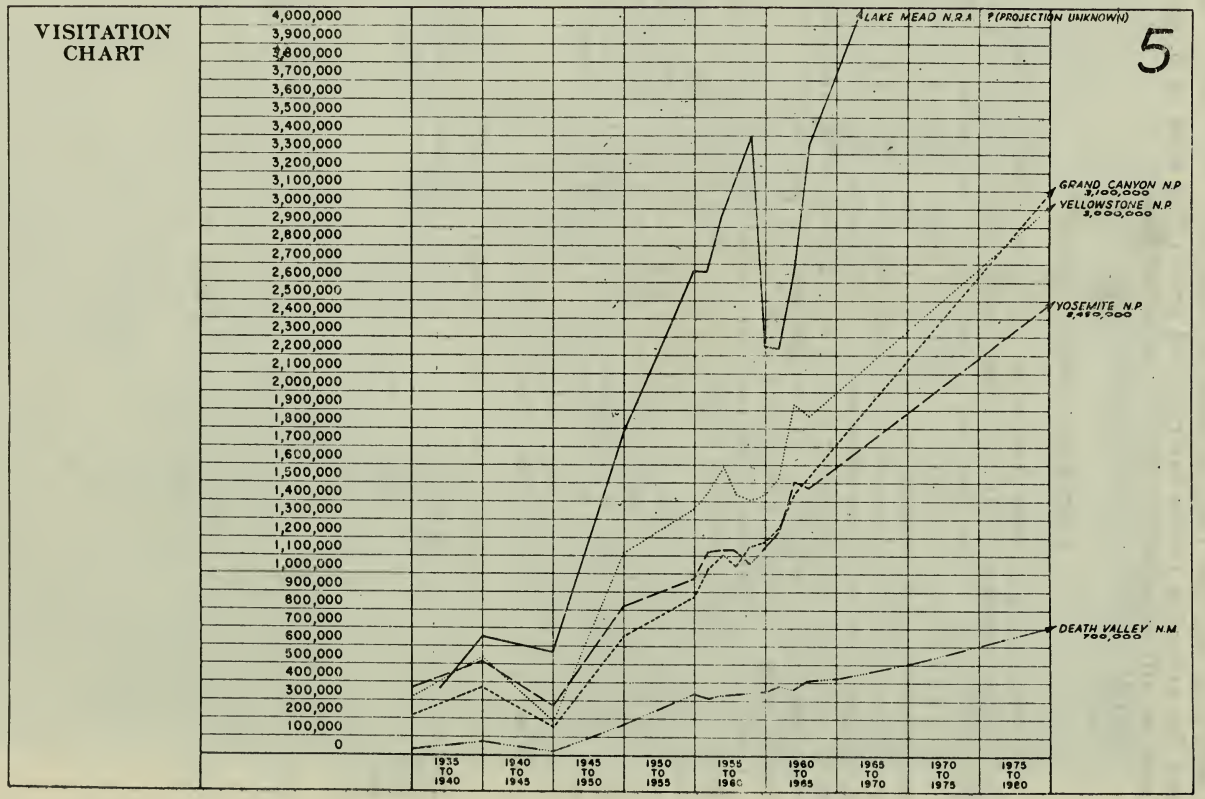


Exhibit 5 shows the relationship of travel of Death Valley in Death Valley National Monument in comparison with Yellowstone, Grand Canyon, Yosemite, and Lake Mead National Recreation Area.

We have placed a question mark on the Lake Mead for 1980 as it goes off the sheet and is headed for approximately 7 or 8 million by 1980. Apparently Las Vegas and the boat explosion are basically responsible for this trend, and it is an extreme contrast to Death Valley, only 150 miles distant.

Overnight use for the area is summarized in the following figures for the 1963 travel year: Accommodations, concessioner (Wildrose), 734; accommodations, private inholdings, 79,999; designated campsites, tents, 32,823; designated campsites, trailers, 37,816; undesignated campsites, tents, 18,946; undesignated campsites, trailers, 24,-833; for a total of 195,151 overnight. Total additional visitation, 408,119; total visitor days, 603,270.

Further visitor use data furnished by the hotel company will be discussed as part of the task force report prepared by the hotel company.

This covers the first two subjects, and I will proceed with the story of the development of Death Valley starting with the outlying areas.

THE STORY OF DEVELOPMENT AT DEATH VALLEY OUTLYING DEVELOPMENTS

We will first present brief statements and construction program summaries of the outlying developed areas and then concentrate on the Cow Creek and Furnace Creek developments. Six of the small outlying areas are actually entrance and information stations proposed for public service use, particularly during the hot summer months when visitors need information regarding travel in the monument.

(Exhibit 6.—Map, general development plan of Death Valley National Monument, follows:)

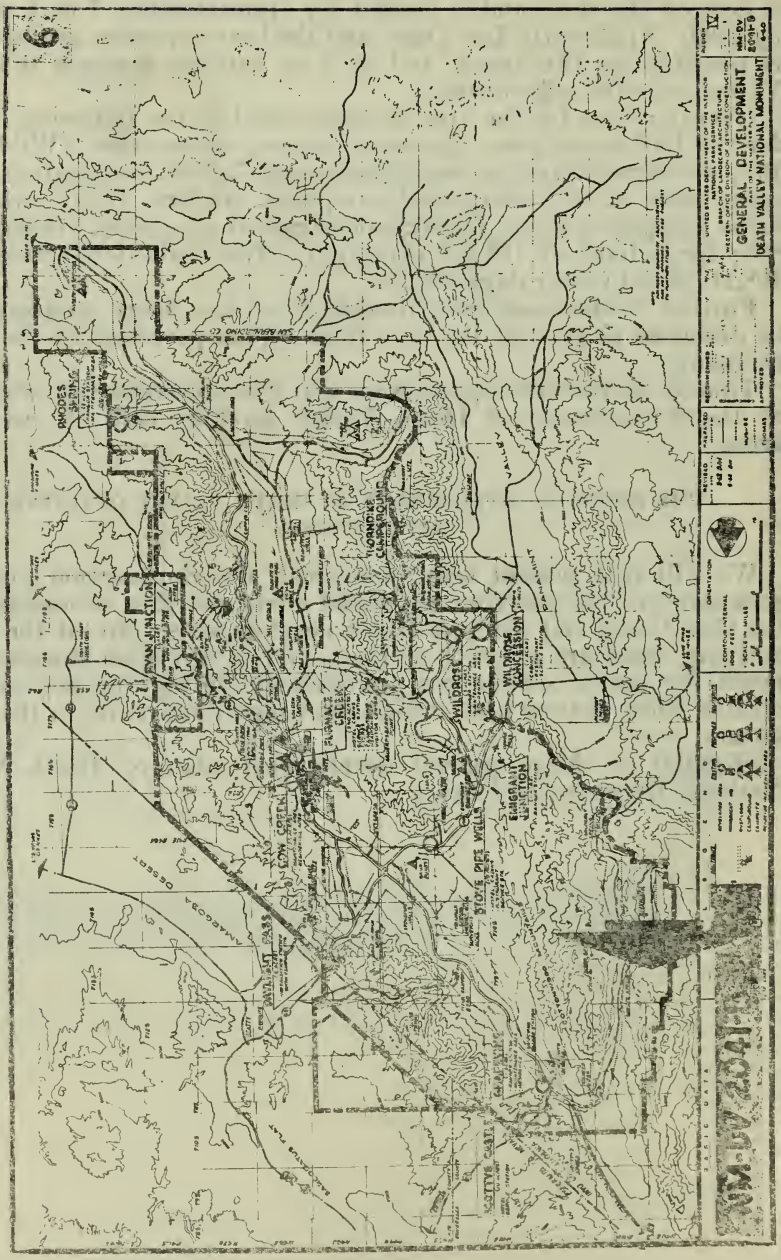


Exhibit 6.—Map, General Development Plan of Death Valley National Monument

This plan shows the general location of the outlying areas, and they will be identified as I go through the following listing of the existing and proposed developments in each case.

Mr. Moss. Would you suspend for just a moment? Are these exhibits prepared for the subcommittee?

Mr. HILL. Yes.

Mr. Moss. I would ask unanimous consent at this point, as the exhibits are referred to, that they be accepted for the subcommittee record.

Mr. MCCLORY. I have no objection.

Mr. Moss. So ordered.

Mr. HILL. We can make more copies available if they're desired, Mr. Chairman.

Mr. MCCLORY. This is a technical inquiry. Do we want these to be reduced for our use? We don't want to take those big things back.

Mr. Moss. Would you prepare photocopies of these for the subcommittee's use of the size that would best accommodate our needs?

Mr. HILL. I certainly will. As a matter of fact, I would be glad to prepare photocopies or take colored slides of them and prepare a transcript tape if you'd like.

Mr. Moss. It would be more useful for the subcommittee if you would reduce them so that they could be reproduced in black and white, because those are the only facilities available to the subcommittee in the publication of its reports.

Mr. HILL. Very good.

THE GRAPEVINE DISTRICT

Mr. HILL. The Grapevine District, which is located at the north end of the park, is a ranger district, including an entrance station, utility area, serving the north entrance of the monument. The written statements identifying the existing and proposed facilities will follow. I will not go into them in detail.

RYAN JUNCTION AND DAYLIGHT PASS

Ryan Junction and Daylight Pass are entrance stations. These are proposed developments needed for visitor information and service. These two are merely entrance stations with the necessary facilities, parking, and so forth, required to give visitor information, and so forth, as people enter the park.

You will find in this prepared statement the development that occurred prior to Mission 66, during Mission 66, and the proposed developments, but I will not go into all that detail because we can make reference to that in the report.

ASHFORD MILLS

Ashford Mills is the second ranger district and is located in this area. It will serve as a road maintenance, ranger district, and entrance station. There's a possibility that this south entrance, the entrance coming in from Rhodes Springs, may change since there is some question as to the exact location. It might have to go to the Rhodes Springs country.

EMIGRANT JUNCTION

Emigrant Junction is an entrance station that was built during the CCC days. It will be retained. It consists of a small ranger residence with a small office and some picnic facilities adjoining.

(The following is the table in the prepared statement referred to above:)

Grapevine District Facility

	Cost
1. Existing prior to Mission 66: 1 residence, sewer, water, and electric plant	None
2. Constructed during Mission 66 (fiscal year 1957 to date):	
Utilities	None
Buildings: Rehabilitation of residence	$5,000
Roads: Ubehebe Crater Road	11,833
Total	16,833
3. Proposed future development:	
Utilities: Water, sewer, electrical, LP-gas to all facilities	107,100
Buildings: 4 residences, 1 4-unit apartment, entrance station, oil storage, gas pumps	175,000
Roads: Access road, walks, drives, parking, etc	22,500
Miscellaneous grounds improvement, fencing	14,000
Total	318,600

Ryan Junction and Daylight Pass Facility

1. Existing prior to Mission 66	None
Little or no development exists in the outlying areas which were built prior to fiscal year 1957 except a good-to-poor system of roads. The outlying areas referred to are mainly Ryan and Daylight entrance stations.	
2. Constructed during Mission 66 (1957 fiscal year to date):	
Utilities	None
Buildings	None
Roads	None
Miscellaneous	None
3. Proposed future development:	
Utilities: Water and sewer	$30,000
Bulidings: Entrance and comfort stations	24,000
Roads: Access and circulatory roads and parking	6,000
Miscellaneous: Grounds improvement, walls, fence, campfire, circle, signs, exhibits, etc	48,000
Total	108,000

Wildrose Facility

1. Existing before Mission 66. This area in times past served as summer headquarters, using the following facilities:	
Utilities: Water, sewer, electric power	None
Buildings: Residences, office building, utility buildings	None
Roads: Access and circulatory	None
2. Construction during Mission 66 (fiscal year 1957 to date):	
Utilities: Water and sewer improvement	8,761
Buildings: Remodel emigrant rest station and rehabilitate 5 residences	40,000
Roads	None
Miscellaneous	None
Total	48,761

3. Proposed future developments:	
Utilities: Water, sewer, electric, LP-gas	$91,500
Buildings: 4 residences, 1 4-unit apartment, entrance station, oil and gas storage	175,000
Roads: Access road, parking area, walks	20,000
Miscellaneous: Grounds improvement, fencing	14,000
Total	300,500

Ashford Facility

1. Existing before Mission 66 (no existing development)	None
2. Constructed during Mission 66 (fiscal year 1957 to date):	
Utilities	None
Buildings	None
Roads	None
Miscellaneous	None
3. Proposed future developments:	
Utilities: Water and sewer systems, electric, LP-gas	$97,500
Buildings: 4 residences, 1 apartment, entrance station, oil storage, equipment storage, and shop	213,700
Roads: Access and circulatory roads and parking	17,500
Miscellaneous: Grounds improvement, fencing	16,000
Total	344,700

Emigrant Junction Facility

This is an entrance station facility that was constructed by the CCC boys in about 1935.

1. Existing before Mission 66:	
Stone residence.	
Frame residence, burned down about 1960.	
Stone comfort station.	
2 small frameout buildings.	
Water system, pipeline from emigrant springs.	
Sewer system.	
Total estimated cost of above	$20,000
2. Constructed during Mission 66 (fiscal year 1957 to date):	
Small picnic area improved.	
Stone residence remodeled.	
Powerhouse constructed.	
Sewer system, improved.	
Total estimated cost of above	14,000
3. Proposed future developments	None

There are a number of small campgrounds that are proposed that will provide between 20 to 25 campsites each. They are located at Warm Springs, Thorndyke, Mesquite Springs, Saratoga Springs, Emigrant Junction.

Outlying Campgrounds

1. Existing before Mission 66 (practically no development existing prior to fiscal year 1957)	None
2. Constructed during Mission 66 (fiscal year 1957 to date): Buildings: Campground toilets, 5 mobile trailers, total	$17,831
3. Proposed future developments:	
Utilities: 5 water systems, 5 sewer systems	75,000
Buildings: 4 small, 2 large comfort stations	44,000
Roads: 1.5 miles	30,000
Miscellaneous: 140 sites, tables, fireplaces, grounds improvement	29,000
Total	178,000

OTHER OVERNIGHT FACILITIES

Mr. HILL. Scotty's Castle, as I mentioned before, is located at the north end of the monument, and Stovepipe Wells is located on the east-west road at this point [indicating], and a small National Park Service concession is located at Wildrose. They also provide some overnight facilities.

This covers in general the outlying developments.

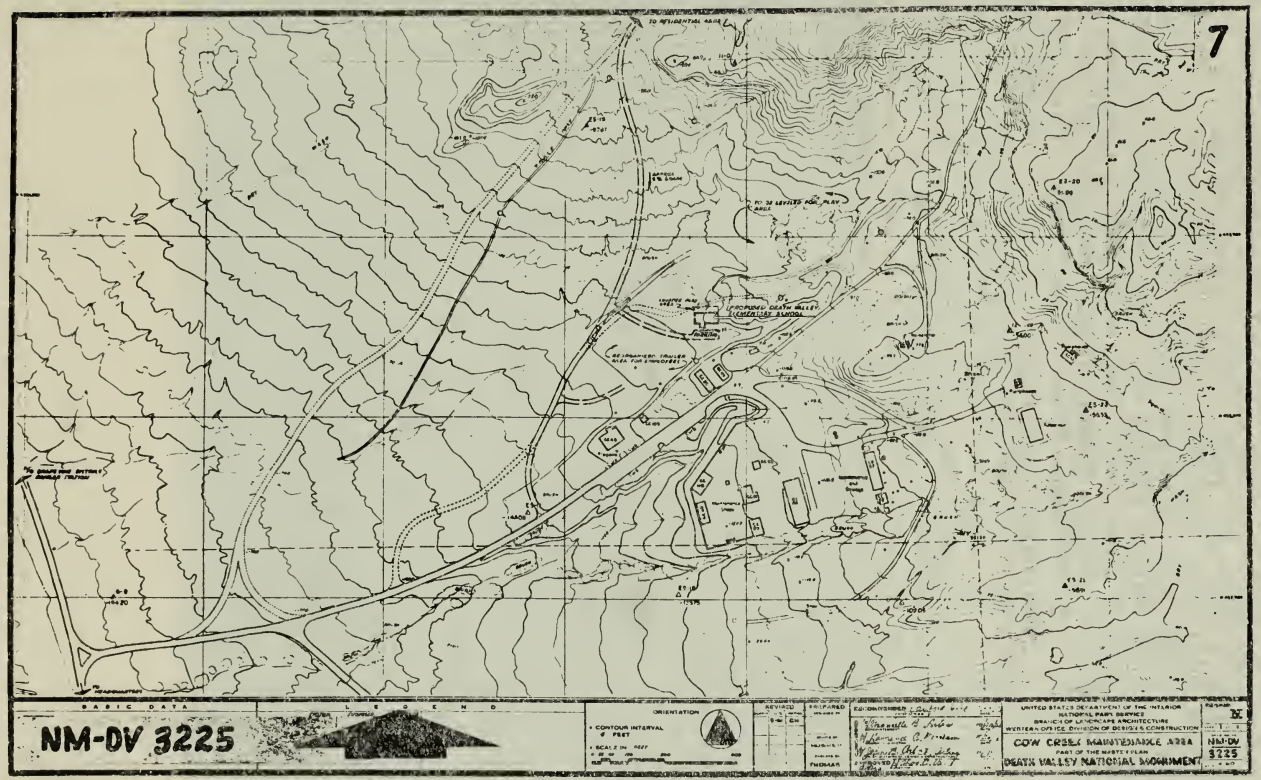
Now, we will move on to the two principal areas that you are interested in, Cow Creek and Furnace Creek. I think we might keep in mind the Cow Creek aerial photograph as this will be referred to often. There are several exhibits which I will show that will give you the general orientation of the headquarters and the relationship of the residential area.

COW CREEK HEADQUARTERS DEVELOPMENT

In examining the Cow Creek headquarters development, it is necessary to go back to 1933 when Death Valley was established and the following years of 1934–35 when the Civilian Conservation Corps moved into Death Valley to participate in the development of needed facilities. It was during the CCC activities that the construction of the initial developments at Cow Creek and Wildrose were accomplished. The Celotex frame buildings were constructed for quarters and adobe block structure for the administration building. And exhibit 7 is of the headquarters area. The administration building is in this location, and the utility buildings are located in this area [indicating]. Planting was also started under the CCC program.

(Exhibit 7.—Map, Cow Creek maintenance area, Death Valley National Monument, follows:)

EXHIBIT 7.—MAP, COW CREEK MAINTENANCE AREA, DEATH VALLEY NATIONAL MONUMENT



Mr. HILL. Because of the intense heat in the summer the Park Service program was developed on the basis of moving park operations from Cow Creek to the higher elevation of Wildrose, which I pointed out on the previous exhibit, during the summer heat. In the fall they would again return to Cow Creek for the winter months where their major visitor use and operating activities are located. This method of operation was carried on through the war years, and up until the start of Mission 66. Prior to Mission 66, considerable discussion had taken place about consolidating these headquarters facilities into a single headquarters development at Cow Creek.

In July of 1955, Mission 66 was initiated and the Park staff made a study of headquarters requirements and sites, recommending that Cow Creek should be retained as the headquarters area.

Mr. Moss. It might be helpful at this point for the record if you would undertake a very brief explanation of what Mission 66 is.

Mr. HILL. Mission 66, which was approved by Congress, was a program set up for a 10-year period to take a new look at the National Park Service operations, the development problems, and so forth. It was started in the year of 1955 and has continued on since that time.

Each park was asked to take a very hard look at all the various activities carried on in the park, their operations, their management plans, their policies regarding whether they were following the mandate of Congress in performing the activities in accordance with this mandate. Each park then presented a Mission 66 prospectus. This was required before any of the programs were undertaken. These were approved by all officers, including the Director, and it was on this basis that the developments were then undertaken under the Mission 66 program.

It was not just a construction program. It was a complete program including operations, all phases of management, and all other activities.

In the case of Death Valley, this report was submitted in 1956.

Mr. Moss. It gets its name, does it not, from the target date of 1966 to have the parks rehabilitated from the neglect of the war years and have them in a condition that would serve the public at that point?

Mr. HILL. That is correct, sir.

Mr. Moss. Which I believe is the 50th anniversary of the Park Service.

Mr. HILL. That is correct, sir.

Mr. Moss. You may continue with your statement.

Mr. HILL. OK. Prior to the Mission 66 considerable discussion had taken place about consolidating these headquarters facilities into a single headquarters development at Cow Creek.

In July of 1955 Mission 66 was initiated and the Park Service made a study of headquarters requirements and sites, recommending that Cow Creek should be retained as the headquarters area. In February 1956 the Director approved the Mission 66 proposal for Death Valley but reduced the number of housing units authorized from the proposed 63 to 41. In April of that spring, a new headquarters site above the Furnace Creek Inn was located during an inspection of the area by Mr. Thomas of our office and members of the Park Service staff.

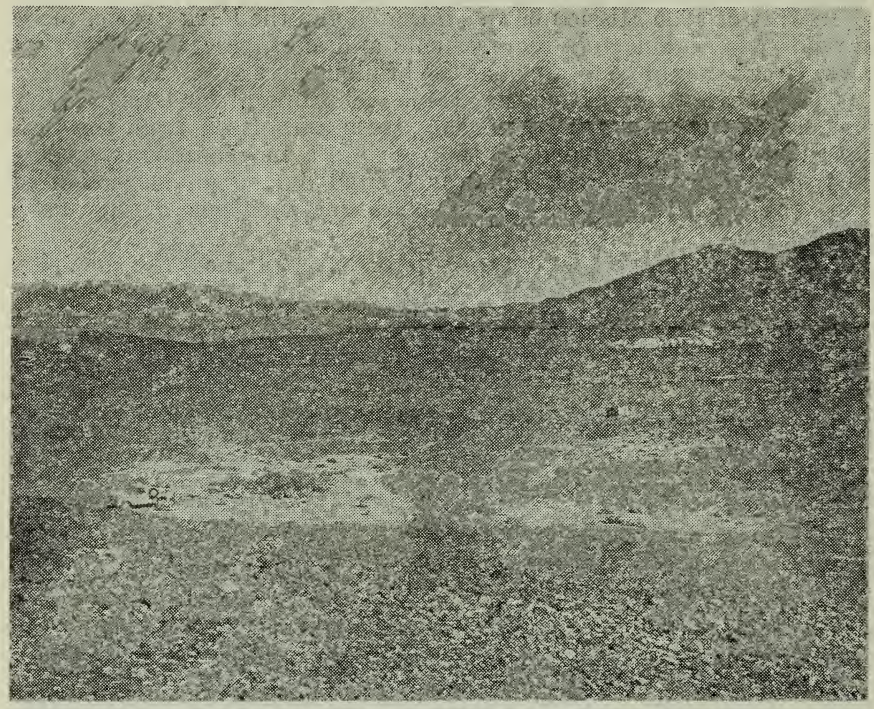
Now, I have some photographs here that will show the new site.

(The photographs referred to follow:)

PROPOSED FURNACE CREEK HEADQUARTERS SITE, VIEW FROM EAST OF FURNACE CREEK INN



PROPOSED SITE OF NATIONAL PARK HEADQUARTERS AT FURNACE CREEK IN DEATH VALLEY NATIONAL MONUMENT



Mr. HILL. This site appeared to have all the area for expansion that might be required in the future, and it was recommended for consideration. Justification and comparative estimates were prepared and submitted in May 1956. These estimates included a pipeline from Nevares Springs to the new site at a total cost for the new site estimated at $1,861,500 as compared with the $1,758,500 for the Cow Creek area. We prepared a general development plan which is shown as exhibit 8. This is the area above Furnace Creek and indicates the proposed general layout of the new site that was under consideration. Our estimates were based on this general layout. This plan was recommended by the superintendent, the region, and our office, and was approved by the Director on November 5, 1956.

(Exhibit 8.—Interim master plan, Furnace Creek residential utility area, follows:)

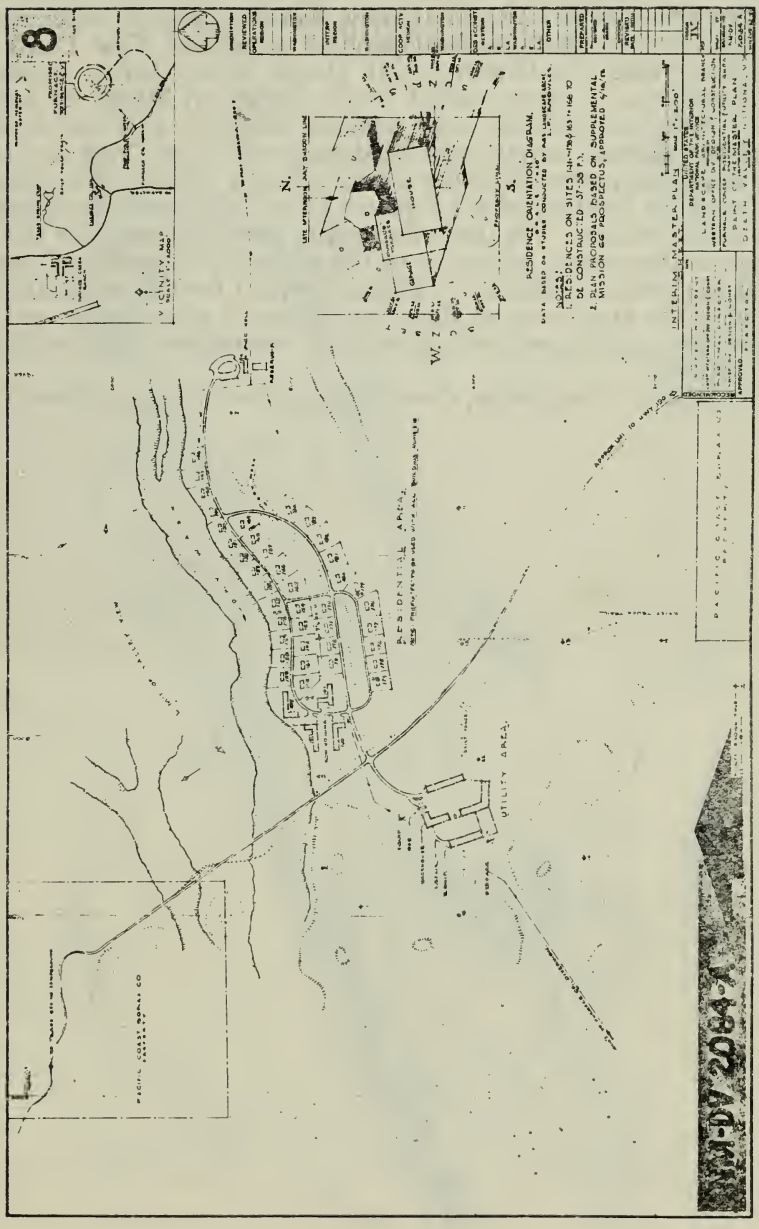
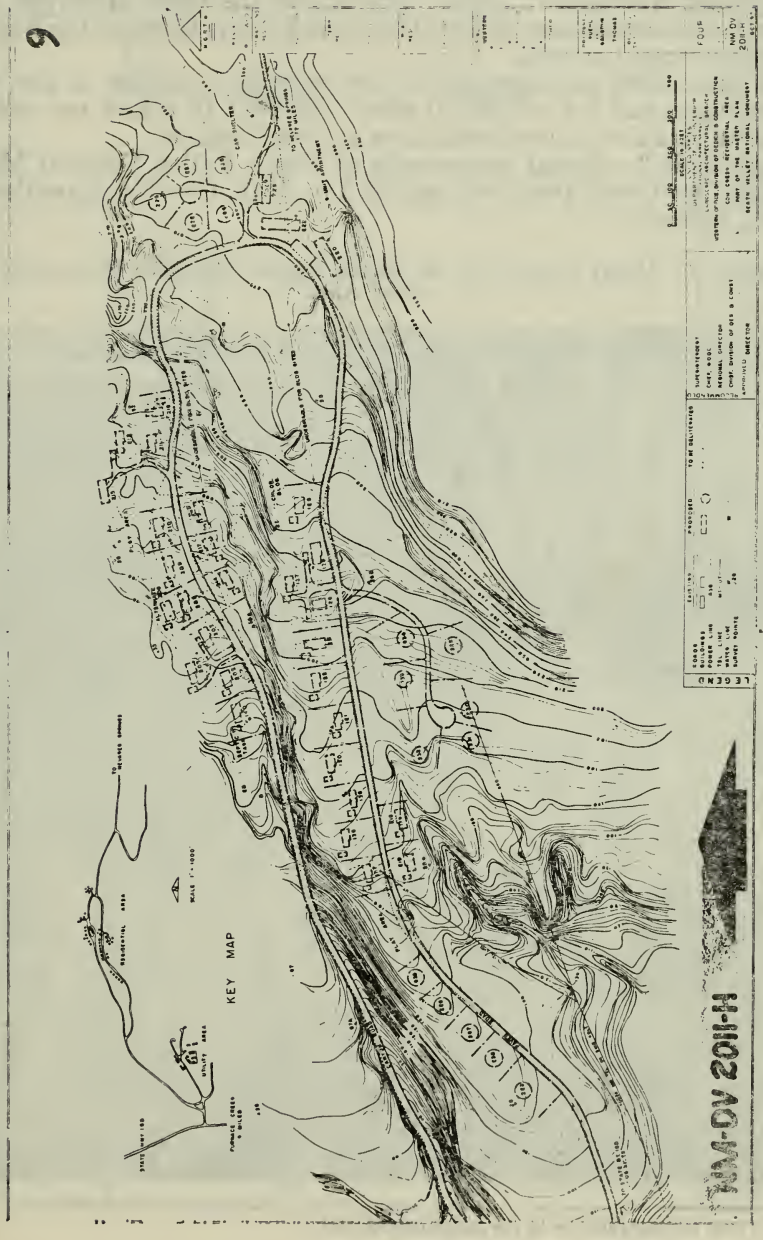


Exhibit 8.—Interim Master Plan, Furnace Creek Residential Utility Area

Mr. HILL. When the Director approved this plan, he also informed the Death Valley Hotel Co., through Mr. Albright, their representative, of his action, and considerable discussion and review resulted. I made a trip to Death Valley with Mr. Vint, Chief of the Design Office in Washington, during January, and he recommended to the Director that the headquarters remain at Cow Creek and suggested that the Director visit Death Valley before making a final decision. I again visited Death Valley on March 18 and 19, 1957, with the Director and regional director, and the Director made the decision to retain the headquarters at Cow Creek and locate the visitor center north of the Furnace Creek Ranch. This decision included the location of the Furnace Creek campground adjacent to the visitor center. We then returned to previous plans for the Cow Creek headquarters, adjusting to the authorized number of housing units as shown on exhibit 9. This is the plan for the residential area which is the upper area as shown on the aerial photograph, and provides for the proposed staffing of 41 in accordance with the Mission 66 proposal.

(Exhibit 9.—Landscape, Cow Creek residential area, follows:)

EXHIBIT 9.—LANDSCAPE, COW CREEK RESIDENTIAL AREA

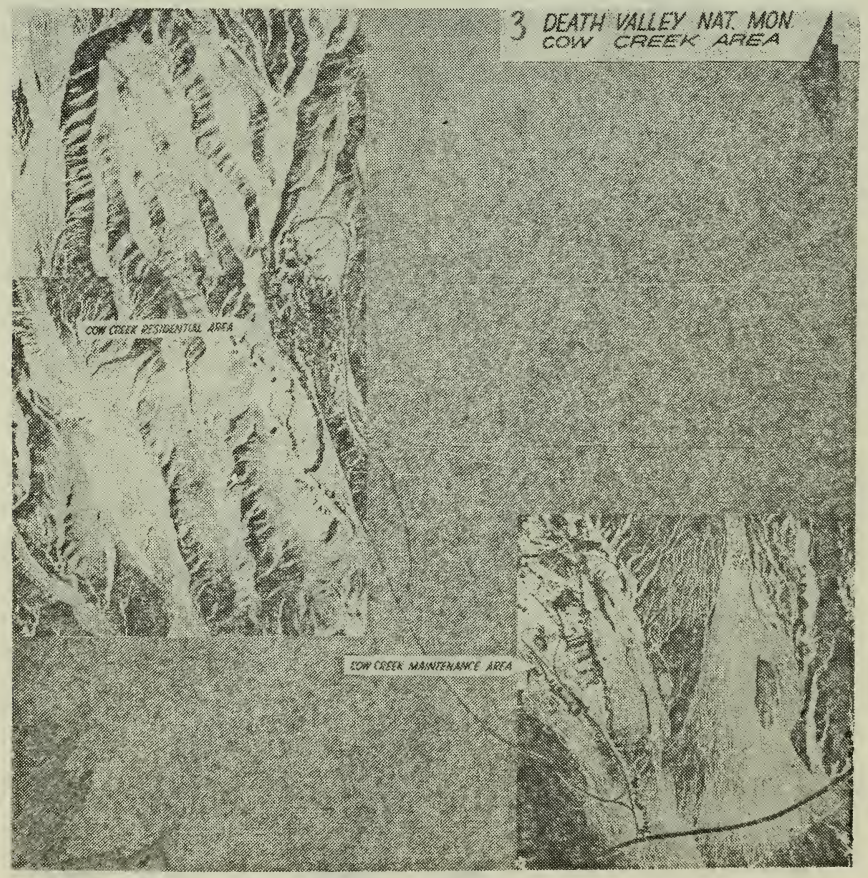


Mr. HILL. In 1957 a management survey by the regional office further reduced the permanent personnel ceiling for the headquarters area to 29 people and a further revision of the layout plan, dated September 1961, shown as exhibit 10, was prepared, and this was approved November 1, 1961. This shows the latest approved plan for the residential area at Cow Creek, and this is based on the reduced employee requirements.

I have some photographs of the existing buildings in the Cow Creek area and the residential area.[1] Exhibit 10 is now our present master plan for the residential area at Cow Creek.

(Exhibit 3.—Aerial photograph of Death Valley National Monument, Cow Creek area; and exhibit 10.—Map, Cow Creek residential area, follow:)

EXHIBIT 3.—AERIAL PHOTOGRAPH OF DEATH VALLEY NATIONAL MONUMENT, COW CREEK AREA



[1] These photographs are in the subcommittee files.

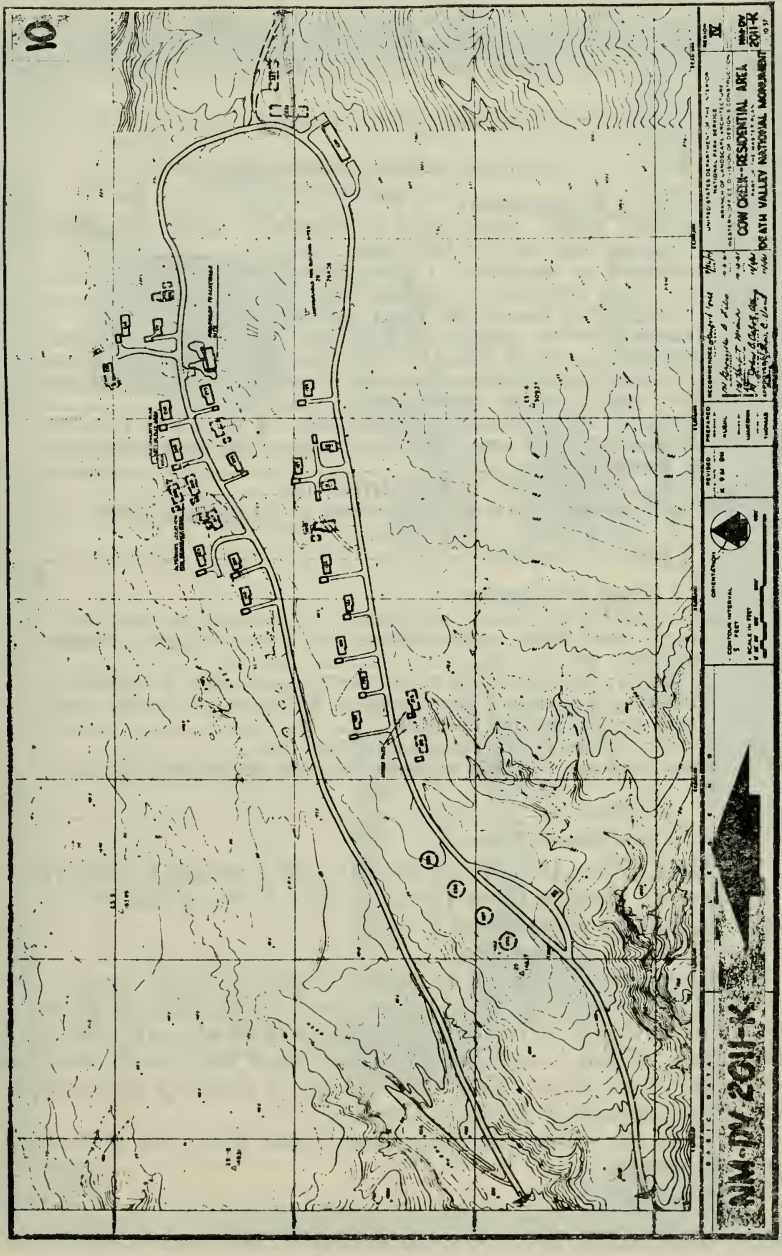


EXHIBIT 10.—MAP, COW CREEK RESIDENTIAL AREA

Mr. HILL. The written statement has an itemized list of construction for the Cow Creek area before Mission 66, during Mission 66, and proposed under the present plans. I will not go into those in detail since the written statement includes these figures. I might mention here that 18 residences were constructed under one contract. We have 12 residences proposed, which is slightly over the authorized amount, but these figures have not been adjusted to the approved plan as yet.

(The following is the itemization referred to above:)

Cow Creek residential and utility area

1. Existing prior to Mission 66:	
Utilities: Water, sewer, and electricity to serve residences, apartment, and utility buildings	(1)
Buildings: 10 residences, 1 apartment, 5 miscellaneous utility and shop buildings, 1 administration building	(1)
2. Constructed during Mission 66 (fiscal year 1957 to date):	
Utilities: Water supply, storage, and distribution (Nevares Springs), sewage collection and disposal (lagoon), electric distribution and generating plant, liquified petroleum gas system, radio system improvement	$305,632
Buildings: 18 residences, 1 powerhouse (2 to 75 and 1 to 150 kilowatts), 1- to 4-unit apartment rehabilitation, 4 residences, 5 house trailers	418,769
Roads: Access roads, walks, drives, etc	16,306
Miscellaneous: Fine grading, planting, etc., residential area	32,922
Total	773,629
3. Proposed future development:	
Utilities: Water, sewer, and electric extensions to new buildings; pool filter; improvements of water supply, Nevares Springs, etc	117,400
Buildings: 12 residences, 1- to 4-unit apartments, 1 recreation building, 1 garage, 1 shop building, firehouse, oil storage, comfort station, utility building	642,200
Roads: Drives, walks, terraces, parking, etc	36,500
Miscellaneous: Grounds improvement, obliterate road, fencing	37,000
Total	833,100

[1] We do not have these CCC costs.

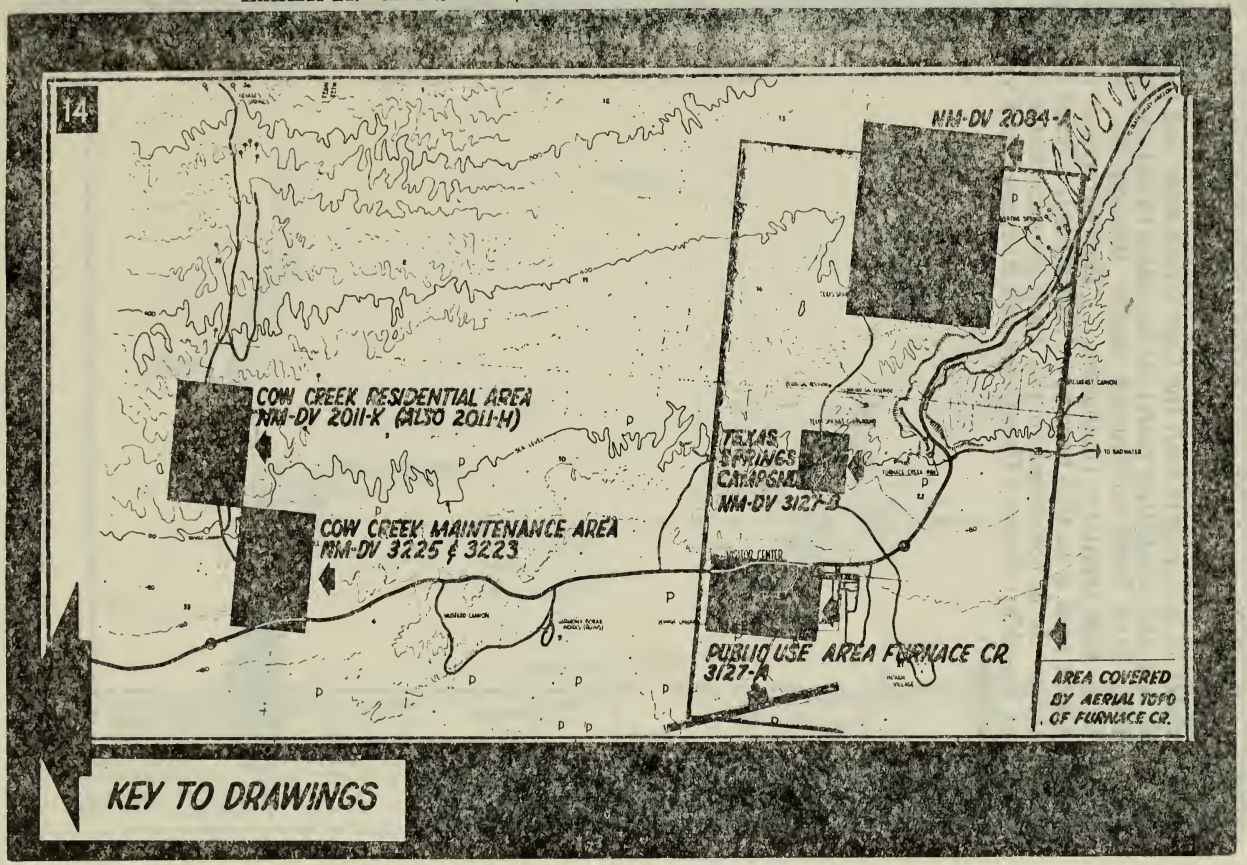
Mr. HILL. Now, this brings us up to the Furnace Creek area, and I will have to change these plans so that I can identify the various exhibits that we will present.

Mr. Moss. Go right ahead.

Mr. HILL. Again I want to refer to the large aerial map of Furnace Creek (see exhibit 4, p. 14) because I think this is the one that shows everything in better relationship than all our other exhibits. This map, which is exhibit 14, shows the Cow Creek area and the Furnace Creek area. The blue outline is actually the sides of the aerial photograph of Furnace Creek.

(Exhibit 14.—Map showing Cow Creek area and Furnace Creek area follows:)

EXHIBIT 14.—MAP SHOWING COW CREEK AREA AND FURNACE CREEK AREA



Mr. HILL. Exhibit 14 shows the development proposed at the visitor center which is north of the ranch, the Texas Spring development, which is north of the inn. This is the general area proposed for the new headquarters that was disapproved by the Director on his visit to Death Valley in March of 1957. It includes Cow Creek, the plans of the utility area, and the two plans of the residential area.

This exhibit 11 also covers both the Cow Creek area and the Furnace Creek area and is a utility plan that indicates in red the developments which have been constructed under Mission 66. Nevares Springs is in this territory [indicating]. The watershed for the Furnace Creek area is in this territory [indicating]. Texas Spring is right there. It is connected to the Park Service water system.

(Exhibit 11.—Map showing Cow Creek and Furnace Creek vicinity utilities follows:)

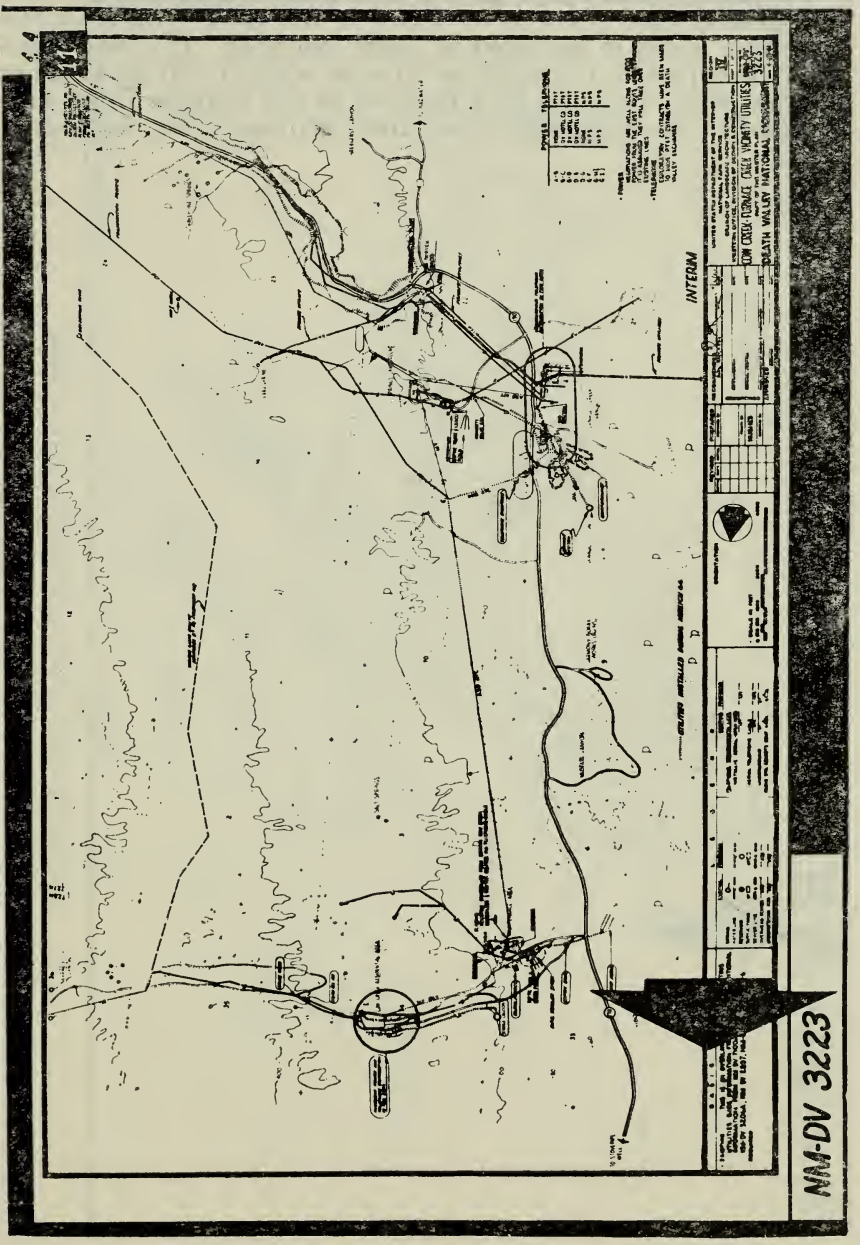


EXHIBIT 11.—MAP SHOWING COW CREEK AND FURNACE CREEK VICINITY UTILITIES

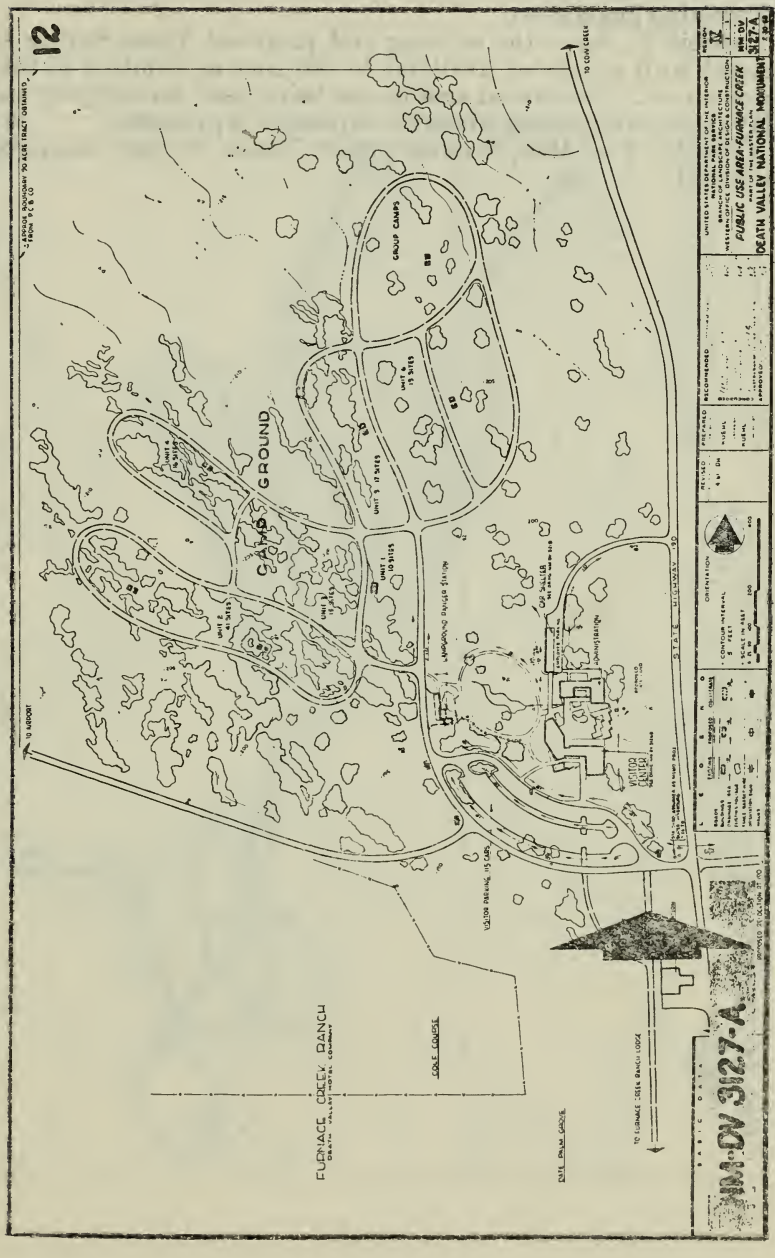
Mr. HILL. The Director's decision during his visit on March 18 and 19, 1957, determined the location of the visitor center and campground at the site directly north of the Furnace Creek Ranch.

The present master plan for this area is shown as exhibit 12. This campground plan, which is developed in this small area, shows the expansion which is estimated at about 200 sites. This line represents the approximate line of the 90 acres which I will show you on a larger map of all the land involved in the Furnace Creek area.

(Exhibit 12.—Map, Public Use Area—Furnace Creek, follows:)



EXHIBIT 12.—MAP, PUBLIC USE AREA—FURNACE CREEK



Mr. HILL. This is the visitor center [indicating], and the Park Service Administration Building. The campground with the Furnace Creek Ranch is located in this area [indicating] and this is the existing gas station.

Exhibit 13 shows the existing and proposed Texas Spring campground with expansion available to 200 sites as required in the task force report. The dotted area is now being used for camping and the gray represents the area where the expansion is proposed.

(Exhibit 13.—Map, redevelopment Texas Springs campground, follows:)

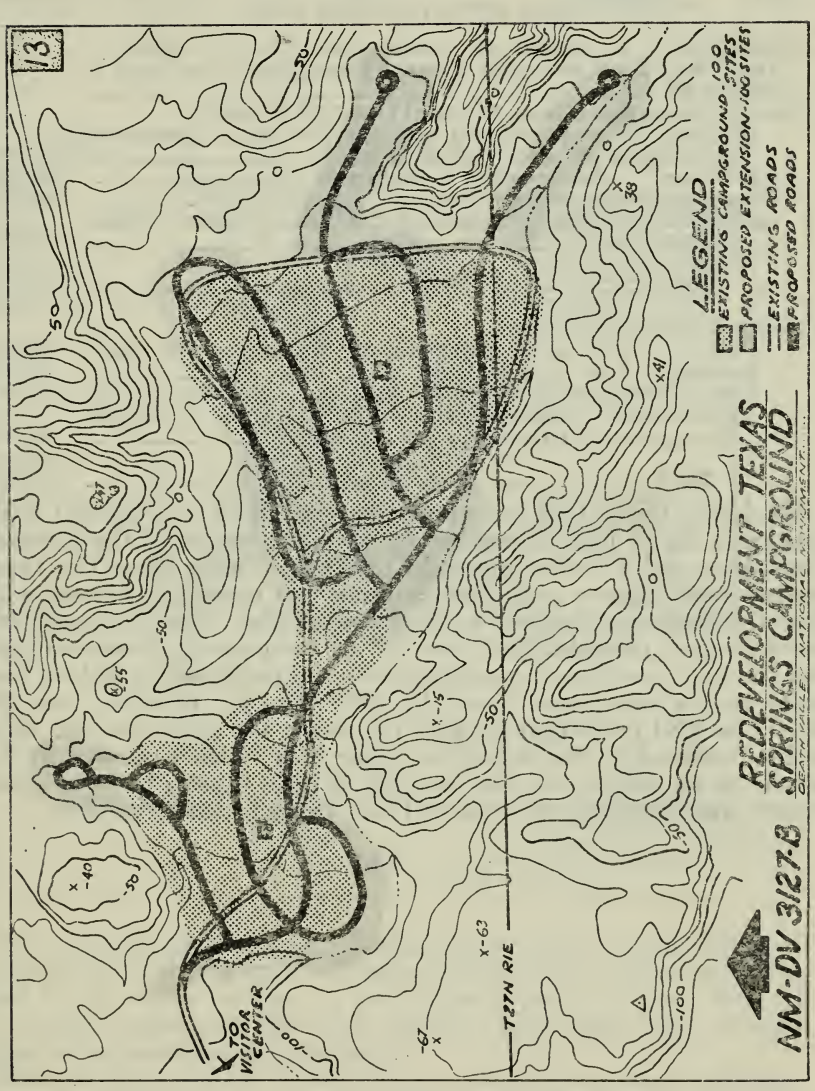


EXHIBIT 13.—MAP, REDEVELOPMENT TEXAS SPRING CAMPGROUND

Mr. HILL. The estimates included in the prepared statement do not include the cost of expanding the campground to the full 400 sites as proposed in the task force report. These estimates were not available at the time this statement was prepared.

(The following are the estimates appearing in the prepared statement:)

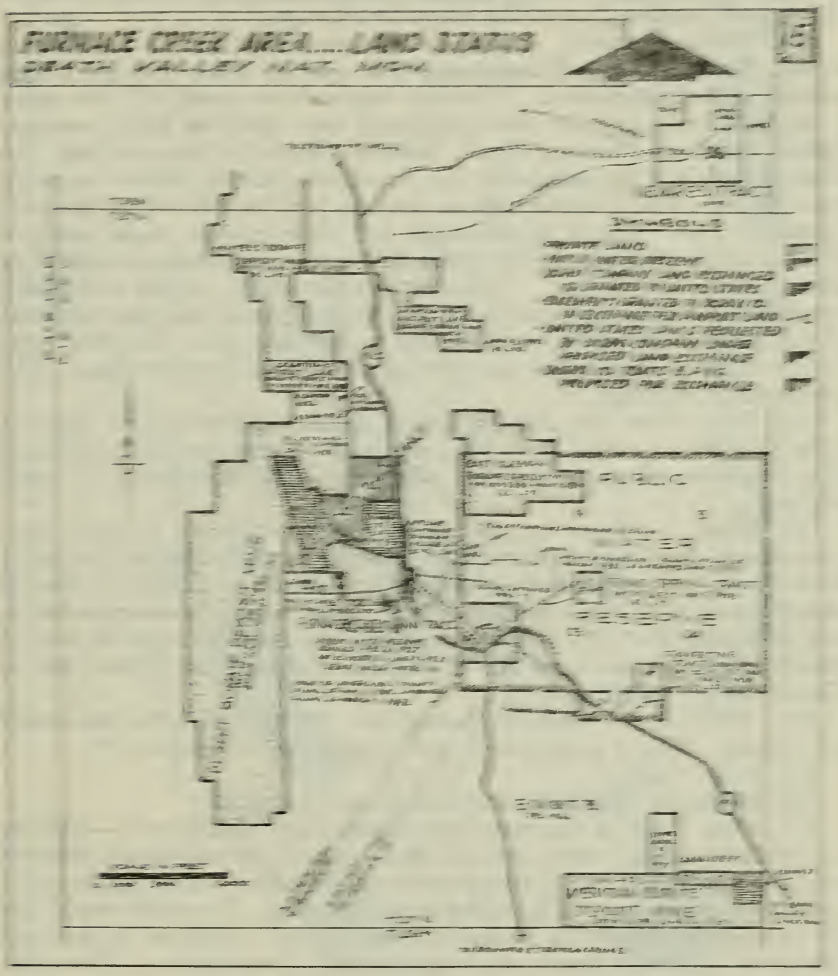
Texas Spring Task Force Report

1. Existing prior to Mission 66: Campground facilities existed at Texas Spring 100 campsites, Furnace Creek Ranch area prior to Mission 66	None
2. Construction during Mission 66 (fiscal year 1957 to date):	
Utilities: Water, sewer, and electricity for visitor center and campground (25 sites) including lagoon	$101,601
Buildings: 1 visitor center, 1 comfort station	166,803
Roads in vicinity walks, drives	163,535
Miscellaneous: Planting, seeding for visitor center, develop campground	28,705
Total	460,644
3. Proposed future development:	
Utilities: Water, sewer, electricity for campground 175 sites	53,000
Buildings: 5 comfort stations	55,000
Roads: Campground roads, 175 sites	127,000
Miscellaneous: Campsite development, 175 sites, 1 campfire circle, planting, irrigation, signs	98,900
Total	333,900

Mr. HILL. In the task force reports prepared by the National Park Service in April 1962, regarding future development of the Furnace Creek area, and a similar report by the Death Valley Hotel Co., there are projected figures including camping and overnight accommodations that may be of interest to the subcommittee. The National Park Service report provides for a total of 400 campsites in Furnace Creek and the hotel company accommodations are projected as follows and based on the anticipated travel by 1980: The inn presently has 132 beds; the 1980 projection remains the same; the ranch has 266 beds, and is increased to 362 beds; the trailer area which is located in the ranch has 62 guests, and the 1980 figure is 62 guests; the employees present number is 242, and this will be increased to 259.

[Exhibit 15.—Furnace Creek area—Land status, follows]

Exhibit 15.—Furnace Creek Area—Land Status



This map shows the Public Water Reserve No. 13, and the land ownership within this reserve [indicating]. This small section was added to the water reserve by the Department at a later date. I will merely point out the land changes that have been directly related to the development program.

Three changes in land ownership have taken place since establishment of the monument. In 1954 certain lands of the Borax Co. west and north of Furnace Creek Ranch were acquired by the Government for an airport and approach road in exchange for utility easements granted to the Borax Co. This is the area in here [indicat-

ing] which involves the granting of easements for their utility lines. I believe the airport was constructed in about 1951.

In 1957 the Government acquired the State school land in section 36, here [indicating]. This small dark striped area was acquired, too, I think at the same time of the airport exchange.

In 1958 the Borax Co. donated a 90-acre tract north of the Furnace Creek Ranch to the Government for use as Park Service visitor center and campground. It's this section here north of the ranch.

A land exchange has been proposed that involves hotel company lands north of Furnace Creek Ranch. That is this territory [indicating]. We do not have the exact boundaries shown correctly on this map, but in the copies we send to you we will try to properly identify that. That's in exchange for Government lands south of Furnace Creek Ranch which is the dark area near where it says "Furnace Creek Inn Tract." This, as I understand, is not completely worked out either, as it does not include all the area that was involved. I think there are 200 acres and this is less than that, but here again in the maps we will see if it is possible to determine these areas. This proposal is pending.

Mr. HILL. The last exhibit shows land withdrawals in 1959–63. I believe these actions have been initiated on the recommendation of the members of your staff in relation to the protection of water rights.

Mr. Moss. I believe the record should be corrected at that point to indicate that it was initiated on the recommendation of the chairman of the Committee on Government Operations. Now, I have no doubt about who the chairman relied upon for his recommendation, but I believe that the letter requesting the consideration of certain views was over the signature of the chairman of the Committee on Government Operations.

Mr. MCCLORY. I didn't understand. Just repeat the statement you made. Was it a statement with regard to this exhibit 16?

Mr. Moss. Yes.

Mr. MCCLORY. I didn't understand what you said.

Mr. HILL. This is the map that shows land withdrawals—let's see if the dates are on here; 1959 and 1963—which is the light striped area and withdrawals from mining for protection of the water rights which are the dotted areas. That is my understanding. In other words, this is the watershed of the Furnace Creek Ranch. See the large area? This has been withdrawn, as I understand, from mining. Does that clear it up?

Mr. MCCLORY. I understand what you are saying now; yes.

(Exhibit 16.—Special base map, Death Valley National Monument, follows:)

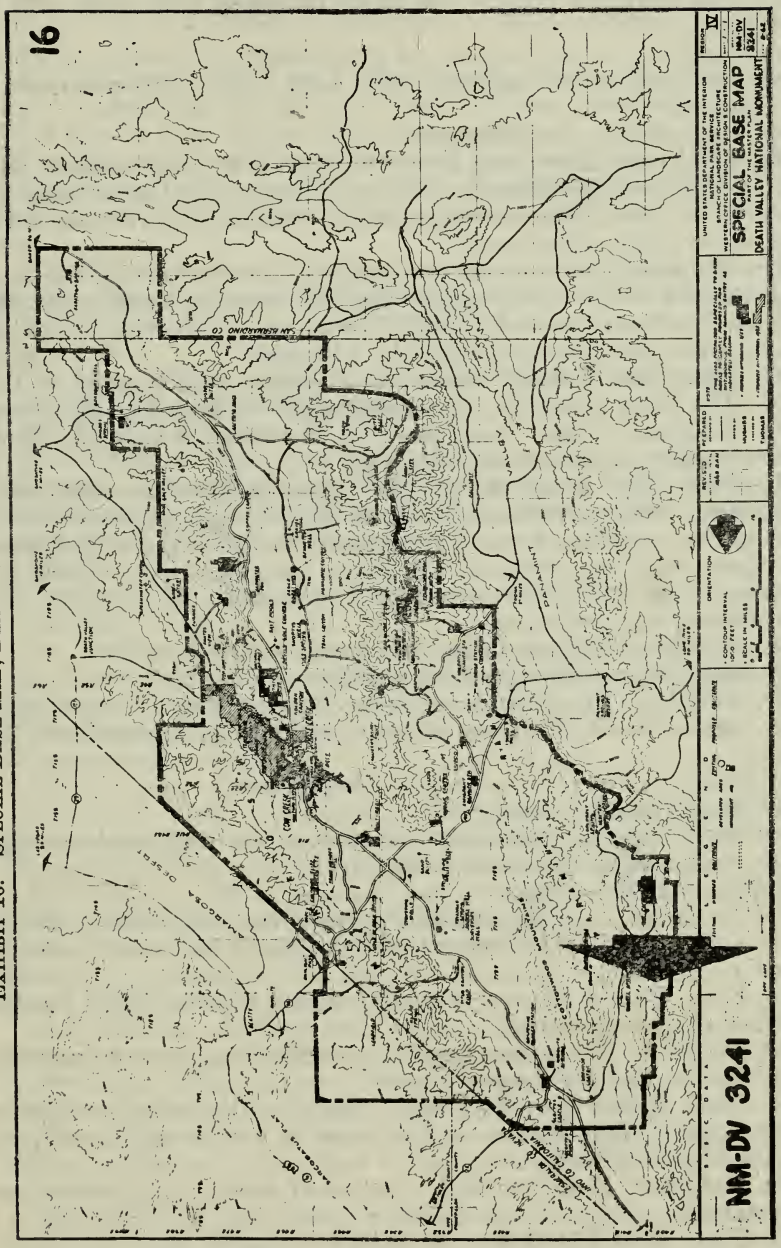


EXHIBIT 16.—SPECIAL BASE MAP, DEATH VALLEY NATIONAL MONUMENT

Mr. HILL. Well, Mr. Chairman, that concludes our presentation. I hope these exhibits present a total picture of the development phases which we would hope to carry on at Death Valley.

Mr. Moss. Thank you. I am quite confident that there will be questions.

Mr. McClory, do you have any at this point?

Mr. MCCLORY. How long have you been with the Department of the Interior?

Mr. HILL. Thirty-one years, sir.

Mr. MCCLORY. How long have you served in your present position as Chief of the Western Office of Design and Construction?

Mr. HILL. The Office was organized in 1954 and I have been Chief since it was originally started.

Mr. MCCLORY. Now, when you and the Director of the National Park Service visited the Death Valley National Monument in 1957, specifically March 18 and 19, 1957, were you present at all of the conversations that were had with Mr. Albright?

Mr. HILL. Sir, I don't think Mr. Albright was present at that time. The hotel company representative, I believe, was Mr. Stern.

Mr. MCCLORY. I see. And you and the Director and Mr. Stern had conversations at that time, did you?

Mr. HILL. No. I was not present when the Director talked with Mr. Stern. We arrived and reviewed all the various phases of the headquarters problem, first, with the park staff—the regional director was there—and we reviewed all plans, including Cow Creek and Furnace Creek. The Director talked separately, as I recall, with the company representatives.

Mr. MCCLORY. Did you talk to Mr. Stern at all yourself?

Mr. HILL. No, not in connection with this.

Mr. MCCLORY. The Cow Creek plan. Was it prepared at that time?

Mr. HILL. Yes. We have always had a master plan for Cow Creek.

Mr. MCCLORY. Ever since the CCC development?

Mr. HILL. That is correct.

Mr. MCCLORY. You had that plan before you had the other plan which was above the Furnace Creek Inn?

Mr. HILL. That is right.

Mr. MCCLORY. And so was the purpose of your visit in March 1957 to determine as between these two plans for future development?

Mr. HILL. That is correct. On the previous visit with Mr. Vint we reviewed this new location.

Mr. MCCLORY. When you say the new location, you are referring to the location above Furnace Creek?

Mr. HILL. Above Furnace Creek. We were discussing projects as they related to that because at that time it was an approved plan, approved by the Director.

Mr. MCCLORY. Now, you had a source of water at both locations, did you not?

Mr. HILL. That is correct.

Mr. MCCLORY. Had the test well above Furnace Creek Inn been drilled at the time of your visit there in 1957?

Mr. HILL. I am not quite sure but I do not think it was.

Mr. McCLORY. And did the quantity of water from these respective sources enter into your decision as to selecting one site or the other, as you recall?

Mr. HILL. Not to any great extent because the plan at that time provided for piping the water from the Nevares Spring over to the new site if this was necessary.

Mr. McCLORY. Oh, I see. That would indicate that the test well had not been dug at that time; that you were planning to get your water source from Nevares Spring regardless of whether you located above Furnace Creek Inn or whether you continued at Cow Creek?

Mr. HILL. In the preliminary plans the pipeline from Nevares Spring was considered, as well as water within the Furnace Creek area.

Mr. McCLORY. Now, did the question as to the legal right of the Government to acquire underground water at the location above Furnace Creek Inn enter into this decision in any way at all as far as you know?

Mr. HILL. As far as I know it may have, but I don't think so.

Mr. McCLORY. You don't recall?

Mr. HILL. I don't recall.

Mr. McCLORY. And you don't think so. Now, tell me this: I inspected this location above Furnace Creek Inn and I found at that location a great quantity of this debris or stone or other material that you referred to in your statement as——

Mr. HILL. Yes.

Mr. McCLORY. Resulting from these cloudbursts in this location.

Mr. HILL. Yes.

Mr. McCLORY. Isn't it your opinion that that location above Furnace Creek Inn would be susceptible to possible damage from cloudburst wash or whatever you call it?

Mr. HILL. Well, in our opinion at the time this would not be any more susceptible than——

Mr. McCLORY. Cow Creek?

Mr. HILL. Than Cow Creek. The areas that we planned to use for the development were out of any immediate wash. I do not think it would have been subjected to any cloudburst conditions.

Mr. McCLORY. Have you ever seen any legal opinions with regard to the water rights in the Furnace Creek area?

Mr. HILL. In reading over the material in preparation for this hearing, I probably have, but this is really outside of my area as far as development is concerned.

Mr. McCLORY. In your work in developing Death Valley National Monument, that hasn't been a principal concern of yours?

Mr. HILL. Well, we are always concerned about available water, but we also have to depend upon others in the Service who are experts in this phase of the program to keep us advised, and they always review any plans that we prepare. It is really their area of responsibility.

Mr. McCLORY. Now, with regard to the enlarged campsite that is proposed in the Mission 66 plan, there is no question in your mind,

is there, but that additional adequate supplies of water can be obtained from the Nevares Spring and in the Cow Creek area?

Mr. HILL. You mean for the Furnace Creek area?

Mr. MCCLORY. For the campsite that is now planned.

Mr. HILL. Well, there are two campsites in the Furnace Creek area, the one at Furnace Creek and the one at Texas Spring. We assume that when they resolve the question of the water right that there will be adequate water for the 400 sites. If there is not adequate water, then we will have to cut back.

Mr. MCCLORY. But that water will not all be available from the Nevares Springs, will it?

Mr. HILL. No. This is a possibility in the future if there is more than they need to take care of the Cow Creek development. It could be possible for them to run water over to Furnace Creek, but this is not in the present plan.

Mr. MCCLORY. Now, the Texas Spring campground to which you make reference is substantially in the location of the former proposed Park Village for the park employees, is it not?

Mr. HILL. No. The Texas Spring campground is located in this area here [indicating]. The proposed headquarters site which was disapproved by the Director was up in this area [indicating]. This has always been a campground, and the plan I showed you is an extension of this campground development. You see these mesquites growing up in this country. It is an expansion of this area to provide approximately 200 campsites.

Mr. MCCLORY. Are there any campsites there now?

Mr. HILL. Yes. There are about 125 and this would be expanded up to its proposed task force report of 200 based upon 1980. This was one of the areas where they would expand if the water, and so forth, is resolved so that they can make this expansion.

Mr. MCCLORY. And the present source of this water is part that is diverted from the Travertine Springs?

Mr. HILL. Texas Spring.

Mr. MCCLORY. Texas Spring.

Mr. HILL. Right.

Mr. MCCLORY. Now, in your experience in dealing with the hotel company management, with any of the private interests involved at the Furnace Creek area, have you observed any conduct on the part of any officer or employee of the Park Service or the Department of the Interior which, in your opinion, has been adverse to the interests of the Government or the Park Service?

Mr. HILL. No.

Mr. MCCLORY. Are you satisfied with the present location of the headquarters of the Park Service at the Death Valley National Monument?

Mr. HILL. With the reduction?

Mr. MCCLORY. With the location.

Mr. HILL. Yes, I think so because with the reduction of personnel required, I feel that there is an adequate area for expansion. It has the advantage of having some facilities already there.

Mr. McCLORY. Isn't it your opinion that this location, or substantially this location, is about the center of interest and activity insofar as the public campgrounds and trailer sites are concerned, as well as the private housing accommodations?

Mr. HILL. Well, Furnace Creek certainly is the center of Death Valley as far as public interest is concerned—overnight camping, and so forth.

Mr. McCLORY. And the purpose of the headquarters is to offer the maximum service to the largest number of people visiting the Death Valley National Monument, including the presentation of movies and lectures and explanations as to the history and geologic value of this monument?

Mr. HILL. That is correct.

Mr. McCLORY. One thing that we observed when we inspected the Death Valley National Monument was the development—apparently a new development—of a mining project in the monument. I think it was at the south end pretty much or south of the Furnace Creek area. Isn't it your opinion that that might be detrimental to the monument insofar as its geologic value to students and scientists is concerned?

Mr. HILL. I am not familiar with that particular mining project, and frankly from the standpoint of a professional landscape architect I'd have to see it before I could make any comment.

Mr. McCLORY. How do you feel about any mining project that is permitted under existing law in the Death Valley National Monument? Isn't it your opinion that that may adversely affect the scientific geologic value of the monument?

Mr. HILL. It possibly could in some cases, if it is located in a very highly valuable area of national park character, natural scenery, and so forth. Is this located, as you say, south of Furnace Creek?

Mr. McCLORY. That's my recollection.

Aside from the development at Furnace Creek, are there any water rights problems that are involved in Death Valley? You mentioned other developments, for instance, at Wildrose and at other locations, and I just wonder, since we are investigating the subject of water rights, is there anything in particular as far as water rights are concerned at these other locations that require some investigation?

Mr. HILL. I believe that other witnesses that may be called can really answer that better than I can since they're much more familiar with this and can give you a more accurate report on it.

Mr. McCLORY. Is there anything critical or anything adverse that you feel that you have on your mind as you testify here today insofar as the Borax Co. or the Death Valley Hotel Co. are concerned, or any of the individuals or any of your associates?

Mr. HILL. No, none at all. As a matter of fact, I think they're furnishing facilities and the public services that are extremely valuable.

Mr. McCLORY. Now, in connection with your work and your office, you endeavor to have cordial relations with all of the private interests

that are involved—the concessionaires and others, I assume; is that correct?

Mr. HILL. Right. That is just good business.

Mr. MCCLORY. And with regard to the acquiring of rights—water rights or any other rights that may be required in the operation of national parks and their facilities—you avoid litigation and you avoid controversy with private and other public bodies as often as possible, I assume?

Mr. HILL. Well, in any case where we are involved in development phases and water rights are involved, these are always handled by the people of the Service that are familiar with this and know how to handle it. The development plans must all clear through this phase of our operation.

Mr. MCCLORY. You don't know of any undue influence or any untoward acts of any kind that have been brought to bear on the Park Service in connection with the development thus far or with regard to the future development of Death Valley National Monument?

Mr. HILL. No; I do not, sir

Mr. MCCLORY. That's all I have.

Mr. MOSS. Mr. Indritz?

Mr. INDRITZ. Mr. Hill, when you summarized the current visitor attendance and the projected visits to Death Valley National Monument, you spoke, did you not, in terms of the number of visitors——

Mr. HILL. Yes.

Mr. INDRITZ. Per year?

Mr. HILL. That's correct.

Mr. INDRITZ. Do your graphs or charts also indicate the number of visitor-days or the days that the visitors would stay at the monument?

Mr. HILL. No; I think these projections that we have and are shown on the chart represent the annual visitation. I do not think they're broken down into visitor-days.

Mr. INDRITZ. Mr. Chairman, the Assistant Director of the Park Service furnished to the subcommittee a chart which indicates both the visitors and visitor-days, as well as the total visits, broken down by different periods. I suggest that you may wish to consider having this incorporated in the record.

Mr. MCCLORY. No objection.

Mr. MOSS. Without objection, the tabulation will be incorporated in the record at this point.

(The tabulation follows:)

Visits, visitor days, and overnight visits; Death Valley National Monument, 1952–1975

[Unit: Thousands]

Year	Total visits	Total visitor days	Visits and visitor days 5 months, May to September			Visits and visitor days 7 months, January to April plus October to December			Camper days	Paid facilities
			Total visits	Overnight visits	Visitor days	Total visits	Overnight visits	Visitor days		
1952	296	380	68	2.8	71	228	81	309	35	49
1953	339	439	71	6.1	77	268	94	362	40	60
1954	338	435	99	1.8	100	239	96	335	39	58
1955	342	437	95	3.8	99	247	91	338	36	59
1956	300	395	72	3.2	76	228	92	319	32	63
1957	333	452	93	3.3	97	240	116	356	52	67
1958	334	479	79	4.0	83	256	141	396	71	67
1959	336	508	89	4.9	94	246	168	414	95	77
1960	356	520	85	5.3	90	271	159	430	93	70
1961	398	571	90	6.4	97	308	166	474	99	74
1962	363	544	88	6.7	95	275	174	449	103	77
1963	408	604	99	6.8	107	309	188	497	103	81
12-year total	4,143	5,764	1,028	55.1	1,086	3,115	1,566	4,679	798	802
Forecasts:										
1964	415	623	99	7.8	107	316	200	516	126	83
1965	428	648	101	8.4	109	327	212	539	136	85
1966	442	675	104	9.1	113	338	224	562	145	87
1967	456	701	107	9.7	117	349	235	584	155	89
1968	469	726	109	10.3	119	360	247	607	165	92
1969	483	753	112	10.9	123	371	259	630	175	94
1970	496	778	114	11.5	126	382	270	652	185	96
1971	510	804	117	12.2	129	393	282	675	195	99
1972	524	831	120	12.8	133	404	294	698	205	101
1973	537	855	123	13.4	136	414	305	719	215	103
1974	551	882	126	14.0	140	425	317	742	225	105
1975	564	908	128	14.6	143	436	329	765	235	108
12-year total	5,875	9,184	1,360	134.7	1,495	4,515	3,174	7,689	2,162	1,142

Mr. INDRITZ. Mr. Hill, did your charts as to visitor use also indicate the visitation peaks by month or day?

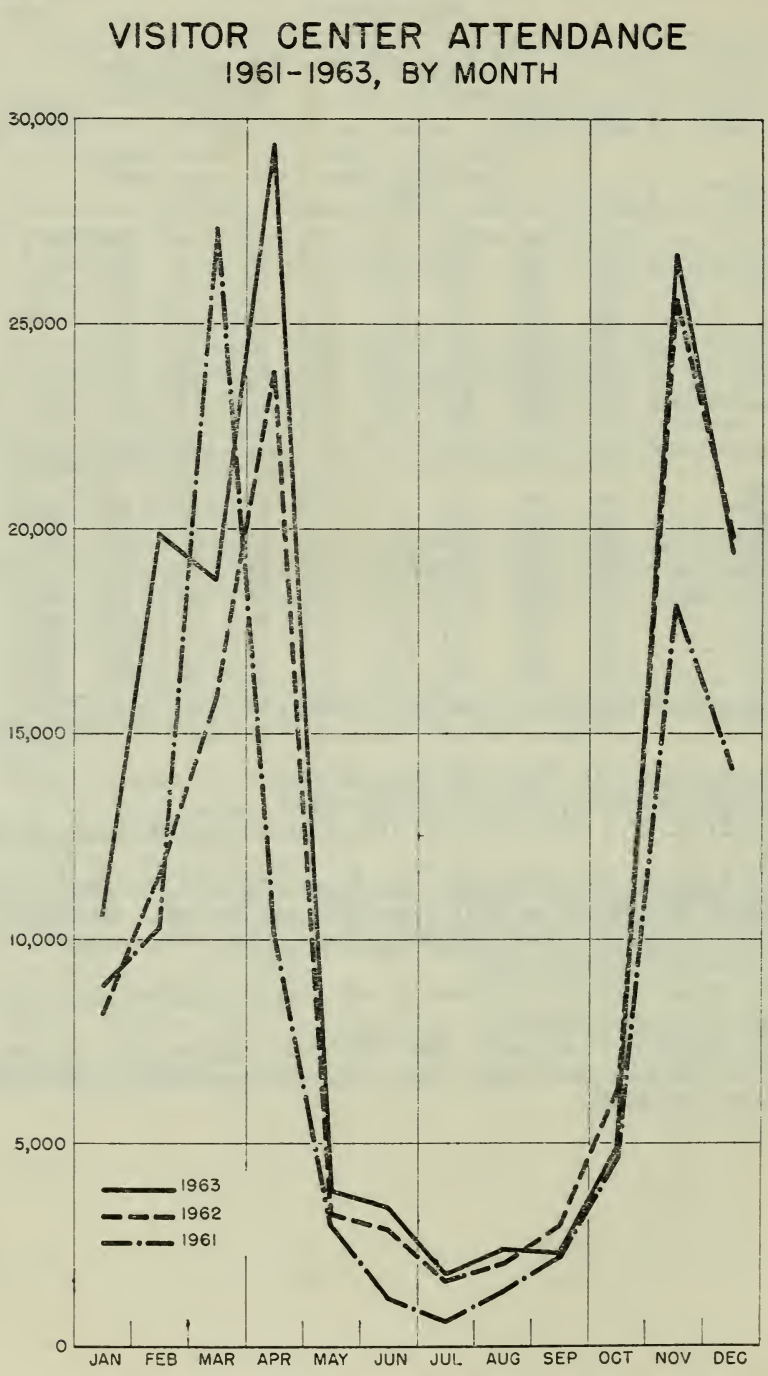
Mr. HILL. No; this is annual that they furnished to me, by the year.

Mr. INDRITZ. Mr. Chairman, the Superintendent of Death Valley National Monument at your inspection on Saturday furnished to the subcommittee a chart indicating the visitor peaks by months for the years 1961 through 1963.

Mr. Moss. Without objection, it will also be included at this point as an exhibit for the record.

Mr. INDRITZ. This chart, Mr. Chairman, shows that at certain times in the year the visitor center attendance reaches almost 30,000 visitors per month.

(The chart—Visitor center attendance, 1961–63, by month—follows:)



Mr. INDRITZ. Mr. Hill, you referred to the task force report of April 1962. Was that a report prepared by personnel of the Park Service?

Mr. HILL. There were two reports. One report was on development and the other one was on water requirements, both of which were prepared by the Park Service, and there was also a report prepared by the hotel company on their requirements.

Mr. INDRITZ. When the Park Service developed its report, was it given a directive by the Director of the Park Service to determine the extent of development to meet the visitor demand anticipated by the year 1980?

Mr. HILL. I believe that was correct.

Mr. INDRITZ. Was the task force also directed to determine the feasibility of expanding facilities in the Furnace Creek area to accommodate the visitation by the target date of 1980?

Mr. HILL. Yes; I think that is correct.

Mr. INDRITZ. Did the report of the task force indicate any intention to expand the public use portion of the building complex?

Mr. HILL. Would you repeat that, please?

Mr. MOSS. Will the reporter please read back that question?

(Record read.)

Mr. HILL. Not that I recall.

Mr. INDRITZ. Does Texas Spring now receive extensive use?

Mr. HILL. Yes; with both the hotel company and the Park Service drawing water out of Texas Spring. This, of course, is something that Mr. Spaulding can answer, or one of the other witnesses can answer, better than I can as far as the details of the quantity of water and its distribution.

Mr. INDRITZ. Does the Texas Spring campground receive maximum use?

Mr. HILL. During certain periods they have big peak days when they're overcrowded, but this is just on special weekends, vacations, when school is out, and so forth.

Mr. INDRITZ. Well, is the Texas Spring campground fairly adequate at that time?

Mr. HILL. I would say for the average day it probably is adequate, but it does not take care of the peakloads.

Mr. INDRITZ. The task force report describes the Texas Spring campground as "greatly overused and deplorably lacking in definition, organization, and refinement necessary for maximum enjoyment." Do you feel that that is a correct statement by the task force or do you disagree with that statement?

Mr. HILL. I think that is a correct statement because all you have to do is look at the area. It's quite barren. It's desert camping. It has not been developed on our normal campground program as we develop individual sites. But this is definitely included in the program for accomplishment.

Mr. INDRITZ. The task force report also urged that there be additional planting, more modern furnishings, adequate water, and sanitary facilities at the Texas Spring campground in order, as the report states, "that both become a credit to the Service rather than perpetuate the present deplorable situation." Do you agree with that statement of the task force report?

Mr. HILL. Yes, I think it can stand improvement. It should be improved for public use.

Mr. INDRITZ. The task force report recommended that there be a maximum of 200 sites at the Texas Spring campground, and in your statement you also mentioned that the Furnace Creek campground would be increased to approximately 200 sites. Is that so?

Mr. HILL. That is correct.

Mr. INDRITZ. Did the task force report recommend that trailer sites be provided?

Mr. MCCLORY. Mr. Chairman, I hate to object to any cross-examination of this witness, but to try to test his memory as to a report—I think it's a 1952 report—prepared by other people, I do not think is quite fair to the witness. If this is appropriate for our subcommittee to consider, I think the witness should have the whole report and if he is going to be examined with regard to it, I think he should be provided with a copy.

Mr. MOSS. We will lay a foundation for this. This is a report of a task force of 1962.

Mr. MCCLORY. I'd like to ask, Mr. Chairman, why I haven't been furnished a copy of this, why counsel retains it and doesn't furnish it to us so that we can be apprised of this, too? I have been looking through my file here to find out what he's talking about and I don't know what it is.

Mr. MOSS. The Park Service supplied the subcommittee with but one copy of this. It was prepared as a report to the regional director. Are you the regional director?

Mr. HILL. No.

Mr. MOSS. Or have you knowledge of the report?

Mr. HILL. Yes.

Mr. MOSS. Was the report initialed by you in part?

Mr. HILL. That is right.

Mr. MOSS. Are you intimately familiar with the report?

Mr. HILL. Well, I reviewed it and passed it on to the regional director or the portions that were prepared in our office, yes.

Mr. MOSS. Have you a copy of this report here?

Mr. HILL. No.

Mr. MOSS. Did you assume that you would be asked any questions on this report?

Mr. HILL. I imagined possibly I'd be asked questions in regard to water rights, but I don't consider myself an expert in this category. It is outside of my area.

Mr. MOSS. The Chair would like to state that in seeking witnesses from the Department, we asked them to supply us with witnesses who would be able to respond to questions concerning past and proposed development of the park area, who would have knowledge of the facilities required, now and in the future, for the servicing of the public. Are you, Mr. Hill, aware that that was the scope intended to be considered in the course of these hearings?

Mr. HILL Yes, that's correct?

Mr. MOSS. And so you should be able then to respond to questions on the planning of campsites at Death Valley?

Mr. HILL. Right.

Mr. McCLORY. Well, Mr. Chairman, I want to make my position clear. I'd have no objection to this whole report being placed in the record at the time the witness was being asked whether he is aware of the report and whether it represents a work of the Department, or something like that; but the thing that I am objecting to is the questioning which is in the nature of entrapment where we take out a single clause or phrase and then ask his opinion on that and whether he agrees with it, and that type of thing, which I think is unfair to the witness.

Mr. Moss. Well, the Chair will attempt to accommodate the point of the gentleman by instructing counsel to lay appropriate foundation before undertaking examination on the specifics of the report itself.

(The report follows:)

Report to the Regional Director, Anticipated Development, Water Resources and Use, Furnace Creek Area, Death Valley National Monument, in Accordance With the Director's Memorandum of April 5, 1962

Development Study Task Force, John B. Wosky, Granville B. Liles, and Alfred C. Kuehl; Water Resources Task Force, George F. Whitworth, Linn Spaulding, and David Sutton, May 21, 1962

DEATH VALLEY DEVELOPMENT STUDY TASK FORCE REPORT

In accordance with the Director's memorandum dated April 5, 1962, addressed to the Regional Director, Region 4, the Death Valley Development Task Force, the members of which are Superintendent Granville B. Liles, Landscape Architect Alfred C. Kuehl of WODC, and Regional Chief of Operations John B. Wosky, met in Death Valley on April 24–26. During the first 2 days of the meeting the problems of present and anticipated development of the Furnace Creek area along with the related water problem was discussed jointly with the water resources task force selected by the Director. The members of that task force are Regional Engineer G. F. Whitworth, Park Engineer David Sutton, and Supervising Highway Engineer Linn Spaulding of WODC, formerly hydraulic engineer of the region 4 staff.

The purpose of these joint discussions was to determine the extent of developent necessary to meet the demand as anticipated by the year 1980, and to determine the feasibility of expanding facilities in the Furnace Creek area to accommodate this visitation.

After tentative conclusions were reached the two task forces met with Mr. J. M. Gerstley, president, Death Valley Hotel Co., Dr. John F. Mann, water consultant for the company, and Mr. E. D. Smith, vice president of the company, on April 26 for the purpose of discussing the tentative conclusions of the Service's task forces and to review the company's anticipated development plans, which were presented in a well-prepared brochure.

The Furnace Creek area is the principal public use and administrative center in the monument. The current annual monument visitation is more than 400,000. On the assumption that the annual percentage of increase continues at the same rate of the past 5 years, an annual visitation of 700,000 or more can be expected by 1980. Approximately 100,000 visitors or 25 percent of the annual monument visitation visited the new visitor center during the period February 1961–January 1962. The largest monthly visitation occurred during March when 24,749 visitors were registered. The largest day use other than during the forty-niner encampment period occurred during December with 1,525 visitors.

The public use portion of this building complex is adequate and no future expansion is contemplated. An extension of the administration offices can be anticipated in the future. It was agreed that completion of the oasis planting surrounding the building complex should be accomplished in accordance with attached plan 3217.

The existing Texas Spring and Furnace Creek campgrounds receive their maximum use during the winter months when 75,000 camper days were recorded. During March there were 4,700 trailer occupant days and in December 6,764

trailer occupant days and 6,138 tent camper days. Generally speaking, more than 50 percent of all campers were trailerites. With the exception of the 10 or 15 developed campsites in the Furnace Creek area, Texas Spring continues to receive maximum use. The area is desirably situated with regard to land suitable for camp use, winter exposure, and relation to other public use facilities. It was found to be well maintained although greatly overused and deplorably lacking in definition, organization, and refinement necessary for maximum enjoyment. By redesign and redevelopment with recognition given to the need for wind screens, planting, modern furnishings, adequate water and sanitary facilities, the campsite capacity might readily be doubled to a maximum of 200 sites and become a credit to the Service rather than perpetuate the present deplorable situation. See attached plan 3127–B.

Completion of the Furnace Creek campground in accordance with the current approved plan number 3127–A which is attached is essential to meet the anticipated demand. This plan reflects the utilization of all suitable ground in the parcel and will provide approximately 200 campsites. Wind screen plantings and other details of proposed development are indicated on attached plan 3208.

The task force recommends that the Death Valley Hotel Co. expand its Furnace Creek trailer village facilities to meet the demands as they arise. There appears to be no need for competing facilities of this type. There should be no utility hookups provided by the National Park Service in the Texas Spring and Furnace Creek campgrounds for the convenience of trailerites. Those seeking such convenience can obtain them at the Furnace Creek Ranch.

There is also attached plan 3125–A, Furnace Creek area which shows the relationship of Visitor Center, Furnace Creek campground and Texas Springs campground to the Death Valley Hotel Co. property.

It is the conclusion of the development study task force that the public demand by 1980 will require the full development of the Furnace Creek and Texas Springs campgrounds as discussed above. It is also our conclusion that these developments will be taxed to capacity much sooner than the target date if they should be accomplished before that time. The task force also recommends the completion of the landscaping about the visitor center as indicated on plan 3217.

Mr. INDRITZ. Mr. Hill, I believe my last question was whether the Park Service has any plans for providing trailer sites to meet the demands of the public?

Mr. HILL. The hotel company now has a trailer camp within their Furnace Creek area, and we have encouraged them—I think the report does this—to expand this if this is desirable. After all, this is a big expense to the Government to provide these camps, and if they are willing this would be very desirable. The camp that they have is very adequate.

Mr. INDRITZ. Do you believe that there is a need within the monument for trailer sites?

Mr. HILL. Yes, very definitely.

Mr. INDRITZ. Has the company indicated that they will provide such additional trailer sites as are needed?

Mr. HILL. I do not think the task force reports have been resolved or that any agreements have actually been made as to any of the details. I think this is all subject to this question of resolving water rights and ownerships.

Mr. INDRITZ. I call your attention to the statement on page 4 of the task force report which states, I quote, "There appears to be no need for competing facilities of this type." If there has been no clear-cut resolution as to whether the company is going to provide such facilities, why does the task force report state that there is "no need for competing facilities" when you have just indicated that trailer sites are needed to meet the growing demand within the monument?

Mr. HILL. Well, if the hotel company can adequately take care of this phase of public need, why, I wouldn't think the Government would be involved in putting additional sites in.

Mr. INDRITZ. But at the time that the report was written there was no such resolution of that question as to whether the company would provide such sites, was there?

Mr. HILL. No, I do not think so.

Mr. INDRITZ. Mr. Hill, could you tell us the names of the persons who participated in the task force reports of the Park Service?

Mr. HILL. Mr. Kuehl from our office was our representative as far as the planning phases were concerned. From the regional office, I don't recall. I think it was Mr. Wosky and Mr. Spaulding.

Mr. MCCLORY. Mr. Chairman, the task force report undoubtedly speaks for itself as to who did this and I do not see any reason to test this man's memory as to the names of the individuals who prepared a report a year or two—whatever it was—ago. Why don't you read the names of the people that prepared the report and then ask him whether, in his opinion, that is correct? I don't see any reason to try to question the credibility of this witness by testing his memory on names. Maybe he has a good memory on figures but not on names or something. This isn't proper cross-examination, it seems to me.

Mr. INDRITZ. Mr. Hill, you mentioned the name of Mr. Kuehl as being in your office. Has he been under your supervision?

Mr. HILL. That's correct.

Mr. INDRITZ. Did he keep you fully informed of his participation and consideration in the preparation of these task force reports?

Mr. HILL. Yes. He reports on things of this nature when he comes back from his field trips as well as when he prepares a report.

Mr. INDRITZ. Did you see the reports before they were completed?

Mr. HILL. Yes; I think I did.

Mr. INDRITZ. Did you examine them?

Mr. HILL. I don't recall.

Mr. MOSS. Well, it's 12 o'clock. The Chair is going to have a copy of the report delivered to the witness and ask that during the lunch hour he refresh himself on the report.

The Chair would like to observe that, in view of the very clear delineation of the scope of this hearing given to the Department of the Interior, he is rather surprised that the gentleman does not come before the subcommittee with a copy of this report which does deal with matters of design and plan in connection with further developments of the park so that he would be prepared to respond to the questions based upon that report very specifically.

The subcommittee will stand in adjournment until 1:30 p.m.

(Whereupon, at 12 m. the noon recess was taken.)

AFTERNOON SESSION

Mr. MOSS. The subcommittee will be in order.

At this time I would like to read into the record two letters which I have directed to the Secretary of the Interior.

(The first letter of December 6, 1963, follows:)

Hon. STEWART L. UDALL,
Secretary of the Interior,
Department of the Interior,
Washington, D.C.

DEAR MR. SECRETARY: As you know, we have been looking into various aspects of National Park Service operations in Death Valley National Monument. It is now expected that the subcommittee will hold a hearing on these matters during the latter part of January 1964. The purpose of this letter is to let you know of this hearing and of our desire to receive testimony from a number of departmental officials as indicated generally below:

With respect to water resources within the monument: Mr. Fred Kunkel, district geologist, Ground Water Branch, U.S. Geological Survey, Sacramento, Calif.; Mr. T. W. Robinson, research engineer, General Hydrology Branch, U.S. Geological Survey, Menlo Park, Calif.

With respect to National Park Service activities in the monument, particularly under the Mission 66 program, the proposed land exchange and water rights adjustment under the Exchange Act of 1958, and the current situation and plans concerning the monument:

Mr. Conrad Wirth, Director, National Park Service (recently, Mr. Wirth had an informal conversation with us. He stated that the projected date of the hearing does not conflict with his present plans and that he will be present to testify); Mr. Sanford Hill, Chief, western office, division of design and construction, National Park Service, San Francisco, Calif.: Mr. Linn S. Spaulding, supervisory highway engineer, western office, division of design and construction, National Park Service, San Francisco, Calif.: Mr. George W. Norgard, regional architect, western regional office, National Park Service, San Francisco, Calif.; Mr. Fred W. Binnewies, superintendent, Point Reyes National Seashore, Point Reyes, Calif.

Also, with respect to the legal status of water rights in the monument, we should like to have a representative of the Office of the Solicitor at the hearing to present an analysis and statement of departmental position.

In addition, with respect to the matter of the accuracy of private and Government land surveys within the Furnace Creek area of the monument, we should appreciate receiving the expert testimony of a qualified official of your Department.

We will write to you in the near future with more specific information on the hearing.

Sincerely yours,

JOHN E. MOSS,
Chairman, Special Subcommittee on Death Valley National Monument.

Mr. Moss. And under date of December 30, 1963, I sent a letter addressed also to the Secretary, confirming the hearings scheduled as of this date, January 27, 28, and 29, reaffirming the interest of the subcommittee in hearing from the witnesses previously named, and confirming the scope of the hearings as those previously stated.

Then an additional paragraph:

It would also be helpful to the subcommittee to have the hearing open with a presentation by a representative of the Park Service who would, with the aid of appropriate maps, diagrams, photographs, and other pictorial exhibits, (*a*) describe the geography and the location of relevant structures and lands of Death Valley National Monument, particularly the Furnace Creek area, and (*b*) inform the subcommittee concerning the monument's present developments and visitor use, and the Park Service proposals for future development of the monument and its estimates of visitor use in the next 15 years. We would appreciate receiving the name of the person who will make this presentation as early as possible, so that our staff may discuss with him the kinds of exhibits that may be most helpful.

Sincerely,

JOHN E. MOSS,
Chairman, Special Subcommittee on Death Valley National Monument.

It is in response to those two letters and the requests contained therein that you are here today and are prepared to testify in full in response to questions on the scope as outlined in those letters; is that correct?

Mr. HILL. Yes, sir; as far as I am qualified to cover certain areas in the development phases, yes.

Mr. MOSS. You now have had an opportunity of reviewing the report to the regional director, anticipated development, water resources and use, Furnace Creek area, Death Valley National Monument, in accordance with the Director's memorandum of April 5, 1962. Do you at this point feel fully qualified to respond to questions based on that report?

Mr. HILL. Yes.

Mr. MOSS. With that understanding, the subcommittee counsel will proceed.

Mr. INDRITZ. The last question I asked prior to the luncheon recess was whether Mr. Kuehl was under your supervision, Mr. Hill.

Mr. HILL. That's right.

Mr. INDRITZ. Did you participate in the preparation or review of this report?

Mr. HILL. That's correct.

Mr. INDRITZ. Are there copies of proposed plans attached to the report which bear your name as a recommending official?

Mr. HILL. I think I have the same report you have, and there are plans, yes.

Mr. INDRITZ. Now, calling your attention to page 4 of the report of the Death Valley development study task force, the last paragraph states:

> It is the conclusion of the development study task force that the public demand by 1980 will require the full development of the Furnace Creek and Texas Spring campgrounds as discussed above.

The second sentence of that same paragraph reads:

> It is also our conclusion that these developments will be taxed to capacity much sooner than the target date if they should be accomplished before that time.

Now, Mr. Hill, if the Director of the Park Service had instructed the task force to provide recommendations with a target date of 1980, how could that directive be met by a report which indicates that the developments, which are being recommended in this report, would be taxed to capacity much sooner than the target date?

Mr. HILL. Well, this is typical of campgrounds, I think, generally, whenever they're finished, they're usually used. Apparently this is what the task force in their determination of their recommenadtions indicated here, that if the 400 campsites were finished prior to 1980, they possibly would be used to full capacity.

Mr. INDRITZ. Well, if the target date of 1980 means that there should be developments recommended which would provide adequate campground facilities to meet the public demand at that time in 1980, shouldn't the task force have recommended a substantially larger form of development than the development recommended in this report?

Mr. HILL. No; I don't think so. I think this is their best judgment as far as 1980, and what they think their report should include, 400 campsites for the Furnace Creek area.

Mr. INDRITZ. Well now, if the 400 campsites in those two areas would be taxed to capacity much sooner than the target date, which is the language stated here, would this mean that in 1980 they'd again be substantially overtaxed as they are now?

Mr. HILL. Well, this is a difficult question to answer. I think what they were thinking of was that they were going to have peakloads in which their campgrounds are taxed even on special days during the normal course of the summer, but I would say that this is their best prediction for 1980. The statement they made of being overtaxed in advance, I think, is an afterthought. I think their principal recommendation here is 400 sites by 1980.

Mr. INDRITZ. Would 400 sites be sufficient to take care of visitor demands, such as 30,000 persons per month, that now occur?

Mr. HILL. 400 sites?

Mr. INDRITZ. Yes. Earlier this morning there was introduced into the record a tabulation of visitor use prepared by the Superintendent of Death Valley National Monument, which indicated that at times there are as many as 30,000 persons per month.

Mr. HILL. Well, 30,000 persons per month visitation—that's the visitation to Death Valley, as I understand it, not necessarily camper-days, is it?

Mr. INDRITZ. The chairman had it introduced in the record earlier this morning. Would 400 sites be a sufficient number of campsites to serve visitors amounting to as much as 30,000 per month?

Mr. MCCLORY. Well, Mr. Chairman, I object to the question to this witness. We are talking about 30,000 daily visitors. There is no evidence that there are 30,000 overnight campers that are going to be there every day. That isn't proper cross-examination of the witness.

Mr. Moss. In 1963 the monument had a peak period occurring in the month of May of approximately 30,000 visitors.

Mr. HILL. That is 30,000 visitors.

Mr. Moss. That's correct.

When we refer to the tabulation compiled by the Park Service covering the period 1952 to 1975, we find that in 1963, in the period just mentioned—the period was actually 7 months, January to April, plus October to December—there were 180,000 overnight visits, 497,000 visitor-days; camper-days, 103,000; paid facilities, 81,000. There would appear to be some relationship established, then, between visitor attendance at the monument and those who stay overnight at the monument. Would you say that that is a valid conclusion?

Mr. HILL. I'd have to have that piece of paper in front of me to get the answer.

Mr. Moss. All right. We will place it in front of you. Let us just draw from your own experience, and we will take it in connection with any national park facility. Is there a relationship normally established between total visitors and the number who stay overnight in the facility?

Mr. HILL. Well, I imagine you could probably find that, but I have no way of coming up with an answer at this time.

Mr. Moss. Those who make projections for increases in attendance must have arrived at some established relationship between visitors and the demand of visitors for facilities. Is that a reasonable assumption?

Mr. Hill. I think so. Yes.

Mr. Moss. The question then goes to whether or not it is your judgment that with a 30,000-a-month total visitor attendance at the park, 400 campsites would be adequate to meet the demands of those vitisors?

Mr. Hill. Well, I made some quick figures here. With 400 campsites, figure three and a half people per campsite, and sometimes this goes higher, this runs about 1,500 to 1,600 campers per day, and multiplying that by 30, you get around 50,000.

Mr. Moss. Then your response would be that in your judgment the 400 figure would be adequate?

Mr. Hill. For 1970, according to the recommendations of the task force.

Mr. Moss. The question was on a 30,000-visitor attendance, would the 400 be adequate?

Mr. Hill. It would more than be adequate.

Mr. Moss. All right. Now then, the report which you have before you on page 4 makes this statement:

> It is the conclusion of the development study task force that the public demand by 1980 will require the full development of the Furnace Creek and Texas Spring campgrounds as discussed above. It is also our conclusion that these developments will be taxed to capacity much sooner than the target date if they should be accomplished before that time.

Now, this subcommittee is charged with examining into the efficiency of management and planning. If this is the conclusion, could you interpret for me what it means? It appears to me that it is contradictory, that it says that there is a requirement for full development and it recommends what is assumed to be a full development figure; but it further observes that if that development is made before 1980, that considerably in advance—let's be accurate here—much sooner than the target date, they would already be overtaxed.

Could you interpret for me what they mean? Have they then in the original recommendation recommended a figure adequate for the target date, or have they not?

Mr. Hill. Well, I think they have recommended adequately for their target date of 1980. I think this statement that they have made is an addition to their prediction—I can't really explain why it is stated in that way.

Mr. Moss. Then on the basis of your own information, you would regard that conclusion as perhaps being erroneous?

Mr. Hill. Well, I guess you could call it that if you——

Mr. Moss. I would much prefer that you characterize it rather than that I should.

Mr. Hill. Well, I think this extra statement in there involves cases where the development on special days would probably go over the capacity.

Mr. Moss. Does that deal with special days, or does it deal with a period much sooner than the target date?

Mr. Hill. It says much sooner here.

Mr. Moss. Then do you think the subcommittee should regard that as dealing with special days, or do you think it should regard it as some date between 1965 and 1980?

Mr. HILL. I think we better go back and ask the committee that worked on this exactly what they meant.

Mr. MOSS. Then you have no opinion?

Mr. HILL. No.

Mr. MOSS. Thank you.

Mr. INDRITZ. Mr. Hill, how far apart are Cow Creek and Furnace Creek Ranch?

Mr. HILL. It's about 4 or 4½ miles.

Mr. INDRITZ. Does the distance between Cow Creek and the Furnace Creek area adversely affect the recreational or off time of the park employees and their families?

Mr. HILL. Does this distance, you say, affect the——

Mr. INDRITZ. Let me phrase the question just a little differently. If the headquarters area employees' residence area were closer to the Furnace Creek area, would that facilitate the recreational opportunities for the employees and their families?

Mr. HILL. I don't think so. I think if they were closer, it would have some advantages, but I don't think it affects their personal lives to any great extent, as far as recreation is concerned.

Mr. INDRITZ. Well, have there been any complaints by the employees that they do not have adequate recreational opportunities within the Death Valley area?

Mr. HILL. None that I know of.

Mr. INDRITZ. As the visitation to the Death Valley National Monument increases, will there be increased needs for more Park Service personnel?

Mr. HILL. Well, this would normally come, yes, but the charts that I showed you this morning and the statement I made this morning about reducing the number of employees by the Director's Office from 63 to 41 and from 41 down to 29 would definitely indicate that the 29 is more in line with the facilities there than the Mission 66 prospectus estimates.

Mr. INDRITZ. You say more in line with the facilities? What facilities are you referring to?

Mr. HILL. The Government operation, the need for employees to handle the visitors, which is their primary responsibility.

Mr. INDRITZ. Are you then saying that at the present time the number of employees at the monument is fully adequate to take care of all the needs of the public and the Park Service?

Mr. HILL. The management report from the regional office, which is a 1957 report, I believe, is the one that set the personnel ceiling at 29 permanent people at headquarters. Now, in the outlying areas, there are three ranger and maintenance districts, at Grapevine, at Wildrose, and at the south end of the park, that have four residences. This would indicate that there are additional people required in those locations, in addition to the 29 at headquarters.

Mr. INDRITZ. Was that figure of 29 employees based upon the visitation as of the date of that management report?

Mr. HILL. That's correct.

Mr. INDRITZ. When was that management report made?

Mr. HILL. 1957.

Mr. INDRITZ. According to the visitation statistics placed into the record earlier by the chairman, the total number of visitors in 1957

was 333,000; in 1963 it was 408,000; and projected to 1975, it is 564,000, which is almost double that of 1957. Is it likely that with the increase in the number of visitors, there will be a need for more permanent employees of the Park Service?

Mr. HILL. The prediction what was it for 1970?

Mr. INDRITZ. For 1975, the prediction of total visitors was 564,000.

Mr. HILL. 564,000.

Mr. INDRITZ. According to the statistics provided by the National Park Service.

Mr. HILL. Well, to give you a relationship here with some of the other parks and the number of visitors that are coming to the parks, for instance, Yosemite, they have in the valley floor—this is a well-established park—77 permanent employees, and on this basis they handle a million and a half people. You take 77 and divide that by 3, and what do you get? About 26, which is one-third of 1,500,000. So this is why I think that the figure that they have established at 29 is realistic. It is based upon the experience that our managers have developed.

Mr. INDRITZ. Aren't the conditions at Death Valley somewhat different from those of other parks?

Mr. HILL. Well, we are talking now in terms of people. It's just as important to handle people in Death Valley as it is in Yosemite. Talking about visits, the people that visit Yosemite are equally as important to the Park Service as the people that visit Death Valley, and vice versa, and the number of people that they allow the Park Service to place in these parks has a relationship to the capacity, the workloads that they have and the visitations they have.

Mr. INDRITZ. Are you testifying that the expected increase of visitors to the monument by 1975 will require little or no increase in personnel of the Park Service?

Mr. HILL. I am going on the basis of the management report. I am not sure whether that's a 1975 figure or not. I am using the figures in comparison of visitations of a million and a half visitors in Yosemite, as compared with a half million in Death Valley, and the staff at Death Valley is about one-third, which is one-third of your total visitation. So I'd say that your present staff could handle your 564,000 visitations in 1975, as you have phrased the question.

Mr. INDRITZ. Has there been any additional housing provided in the Cow Creek area within the last 3 years?

Mr. HILL. We built 18 under the Mission 66 program, and I think they have just recently finished remodeling 5 of the CCC constructed residences. I am just not sure how many it is.

Mr. INDRITZ. Have there been any additional trailers put there on a temporary basis?

Mr. HILL. Yes, they have a Government trailer area. I am not familiar with the details of how many trailers they have exactly. I think others that may testify may have a better picture for you than I do. But they do have an area where they have trailers for Government employees, as well as trailers in the Cow Creek area that take overflow visitor campers. That is in this area here (indicating). The Government trailers are over on this side.

Mr. INDRITZ. If expansion of employee housing is required at Cow Creek, does Cow Creek have sufficient space for expansion?

Mr. HILL. Yes, I think so, on the basis of the last management report, and I will show you why. I'd like to refer to these exhibits. We are going into what is called group housing with the saving of utility lines and considerable savings in cost of landscaping. This group housing will place the buildings much closer together, and we feel that we have designs that will serve this purpose very well. I will present some colored pictures, one set of colored pictures that I have of the development down at Carlsbad that we have just finished which shows this type of construction. We will be able to get quite a few more residences in Cow Creek than they have indicated are required in the management report. We have a development of this type at the Petrified Forest now, and at Carlsbad, and this is an attempt to cut down on utility lines, costs, roads, all phases of construction.

I would say that the one plan (exhibit 9, p. 29) that we showed you first of the Cow Creek area had 43 campsites, that we could increase that up to as many as 50 with this type of housing.

Mr. MCCLORY. Forty-three campsites or house sites?

Mr. HILL. House sites I am sorry.

Mr. MOSS. Mr. Hill, on April 24, 1956, a memorandum to the regional director from the regional chief of maintenance and the regional architect was prepared and the subject was: "Location of Permanent Headquarters, Death Valley." Are you familiar with that memorandum?

Mr. HILL. No; I would have to really see it to remember a date like that.

Mr. MOSS. I will hand you the memorandum.

(The document, D–3, handed to Mr. Hill.)

Mr. MOSS. Examine it and tell me if you are familiar with it. Let me know if you are not and we will reserve questions until another witness is before us.

Mr. HILL. Yes; I think I am familiar with it.

Mr. MOSS. Well, I would want to be certain that you are familiar with it. Are you familiar with it?

Mr. HILL. Yes; I am familiar with it.

Mr. MOSS. Were you familiar with it prior to this time?

Mr. HILL. That's right.

Mr. MOSS. Then would you care to comment on the third sentence of the first paragraph on page 3?

Mr. HILL. The first sentence of the third paragraph?

Mr. MOSS. No; the first paragraph, third sentence, page 3, the top of the page. "From our observations" is the starting point of the sentence. That's the subject I want you to comment on.

Mr. HILL. This deals with the present Cow Creek headquarters and the statement for the record is—

D–3

From our observations of the Cow Creek area, expansion beyond the present development will require using scattered, narrow-fingered, rocky barren sites.

Is that what you want me to comment on?

Mr. MOSS. That's correct.

Mr. HILL. Well, I think the plans that I just handed to you are partially the answer to being able to use the area which is now developed, and we should be able to handle the necessary expansion at Cow Creek with the 29 that have been authorized. I would say that we could go up as high as 45 to 50 sites on the present area without

going into these areas that they're talking about in this particular paragraph.

I can show you better on this exhibit 3 (page 30). What they're talking about in this particular case are these areas up above the present housing area [indicating], and it would mean running the roads over the building sites and additional utility lines, additional road costs, everything would cost more in that case, and we feel that we have a better answer for it within the present Cow Creek area, within the area that is available that already has utilities.

Mr. McCLORY. May I ask a question to clarify something in my mind?

Mr. Moss. Certainly, Mr. McClory.

Mr. McCLORY. In other words, in this letter of April 24, 1956, from Mr. Hilton and Mr. Norgard, the housing development that they are referring to for employees is in the Furnace Creek area which was not developed, and what you are telling us now is that the Cow Creek area is susceptible to adequate development for employees?

Mr. HILL. That is correct.

Mr. McCLORY. In the sentence which you read it was stated that the type of housing for employees would be spread out a lot, and you are telling us now that more recently you have come to the conclusion that group housing for employees is more economical and requires less space?

Mr. HILL. That's correct. It's used in desert country.

Mr. McCLORY. Has that type of group housing development for employees been accepted or recommended since this 1956 letter?

Mr. HILL. Yes. As a matter of fact, the facilities down at Carlsbad were finished just a year ago. The facilities over at Painted Desert, which are very similar to this group housing, have also been finished within the past 2 years. This has been harder to sell as far as the Service is concerned, but it's being forced on us by economies all up and down the line in our construction program. This is one of the things the Bureau of the Budget and the Appropriation Committees are after us all the time on.

Mr. McCLORY. Is this letter to which we have made reference in the nature of a preliminary interoffice recommendation subject to further review and revision?

Mr. HILL. I believe this is just a report of a trip to the field. This is just a trip report.

Mr. Moss. Well, now, Mr. Hill, I think it would be helpful if you'd respond to the question as I stated at the beginning of our exchange here, the third sentence—

D-3.

From our observations of the Cow Creek area, expansion beyond the present development will require using scattered, narrow-fingered, rocky, barren sites.

I merely asked for your observation on that.

Mr. HILL. I think that is a correct statement, but we do not intend to go out there now because it is not necessary at Cow Creek.

Mr. Moss. Well, aren't we talking about Cow Creek? Isn't that the present area?

Mr. HILL. That's right.

Mr. McCLORY. You mean they're talking about Furnace Creek?

Mr. HILL. No.

Mr. Moss. No; they're talking about Cow Creek.

Mr. HILL. Don't get me mixed up.

Mr. Moss. Furnace Creek gets into other matters, but this is the Cow Creek area.

Mr. HILL. That's right.

Mr. Moss. And with the type of development you are proposing here, will you have to use "narrow-fingered, rocky, barren sites?"

Mr. HILL. No. I will explain why. Because we are going to stay within this area [indicating].

Mr. Moss. Those houses at the headquarters at the present time back up to a rather steep wash or gorge, do they not?

Mr. HILL. Right.

Mr. Moss. Do these people have families?

Mr. HILL. Oh, certainly.

Mr. Moss. Has this caused any concern?

Mr. HILL. Well, I imagine the wives are always concerned about their children.

Mr. Moss. I would think that was a safe assumption. I think you might give us something a little more constructive than that. Surely you are able to.

Mr. HILL. I would say "No."

Mr. Moss. You would say that there is no concern. I would say that the statement personally obtained by me from the superintendent would indicate to the contrary. However, you have been dealing with him far longer than I have and if you had no indication of concern——

Mr. HILL. There has been no indication whatsoever.

Mr. Moss. All right.

Do you have any other questions to ask Mr. Hill at this time, Mr. McClory?

Mr. MCCLORY. No.

Mr. Moss. Mr. Hill will be available to us for a callback during the next 2 days if you have any further questions.

You may step aside, Mr. Hill.

We will now call Mr. Fred Kunkel, district geologist, Ground Water Branch, U.S. Geological Survey, Sacramento, Calif.

Mr. Kunkel, will you come forward and be sworn?

(Fred Kunkel, district geologist, Ground Water Branch, U.S. Geological Survey, called as a witness on behalf of the Special Subcommittee on Death Valley National Monument, was duly sworn.)

TESTIMONY OF FRED KUNKEL, DISTRICT GEOLOGIST, GROUND WATER BRANCH, U.S. GEOLOGICAL SURVEY, SACRAMENTO, CALIF.

Mr. Moss. Will you identify yourself for the record?

Mr. KUNKEL. I'm Fred Kunkel, district geologist for the Ground Water Branch of the Geological Survey. My offices are in Sacramento, Calif.

Mr. Moss. And are you prepared to give testimony and to respond to questions on all matters pertaining to the water resources of the Death Valley National Monument, particularly Furnace Creek, Texas Spring, and Cow Creek?

Mr. KUNKEL. I am.

Mr. Moss. Do you have a prepared statement?

Mr. KUNKEL. I do not have a prepared statement. I submitted two reports to the subcommittee on earlier dates.

Mr. Moss. Those the subcommittee has had available and they are in the hearing folders for members and the staff.

Mr. KUNKEL. Correct.

Mr. Moss. Mr. Indritz, will you proceed?

Mr. INDRITZ. Mr. Kunkel, would you please describe the ground water situation in the Furnace Creek Wash Area?

Mr. KUNKEL. I would like to do that from the two reports that are in the subcommittee files at the present time. I have one extra copy which I can give to the clerk, and several copies of the other report if they are needed. Does everybody have a copy?

The titles of the two reports for the record are: "A Brief Geologic and Hydrologic Reconnaissance of the Furnace Creek Wash Area, Death Valley National Monument, Calif.," by M. A. Pistrang and Fred Kunkel. The edition that I have is dated 1962 and it contains measurements through December 28, 1962.

Mr. MCCLORY. How many copies of that did you furnish to the subcommittee?

Mr. KUNKEL. I do not recall. Several.

Mr. MCCLORY. I haven't seen a copy of that. I have the small one, "A Brief Summary."

(Report by Pistrang and Kunkel (1962) handed to Mr. McClory by Mr. Kunkel.)

Mr. KUNKEL. The second report is entitled, "A Brief Summary of Ground Water in the Furnace Creek Wash Area, Death Valley National Monument, Calif.," by Fred Kunkel, dated 1963. Both reports have an illustration called figure 2, which is the same in both reports.

Very briefly, the geologic units on figure 2 are outlined—from the oldest to the youngest—basement complex, continental deposits, lacustrine deposits, fanglomerate, older alluvium, travertine, and younger alluvium. The basement complex is composed of the oldest rocks in the area. Rocks of the basement complex are principally undifferentiated rocks of igneous and metamorphic origin. They form the mountains and occur at depths beneath the floor of the valley. In the area of figure 2 they form the Funeral Mountains. The surface of the basement complex dips generally southwesterly beneath the Furnace Creek Wash Area. It is from the mountains that the torrential storms in the geologic past have washed down clay, silt, sand, and gravel that have formed the alluvial deposits.

(The report, entitled "A Brief Summary of Ground Water in the Furnace Creek Wash Area, Death Valley National Monument, Calif.," dated 1963, follows:)

A BRIEF SUMMARY OF GROUND WATER IN THE FURNACE CREEK WASH AREA, DEATH VALLEY NATIONAL MONUMENT, CALIF.

(By Fred Kunkel, prepared at the request of the National Park Service, Sacramento, Calif., 1963)

In October 1955 the Geological Survey, at the request of the National Park Service, began an investigation of the occurrence of ground water in the Furnace Creek Wash Area of Death Valley National Monument (fig. 1). The results of that study are given in U.S. Geological Survey duplicated open-file report, "A Brief Geologic and Hydrologic Reconnaissance of the Furnace Creek Wash Area,

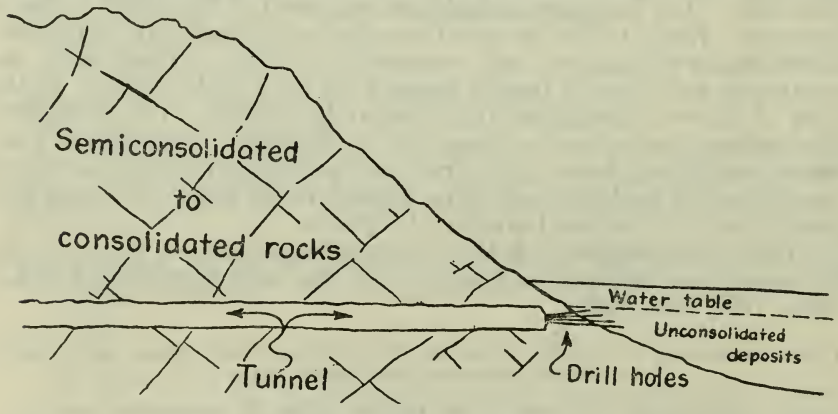
Death Valley National Monument, Calif.," by M. A. Pistrang and Fred Kunkel, 1962. The findings contained in that report are briefly stated in this summary. Also presented are the geologic map (fig. 2) from Pistrang and Kunkel (1962) and an additional illustration depicting schematically the occurrence of ground water in the area (fig. 3).

Ground water in the Furnace Creek Wash area is part of a single interrelated and interconnected hydraulic system. However, the ground water has several modes of occurrence. The principal occurrence is north of Travertine Springs where a canoe-shaped syncline (figs. 2 and 3) contains unconsolidated alluvial deposits of sand and gravel washed down from the Funeral Mountains in the eastern part of the area shown by figure 2. The sand and gravel of the alluvial deposits are permeable and beneath the water table all the pore spaces in the deposits are saturated. The rocks that form the syncline are semiconsolidated to consolidated and, except for water in cracks and fractures, are poorly water bearing. The water in the unconsolidated deposits, shown diagrammatically in figure 3, does not occur and move in distinct channels but percolates from high head or water level through all the pore spaces beneath the water table to points of low head or discharge.

The springs of the Texas-Travertine area occur where the water table intersects land surface or where intersecting cracks and fractures in the semiconsolidated and consolidated rocks in direct continuity with the water in the alluvium intersect land surface. A tunnel such as the Texas Spring tunnel or a water well such as the test well drilled in sec. 24, T. 27 N., R. 1 E. (fig. 2) by the Park Service also draws water from the water body in the alluvium. Consequently, any water pumped by the well or intercepted by the tunnel must reduce the water discharged by the springs or other downstream diversions.

A second occurrence of ground water in the Furnace Creek Wash area is in the unconsolidated deposits of boulders, coarse gravel, and sand that occupy the bed of Furnace Creek Wash. Upstream from about the west edge of sec. 31, T. 27 N., R. 2 E. (fig. 2), where owing to a manmade ditch to divert the flood-flow of Furnace Creek Wash into Gower Gulch the full thickness of the unconsolidated deposits can be observed in the streambed to be completely unsaturated. However, from about the east edge of sec. 26, T. 27 N., R. 1 E., water occurs at or near the surface in the unconsolidated alluvial deposits. In sec. 26 the alluvial deposits are dewatered by a sump and buried tile.

The water contained in the alluvial deposits of Furnace Creek Wash is percolating ground water derived from the same common source of recharge as water in the syncline. However, the alluvial deposits in the wash are contained in a well-defined channel of semiconsolidated to consolidated rocks.



A third occurrence of ground water in the Furnace Creek Wash area is in the vicinity of the Furnace Creek Inn. At that site, a tunnel drilled through semiconsolidated to consolidated rocks intercepts small quantities of water in cracks and fractures. However, the end of the tunnel driven from north to south was stopped in the consolidated rocks, and a number[1] of drill holes about 2 inches in diameter were drilled ahead from the face of the tunnel until they tapped the water-bearing unconsolidated alluvium of Furnace Creek Wash as shown by the sketch below. A flow of about 0.3 cubic foot per second discharges from these drill holes.

The total estimated flow of ground water in the Furnace Creek Wash area in 1956–57 was as follows:[2]

[Discharge in cubic feet per second]

I. Water from the synclinal area:	
1. Travertine Springs diverted to DVH Co. irrigation system	1.9
2. Texas Spring tunnel	.5
3. Undeveloped springs, seeps, or phreatophyte areas (estimated)	.1
4. Evapotranspiration above points of measurement	.5
Subtotal	3.0
II. Furnace Creek Wash:	
5. Sump	1.3
6. Buried tile	.4
Subtotal	1.7
III. Furnace Creek Inn area:	
7. Tunnel	.3
8. Underflow to Death Valley	Unknown
Subtotal	.3
Total	5.0

All the details of the hydraulic system are not perfectly understood. However, the relationships between the various parts are such than any substantial withdrawals from the synclinal area ultimately will have an effect on the amount of water available in Furnace Creek Wash and at the inn. Development in Furnace Creek Wash probably will have no effect on the discharge from the synclinal area but will have an appreciable effect on water available at the inn. Further development at the inn probably will have no effect on the syndinal area or in Furnace Creek Wash except possibly to intercept underflow in the wash that now wastes to Death Valley.

Underflow from the Furnace Creek Wash area ultimately discharges into a water body beneath Death Valley. That water body, however, is brackish to very salty and probably cannot be considered as a source of potable water except along the margins of the area where some underflow from tributary drainage might be intercepted.

Underflow that can be intercepted before it discharges into the body of salt water may be a source of potable water. A sample of water collected by T. W. Robinson (personal communications) on February 27, 1963, from an auger hole in the NW¼NE¼ sec. 16, T. 27 N., R. 1 E., at a depth of 19 to 20.5 feet had a chloride of 370 parts per million and a specific conductance of 3,600 micromhos. This is not potable water, but could be used to irrigate some salt-tolerant plants such as tamarisk and bermuda grass. Also any development by drilling wells and pumping in this area probably would be a skimming operation, but properly operated, probably could augment the potable supply.

[1] The number was not counted but to the best recollection of the writer was on the order of 8 to 12.

[2] There has been no appreciable change to date (July 1963).

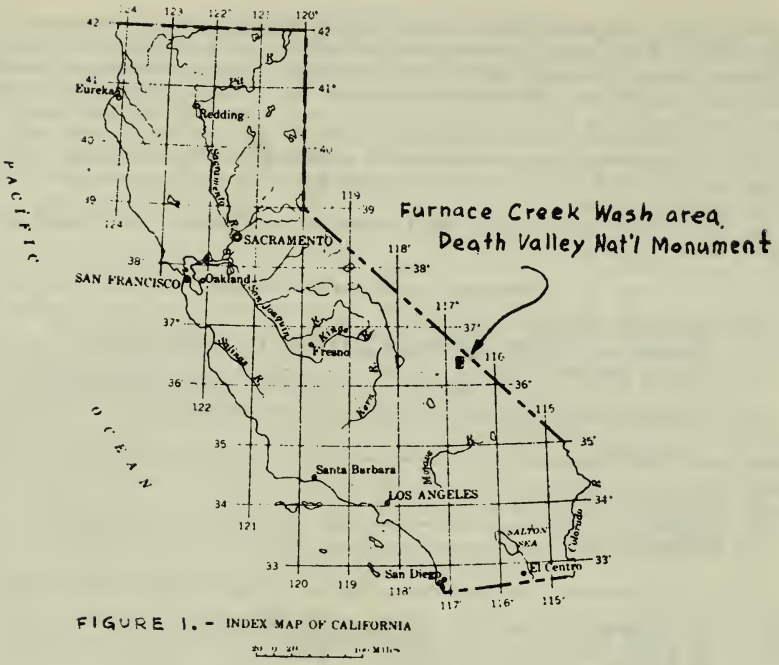


FIGURE 1.- INDEX MAP OF CALIFORNIA

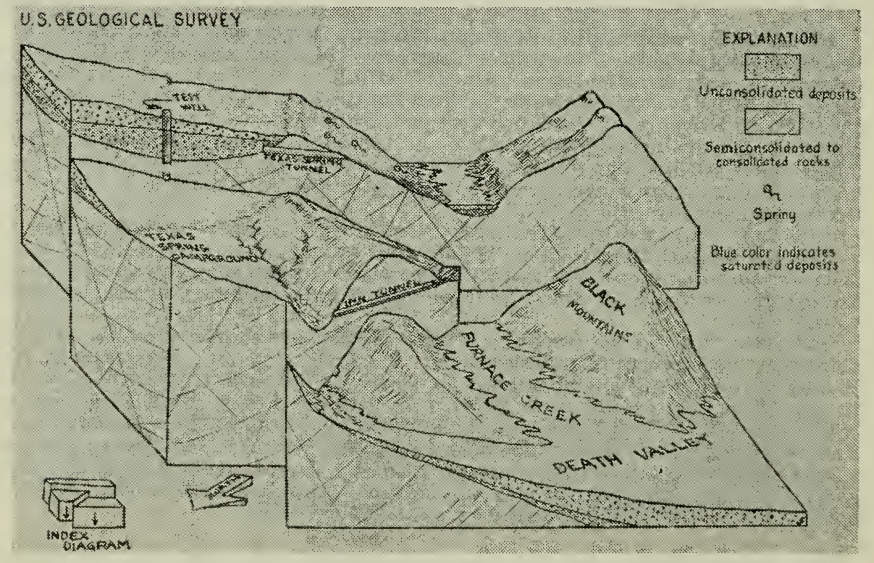


FIGURE 3.—Schematic block diagram of the Furnace Creek wash area, Death Valley National Monument

35-429 O - 65 (Face p. 68)

FIGURE 2

EXPLANATION

Qyal — Younger alluvium
Alluvial-fan and wash deposits. Mainly well-rounded cobbles and pebbles derived in large part from the older alluvium. The surface materials lack desert varnish.
Recent

Qt — Travertine
Calcium carbonate precipitated from ground water at the sites of existing and former springs.
Pleistocene and Recent

Qoal — Older alluvium
Dissected alluvial-fan deposits. Mainly boulders, cobbles, and pebbles and interstitial sand and silt, derived from rocks of the basement complex. Moderately cemented and where undissected the surface materials are covered with desert varnish.

Pleistocene

QI — Conglomerate
Dissected, deformed, and cemented alluvial-fan deposits. The material ranges in size from boulders to silt derived from rocks of the basement complex. Angular, poorly sorted, and generally well cemented with travertine and veins of any.

QUATERNARY

QTl — Lacustrine deposits
Predominantly tuffaceous silt and clay, moderately indurated.

QTc — Continental deposits
Conglomerate and mud-flow debris derived from volcanic rocks of the Black Mountains and from rocks of the basement complex. Includes beds of sand and silt. Also includes undifferentiated continental deposits in the northern and eastern map area.

Pliocene

TERTIARY

bc — Basement complex
Undifferentiated rocks of the Funeral Mountains, predominantly dolomite and quartzite of Cambrian age.

PRE-TERTIARY

U / D — Fault
Dashed where inferred, dotted where concealed. U, upthrown side; D, downthrown side.

Axis of syncline

Axis of anticline

12 — Strike and dip of bed

Test well

PI — Well

BI — Tunnel, buried line, or excavation

RI — Spring, flowing

KI — Seep, flow too small to measure

R2 — Phreatophyte area

Letter after discharge point indicates position in section thus:

D	C	B	A
E	F	G	H
M	L	K	J
N	P	Q	R

Base from parts of the Furnace Creek and Chloride Cliff topographic quadrangle maps (1:62,500 scale)

Geology generalized after unpublished mapping of C. B. Hunt by M. A. Pistrang, 1937

MAP OF THE FURNACE CREEK WASH AREA, DEATH VALLEY NATIONAL MONUMENT, INYO COUNTY, CALIFORNIA

SHOWING RECONNAISSANCE GEOLOGY AND LOCATIONS OF POINTS OF GROUND-WATER DISCHARGE

1 MILE

Mr. KUNKEL (continuing). The other deposits, the continental deposits, the fanglomerate, the older alluvium, and the younger alluvium, are a progressive sequence of formations composed of the clay, silt, sand, and gravel, one formation overlying the other. In addition, there are a series of lacustrine deposits interbedded between the continental deposits and fanglomerate that are predominantly tuffaceous silt and clay. In addition there is travertine, which is a spring deposit. Travertine is shown as Qt, colored pink on the particular exhibit (fig. 2) to which I am pointing, and crops out in the area due east of Furnace Creek.

The general structure of the region is one of generally southwesterly dipping beds. There is a series of faults that trend from the northwest to the southeast that offset some of these beds. In the Furnace Creek area on the exhibit to which I am pointing (fig. 2), there is an area outlined as the boundary of figure 3. In that area, and easterly, there occurs a synclinal axis. A syncline is a geologic structure in which the beds have been folded into a U-shaped trough. The syncline was determined by geologic mapping in the field. The strike of the beds in general parallels the axis of the syncline and the beds dip toward the axis of the syncline. On the north side the beds dip southerly, and on the south side the beds have a reverse dip and dip northerly. The older deposits have a greater dip than the younger deposits, indicating that as the deposits were being laid down, the beds were being warped. The details of the warping, and what caused it, have not been identified as part of this study except to determine that the structure exists.

Again, directing our attention to the smaller area outlined on figure 2, where it says, "Approximate boundary of figure 3." This is the area of our main interest. Furnace Creek Wash runs through the southern part of that area, and it is along Furnace Creek Wash that a large number of springs discharge. There are also a number of springs throughout the entire area, plus areas where plants called phreatophytes grow. Phreatophytes are plants whose roots tap the ground water body and habitually live off that water supply rather than off of intermittent precipitation.

As part of our study, all of the springs and phreatophytes sites were located, and where possible were measured to determine the discharge from them.

In the course of the study, an attempt was made to determine the relationship of the geologic structure to the occurrence of ground water. On the basis of the information that was available at that time—I am referring now to figure 3 in the report by Pistrang and Kunkel—it was hypothecated that ground water could be rising along the faults and discharging from them. Part of the evidence for the hypothesis that water could be rising along the faults was its temperature. The temperature of the water from the springs was on the order of 90° or 92° F., if I remember rightly. There was a slight variation.

A second hypothesis, as shown by figure 4 in the same report by Pistrang and Kunkel, indicates a possibility or probability that water rose along the faults, then moved along conduits, perhaps cracks or fractures in the earth, and then deposited travertine at the surface. Travertine is a deposit of calcium carbonate. As the waste from the

springs, charged with calcium carbonate in solution, rises to the surface it cools, and the travertine is deposited. In several areas rather large mounds of travertine have been built, and we were of the opinion that one of the possibilities might be that these actually served as conduits for the transmittal of the water.

The third hypothesis as shown by figure 5 assumes that the syncline formed a container filled with permeable alluvial deposits which in turn were filled with water. It further was assumed that the discharge of the springs was the overflow out of the container.

In the first part of our study, we had no strong evidence except the examination of the field conditions to support one hypothesis in favor of the other. However, on the basis of our general experience, and perhaps one might even say an intuitive preference for one hypothesis over the other, we proposed that a test well be drilled in the NW¼ of sec. 24, T. 27 N., R. 1 E., to test the third hypothesis. That test well was drilled to a depth of 250 feet. The materials penetrated are shown on pages 71 and 72 of the report by Pistrang and Kunkel. That well yielded 390 gallons a minute with a drawdown of 102 feet after a period of continuous pumping for 72 hours. Lesser rates of pumping had lesser rates of drawdown.

The table on page 73 of the report to which I have been referring shows the time of pumping, pumping rate, the water level, drawdown, and specific capacity. The water level in the well during the pumping minus the static level—the level at which the water stood prior to pumping—is the drawdown. The drawdown divided by the gallons per minute pumped is specific capacity. The higher the specific capacity of a well, the better the well. If one observes the data on page 73, one will notice that as the pumping rate was decreased, the specific capacity increased. At a pumping rate of 393 gallons per minute the well had a yield of only 3.9 gallons per minute per foot of drawdown, but when the pumping rate was cutback to 140 gallons per minute, the specific capacity was 9.3 gallons per minute per foot of drawdown. By plotting these data, it is possible to determine a point at which the well will give the maximum yield and an optimum specific capacity. I don't have that figure worked out. But these figures do show that the test well is productive. In terms of large wells in the alluvium of the Central Valley, this might be considered a very poor well, but in terms of Death Valley, where water is short, this is a well of a considerable yield. And in my opinion, the results of this test tend to substantiate the third hypothesis as shown by figure 5 in the report by Pistrang and Kunkel. Now, a geologist can't look into the earth, but on the basis of all the data, this, in my opinion, is the most reasonable of the several hypotheses.

Subsequent to the report by Pistrang and Kunkel, I had received questions as to the relationships of the water in Furnace Creek Wash area, and I realized perhaps that figure 5 didn't show the situation as graphically as it might. Consequently, I prepared the shorter report in 1963. Figure 3 in that report is a schematic block diagram. I wish to emphasize that this is a schematic drawing, not an exact engineering drawing, but its purpose is to show the hydrologic relationships in the Furnace Creek Wash area.

The diagram is drawn as if one were standing at the airport, looking southeast into the drawing from the northwest. Looking into

the diagram, there is a synclinal structure shown and a test well. That is the synclinal structure shown on figure 2 of the exhibit posted on the board here.

The permeable materials in the synclinal trough below the water table are saturated. It is those materials that the test well penetrated and from which the waters were drawn.

Beneath the syncline a number of cracks and fractures are shown, and also a number of springs are shown above the area called Texas Spring Tunnel. Thus it is shown diagrammatically that the syncline is leaking either through cracks and fractures or spilling over the lip and is the main source of water for the springs.

It is probable—we certainly don't know all the circumstances that control the occurrences and movement of ground water in the area—that some of the springs are also fed by water along the faults in addition to the leakage in the syncline. However, the Texas Spring Tunnel, which was drilled by the Borax Co.—I don't recall the exact dates—is an attempt, as far as I can determine, to tap the ground water body. From the yield of the tunnel it appears to have been based on a sound geologic premise.

Also, there is evidence from the Borax Co. records that were turned over to the Geological Survey, that when the Texas Spring Tunnel was drilled the yield of water from Texas Spring declined. I don't recall exactly what the magnitude of the decline was, but there was a relationship between the drilling of the tunnel and the decline of Texas Spring.

The springs along Furnace Creek Wash that discharge from the syncline apparently are the principal source of recharge for water in the wash. If we will look at our block diagram again, Furnace Creek Wash is shown as saturated. The evidence for the saturation can be seen by a series of sumps and some bulldozed ditches in the wash. Also, Park Service records show that a buried pipeline laid across the wash picks up ground water and transmits it to Furnace Creek Inn. All the evidence indicates that the alluvial deposits in the wash below water table are saturated and constitute part of the same hydraulic system, but in a somewhat different mode of occurrence.

Now, one might conclude that ground water is moving down Furnace Creek Wash for its full length all the way from the south edge of the map (fig. 2). However, it is possible to go to Gower Gulch—let me see where that is—in the SW¼ of sec. 31, T. 27 N., R. 2 E., and observe a manmade diversion that diverts the floodflow or the surface flow of Furnace Creek Wash whenever it does occur. The diversion is for the purposes of flood protection. In that area it is possible to observe the total thickness of alluvial deposits of Furnace Creek. At that point they're unsaturated. There is no water in them whatever.

So insofar as I can determine, all the saturation in Furnace Creek Wash occurs below Gower Gulch and probably, in my opinion, almost entirely within the area outlined on the figure 2 as the boundary of figure 3. This is what I have referred to as a second occurrence of ground water.

A third occurrence of ground water is undoubtedly in the cracks and fractures in the consolidated and semiconsolidated rocks, as differentiated from the unconsolidated deposits. For simplicity only two

general categories of rocks are shown in figure 3 of the report by Kunkel (1963).

The third occurrence of water is in the cracks and fractures in the consolidated and semiconsolidated rocks. These older rocks are dense, more cemented, less permeable than the unconsolidated deposits. But minor amounts of water occurs in the cracks and fractures, and presumably if one were to drill a well in these rocks and if one were fortunate and intersected enough cracks and fractures, one might get a yield of water. However, in my opinion the yields would be very small and would not constitute a major source of water.

Part of the evidence for this is shown by the "inn tunnel" on the figure 3. In that area the Borax Co. went north of Furnace Creek Wash and drilled southerly through the mountains by the inn. Drilling from the north to the south, they drilled to the point, insofar as I could determine, where they almost tapped the unconsolidated deposits in Furnace Creek Wash. They actually were somewhat concerned about the possibility of breaking through into the unconsolidated gravel. At that point they put up a concrete bulkhead, drove a series of sand points ahead, and tapped the water in the wash. They now have a yield of water derived from the unconsolidated deposits in the wash coming out of the sand points. Those sand points are shown diagramatically on page 5 o fthe report by Kunkel (1963).

On the question as to the actual source of the water, there is no direct evidence as to its origin. Based largely on the chemical quality of the water, which is discussed in the report by Pistrang and Kunkel, there is no evidence that it has a source other than precipitation within the watershed area. The water is of good quality, potable, suitable for domestic and irrigation needs.

I did not make any exact determinations of the watershed area. However, there are a sufficient number of cracks and fracturers in the area that it is entirely likely that precipitation on the watershed area a considerable distance from the Furnace Creek Wash area up in the Funeral Mountains, or maybe even farther to the east, falling on the ground, penetrated into the ground, circulated deeply through the cracks and fractures, and ultimately either coming up through the cracks and fractures over along the faults, reemerged, and is the source of recharge. There also is undoubtedly a minor quantity of recharge directly to the water body from precipiataion on the alluvial deposits. On the relative percentages of one source or the other, I have no opinions. I have no basis for a conclusion at this time. However, the hydrology of the Furnace Creek Wash area seems to be straightforward. There is nothing particularly mysterious about occurrence and movement of the ground water. It is somewhat unusual in that the water temperatures are considerably above normal. However, the temperature of 82° could be accounted for by the deep circulation of the water.

That briefly summarizes the occurrence of water in the Furnace Creek Wash area, as I described it in these two reports cited.

Mr. Indritz. Is the test well that you referred to as having been drilled on the NW¼ of sec. 24, located on land owned by the company, or is it on public land?

Mr. Kunkel. I don't truly know. I am of the opinion that it is on public domain, but I couldn't be certain. I didn't select it with

that in mind at all. I selected it entirely as the most favorable site to get water, and I didn't consider property ownerships at the time I selected it.

Mr. INDRITZ. And your conclusion was that the well would produce water from the body of water contained in the unconsolidated deposits in the syncline?

Mr. KUNKEL. That was the hypothesis on which we were working when the test well site was selected. The success of the well tends to substantiate the validity of the hypothesis. It doesn't prove it conclusively, but the weight of the evidence is in favor of it.

Mr. INDRITZ. If there were any development of water in the Furnace Creek Wash, would it have any effect on the discharge from the synclinal area?

Mr. KUNKEL. In my opinion there would probably be no effect. The wash is down the hydraulic gradiant, and on the basis of the diagram shown at figure 3, I am of the opinion that there would be no direct effect.

Mr. INDRITZ. Have you visited Death Valley more than once, Mr. Kunkle?

Mr. KUNKEL. Yes; I have.

Mr. INDRITZ. Have you seen the mesquite growth on the tracts of land north of the ranch and in the Furnace Creek Fan?

Mr. KUNKEL. Yes; I am acquainted with those.

Mr. INDRITZ. Does that mesquite growth in any way indicate that there is underground water from the basin that provides the source for the Texas Spring water and the Travertine Springs water?

Mr. KUNKEL. Perhaps in my general discussion I wasn't detailed enough. I should have pointed out that on figure 3 of the short report where it says, "Death Valley," there is a small area colored blue. That indicates a salt water body, and whatever underflow is escaping past the "inn tunnel" certainly goes down and rides on top of the salt water. The mixing of that salt water and the fresh water out at the toe of the alluvial fan where the water levels are shallow would be the water that would support the mesquite growth.

Mr. INDRITZ. So that it doesn't directly tap the Texas Spring or Travertine Springs?

Mr. KUNKEL. No; it does not tap it, but the unmeasured amount of underflow referred to earlier is probably the water that supports that growth, but that growth does not affect Texas or Travertine Springs.

Mr. INDRITZ. Have you reached any conclusions as to whether that underflow could be captured?

Mr. KUNKEL. I have an opinion on it. I don't believe that it exists in quantities and in a manner that would be economically feasible to capture. We have just completed a test well out there this last week and the man that was logging the well and collecting the data, working under my supervision, is still out there. He hasn't officially reported back to me, but the results of that well apparently indicated that the water encountered was salty, not potable, and not suitable for irrigation of anything except perhaps the most salt-tolerant plants.

Mr. INDRITZ. Did he indicate the extent of the salinity?

Mr. KUNKEL. The information got relayed to me rather secondhand and I would rather not quote a figure.

Mr. INDRITZ. Could you provide the subcommittee the report as soon as you receive it?

Mr. KUNKEL. As soon as he sends the report back to Sacramento, I will have all the results which I will report to the subcommittee.

Mr. INDRITZ. Would you list the occurrences of water, the discharge rates, and the total of the estimated flow of water in the Furnace Creek area?

Mr. KUNKEL. For that purpose I will refer to page 6 of the report by Kunkel in 1963 and——

Mr. INDRITZ. Page 44?

Mr. KUNKEL (continuing). And page 44 of the report by Pistrang and Kunkel. They should be the same numbers in both reports. And as part of our work for the Park Service we have been maintaining a series of continuing measurements to the present time, the last measurements having been made by the man who is still out in Death Valley. Those results also will be reported to you. Our continuing measurements have indicated there has been no appreciable change in these values since 1956–57 when the estimates were first made. The water that is identifiable from the synclinal area is, first, water from the Travertine Springs diverted to the Death Valley Hotel Co. irrigation system. That is 1.9 cubic feet per second. The second item is also from the synclinal area. It is from the Texas Spring tunnel, one-half cubic foot per second. The third item is undeveloped springs, seeps, or phreatophyte areas. It is estimated as one-tenth-of-a-second foot. The fourth item is evapotranspiration above points of measurement. It also is an estimated point five-tenths-of-a-second foot for a subtotal of 3 cubic feet per second.

WATER FROM FURNACE CREEK WASH

The next general item would be water from the sump which is bulldozed in the channel of Furnace Creek Wash, which is 1.3 second feet. Diversions from the buried tile which, as I understand, is a domestic supply for the hotel company, is point four-tenths-of-a-second foot. Both of those are measured values; or a subtotal of 1.7.

The third item would be water at Furnace Creek Inn area from the Furnace Creek tunnel, which is point three-tenths-of-a-second foot.

In addition, there is a final item of an unknown amount of underflow to Death Valley. The subtotal on those two items is point three-tenths-of-a-second foot, or a total of 5 cubic feet per second from the entire system, insofar as we were able to either measure it directly or estimate it.

Mr. INDRITZ. Of this total of 5 cubic feet per second, how much of it is unused, either because of evapotranspiration or because it is undeveloped, and how much has been developed?

Mr. KUNKEL. 4.4 second feet is the amount that was developed. That is the 1.9 cubic feet per second at Travertine Springs, a half a cubic foot from Texas Spring tunnel, 1.3 cubic feet per second from the sump in Furnace Creek Wash, point four-tenths of a cubic foot per second from the buried tile, and point three-tenths of a cubic foot per second from the Furnace Creek Inn tunnel. That is the 4.4 total.

Mr. INDRITZ. Has the total of the 4.4 cubic feet per second been developed by the hotel company?

Mr. KUNKEL. Insofar as I know, and this is somewhat out of my purview, I believe it's all been developed by the Borax Co. except at the Texas Spring tunnel there is a—I forget the size of the pipe, 2-inch pipe going off from the weir box, that diverts 35 gallons a minute. That goes to the Texas Spring campground and to the visitor center. I wouldn't want to testify on that further because I actually haven't traced out the plumbing and that is what has been reported to me. I don't truly know that of my own knowledge.

Mr. INDRITZ. What is your considered opinion on the possibility of developing more water?

Mr. KUNKEL. If it were possible to pump water from the syncline to the point that the water level would be lowered and the natural spring discharge would be dried up and the areas of evapotranspiration dried up, that quantity of water could be salvaged for beneficial use. That amount presently evaporates or is consumed by the tamarisk or other phreatophyte vegetation.

Mr. Moss. Mr. McClory?

Mr. MCCLORY. Thank you.

Mr. Kunkel, have you measured the total capacity of the Nevares Springs?

Mr. KUNKEL. Yes, we did.

Mr. MCCLORY. Is that on page 45?

Mr. KUNKEL. That is on page 45 of the earlier report, the one by Pistrang and Kunkel, 1962.

Mr. MCCLORY. Now, this point 6 cubic feet per second, is that the total maximum capacity, or is that just on the basis of existing machinery or existing pumps there?

Mr. KUNKEL. That is actually a discharge measured by—I had better doublecheck my notes.

To the best of my recollection, that was measured by a weir at the point of natural discharge of the spring system.

Mr. MCCLORY. There hasn't been any well sunk there?

Mr. KUNKEL. No, there hasn't been.

Mr. MCCLORY. So you really wouldn't know whether or not there was a greater ground water capacity in that area without a test well, would you?

Mr. KUNKEL. Well, the physical situation is such that I personally would not recommend a test well in that area. It does not appear to be a ground water basin. The Nevares Springs area is several miles to the north of the Texas-Travertine Springs area, and is not directly related hydrologically, and it is, in my opinion, a somewhat different occurrence of ground water. I don't believe a test well in that area would be productive except for very small quanities of water, if anything at all.

Mr. MCCLORY. In other words, it is your opinion that the Nevares Springs is not a travertine-type spring consisting of an overflow from a ground water source?

Mr. KUNKEL. Insofar as I could determine, I am not of the opinion that there is a ground water basin in that area.

Mr. MCCLORY. A test well would definitely establish it one way or another, would it not?

Mr. KUNKEL. Well, it would be helpful. A poor well wouldn't necessarily prove that I was right. It might just prove that I picked a poor site. All the geologist can do is eliminate much of the risk in test drilling and pick the site most likely to be productive. In that area there is no site that I would select.

Mr. MCCLORY. Have you been requested to investigate a possible site of a test well above the Nevares Springs?

Mr. KUNKEL. Not specifically for a test well. Originally we did the study for the Park Service. They requested that we investigate the entire area and select test well sites if needed or if suitable. Generally we have done quite a number of projects for the Park Service of that type, and in some of them we don't recommend test wells and other ones we do. It depends on what the geologic situation shows.

Mr. MCCLORY. Are you familiar with measurements of water by miner's inches?

Mr. KUNKEL. Well, yes. I don't normally use it. I usually work in terms of gallons per minute or second-feet.

Mr. MCCLORY. Well, there are two so-called appropriations, or four altogether, but there are two of specific concern to this subcommittee. One refers to a miner's inch appropriation of 500; 500 miner's inches of water; another 300 miner's inches of water. Just for the record and so that I may have an expert advising me as to what this means, how much is 500 miner's inches of water as related to the terms that you use?

Mr. KUNKEL. Well, 500 miner's inches of water would be 4,500 gallons per minute, which would be somewhere close to 10 second-feet.

Mr. MCCLORY. That would be about twice the amount of water which is the estimated total ground flow as set forth on page 6 of the Kunkel report?

Mr. KUNKEL. Insofar as I have been able to determine, and I haven't checked this out completely, but the reported filings or appropriations requested to appropriate water have exceeded the available water supply by several times.

Mr. MCCLORY. Now, at the time that you worked the test well that you operated to determine how much it would produce, did you also observe the action at the Travertine Springs locations?

Mr. KUNKEL. Yes, we did. I don't exactly remember all of the details, but we installed a number of other weirs. The sites of them are all listed in pages 36 through 43, in Pistrang and Kunkel (1962) and during the period of testing we checked those measurements several times and we were unable to determine any effect whatsoever on the springs caused by pumping of the well.

Mr. MCCLORY. Even when you were pumping at the maximum capacity and when the pumpage caused a reduction in the underground water level?

Mr. KUNKEL. That is correct. We were unable to measure any change in the discharge of the springs. All this could mean is that our measurements were not that precise, that there are—I do not recall the number of discharge points, but there are more than a hundred, and we had control on only a few of them, and if one had, say, even a 30-gallon-a-minute decline of discharge, distributed over a large number of points, one might not be able to measure or detect it at any one point.

Mr. McCLORY. That still wouldn't indicate to you that there might be a lack of association between the test well and the Travertine Springs?

Mr. KUNKEL. No. On the basis of geology, the relationship almost has to be there. It is just a matter of pumping long enough and the effect ultimately will show up. When and whether it will be of great magnitude, I wouldn't make a prediction at this time, but there will be an effect.

Mr. McCLORY. Do I understand your final conclusion is that if the test well were used as the principal source of water from the—what do we call that——

Mr. KUNKEL. Synclinal area.

Mr. McCLORY (continuing).—synclinal area above the Furnace Creek Wash, that is the only gain in available water would be the amount that is now lost by transpiration and evaporation?

Mr. KUNKEL. That, plus, conceivably you might salvage some underflow. The total hydrologic system is not that well understood.

Mr. McCLORY. In other words, the amount which is now flowing from the Travertine Springs and from the sump and the other sources that are now being used, in your opinion would be lost if you utilized the well to full capacity?

Mr. KUNKEL. Not necessarily. These things would have to be somewhat a trial-and-error procedure. I certainly wouldn't be prepared at this time to make a prediction as to exactly what will or will not occur. The general statement that I would make is that pumping or developing sources of water higher up the hydraulic gradient will affect the sources of water lower on the hydraulic gradient. If one goes to the highest point and develops that source, the effect ultimately will be felt lower down on the hydraulic gradient.

However, if, say, the Park Service's maximum demand were in the winter months when the people were there and they pumped heavily at that time, and if the Borax Co.'s uses were in the summer months when they needed the water for irrigation, the two might balance out so that one would be hard pressed to measure an appreciable change in the discharge of the springs; but then again conceivably one might pump and some of the springs might dry up. Which ones or whether they would or wouldn't, or when it would occur, I am certainly not prepared to make a prediction.

Mr. McCLORY. It is possible, is it not, that the total water capacity might be as much as doubled by utilizing the existing springs and sump and existing flow and the well?

Mr. KUNKEL. I truly doubt if it would be doubled. I am of the opinion it would probably turn out to be a more efficient use of the water and probably more water would be available for use by man. How much, I wouldn't want to say.

Mr. McCLORY. Would you say there would probably be 50 percent more water?

Mr. KUNKEL. I just wouldn't be prepared to make a prediction at this stage. Mr. Robinson, in the audience here, is the expert on phreatophytes. He might want to make some estimates, that I am not prepared to make, but I am not prepared to make an estimate.

(The testimony of T. W. Robinson, Research Engineer, U.S. Geological Survey, Menlo Park, Calif., appears on p. 78.)

Mr. McCLORY. Now, have you had some contact yourself, Mr. Kunkel, with the Death Valley Hotel Co., their management or their employees?

Mr. KUNKEL. Well, I consider myself a personal friend of Ralph Brown, their geologist. He and I have known each other a good many years.

Mr. McCLORY. And has there been anything in your relationship or in the conduct of any of the hotel management or employees which you consider as improper as far as your activities with the Government are concerned?

Mr. KUNKEL. Of my personal knowledge and contact I have seen nothing of that nature. Ralph Brown, through his company, and I have exchanged data freely back and forth. There has been, oh, some reluctance on the part of the company to release interpretive reports to the Geological Survey, but that is not at all uncommon for a private corporation. We run into that very frequently, so I would consider that to be perfectly proper conduct.

Mr. McCLORY. Over how long a period have you had this relationship with Mr. Brown, or with any employees of the company?

Mr. KUNKEL. Well, I have known Ralph Brown since—don't hold me to the date—about 1952 or so. He formerly worked for the Geological Survey and we actually worked together in Long Beach.

Mr. McCLORY. Is there anything in the manner or the type of development, as far as their drains, as far as their sump, as far as their tunnel, or anything like that is concerned, which you as a geologist and a hydrologist would regard as an improper encroachment on a water source?

Mr. KUNKEL. That's getting into practically a legal question, and I have no official opinion.

Mr. McCLORY. You didn't discover anything that was secret about tapping into this water?

Mr. KUNKEL. As far as I know, everything that is done is done publicly and there were no secrets involved.

Mr. McCLORY. I think that is all, Mr. Chairman.

Thank you Mr. Kunkel.

Mr. Moss. Mr. T. W. Robinson, I wonder if you would join Mr. Kunkel.

Mr. KUNKEL. Do you want me to stay, Congressman?

Mr. Moss. Yes, please.

TESTIMONY OF T. W. ROBINSON, RESEARCH ENGINEER, U.S. GEOLOGICAL SURVEY, MENLO PARK, CALIF.

Mr. Moss. Please identify yourself for the record.

Mr. ROBINSON. I am Thomas W. Robinson. I am with the U.S. Geological Survey in the capacity of research engineer, stationed at Menlo Park.

Mr. Moss. Mr. Robinson, do you have anything you would like to add to the testimony of Mr. Kunkel?

Mr. ROBINSON. Well, Mr. Kunkel and I have conferred together in the course of his work in Death Valley, primarily as regards the loss of water in Furnace Creek Wash by evapotranspiration of phreatophytes. I have indicated I thought there was some possibility of

recovering some of the underground flow that moved down Furnace Creek Wash fan and out onto the salt pan, and I have recommended to the Park Service that a test well could be drilled to explore this possibility, and I believe that's the test that Mr. Kunkel referred to a short while ago.

I might state that in 1953, I believe, at the request of the Park Service, I made an examination and report on the discharge of Nevares Springs, and in 1957, I believe, I made a report on the discharge of Saratoga Springs, which lies at the south end of Death Valley. This was also at the request of the Park Service.

I have been associated with Dr. Hunt of the Geological Survey in making a hydrologic study of Death Valley, largely the area in the floor of the valley. I made an estimate of total flow of water onto what we call the salt pan—that is the salt part of the valley—from all sides, as far north as what was known as Salt Creek Hills. That's below Stovepile Wells. The results of this study are now being edited—the report has been prepared but it has not been released. It's in the hands of the editor. It will be published in the next 6 or 7 months, I guess. I don't know how fast they work.

Mr. Moss. That will deal with the total water resources available in the floor of the valley; is that correct?

Mr. Robinson. That will deal with the total amount of water that discharges onto the salt pan, which is the flat level bottom part of the valley. It does not include the sources that might be higher up in the mountains.

Mr. Moss. That will go into the quality of water?

Mr. Robinson. Well, yes, very roughly. It is not difficult. It is either salty or it is not salty. A large part of it was salty. This measurement was made without regard to whether it was potable or not. It was to get the total amount, although I did record whether it was potable or not potable.

Mr. Moss. Do you have any further comments?

Mr. Robinson. I don't believe so.

Mr. Moss. Mr. McClory?

Mr. McClory. Mr. Robinson, in connection with the test well that you recommend at the base of Death Valley near the headquarters building, do you have an opinion as to whether or not a deeper well, say 1,500 or 2,000 feet, might produce some potable water?

Mr. Robinson. No. I feel that a well that would be much below 200 feet would have salt water below that depth. I base this opinion on two wells that were drilled many years ago, which I was able to obtain a record of, and that shows that these wells were drilled to nearly 2,000 feet, as I recall, in 1900-odd, and the water was salty.

Mr. McClory. Where those wells drilled in that general area?

Mr. Robinson. No, they were drilled south of there.

Mr. McClory. Who drilled those wells, do you recall?

Mr. Robinson. I don't know. It is in the record. It could be obtained, but I don't know who drilled them.

Mr. McClory. Where is the record of a well drilling kept?

Mr. Robinson. The record of this well is in a report. I would have to look that up. I don't know at the moment the report. It is in the bibliography of the report by Dr. Hunt and myself. It is quoted in the bibliography.

Mr. McCLORY. By Mr. who?

Mr. ROBINSON. Mr. Hunt, Dr. Hunt.

Mr. McCLORY. I see.

Mr. ROBINSON. He and I have a joint report on the hydrology of Death Valley.

Mr. McCLORY. Oh, I see.

Mr. ROBINSON. And the source of this would be listed there in the bibliography.

Mr. McCLORY. That is a published volume?

Mr. ROBINSON. It will be a published volume.

Mr. McCLORY. Is that the volume you were talking about——

Mr. ROBINSON. Yes.

Mr. McCLORY (continuing)—at the editor's?

Mr. ROBINSON. It has not yet been published. It is in the hands of the editor at the moment.

Mr. McCLORY. When do you expect that will be published?

Mr. ROBINSON. Well, I would say 6 months, but that would depend on the Government Printing Office, and so forth.

Mr. McCLORY. Well, will that refer to the possible water sources from the mountain range to the west, forming the western boundary of Death Valley?

Mr. ROBINSON. Yes, yes. There will be some information on that, especially those springs that discharge from the alluvial fans above the salt pan on the west side at the base of the Panamints.

Mr. McCLORY. Now, in this report, and in connection with your other work in Death Valley, are you considering that water might be stored in the reaches above Death Valley from springs or from precipitation, and form a source of water?

Mr. ROBINSON. You are speaking now of the entire valley?

Mr. McCLORY. Well, of course, I am most interested in the area near the headquarters building and the Furnace Creek area.

Mr. ROBINSON. Well, I think the explanation of Mr. Kunkel—it's pretty well agreed that there is a synclinal area here filled with unconsolidated material which contains ground water.

Mr. McCLORY. Now, you made reference to Saratoga Springs at the south end of the valley. Is there a substantial water source there?

Mr. ROBINSON. Yes. There is in the order of 200 gallons a minute, I believe.

Mr. McCLORY. Would that amount of water support a camp facility and a tourist grounds?

Mr. ROBINSON. Well, I would think so. However, I understand from some of the men who examined the quality that it is not quite suitable in quality for drinking purposes. Some of the chemists who have made an analysis of it say that it could not meet the Public Health Service standards.

Mr. McCLORY. That's in its natural state without any filtration——

Mr. ROBINSON. Yes; without treatment.

Mr. McCLORY (continuing)—or chlorination, or anything like that. Do you have an opinion as to whether or not it could be treated?

Mr. ROBINSON. I am not a chemist. I suppose it could be, but I don't have any opinion.

Mr. McCLORY. You said that Saratoga Springs is located at the south end of the valley. How far would that be from Furnace Creek area?

Mr. ROBINSON. Oh, that must be 50 or 60 miles.

Mr. McCLORY. Is it near a highway?

Mr. ROBINSON. Yes; there is an unpaved gravel road that runs within about 2 miles of it. A little secondary road leads off the gravel road and goes over to the Springs.

Mr. McCLORY. Now, you stated that you made a report on Nevares Springs in 1953?

Mr. ROBINSON. Yes.

Mr. McCLORY. Is there anything about that report that would indicate a greater source of water from the Nevares Spring than the amount that is presently being utilized?

Mr. ROBINSON. There is probably loss, or there was in 1952, by evapotranspiration. There was a considerable growth of mesquite, tamarisk, various grasses, other things, other vegetation, and at that time there was probably considerable loss.

Mr. McCLORY. That would be just a percentage of the total water available from that source?

Mr. ROBINSON. Yes.

Mr. McCLORY. The test well down at the base of Death Valley in the headquarters property did show that the salinity was less at the lowest point of the test well than at higher levels?

Mr. ROBINSON. You have reference to the well that has just been drilled?

Mr. McCLORY. Yes.

Mr. ROBINSON. I haven't had any report on that well, so I don't know.

Mr. McCLORY. The fact that the salinity was reduced between 40 feet in depth down to 200 feet in depth, would that indicate that you might get more potable water or water of lower salinity at a depth of a thousand to 1,500 feet?

Mr. ROBINSON. I don't think so. I think you would find that as the depth increased probably that ratio of salinity would be reversed.

Mr. McCLORY. Mr. Chairman, I'd like to ask the witness a question about this exhibit that we have been handed.

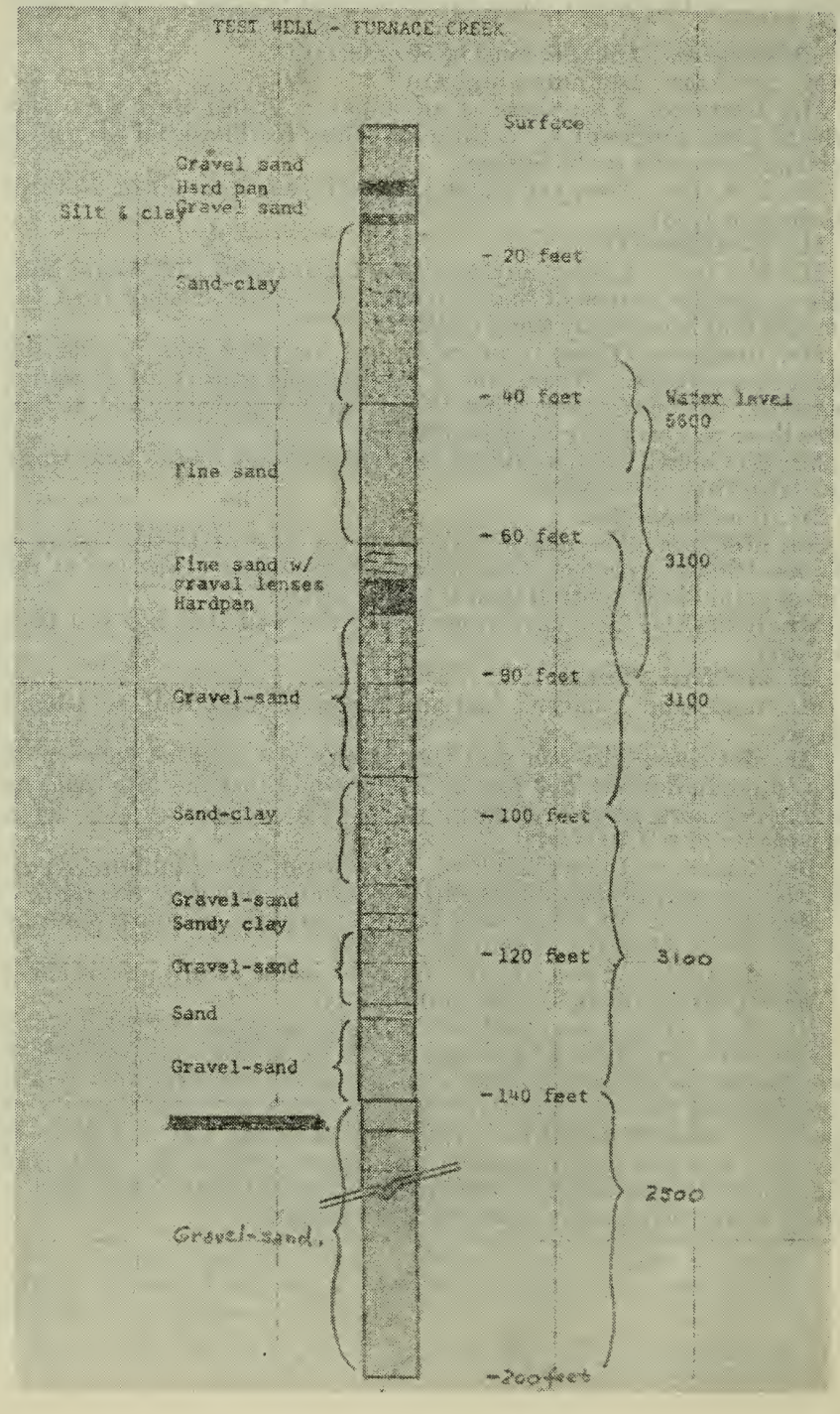
Mr. MOSS. Would you like this included in the record at this time?

Mr. McCLORY. Well, if it has authenticity.

Mr. MOSS. Would you take this [handing document to the witness]?

Mr. McCLORY. Now, I have showed you an exhibit or a chart which was handed to me and to other members of the subcommittee by Mr. Aubuchon of the National Park Service, which indicates the type of geologic materials found at various depths in the test well down to 200 feet, and also which contains some figures over at the right-hand side that I am not able to identify, but I thought that that related to parts of dissolved saline material per thousand.

(The chart referred to follows:)



Mr. KUNKEL. I think I know what it is. I think it is the measure of electrical conductivity and micromhos which is a measure of the salinity.

Mr. MCCLORY. What do those figures indicate to you as far as the possibility of a good water source at a greater depth?

Mr. KUNKEL. It is my own opinion—I would ask Mr. Robinson. Would that possibly indicate irrigation return and concentration of salt in the upper zone as a result of whatever irrigation may have been done in the immediate areas?

Mr. ROBINSON. It could be. That could be the reason for the higher salt content at the surface.

Mr. KUNKEL. I suspect that there are micromhos 5,600 at 40 feet at the water surface and it's decreased to 3,100 at 60 feet and remains constant to about 140 feet where it went down to—the micromhos times 0.7 is just about a rough approximation of the total dissolved solids.

Mr. ROBINSON. Yes.

Mr. KUNKEL. So you'd be well above the authority's, which is above Public Health Service, standards, assuming that the assumption of micromhos is correct.

Mr. MCCLORY. At that depth the water wouldn't be——

Mr. KUNKEL. It would be unsuitable for domestic purposes.

Mr. MCCLORY. Would it indicate that at a greater depth it might be better?

Mr. ROBINSON. That is hard to say.

Mr. MCCLORY. You'd have to drill deeper to find out?

Mr. ROBINSON. You'd have to drill.

Mr. MCCLORY. Would it indicate that it would be worthwhile to drill deeper?

Mr. ROBINSON. As long as you're down to 200 feet, I would think so.

Mr. MCCLORY. You would recommend a test well of greater depth?

Mr. ROBINSON. That hole could be deepened another 100 feet or until the conductivity began to increase, then there would be no point in going any farther.

Mr. MCCLORY. As long as the conductivity is being reduced, it would be a good idea to go deeper, wouldn't it?

Mr. ROBINSON. Might as well do it and find out what is there.

Mr. MCCLORY. Is there anything about the condition of the ground there that makes drilling costs prohibitive?

Mr. ROBINSON. There should not be. That should be very simple drilling.

Mr. KUNKEL. You might well run into this situation, even if you get deeper and even if you get potable water, which, in my opinion, is really quite unlikely, pumping that water would reduce the head and you would pull the salt water down because these are alluvial deposits in that particular area; and it would be my opinion that in a relatively short time, perhaps a matter of months or so, you would contaminate the good supply that you did develop, and unless there is some compelling reason to develop a well in an area like that, I wouldn't recommend it.

Mr. MOSS. Well, the spot for the well is in close proximity to the overflow ponds or accumulation of drainage in the irrigation of the Ranch, very close proximity.

Mr. ROBINSON. I am not sure where the well was located.

Mr. Moss. Yes. The well is located very close to the campground, right in the compound facility near the Visitor Center.

Mr. McClory. That's right, right in there.

Mr. Moss. You see that the lower reach there of the Ranch, just south of the Headquarters, back on the Ranch property, is where we have those ponds, so you would perhaps have a flow there of waters that would be heavier with salt because of leaching action. That could be feeding into the area of the well and causing the increased salt at the lesser depths, could it not? Would a test well then in the area, but perhaps farther removed from possible contamination from the irrigation waters, be more indicative of the true nature of the water resources in the area?

Mr. Kunkel. Well, the farther up the fan one would go, the farther you'd get away from that type of contamination from irrigation return, et cetera, and you would be closer to the principal sources of your recharge, assuming that they are your washes, and the probability of getting a potable supply would be better up on the fan.

However, when you get on the alluvial fan, you run into large boulders. Drilling problems and costs are increased greatly. Also the depth of water probably is greater. And the probability of a thick alluvial section is greatly reduced, so you have to sort of play these factors one against the other and pick a compromise position.

Mr. Moss. You are going to supply the subcommittee with a report on the test wells when that report is filed. I would appreciate having you comment on the point raised by Mr. McClory and myself in connection with this particular test well at the time that you supply this report to the subcommittee. Will you do that?

Mr. Kunkel. Yes. What you run into on something of this nature is, you begin to, I say, gamble with the taxpayers' money as to whether the cost of the drilling program—which can get to be a substantial figure—is going to be justified on the probability of getting a potable supply of water.

Mr. Moss. Both of the members of this subcommittee are very touchy on the subject of gambling with the taxpayers' dollars, and that is why we would like an expressed opinion by you, one carefully considered, with whatever recommendations you might conclude appropriate.

Mr. McClory. It seems to me, Mr. Chairman, the frugality program has reached the National Park Service and the Department of the Interior probably before President Johnson announced it.

It would help me if I could ask one more question, Mr. Chairman.

Mr. Moss. Certainly.

Mr. McClory. The question is this: Mr. Robinson, would you support Mr. Kunkel's view that this amount of salinity at that depth might indicate or might probably indicate that a well at a greater depth would lead in time, possibly a short time, to the salinity of a good water supply at greater depth because the salt water would come down and hit the good water?

Mr. Robinson. I think that if that well was pumped heavily and continuously that could be the result. I feel it would be possible to operate that well for a long period by pumping it lightly so that it wouldn't pull the salt water in.

Mr. Moss. You might have an expressed opinion on that, too.

Mr. McCLORY. Well, your joint opinion will be included in the report on this well?

Mr. KUNKEL. Yes.

Mr. MOSS. Thank you.

(Subsequently, the following letter and materials were received from Thomas B. Nolan, Director, Geological Survey:)

DEPARTMENT OF THE INTERIOR,
GEOLOGICAL SURVEY,
Washington, D.C., March 30, 1964.

Hon. JOHN E. MOSS,
Chairman, Special Subcommittee on Death Valley National Monument,
House of Representatives, Washington, D.C.

DEAR MR. MOSS: In accordance with your request of January 27, 1964, at the hearing of the Special Subcommittee on Death Valley National Monument, and that of Mr. Indritz' letter of March 6, 1964, Mr. Fred Kunkel, district geologist, Ground Water Branch, has submitted for transmittal to you a report "Results of Drilling Test Well 27 N/1E–16R1 Near Furnace Creek Ranch in Death Valley National Monument, Calif."

In addition to the above report, Mr. Kunkel has supplied the following in answer to specific questions:

With regard to Congressman Moss' and Congressman McClory's query regarding the advisability of drilling at another site, perhaps farther up on the alluvial fan, it is my opinion that drilling farther up the alluvial fan probably would produce water of better quality than that from well 27N/1E–16R1. However, it is probable that the quality of the water would be inferior to that from the well (27N/1E–24E1) in the syncline.

As indicated by table 5 (copy attached) from the report by Pistrang and Kunkel (1962, pp. 63–67), the chemical quality of the water from the well (27N/1E–24E1) is closest to meeting public health standards of any water in the vicinity of Furnace Creek Wash. Notice for well 27N/1E–24E1 the fluoride (F) is 1 part per million, chloride (Cl) is 40 parts per million, sulfate (SO_4) is 157 parts per million, sum of determined constituents is 569 parts per million, and specific conductance is 955 micromhos.

In addition to the problems of chemical quality, a well drilled higher on the alluvial fan probably would encounter large cobbles and boulders, a circumstance that would increase drilling costs considerably. Also, the depth to water probably would be greater than at well 16R1. In the absence of a legal reason to the contrary, my opinion is that the best site for the Park Service to develop its potable water supply would be from the existing well (27N/1E–24E1) in the syncline.

For irrigation of salt-tolerant plants, sanitary facilities, or other uses not requiring potable water or high-quality irrigation water, well 27N/1E–16R1 can be used.

In reply to your request for information on the possibility of desalinization of the water from well 27N/1E–16R1, I will, as you requested, send the results of the chemical analysis to the Office of Saline Water for their comments or suggestions. We will advise you of their reply as soon as it is received.

Sincerely yours,

THOMAS B. NOLAN,
Director, Geological Survey.

(Enclosures.)

TABLE 5.—*Chemical analyses of spring waters in the Furnace Creek Wash Area*[1]

Constituents.—Constituents are in parts per million. All values are rounded to conform to the standards of the Geological Survey Quality of Water Branch. Values preceded by the letter "a" were calculated by the Ground Water Branch and are approximate.

Dissolved solids.—Residue on evaporation, analytically determined.

Sum of determined constituents.—Arithmetic total, in parts per million, of all constituents determined, except for bicarbonate which is divided by 2.03 to obtain the carbonate equivalent.

[1] From report by Pistrang and Kunkel, 1962, pp. 63–67.

Source of data.—DPH, California Department of Public Health; DWR, California Department of Water Resources; NPS, U.S. National Park Service; USGS, U.S. Geological Survey, Quality of Water Branch.

Temperature.—The temperature of the water is at the point of collection, in degrees Fahrenheit. For the temperature of the water at the point of discharge, see table 1.

USGS number	27/1-3A1	27/1-3K1
Date collected	Apr. 8, 1955	Dec. 1, 1956
Silica (SiO_2)		
Iron (Fe)		
Calcium (Ca)	45	
Magnesium (Mg)	20	
Sodium (Na)	146	
Potassium (K)	10	
Lithium (Li)		
Bicarbonate (HCO_3)	345	
Carbonate (CO_3)	0	
Sulfate (SO_4)	178	
Chloride (Cl)	37	180
Fluoride (F)	2.0	3.6
Nitrate (NO_3)	1.9	
Boron (B)	.61	11
Dissolved solids	603	
Sum of determined constituents	611	
Hardness as $CaCO_3$	a195	46
Percent sodium (percent Na)	60	
Specific conductance (micromhos at 25° C.)	702	2,360
pH	8.3	
Temperature (degrees Fahrenheit)	100	
Source of data	DWR	USGS
Lab./Field No.	P631-311	21083

USGS number	27/1-3P1	27/1-22H1	27/1-23B1		
Date collected	Dec. 1, 1956	Apr. 5, 1957	Nov. 27, 1953	Apr. 11, 1956	Apr. 5, 1957
SiO_2		26			25
Fe					
Ca		40	36	35	35
Mg		22	21	18	20
Na		180	160	154	155
K		13	11	12	12
Li					
HCO_3		378	310	342	348
CO_3		0	17		0
SO_4		208	166	156	160
Cl	22,200	50	54	35	43
F	11	2.5	4.0	3.7	2.0
NO_3		0	0	1.9	0
B	327	1.6	1.0	.88	1.0
Dissolved solids		810	634	607	716
Sum		a729	623	584	a599
Hardness	214	a190	a176	a162	a170
Percent Na		a65	a65	65	a65
Micromhos	56,800	1,140	1,000	953	1,010
pH		7.6	8.5	7.8	7.9
Degrees Fahrenheit	73	91½		87	91
Source of data	USGS	DWR	DWR	DWR	DWR
Lab./Field No.	21084	T369-2171	S206-3767	R1125-3696	T370-2122

USGS number	27/1-23R1, 25D1-2, 26A1-7		27/1-25D1	27/1-26B1
Date collected	Apr. 22, 1954	Apr. 11, 1956	Mar. 25, 1954	Apr. 11, 1956
SiO_2			43	
Fe				
Ca	38	36	26	40
Mg	20	19	22	20
Na	150	159	145	160
K	14	12	11	12
Li			.13	
HCO_3	354	351	321	363
CO_3	0	0		0
SO_4	165	169	158	179
Cl	40	37	39	41
F	4.0	4.0	3.0	4.0
NO_3	1.0	3.7	0	2.9
B	.86	.88	0	1.5
Dissolved solids	593	616		644
Sum	606	613	605	639
Hardness	a177	a168	a155	a182
Percent Na	a63	65	a65	64
Micromhos	966	968	949	1,020
pH	8.1	7.7	8.0	7.5
Degrees Fahrenheit	90	88	90	80
Source of data	DWR	DWR	USGS	DWR
Lab./Field No	4226-2718	R1125-3697		R1126-3698

USGS number	28/1-34N1	28/1-36G1		28/1-36K1	27N/1E-24E1
Date collected	Dec. 1, 1956	Nov. 30, 1953	Nov. 29, 1956	Mar. 3, 1957	Nov. 24, 1958
SiO_2					
Fe					
Ca	52	38	42	30	32
Mg	38	32	22	43	23
Na	253	250	138	408	140
K	16	15	12	30	11
Li					
HCO_3	455	403	317	575	322
CO_3	0	10	0	0	0
SO_4	a352	307	173	a535	a157
Cl	74	77	34	101	40
F	4.4	4.0	2.9	2.0	1.0
NO_3		0	1.8		
B	1.3	1.1	1.2	1.7	1.0
Dissolved solids		938	625		
Sum	a1,010	932	583	a1,430	a569
Hardness	284	a227	192	250	176
Percent Na	64	a69	a59	75	62
Micromhos	1,580	1,420		2,120	955
pH	7.7	8.2	7.9	7.7	8.1
Degrees Fahrenheit	74		104	69	97
Source of data	USGS	DWR	DPH	USGS	USGS
Lab./Field No	21082	S194-3764	4449	21836	28599

Results of Drilling Test Well 27N/1E-16R1 Near Furnace Creek Ranch in Death Valley National Monument

(By M. G. Croft)

Well 27N/1E-16R1 is about 300 feet west of the Visitor Center, adjacent to the road leading to the airport in Death Valley National Monument, Calif. The well was drilled to determine the quality of the water and the permeability of the aquifer. Drilling began January 15, 1964, and continued until January 24. A log of the well is shown on figure 1. The original specifications stipulated that the well was to be 100 feet in depth and that a pumping test was to be made upon completion of the well. However, after the well was completed to a depth of

100 feet, electrical conductivity[1] tests indicated that the water probably was not potable but that the quality of the water had been improving with depth. Therefore, the Park Service decided to expend the remaining funds to deepen the well in a search for potable water and not conduct a pumping test.

The well was constructed with a 6-inch casing, the lower 40 feet of which was perforated to admit water. As the casing was driven down the hole coincident with drilling, water samples were collected at several horizons. The conductivity of the water was measured at the site with a portable bridge (fig. 1). In addition, detailed laboratory analyses were made on three water samples (table 1). The laboratory results differ slightly from the results obtained with the portable bridge. For example, the portable bridge gave a reading of 3,100 micromhos for a water sample collected from the interval 40 to 80 feet below land surface. The laboratory result (No. 45502) for the same sample was a specific conductance (conductivity) of 3,220 micromhos.

The three detailed chemical analyses and the results obtained with the portable bridge indicate that, within the range of the test drilling, the quality of the water improved with depth. According to drinking-water standards of the U.S. Public Health Service (1962, pp. 8, 25, and 32), dissolved solids should not exceed 500 parts per million; sulfate should not exceed 250 parts per million; arsenic should not exceed 0.05 part per million; and in a hot, arid area such as Death Valley, fluoride should not exceed 0.8 part per million. Because these limits are exceeded (table 1), the water is not considered potable. Also, according to published tables (U.S. Department of Agriculture, 1954, pp. 80–81), water sample 45502 is classified as very high salinity and very high sodium water. Water sample 45503 is classified as very high salinity and high sodium water. Therefore, this water generally cannot be considered suitable for irrigation. Water sample 45501 is classified as high-salinity and medium-sodium water and is suitable for salt-tolerant crops on well-drained soils. The quality of the water below 200 feet is not known.

When the well drilling reached a depth of 65 feet, a bail test was conducted. At this depth, the driller bailed about 30 gallons of water per minute from the well. After 15 minutes of bailing, the drawdown of the water level in the well was about 2 feet, indicating a rate of yield of 15 gallons per minute per foot of drawdown.

REFERENCES CITED

U.S. Public Health Service, 1962, drinking water standards: Publication No. 956, 61 p.

U.S. Salinity Laboratory Staff, 1954, diagnosis and improvement of saline and alkali soils: U.S. Department of Agriculture Handbook 60, 160 p.

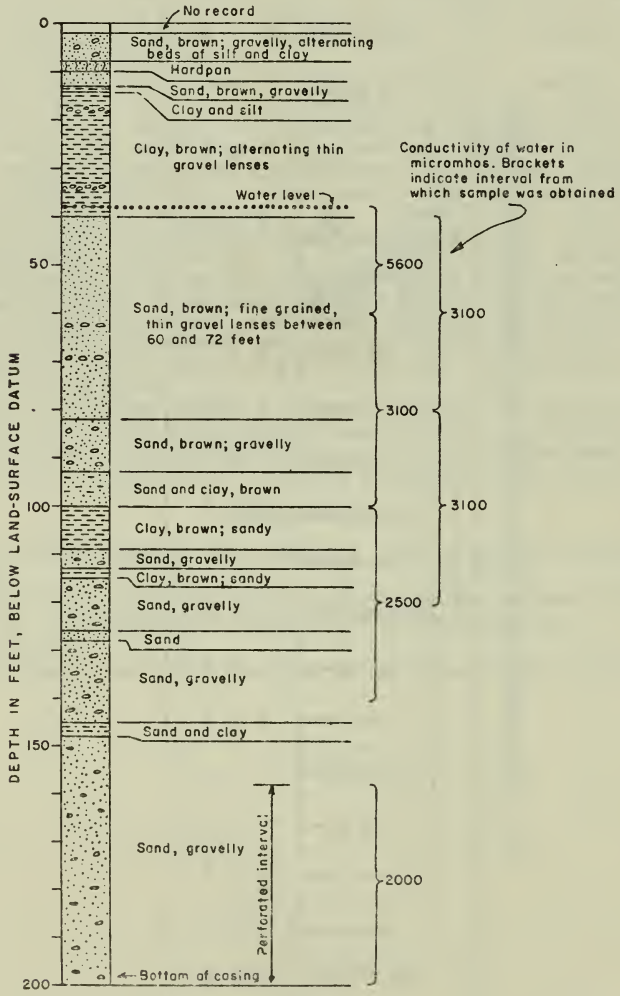
[1] Electrical conductivity is used to estimate the approximate salinity of water.

Table 1.--Chemical analyses of water from well 27N/12-16R1, Death Valley National Monument, California

Date of collection	Perforated interval of well (feet)	Temperature (°F)	Results in parts per million																								Percent sodium	Sodium adsorption ratio	Specific conductance (micromhos at 25°C)	pH	Laboratory number
			Silica (SiO_2)	Arsenic (As)	Calcium (Ca)	Magnesium (Mg)	Sodium (Na)	Potassium (K)	Bicarbonate (HCO_3)	Carbonate (CO_3)	Sulfate (SO_4)	Chloride (Cl)	Fluoride (F)	Nitrate (NO_3)	Dissolved solids: Calculated (Sum of determined constituents)	Dissolved solids: Residue at 180°C	Hardness as $CaCO_3$	Noncarbonate hardness as $CaCO_3$															
1-16-64	40-80	80	67	0.05	15	25	740	42	1,300	0	522	98	5.5	0.8	2,160	2,120	139	0									89	27.2	3,220	8.2	45502
1-21-64	100-140	72	43	.00	48	60	438	28	675	0	595	135	6.0	5.6	1,700	1,610	368	0									70	9.9	2,540	8.0	45503
1-24-64	160-200	74	28	.00	58	69	332	28	610	0	462	126	2.8	.9	1,410	1,320	430	0									61	6.9	2,090	7.9	45501

U.S. GEOLOGICAL SURVEY FIGURE 1

National Park Service test well. About 300 feet west of the Visitors Center, about 100 feet north of road to the airport. Cable-tool drilled by Effinger Well Drilling Co., Las Vegas, Nevada, January 15–24, 1964. 6-inch casing perforated, 160 to 200 feet. Log by Mack G. Croft, U. S. Geological Survey.



LOG OF WELL 27N/1E-16R1, DEATH VALLEY, CALIFORNIA

Mr. Moss. I'd like at this time, because we have been talking of various water measurements, to place in the record a table which I directed be prepared, setting forth various measurements commonly used in reference to water. If there is no objection, it will become an exhibit at this point in the record.

(The table follows:)

COMPARISON OF WATER VOLUMES

(Death Valley, Calif.)

1 cubic foot is equal to:		1 acre-foot is equal to:	
7.4805	U.S. gallons	43,560	cubic feet
28.317	liters	325,851	U.S. gallons
1 second foot (cubic foot per second) is equal to:		5 second-feet (c.f.s.) is equal to:	
448.8	U.S. gallons per minute	2,244	
26,928	U.S. gallons per hour	134,640	
646,272	U.S. gallons per day	3,231,360	
60	cubic feet per minute	300	
3,660	cubic feet per hour	18,300	
86,400	cubic feet per day	432,000	
1.9835	acre feet per day	9.9175	
723.9669	acre feet per year	3619.8345	

Miner's inch.—An obsolete measure of water, sometimes computed at one-fiftieth of a second foot, and sometimes at one-fortieth of a second foot.

The term "miner's inch," as used in some of the early correspondence relating to the waters of Furnace Creek in Death Valley, apparently was understood as equivalent to one-fiftieth of a second foot. For example, John Ryan's letter of April 14, 1913, to William Locke mentions measurements made "9 months ago" (i.e., in July 1912) of waters at the head of Furnace Creek amounting to "92.1 miner's inches, equal to 1.843 c.f.s." and states that the ranch received waters from both Furnace Creek and Texas Spring amounting to "69.1 miner's inches, equal to 1.383 c.f.s." These figures indicate that the computation was on the basis of 1 c.f.s.=50 miner's inches. However, a miner's inch was defined in the act of March 23, 1901, California Laws, 1901 (p. 660, ch. 222) as equal to "1½ cubic feet of water per minute," which is equal to one-fortieth of a cubic foot per second. *Lillis* v. *Silver Creek and Panoche Land and Water Co.*, 32 Calif. App. 668, 163 Pac. 1040 (1917). The court in the latter decision stated (163 Pac. at 1043): "Prior to the adoption of the above statute an inch or miner's inch in this State was defined as the quantity of water passing through an orifice 1 inch square under a 4-inch pressure, which would make the inch equal to one-fiftieth of a cubic foot per second."

Mr. INDRITZ. Mr. Kunkel, when you provide that report as to the results of the test drilling, would you also consult with the Office of Saline Water and ascertain from them the economic possibility of desalinizing that water by, for example, the ionic membrane method, or any of the other methods that are now being studied to determine whether desalinization techniques, when combined with the geologic and the other water development techniques, might result in an increased potable supply with such desalinization.

(Subsequently, the following letter was received from the Office of Saline Water:)

DEPARTMENT OF THE INTERIOR,
OFFICE OF SALINE WATER,
Washington, D.C., June 8, 1964.

Mr. PHINEAS INDRITZ,
Chief Counsel, Subcommittee on Natural Resources,
House of Representatives, Washington, D.C.

DEAR MR. INDRITZ: This Office has been asked by Geological Survey, in a memorandum of April 20, to reply directly to you on the desalting of brackish water in Death Valley National Monument.

The USGS report entitled "Results of drilling test well Creek Branch in Death Valley National Monument," shows the brackish water in question to have total dissolved solids ranging between 1,410 to 2,120 parts per million. Within this range of dissolved solids and based on present day technology, electrodialysis would be the most economical conversion process to use.

The context of this request did not specify the size of plant desired. It is understood that brackish water supplies are very limited in this area so that most likely small capacity plants would have to be used.

In small capacity plants, of less than 100,000 gallons per day, production costs are very sensitive to a number of factors such as the cost of electrical power. There can be a wide variance in production costs between almost identical plants treating different type waters in different type locations.

With this in mind, a typical example of a small electrodialysis plant is the 40,000 gallons per day plant located at Gettysburg, S. Dak. This plant treats a water of 1,900 parts per million and reduces the solids content to below 1,000 parts per million. The cost of this plant, which was built in 1960, was about $55,000. This cost included the process equipment and pretreatment pressure sand filters only. It did not include the cost of the building housing the equipment, nor the cost of the ground water wells and lines required to bring the water to the plant or provision for water storage. Making a number of favorable assumptions, such as assuming 100 percent on-stream operation throughout the year, the equipment supplier has reported a production cost of about $1 per 1,000 gallons.

To give you more information on the present day status of electrodialysis, a copy of the 1963 saline water conversion report is enclosed with this letter.[1] Pages 102 through 111 describe the developmental work in this field being sponsored by this Office. Pages 148 through 155 and 162 through 164 describe the work being done at the 250,000 gallons per day demonstration plant located in Webster, S. Dak. Review of this material should answer several of the questions that have likely been raised regarding the economic feasibility of desalting brackish water in Death Valley.

If it is decided to pursue the matter further, and if more specific information is needed, we would of course be very glad to comment further. In this case, we would like to be advised of the size of plant desired, and cost of electrical power in the area. These two factors will permit us to comment more precisely.

Sincerely yours,

DOUGLAS J. MCFARLANE
(For Charles F. MacGowan, Director).

Mr. KUNKEL. Well, as a matter of fact, we presently are working rather indirectly with the Office of Saline Water, compiling a map for California showing the areas of saline water, treating it as a resource rather than as a liability, shall we say, and we will certainly do what we can.

Mr. INDRITZ. My question is: Would you have them make estimates as to the economics of applying the desalinization techniques to this water?

Mr. KUNKEL. All right. That may take a little while. We will get the other to you first.

Mr. INDRITZ. Thank you.

Mr. MOSS. In my opening statement, I indicated my impatience with the Department because of their failure to prepare, in what I regard a timely fashion, a legal opinion setting forth the views of the Department on the water rights of the Government in this area. I would now like to place in the record my letter of January 16, 1962, to the Assistant Secretary of the Interior, together with his response of March 23, 1962, and his further letter of January 23, 1963.

[1] The 1963 Saline Water Conversion Report is in the subcommittee files.

(The letters referred to follow:)

JANUARY 16, 1962.

Hon. JOHN A. CARVER, Jr.,
Assistant Secretary of the Interior,
Department of the Interior, Washington, D.C.

DEAR MR. SECRETARY: Your letter of October 31, 1961, stated that you will advise this subcommittee as to any discussions with the Borax Co., concerning water rights in Death Valley National Monument. Your letter also stated that no water rights agreement will be made with the company until this subcommittee has completed its investigation of the water rights situation in Death Valley and the relationships between the Department and the company.

Accompanying your letter were copies of four letters between the Park Service and the company.

The Park Service letter of November 7, 1960, stated that for the "purpose of determining whether negotiations should be undertaken," the Park Service is compiling data on the history of water use in the monument area. The letter requested the company to do likewise, and to supply such data to the Park Service. The letter states that with such data, "together with the analysis of the present and future potential water needs in the area, and an idea of he ultimate developments of both interests," the Park Service and the company could then seek to negotiate an agreement.

In its response of March 30, 1961, the company stated that "not very much can be gained by expending effort on an attempted reconstruction of past records," and suggested that "we should start with the present situation and facilities and examine existing and future needs in the light of present and potentially available water supplies."

It is our understanding that the legal rights of the Government and of the company to the water in Death Valley depend in large measure on the history of the company's actual beneficial use of water made pursuant to the water laws of the State of California and the public land laws of the United States. Therefore, the company's letter of March 30, 1961, in effect, proposed that negotiations between the Park Service and the company should be without regard to their respective legal rights, but only on the basis of their respective present use of, and future needs for, the water in Death Valley.

Such a basis appears to be wholly inconsistent with the language and purpose of the act of July 2, 1958 (72 Stat. 295; Public Law 85–495). That act authorized the Secretary of the Interior to enter into an agreement with the company "defining, fixing, and establishing the respective rights" of the company and the Government to the use of the waters in the monument. The act speaks in terms of "rights" of the parties, not their present and future needs. The reports of the House and Senate committees which considered the bill, and the Department's letter of April 18, 1958, supporting the bill, all spoke in terms of the "respective rights" of the company and the United States (H. Rept. 1714 and S. Rept. 1645, 85th Cong., 2d sess).

We would, therefore, appreciate knowing what response the Park Service has made, or will make, to the company's letter of March 30, and whether the Department intends to conduct any negotiations with the company on a basis which disregards consideration of the existing legal rights of the parties.

Sincerely,

JOHN E. MOSS,
Chairman, Special Subcommittee on
Assigned Power and Land Problems.

DEPARTMENT OF THE INTERIOR,
OFFICE OF THE SECRETARY,
Washington, D.C., March 23, 1962.

Hon. JOHN E. MOSS,
Chairman, Special Subcommittee on Assigned Power and Land Problems, Committee on Government Operations, House of Representatives, Washington, D.C.

DEAR MR. MOSS: This responds to your letter of January 16, with regard to the consideration to be given the respective legal rights of the United States and the Death Valley Hotel Co., Ltd., in the negotiation of any agreement between

the parties under the act of July 2, 1958 (72 Stat. 295). As you are aware, this act relates, among other things, to the use of water available from Texas Springs, Furnace Creek Wash, and other sources in Death Valley National Monument, Calif.

You asked to be informed of our position with respect to the statement in the company's letter of March 30, 1961, that little could be gained by an attempt to reconstruct past water use records and the proposal that attention should be directed only to present and future visitor and administrative needs "in the light of present and potentially available water supplies."

We are in agreement with the import of your letter that in the negotiation of any contract with the company we must have as much information as it is possible to obtain regarding the legal rights to the use of water of both the United States and the company. However, it should be noted also that House Report 1714, 85th Congress, states, in part, that: "The exchange of land, and an equitable division of water supplies in the Furnace Creek area of the monument, as contemplated under the terms of the bill, will assist in the development of additional visitor and administrative facilities needed in the area."

Senate Report 1645, 85th Congress, speaks similarly of "* * * an equitable division of water supplies * * *."

It is our purpose at the present time to gather as much data as possible which, in our view, we ought to have in order to permit a proper handling of the negotiation and preparation of the contract authorized by the act. The National Park Service is in the process of gathering such data now. There has been no representation to the company by the National Park Service of its concurrence in the company's suggestion for contract negotiations.

We repeat the assurance given you in our October 31, 1961, letter that we will keep you informed as to any negotiations and discussions with the Borax Co.

We hope that this responds to the questions which prompted your inquiry, and we regret the delay in making this reply.

Sincerely yours,

JOHN A. CARVER, JR.,
Assistant Secretary of the Interior.

DEPARTMENT OF THE INTERIOR,
OFFICE OF THE SECRETARY,
Washington, D.C., January 23, 1963.

Hon. JOHN E. MOSS,
Chairman, Special Subcommittee on Assigned Power and Land Problems, Committee on Government Operations, House of Representatives, Washington, D.C.

DEAR MR. MOSS: On several occasions over the past few weeks I have transmitted extensive files of memorandums, letters, reports, and other documents relating to land and water matters at the Death Valley National Monument. This was done in response to requests from members of the committee staff.

In view of your very active interest in this subject, I think it important to advise you as to the current status of these issues within the Department. This should probably have been mentioned in one of our transmittal letters, and I take this course of correcting that omission.

As you may know, very soon after the change of administrations members of the committee staff visited my office to inform us of your interest in the administration of the national monument, referring particularly to questions about water rights and any attempt to resolve those questions through negotiations with the private landowners. Immediately upon receiving that information I inquired as to the status of any such negotiations and satisfied myself that none were underway. At that time, however, studies were being conducted to (1) ascertain the total known water resources of the Furnace Creek area, and (2) project the water requirements for both the private and Government activities in that area, based on their respective plans for expansion of facilities. I expressed no objection to completion of those studies but directed that no steps would be taken in the direction of an agreement to allocate water rights without prior clearance from the Secretary.

Subsequently, and on the basis of more detailed acquaintance with the issues, I became convinced that the Department could make no intelligent decisions on this subject without firm legal advice as to the validity of the various claims to water sources in the Furnace Creek locality. Therefore, the Solicitor was

requested to initiate a comprehensive review of the subject. His study is now underway, and I am certain that it is well known in all affected quarters of the Department that decisions are being held in abeyance pending its completion.

While the above information may have been conveyed to you informally, I felt it highly desirable that the Department transmit to you its formal assurance that there is no inclination to utilize the authority of the 1958 legislation until the legal rights of the Government are fully defined and understood. It goes without saying, of course, that any subsequent negotiations would be undertaken in a manner which would fully protect the Government's interest as they may be defined by our legal advisers.

Sincerely yours,

JOHN A. CARVER, JR.,
Assistant Secretary of the Interior.

Mr. Moss. I believe we have a representative of the Solicitor's Office in the audience at this time.

TESTIMONY OF FRANK HORNE, REGIONAL SOLICITOR, DEPARTMENT OF THE INTERIOR

Mr. Moss. Mr. Horne, do you know whether the Department is at this time prepared to state any views on the legal questions involved in water rights?

Mr. HORNE. Mr. Chairman, we are not prepared to do that. We are conducting the studies that the Solicitor has assigned to us for the purpose of making recommendations so that he may take a position. I think Mr. Indritz and Mr. McClellan are familiar with our program. We have received from you, I believe, most of the basic material that you have acquired. We received that through the Washington office, at various times, as you supplied it to them.

Our studies have gone forward as rapidly as possible, but our studies are sandwiched in between many other things out here, as you can well understand, the Sacramento River diverters, and other problems, and it would require a little further time, perhaps, to get all of the data evaluated so that we can reach legal conclusions. Once we have the data evaluated, I do not believe it will take us too long to reach the legal conclusion which we will pass on to Solicitor Barry for purposes of doing our part of the job.

Mr. Moss. Well, I want to make it clear that my purpose in requesting this response from you was not in any manner to cause you embarrasssment, but I think it illustrates a fact too often lost on the American people when they undertake to be critical of the Congress for its apparent lack of speed many times. The pace of congressional activity, of committee activity, is of necessity dependent upon the responses from the executive departments and agencies of Government.

In this instance we are confronted with almost a 2-year delay by the Department on the subcommittee's request for action by the Department which would aid in expediting the work of the subcommittee. I think it illustrates a problem which needs broader public understanding.

We will now call Mr. Martin McDonough.

Mr. MCCLORY. Mr. Chairman——

Mr. Moss. Mr. McClory?

Mr. MCCLORY (continuing). I'd like to know the man that we have been talking with.

Mr. HORNE. I am Frank B. Horne, Regional Solicitor in Sacramento.

Mr. Moss. I would not have the record imply that it is the chairman's judgment that Mr. Horne is less than efficient.

Mr. HORNE. Thank you, Mr. Chairman.

Mr. Moss. We will call Mr. Martin McDonough.

Mr. McDonough, will you be sworn?

Mr. MCDONOUGH. Yes, sir.

(Martin McDonough, called as a witness on behalf of the Special Subcommittee on Death Valley National Monument, was duly sworn.)

TESTIMONY OF MARTIN McDONOUGH, ATTORNEY AND CONSULTANT, SACRAMENTO, CALIF.

Mr. Moss. Will you identify yourself for the record?

Mr. MCDONOUGH. My name is Martin McDonough, and I am an attorney at law in Sacramento.

Mr. Moss. And you have been acting as a consultant to this subcommittee; is that correct?

Mr. MCDONOUGH. Yes, sir.

Mr. Moss. At the request of the chairman of the Committee on Government Operations, the Honorable William L. Dawson, and in accordance with the contract agreement between you and the parent committee, you have undertaken to prepare a legal analysis and an opinion on the water rights in this area; is that correct?

Mr. MCDONOUGH. That's correct.

Mr. Moss. And I wonder if you would, for the record, set forth your background and qualifications in water law.

Mr. MCDONOUGH. Well, Mr. Chairman, I was graduated from the school of jurisprudence of the University of California in 1937. Subsequent to that time I had been employed by two State agencies, including the office of legislative counsel. I was attorney for the Sacramento Municipal Utility District from 1942 to 1951. Since 1951 I have been in private practice in the city here. My principal activity is in the field of water and power law, and I have practiced before the State water rights board and the Public Utilities Commission, as well as the courts of California and the United States in these fields. I represent both public and private clients. I have done work in the water field for the cities of Sacramento and North Sacramento and Redding and Folsom. I represent the county of Sacramento and the county of Alpine, the Sacramento Municipal Utility District, the Monterey Peninsula Water District, the San Bernardino Valley Municipal Water District, Tuolumne County Water District No. 2, the Camp Far West Irrigation District, and various other clients.

I am a member of the Advisory Council to the University of California Water Resources Center, and I have served on various committees of the State dealing with water problems.

Mr. INDRITZ. Mr. McDonough, would you outline the materials that you had available to you and which you considered in analyzing the legal relations concerning water rights within the Furnace Creek drainage area of the Death Valley National Monument?

Mr. MCCLORY. If you'd permit, I'd like to make just this comment. It seems to me the whole purpose of our hearing is to determine these respective factual and legal rights with regard to water in Death Valley, and I would find it extremely valuable if the witness, Mr.

McDonough, would read his report, which I think would contain the information which Mr. Indritz is now requesting, plus the legal opinion that he will give and the authorities upon which he bases his opinion. I haven't had a chance to completely read the report which I just received this morning, because I find it very slow reading; and I just have the feeling that it would help me immensely, as a member of this subcommittee, if Mr. McDonough would read the report to us. I think that the emphasis he would give to certain parts of it might help me to understand his position.

Mr. Moss. We will take a recess now until 10 minutes of 4, at which time we will resume with the reading of the report.

(Afternoon recess taken.)

Mr. Moss. The subcommittee will be in order.

Mr. McDonough, you may proceed.

Mr. McDonough. I will read the memorandum but not the letter of transmittal, if I may. That memorandum tells the whole story and I will omit the footnotes in reading, as I don't think they're necessary to understanding the memorandum.

The subject is "Death Valley water rights."

Memorandum From Martin McDonough, Attorney and Consultant to the Special Subcommittee on Death Valley National Monument, to Hon. John E. Moss re Death Valley Water Rights

1. Purpose

This memorandum sets forth the opinion of the writer as to the relative rights of the United States and the Death Valley Hotel Co., Ltd., to the waters of Furnace Creek Wash and its tributaries and Texas Spring in Death Valley National Monument, Calif.

Under the provisions of the act of July 2, 1958,[1] the Secretary of Interior has been authorized to enter into an agreement with the hotel company to determine these relative rights. Only in this way, or by litigation, can any conclusive determination be made. The function of this opinion is to predict the outcome if litigation were the selected method of making the determination, and the available facts were those hereafter deduced; and is subject to the usual hazards of prediction in water litigation.

2. Preparation

Investigation of this matter commenced in 1960, when I examined the pertinent records in the offices of the Bureau of Land Management, the Geological Survey, the county recorder of Inyo County, and the State water rights board in the light of the relevant statutes, proclamations and Executive orders.

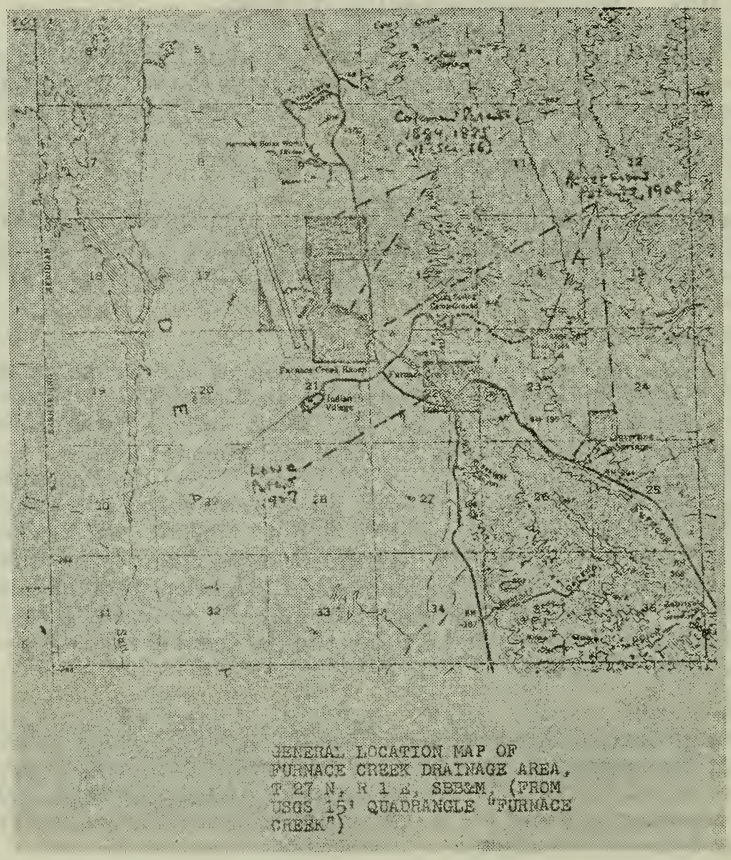
In 1963 copies of some 85 letters and other documents obtained by representatives of your subcommittee from the hotel company files, together with a summary statement of the company's legal position by its counsel, and summaries by company personnel of the principal historical facts and claims supported by maps, were supplied to me, and I have reviewed them and correlated them with my notes made in connection with my earlier work. The facts stated in this opinion are believed to be uncontroverted, except as specially noted.

[1] Public Law 85–495, 72 Stat. 295.

3. Present physical situation

The hotel company owns portions of secs. 16, 21, 22, 23, and 24, T 27 N, R 1 E, San Bernardino base and meridian, within the exterior boundaries of the monument and within the boundaries of the County of Inyo, Calif.[2] A location sketch is attached as exhibit A. The 160-acre parcel in section 22[3] contains a resort hotel, with related grounds and facilities, and will be called the Furnace Creek Inn property. A 180-acre parcel in sections 16 and 21,[4] which will be called the Furnace Creek Ranch property, contains cabins, a trailer court, a gasoline service station, store and restaurant, a golf course, and a date orchard.

EXHIBIT "A"



GENERAL LOCATION MAP OF FURNACE CREEK DRAINAGE AREA, T 27 N, R 1 E, SB&M. (FROM USGS 15' QUADRANGLE "FURNACE CREEK")

[2] Information relating to present land ownership of the hotel company and the present location of the water system in this opinion is based upon an examination of the plats of the area in the Los Angeles office of the Bureau of Land Management, the plats of the area in the office of the county assessor of Inyo County, and a search of the records in the office of the county recorder of Inyo County.

[3] S½NE¼ and N½SE¼.

[4] This is an irregularly shaped parcel in sec. 16 plus the N½NE¼ sec. 21. The hotel company owns other adjacent land and some noncontiguous parcels.

The hotel company owns a water system [5] which supplies irrigation and domestic uses, including recreational uses, on its ranch and inn properties. One source of supply is Texas Spring, located on hotel company land in section 23; [6] the others are 10 "travertine" springs, a buried tile, a tunnel, and a trench, in Furnace Creek Wash, all as more particularly described in an open-file report of the U.S. Geological Survey.[7] The points of diversion in Furnace Creek Wash, except the tunnel, are apparently all on Federal land,[8] and the water is conveyed across Federal land to the inn property and thence to the ranch property. The tunnel is on the inn property. The Texas Spring water is also conveyed across Federal lands to the inn and ranch properties. One of the travertine springs on Federal land in Furnace Creek Wash is located within Public Water Reserve No. 13, established December 1, 1913; [9] the remainder are located within Public Water Reserve No. 107, established April 17, 1926.[10] Rights-of-way for all diversion and conveyance works were conveyed by grant of easement from the United States of July 1, 1955.[11]

The USGS report just referred to deals with an area which it calls the "Furnace Creek Wash area," which is divided into the Furnace Creek drainage area and the Cow Creek drainage area. The Furnace Creek drainage area is the only portion involved in this opinion; it includes all of the sources of water involved here, the hotel company lands already referred to, and a much larger acreage of federally owned land.

The scarcity and value of good quality water in Death Valley generally is well known, and is characteristic of the Furnace Creek drainage area. The U.S. Weather Bureau reports that precipitation at the Greenland Ranch station, at Furnace Creek Ranch, is the least in the State, the 1931–55 annual average being 1.78 inches.[12] The same source reports that "Death Valley is the hottest place in the world based on long continued periods of heat." The aggregate potential demand of the hotel company lands and Federal lands in the Furnace Creek drainage area is doubtless many times the available supply.

That supply was analyzed in the USGS report. The authors compiled measurements of diversions to the system made by the hotel company and compared them with USGS measurements of outflow

---

[5] That location of that portion of the water system which is on Federal land is described in the "Grant of Easements" from United States to Borax Consolidated, Ltd., dated July 1, 1955, recorded in 118 official records of Inyo County, p. 275, and the rights-of-way for it are shown in book 5 of surveyor's maps, Inyo County, pp. 35 and 36.

[6] NW¼NE¼.

[7] "A brief geologic and hydrologic reconnaissance of the Furnace Creek Wash area, Death Valley National Monument, Calif.," by M. A. Pistrang and Fred Kunkel, 1958. Descriptions of the sources in documents prepared by the company differ slightly, but, it is believed, not significantly for the purpose of this opinion. See also a "brief summary" prepared by USGS dated 1963 by Fred Kunkel.

[8] This conclusion is based on the USGS report. Some of the correspondence reviewed assumes that one or more of the travertine springs are on the 40-acre tract owned by the hotel company in sec. 24; but none of the sources referred to in the USGS report are numbered as in sec. 24.

[9] Copy of order of withdrawal obtained from National Archives.

[10] "Circulars and Regulations of the General Land Office," January 1930, p. 1298. The order was made definite as to the NW¼NW¼ of sec. 25, and the N½NE¼ of sec. 26, where the springs are located, by interpretation No. 131, dated June 5, 1930, copied in the BLM office at Los Angeles.

[11] 118 O.R. (Inyo) 275.

[12] Climatography of the United States No. 60–4, pp. 3, 4, 15.

from those sources. Outflow of ground water in the Furnace Creek drainage area not utilized by the hotel company system was also measured or estimated whenever practicable. Measurements were made periodically through 1956 and 1957. According to the results, the Texas Spring source of the hotel company diverted 0.5 cubic foot per second; and the Furnace Creek sources of the hotel company diverted 3.9 cubic feet per second. The estimate of total recoverable discharge for the Furnace Creek drainage area, including the sources utilized by the hotel company and those not utilized, was estimated at 5 cubic feet per second during the period. Some other, earlier, estimates of hotel company diversions have been as high as 5.21 cubic feet per second. The USGS report estimates that the supply is practically constant year round.

The indicated total of 4.4 cubic feet per second for all hotel company diversions as of 1956 is confirmed by the company's consulting geologist-hydrologist in a report to the company.[13]

The only water conveyance works of the National Park Service in the drainage area is a conduit which takes water in quantities up to 0.078 cubic foot per second from the Texas Spring conduit of the hotel company and delivers it to Federal facilities located on Federal land, under an agreement with the hotel company. According to the 1959 progress report on one of its permits, made to the State water rights board, the Service had constructed an exploratory diversion trench which diverts 0.35 cubic foot per second from Furnace Creek Wash. This water was temporarily being diverted into the hotel company's system until it can be put to use by the service.[14]

4. History of water use and claims by the hotel company and its predecessors

It appears that the first notices of appropriation on the sources under discussion were filed by employees of W. T. Coleman in 1882 and assigned to him,[15] and in 1885 Coleman refiled for the purpose of making his claim more definite and certain.[16] These notices claimed the equivalent of 10 cubic feet per second [17] from Furnace Creek to be diverted on the north side of the wash near its mouth, very near the present location of Furnace Creek Inn, for use on the east half of section 16, part of the Furnace Creek Ranch property; and the equivalent of 6 cubic feet per second from Texas Spring,[18] for use on the Furnace Creek Ranch property in the east half of section 16, and on two locations of borate deposits (which use on locations for the pur-

[13] Interoffice correspondence, R. S. Brown to executive departments, July 11, 1956. Figures in the paper, "Water Supply and Water Use, Furnace Creek Ranch and Furnace Creek Inn * * *" dated Aug. 30, 1960, show that production had not increased to that date.

[14] Progress report for 1959 to State water rights board on application 10119, permit 5755. This statement does not appear in later reports.

[15] Vol. C, "Land, Water, and Mining Claims," pp. 369, 370. Information that W. B. Robertson, Jr., and R. Neuenschwander were employees of Coleman is found in "Here's Death Valley," by C. B. Glasscock, 1940, p. 115. The rights under these notices were assigned to Coleman by instruments recorded in book "M" of Deeds (Inyo), pp. 199 and 424.

[16] Vol. E, "Land, Water, and Mining Claims," pp. 160, 161. The points of diversion are different from those in the 1882 claims.

[17] Most of the early documents involved here, and some of the later ones, refer to "miners inches," usually specified to be under a 4-inch pressure, indicating a ratio of miner's inches to 1 cubic foot per second. Since miner's inches are frequently referred to as 6-inch pressure elsewhere, the miner's inch terminology is inherently confusing and equivalents have been used here.

[18] "Texas Spring" is also frequently described as "Texas Springs," whether one or more does not seem important.

pose of this opinion will be deemed to have been abandoned). Section 16 was patented to Coleman in two parcels: the east half on May 20, 1884, and the west half on February 14, 1885.[19]

There is indication in the nontechnical literature that Furnace Creek Ranch was irrigated from Furnace Creek sometime before these notices were recorded; and that an earlier notice was recorded for the same type of use by Aaron Winters, and subsequently conveyed to Coleman.[20] No significance is believed to attach to these matters for the purpose of this opinion, since there are not known intervening priorities, and the notices of 1885 are by themselves sufficient for all hotel company purposes and will hereafter be relied upon.[21]

That 80-acre portion of the ranch which is in section 21, together with the 40-acre tract on which Texas Spring is located, and another 40-acre tract near Travertine Springs, were patented to John D. Ackerman by three separate soldiers additional entry homestead patents issued in 1908.[22]

This property did not come into the same ownership as the ranch property until October 21, 1925,[23] when it was quitclaimed by Ackerman and his wife, and Rose L. Burcham, to whom Ackerman had conveyed a three-fifths interest in 1912,[24] to Clarence M. Rasor, an employee of Borax Consolidated, Ltd., a predecessor of the hotel company which then owned the ranch property. Rasor conveyed to Borax Consolidated, Ltd., on March 1, 1926.[25] When the ranch addition in section 21 first received water from Furnace Creek does not appear from the material available. Texas Spring water was apparently first delivered to the borate claims, and thereafter to the ranch property.[26] A map or plat in the patent files on the inn property apparently shows, however, that Texas Spring water was being diverted to the ranch property in May of 1926.

It appears probable that the portion of the ranch property in section 16, the place of use specified in the notices of appropriation, was actually irrigated with Furnace Creek water continuously from 1885 to the present time, with some of the ranch, and some of the water, devoted to domestic use in varying degree. The point of diversion was originally on the Federal land which later became the hotel property, according to the notice of appropriation, and was near the present tunnel supply point. Correspondence in the hotel company's files indicates that by 1904, the diversion point for Furnace Creek

---

[19] "O" Deeds (Inyo) 174; "O" Deeds (Inyo) 420. The deraignment of the west half is not clear from county records, but little of it is now in the ranch property, and the matter has not been pursued.

[20] Glasscock, op. cit., pp. 112, 117.

[21] There is no evidence that the 1885 notices were actually posted as required by the California Civil Code. The notices themselves do not recite the posting. However, it is possible that affidavits showing posting exist. It is not clear under California law what the courts would hold under these circumstances, if no evidence is presented; the point was vigorously contested in the case of *Arizona* v. *California et al.*, No. 9 original in the U.S. Supreme Court, without decision. For the purposes of this opinion I will assume that the posting could be proved. If posting cannot be proved the water rights of the hotel company may relate back only to the date of actual commencement of construction work.

These record deraignment of the notices of appropriation is not complete, as near as can be ascertained. However, it is believed that the appropriative water rights, being appurtenant to sec. 16, passed with it without specific conveyance.

[22] 23 Deeds (Inyo) 171, 172, 182, dated May 21, 1908, Nov. 5, 1908, and May 21, 1908, respectively, applications 1299, 1300, and 1298, certificates 588, 589, and 587.

[23] 5 O.R. (Inyo) 274, 275.

[24] 22 Deeds (Inyo) 354.

[25] 6 O.R. (Inyo) 363.

[26] "Analysis and Reconsideration of Water Values of Pacific Coast Borax and Death Valley Hotel Cos.," by A. Van V. Dunn, NPS hydraulic engineer, dated Nov. 15, 1941.

was about where it is now, instead of at the point specified in the notice of appropriation.

That tract called the inn property in this opinion, the 160 acres in section 22, was patented to Thomas Lowe under date of June 10, 1927,[27] on an application dated December 24, 1926. The patent is referred to as a soldier's additional homestead entry in the 1955 grant of easements; however, on its face it purports to be under the act of January 27, 1922,[28] which allowed a change of entry when a previous entry had been erroneously canceled. The 1922 act was repealed by the act of May 21, 1926,[29] which, however, allowed "any claim of which notice is filed within 60 days from the approval of this Act, upon which applications are presented within one year from the date of approval of this Act."

On February 21, 1927, an Executive order had been issued by the President excluding the area of the Furnace Creek Inn property from public water reserve No. 13.[30] Thomas Lowe conveyed to Pacific Coast Borax Co., under date of May 20, 1927, by a deed recorded at the same time as the patent,[31] and Pacific Coast Borax Co. conveyed to the hotel company by deed dated September 26, 1927.[32] The hotel company had been incorporated under the laws of the State of California on January 12, 1927.[33] Both Pacific Coast Borax Co. and the hotel company are believed to be now and at all times in the past relevant hereto subsidiaries of Borax Consolidated, Ltd., which last mentioned corporation has changed its name to Borax (Holdings), Ltd.[34] However, from 1927 until September 12, 1956, the hotel company owned the inn property and Borax Consolidated, Ltd. owned the ranch and involved other properties. Under date of September 12, 1956, Borax (Holdings), Ltd. deeded its holdings mentioned above to the hotel company, which now and since September 12, 1956, holds title to them all.

Prior to the grant of easements dated July 1, 1955, the hotel company and its predecessors had not obtained permanent easements across Federal lands. Under applicable opinions of the Solicitor of the Department of the Interior,[35] rights-of-way could be obtained for irrigation and related purposes over Federal lands merely by constructing the conveyance works, prior to March 3, 1891, under the act of July 26, 1866.[36] Subsequent to that date formalities have been required to obtain such rights-of-way,[37] and there is no record that the hotel com-

---

[27] 12 O.R. (Inyo) 205.

[28] 42 Stat. 349; Rev. Stat. 2372, 43 U.S.C. 697, second paragraph. Legislative history reveals that the statute was principally to provide a solution for the confusion caused by the decision in *Lane* v. *Hoglund,* 224 U.S. 175. (See 62 Congressional Record, pt. 2, pp. 1213 ff.)

[29] 44 Stat. 591, repealing the second paragraph of Rev. Stat. 2372, 43 U.S.C. 697. H. Rept. 144 and S. Rept. 445, 69th Cong., are virtually identical.

[30] Executive Order No. 4591.

[31] 12 O.R. (Inyo) 205.

[32] 12 O. R. (Inyo) 455.

[33] Information from the California secretary of State.

[34] Pacific Coast Borax Co. was incorporated under the laws of Nevada, Aug. 4, 1913; it changed its name to U.S. Borax & Chemical Corp., upon its merger with the U.S. Potash Co., on July 2, 1956, according to Moody's Industrial Manual, 1960, p. 1582. The same source reports that U.S. Borax & Chemical Corp. is controlled by Borax (Holdings), Ltd., through Consolidated Borax, Inc. Borax (Holdings), Ltd. was registered in Great Britain, Jan. 11, 1899, as Borax Consolidated, Ltd., and adopted its present name in May 1956.

[35] 58 I.D. 29.

[36] Act of July 26, 1866, sec. 9, 14 Stat. 253; Rev. Stat. 2339, 30 U.S.C. 51; 43 U.S.C. 661.

[37] *Peck* v. *Howard,* 73 Cal. App. 2d 308, held to the contrary in a suit not involving the United States, as to rights-of-way for private, as distinguished from public, irrigation. The California court relies heavily on the decision of the court of appeals in *U.S.* v. *Utah P. & L. Co.,* 208 F. 821, and does not discuss the later decision in the same matter by the U.S. Supreme Court, 243 U.S. 389.

pany and its predecessors undertook to comply with them prior to the establishment of the national monument. Thereafter the Congress, on March 24, 1952, enacted a statute [38] permitting a grant of easements in exchange for land, and the easement was granted by the United States under date of July 1, 1955.[39]

Relatively little factual information on the quantity historically diverted from any of these sources for use by the hotel company prior to 1956 is available from public records. The map in the Lowe patent field, previously referred to, shows a measurement of diversions in May 1926,[40] indicating that gross diversions from Texas Spring were 0.28 cubic feet per second and gross diversions from Furnace Creek Wash above the inn property and measured below the lowest feeder was 1.899 cubic feet per second; total production from Furnace Creek sources was 1.980 cubic feet per second plus losses to the point of measurement.

Information available for the first time recently, from hotel company files, enables one to see what its claims of water production are. These are summarized in one of the company's submissions.[41]

I won't read the table, but I will call attention to the fact that it shows that the production by the five sources involved is Furnace Creek, the South Travertine Spring, the Texas Spring, the Furnace Creek domestic, and the inn tunnel, and the total, first for the period from 1912 to 1926, with the 1928 increase, the 1933 increase, the 1936 increase, and the increases between 1941 and 1960. The table shows that between 1912 and 1926 the total production was 2.48 cubic feet per second from all sources and that the present, that is, the 1960, production from all sources is 4.28 cubic feet per second.

(The following is the table referred to in the prepared statement:)

[In cubic feet per second]

	Furnace Creek	South Travertine	Texas	Furnace Creek domestic	Inn	Total
Production: 1912–26	1.47	0.51	0.50			2.48
Increase:						
1928	.37	.17				.54
1933		.33				.33
1936				0.42	0.51	.93
1941–60		.30			(.30)	
Total, 1960 (Brown)	1.84	1.31	.50	.42	.21	4.28

It is believed that the company's figures on water production may be accepted for the purpose of this opinion; they are not inconsistent with other available data.

5. History of water use and claims by the United States

The lands and waters within the boundaries of Death Valley National Monument, like the rest of the lands and waters in the State of California not included within the Spanish or Mexican grants, were conveyed to the United States by the Treaty of Guadalupe Hidalgo in 1848.[42] By congressional legislation, acquisition of water rights on

[38] Public Law 284, 66 Stat. 27.
[39] 118 O.R. (Inyo County) 275.
[40] Referred to by the hotel company as the "Valjean measurements."
[41] Water developments of Death Valley Hotel Co., Ltd. (and its predecessors in interest) at Furnace Creek area, Death Valley, Calif., diversions, developments, and increase thereof, Feb. 13, 1963, by W. A. Ackerman, secretary, Death Valley Hotel Co., Ltd.
[42] 5 Miller's treaties 207.

Federal lands pursuant to State law was authorized [43] and in 1911 the California Legislature asserted title to all of the unappropriated water within the State.[44] However, the executive department of the Federal Government, including the Department of Interior, has not recognized this assertion so as to permit the acquisition of rights under State law adverse to the necessary uses of various types of reserved land.[45]

The first reservation in the Furnace Creek drainage area was affected, as already mentioned, by the President's order of December 1, 1913, creating Public Water Reserve No. 13. The order was recommended by the U.S. Geological Survey pursuant to the act of June 25, 1910—

> in order that the right to the use of the few springs that exist in this arid region may remain in the public.

As previously indicated this reserve includes one of the travertine springs.

The second reserve affecting this area was created April 17, 1926, and called Public Water Reserve No. 107. The President's order declared that—

> * * * every smallest legal subdivision of the public land surveys which is vacant unappropriated unreserved public land and contains a spring or waterhole * * * be, and the same is hereby, withdrawn from settlement, location, sale, or entry, and reserved for public use in accordance with the provisions of section 10 of the act of December 29, 1916 (39 Stat. 862), and in aid of pending legislation.

Public Water Reserve No. 107 includes the rest of the travertine springs and the tile and trench in Furnace Creek Wash.

The entire area of both reserves was again withdrawn when the national monument was established on February 11, 1933, by Presidential proclamation.[46]

Some time prior to 1940, the National Park Service developed water from springs on Federal lands adjacent to Texas Spring for use at the Texas Spring Campground. In 1940 the hotel company constructed a tunnel into Texas Spring and thereby interfered with the NPS supply. To resolve the situation an agreement between the parties dated February 27, 1941, hereafter referred to, permitted the Service to divert up to 0.078 cubic foot per second from the hotel company pipeline.

On September 13, 1940, the National Park Service caused two filings to be made with the California Division of Water Resources for the appropriation of unappropriated water of Furnace Creek Wash, to the extent of 1 cubic foot per second for recreational use and 0.5 cubic feet per per second for irrigation use.[47] On February 17, 1941, the United States applied for an additional 0.85 cubic feet per second for irrigation use from Furnace Creek and 0.078 cubic feet per second from three Texas springs on Federal land, and the Pacific Coast Borax Co. tunnel.[48] No protests were filed and permits were issued on these

---

[43] Sec. 2339, Rev. Stat., *California-Oregon Power Co.* v. *Beaver Portland Cement Co.*, 295 U.S. 142.

[44] Civil code, sec. 1410, as amended by Stat. 1911, ch. 407, p. 821, now water code, 102.

[45] Application of Jack A. Medd, 60 I.D. 83 at 100.

[46] Proclamation No. 2027, 47 Stat. 2554. This withdrawal had been preceded by a withdrawal under Executive Order No. 5408 issued July 25, 1930. The monument was subsequently enlarged by Proclamation No. 2228, dated Mar. 26, 1937, 50 Stat. 1823, but the area of enlargement is not involved here.

[47] Applications 10001 and 10002.

[48] Applications 10118 and 10119.

applications on April 2, 1941, and May 1, 1941.[49] The plan of development was to take water from a well in Furnace Creek Wash and convey it by pipeline to the pipeline from Texas springs to serve existing campgrounds and various proposed and existing Federal developments.

The 1955 grant of easements pursuant to Public Law 284 of 1952 sets out in full the agreement[50] between the National Park Service and representatives of the Pacific Coast Borax Co., under date of February 27, 1941, in which the company had also agreed not to protest the applications of the Service in consideration of the Service's declaration that the pending applications for appropriation of water from Furnace Creek Wash—

> did not contemplate the diversion and use of more than approximately 1.5 second feet, including the 35 gallons per minute applied for from the Texas Springs; * * *

The 1955 grant of easements also declared that—

> nothing herein shall be deemed to grant or deny either the Grantee or the United States the right to establish, initiate, or perfect water rights in conformity with the appropriative water laws of the State of California in effect when each appropriation is, or has been initiated.

In the absence of any indication to the contrary it will be assumed that the National Park Service still plans or desires to divert at least 1.5 cubic feet per second for park purposes, including Texas Spring water.[51]

6. Priority of the respective rights of the parties

The hotel company on the basis of this history claims that it has made a continuous development of the water in its sources, within a reasonable time, and with reasonable diligence. It is clear that the company claims at least its present production as a prior right to any right of the United States.[52]

(The document referred to appears in appendix 1, p. 564.)

There are two questions to consider in this connection: first, whether all or any part of the increase of use of water made by the hotel company since 1913 can be related to an earlier date than the commencement of use of that increase, say to the 1885 Coleman notices as the company claims, or to some other date prior to the establishment of Public Water Reserve No. 13 in 1913, under California law, without reference to the effect of the withdrawals or applications to the State water rights board made by the United States; and second, whether the withdrawals and applications by the United States change the result which would otherwise occur under California law.

In the discussion, it will be assumed that all points of diversion in Furnace Creek Wash are from the underflow of Furnace Creek and that the Travertine Springs are rising water from this underflow. This seems to appear from topographic maps and geologic maps to be assumed by everyone who had any reason to make an assumption

[49] Permits Nos. 5738, 5739, 5754, and 5755. An extension of time until Dec. 1, 1963, to complete construction work and application of water to beneficial use has been granted; and the period will probably be extended further.

[50] Usually referred to by the hotel company as "Drury-Jenifer Memorandum."

[51] The figure is merely intended to be a limit of the amount which may be developed under the four permits, and not an agreement of the maximum water legally available to the United States.

[52] Letter from Ray J. Coleman to Phineas Indritz, dated Feb. 4, 1963.

about it,[53] although I have not seen the assumption expressly stated. It is not clear that any assumption has been made about Texas Spring, but it should be noted that both Furnace Creek Wash and Texas Spring are identified as tributary to Salt Creek in the applications of the National Park Service to the State water rights board, and the board would have no jurisdiction if they were percolating waters rather than subsurface streams.[54]

It will also be assumed that the Furnace Inn property is riparian to Furnace Creek, including its underflow. It is claimed to be riparian by the hotel company and appears to overlie the underflow from all available maps. The Furnace Creek Ranch property has not been claimed to be riparian, and no map is available to me which seems to indicate that it is. The other property owned by the hotel compay does not use water, so far as it known.

A. HOTEL COMPANY RIGHTS WITHOUT REFERENCE TO FEDERAL ACTION

The quantity of water claimed in the Coleman notices posted and filed in 1885, 16 cubic feet per second, is more than enough to cover the present day diversions of the hotel company and any further quantity which it might reasonably be expected to develop, under the physical facts as they are presently known.

The Coleman notices in Furnace Creek Wash specify different points of diversion from those which the hotel company now utilizes and has utilized for a very long time, at least since 1904, and the place of use now and for many years past, perhaps from 1905,[55] is larger than the place of use specified in the notices, which did not include section 21. It is possible that water was never diverted from the points of diversion specified in the notices, and that it was originally diverted in whole or in part for use in section 21.

However, it is believed that a court would find that none of the facts enumerated in the paragraph next above prevents the relation back of water use to the notice. It is reasonably well established that both the points of diversion and the places of use of a pre-1914 appropriation may be changed from that specified in the notice, if no intervening right is prejudiced thereby.[56]

The absence of any complaint from owners of intervening rights for a long period of time is prima facie evidence that no injury occurred, and no evidence affirmatively indicating injury is known to exist.

The period of time within which increased use may be related back to a notice of appropriation or even to the commencement of use without a notice is not a fixed period under California law, and

---

[53] See the Coleman-Indritz letter just cited, pp. 16–19, where a riparian right (not applicable to percolating water) is claimed for the hotel company. Kunkel, in his "brief summary" for USGS, declares that the alluvial deposits in Furnace Creek Wash, through which the water flows "are contained in a well-defined channel of semiconsolidated to consolidated rocks" (p. 4).

[54] Water code, sec. 1200. The definitions in the water code do not accord with the views held by every geologist. See the decision in the "Order Extending Time" on Permit 5227 et al., adopted June 26, 1962, for a recent expression of the view of the State water rights board.

[55] Correspondence in hotel company files: Locke to Corkill, Jan. 8, 1914, Corkill to Locke, Jan. 30, 1914, Rasor to Zabriskie, Oct. 28, 1925.

[56] See discussion in Weil, "Water Rights in the Western States," 3d ed., pp. 529–557; see also civil code, sec. 1419, as enacted in 1872.

the courts generally talk in terms of reasonable diligence within a reasonable time.[57]

The conditions under which an initial appropriation may be enlarged by future use to meet future needs under a right which relates back (for priority) to the notice under which the initial appropriation was made are stated by Weil as of 1913 as follows:[58]

> First, the future needed amount must be originally claimed at the time of initiating the appropriation * * *. The future needs must have been in mind and claimed at the time the appropriation was originally made * * *.
>
> Second, the future enlargement cannot exceed the original capacity of the ditch * * *.
>
> Third, he can hold this future needed amount only for a reasonable time; if he holds it, without using it, longer than is reasonable under the circumstances of each case, the right to it is lost by abandonment, and he will be limited to the amount in use at the time of an intervening appropriation by another * * *.

Probably the effect of later California cases is to soften the sharp edges of these cases; in *Haight* v. *Costanich*,[59] the Supreme Court defined the qualifications there as:

> * * * the new use must have been within the scope of the original intent, and additional water must be taken and put to a beneficial use in keeping with the original intent, "within a reasonable time by the use of reasonable diligence," or the right to the additional water is subject to intervening claims.

There is no known precedent under California law for cutting off the right of relation back except in favor of an intervening priority. Since the enactment of the Water Commission Act, however, which took effect on December 19, 1914, it would appear, although it has not been adjudicated from what is now section 1202 of the water code, that the period of relation back will expire of its own force in favor of the State of California either (i) whenever the appropriator fails to exercise diligence in its development, or (ii) when a reasonable time, determined in the light of the objective sought when the notice was posted and filed, or all other circumstances, has expired; and that rights to additional quantities of water can only be obtained under permit from the State.[60]

In my opinion the California courts will eventually hold that the doctrine of forfeiture based on 5 years of nonuse, either total or partial, is the legal test of diligence on rights untested prior to December 19, 1914, in the absence of an intervening priority.

The determination of when a reasonable development period has expired is a more complicated matter. Development periods for irrigation use, as was this use prior to 1914, have been typically shorter than periods for development of municipal water by public agencies.[61] No instance of gradual development for irrigation purposes by a private entity [62] involving a period as long as is claimed here, 75 years,

---

[57] *Senior* v. *Anderson*, 115 Cal. 496. See Weil, op. cit., p. 515 et seq.

[58] Weil, op. cit., vol. 1, pp. 513–515.

[59] 184 Cal. 426 at 472.

[60] Water code, sec. 1202 ((b) and (c).

[61] The State water rights board has allowed large public agencies their municipal water requirements for up to 100 years in the future; see decision D–858, July 3, 1956; also D–893, Mar. 18, 1958.

[62] Imperial Irrigation District, a public agency, claimed the right of gradual development under irrigation notices made between 1893 and 1900 until 1951, in the case of *Arizona* v. *California* (see vol. III of California brief to special master, dated Apr. 1, 1959). The place of use was very large, and the projects required for complete development were enormous, requiring interstate compacts, international treaties, and massive Federal appropriations. The court did not find it necessary to determine the validity of the claims under California law.

is known to exist. It is not impossible, of course, that the courts would sustain such a period. No attempt is made, therefore, to predict the result if Federal withdrawals and applications had not been made, as discussed in the next section.

B. RIGHTS OF THE HOTEL COMPANY IN THE LIGHT OF WITHDRAWALS, APPLICATIONS, AND RESERVATIONS BY THE UNITED STATES

There are four acts by the United States which need to be considered to determine whether they have limited the water rights which have otherwise been acquired by the hotel company. They are the creation of Public Water Reserve No. 13 in 1913, the creation of Public Water Reserve No. 107 in 1926, the establishment of the Death Valley National Monument in 1933, and the filing of applications by the National Park Service with the predecessor of the State water rights board in 1941.

In connection with the public water reserve created in 1913 it appears that the area where Texas Springs arise was not included in the withdrawal and the area of only 1 of the 10 Travertine Springs was included. However some of the lands included in the reserve are riparian to the underflow of Furnace Creek and perhaps to the flow emanating from Texas Springs.

It seems probable to me that the courts would hold that the 1913 withdrawal reserved from appropriation those quantities of unappropriated water of the streams involved, including their underflow which are necessary for public use in connection with legitimate uses on the public lands, a quantity which may for present purposes be assumed to be not less than 1.5 cubic feet per section, the amount which the National Park Service now plans to develop for public uses at the monument, subject to vested rights of the hotel company.

The doctrine of implied reservation of water necessary to the development of withdrawn land has been expounded by the courts principally in cases relating to Indian reservations.[63] However, in *Federal Power Commission* v. *Oregon*,[64] the principle was reiterated and broadened, and in the recent decision of the U.S. Supreme Court in *Arizona* v. *California*[65] the Court held that the principle underlying the reservation of water rights for Indian reservations is equally applicable to other Federal establishments such as national parks, national monuments, national recreation areas, and national forests. And it is believed that this conclusion would also be reached in connection with public water reserves,[66] not only as to the springs, or rising water, of Furnace Creek, but as to the underflow which is the basic source of water as well.

In recommending the withdrawal, the Geological Survey declared that it was—

> in order that the right to the use of the few springs that exist in this arid region may remain in the public.

---

[63] *Winters* v. *U.S.*, 207 U.S. 564 first enunciated the doctrine, and it has been followed by a number of cases cited in *U.S. Ahtanum Irr. Dist.*, 235 F. 2d 321.

[64] 349 U.S. 435.

[65] *Arizona* v. *California*, 10 L. ed. 2d 542 at 578.

[66] The California State Water Rights Board considered this possibility in Matter of Application 16403. Mogle, decision No. D–964: "It is possible that the establishment of Public Water Reserve No. 22 had the legal effect of withdrawing the water of Echo Lode Spring under the laws of California. * * * However, it is not necessary to decide this question * * * (p. 3).

This language is susceptible of two possible interpretations: That it meant only to prevent the denial of access by the public to the springs by vesting title to the land in private parties, or that it meant that the right to the use of water itself was, notwithsanding, to remain in the public and not be made the exclusive property of a few, as is characteristic of an appropriation. An appropriation of such waters could be defeated under either doctrine, as the Interior Department and the courts have found, and it is not necessary here, either, to choose between them.[67]

The use of the water from the springs on the reserved areas was not forbidden, only the exclusive use of water; but such nonexclusive use did not result in the creation of an appropriative right.

There is a decision of the Department of the Interior that seems to proceed on the theory that only water which is available on the surface without any effort of man is withdrawn.[68] The reasoning behind this decision is difficult to find. In a later case the Department seemed to recognize that when a stream is involved, all its unappropriated waters are withdrawn, without regard to a test of manmade development.[69] At any rate, protecting rising water but not the stream that supplies it and with which it has hydraulic continuity would be futile indeed, and would not accomplish any public purpose.

The withdrawal effected by the creation of Public Water Reserve No. 13 may have automatically cut off the inchoate right to gradual and progressive development, that is, the right to put additional quantities of water to use. In *Silver Lake Power & Irrigation Company* v. *Los Angeles*,[70] and the Federal cases on which it relied,[71] certain withdrawals were held to cut off inchoate rights based on the initiation of work not yet resulting in the appropriation of water; and the philosophy of the court in the *Silver Lake* case would doubtless lead to the same result in the case of the inchoate right to put additional water to use, notwithstanding the exceptions in the statute under which Public Water Reserve No. 13 was established.[72]

However, it is unnecessary to determine this, for even if it should be held that the establishment of Public Water Reserve No. 13 did not automatically cut off the inchoate right to put additional water to use, it is believed that the withdrawal would be held to constitute an adverse claim, so as to afford an occasion for a judgment on the reasonableness of the length of the development period; otherwise the withdrawal would be unreasonably ineffective; and based on then existing court precedents [73] and then current practice [74] it would be held that a reasonable period for gradual and progressive development by

[67] The Solicitor of the Department of the Interior expressed this view as to Death Valley in 1935 (55 I.D. 371) and as to Public Water Reserve No. 107 in 1947 (60 I.D. 83).

[68] A. T. West & Sons, 56 I.D. 387. Cf. Lee J. Esplin, 56 I.D. 325, which involved a reservoir site, for which water was imported.

[69] Jack A. Medd, 60 I.D. 83.

[70] 176 Cal. 96.

[71] *Bear Lake Irr. Co.* v. *Garland*, 164 U.S. 1, and *U.S.* v. *Rickey Land & Cattle Co.*, 164 Fed. 496.

[72] 43 U.S.C.A. 142 excepts from the withdrawal lands on which valid steps to acquire patents were pending at the time. The exception in sec. 3 of the act of June 30, 1906, 34 Stat. 801, which the court was construing in the *Silver Lake case*, seems broader.

[73] The cases to 1913 are referred to in Weil, op. cit., vol. 1, p. 515.

[74] Decisions are scarce in recent years. Longer periods have been allowed by the State water rights board where there is no contest, or where special considerations exist; e.g., change order No. 74, Matter of Rich et al.

a private entity under an irrigation claim had expired during the 28 years between 1885 and 1913.[75]

The creation of Public Water Reserve No. 107 in 1926 had the effect of including in the reserve all of the visible evidence of the Furnace Creek stream from which the hotel company diverted. This act gave further notice to the hotel company and others that further appropriation of water in the area was to be prevented. It afforded another adverse claim, another occasion to measure a reasonable time for development by the hotel company, if for any reason the 1913 withdrawal had not resulted in its termination.

The establishment of the national monument in 1933, preceded by a withdrawal in aid of legislation in 1930,[76] fixed the character of the use of the previously reserved lands, as well as others newly reserved, and placed a Federal agency in charge with authority to develop the waters so reserved. The applications to the State water rights board made in 1940 and 1941 were in aid of this development, and assist in channeling the reserved waters to specific use. Whereas the public water reserves merely prevented the exclusive use of reserved waters by others, the appropriations then and thereafter made by the National Park Service reserve such waters from use by anyone except for the uses provided for by the Service.

If for any reason the courts should hold that private appropriation of the waters of the streams involved could continue notwithstanding the public water reserves, on some theory that only the rising water of the streams were protected, the creation of the national monument, and the withdrawal in aid of it, would constitute a separate occasion for terminating the development period without any similar limitation, since there is a direct precedent of a national monument with a claim to a stream in *Arizona* v. *California.*

Water use on the inn property has a different status, since the inn property is riparian, and since the reserve was specifically vacated as to it, by Presidential order of February 21, 1927, so that when the patent was issued on June 10 of that year no reservation was in effect as to it. It is quite possible that the strategic location of the inn property with reference to Furnace Creek was not thoroughly understood at the time, since the Secretary of the Interior stated in his letter of transmittal to the President that there were no "springs, water holes, or *other bodies of water*[77] on the land proposed to be released." Thus there was no reference to the riparian status of the inn property; nor is there any evidence that the applicant who was apparently an agent of the predecessor of the hotel company, called the attention of the Department to that effect.

The action vacating the water reserve withdrawal in 1927 is apparently inconsistent with the action of the Department in 1930 in denying a vacation with reference to lands on which the Travertine Springs are located, upstream from the inn property. In his decision holding the 1930 withdrawal application for rejection, the Acting Assistant Commissioner of the General Land Office quoted the Geological Survey as reporting that the "source of water on the withdrawn land

[75] The fact that the production of water remained the same for 14 years after reinforces this conclusion.
[76] Executive Order No. 5408, dated July 25, 1930.
[77] Emphasis added.

is clearly of the type intended to be included in a public water reserve * * *." Of course the source of water for the inn property and the Travertine Springs is the same.

Nevertheless the Government has failed to take any action with respect to the matter for more than 30 years, and regardless of the facts of the 1927 transaction, it seems unlikely that the patent could now be canceled.[78] As long as the grant remains in effect, the granted land would appear to have a riparian right to the stream passing through it, under the usual principles of water law.

By way of summary, then, the hotel company has, in my opinion, a vested right to the amount of water it was diverting for reasonable beneficial use prior to December 1, 1913, the date of the withdrawal for public water reserve No. 13; in addition, it has a correlative right to the quantity of water required for reasonable beneficial use on the inn property.

The information available does not permit making these quantities definite. Hotel company records show that in July of 1912 the quantities of water diverted at measuring points near the sources totaled about 2.4 cubic feet per second; the table reproduced on page 15 hereof says it was 2.48 cubic feet per second from 1912 to 1926. Of this, 1.4 cubic feet per second was delivered to the land in 1912. Estimates of irrigated crops in the 1912–13 period vary from 40 to 70 acres. Using the larger figure, the diversion indicated is at the rate of 1 cubic foot per second for each 30 acres, which is more water than would be provided by any of the standards which the State water rights board holds to be prima facie reasonable.[79] However, the reasonableness of any particular duty of water at any given place and time is a matter for agricultural experts, and I cannot conclude from the information at hand that the diversion of 2.4 cubic feet per second was unreasonable. If it was reasonable then, the hotel company is probably entitled to the benefit of later more efficient use.[80]

Quantifying the riparian right of the inn property also presents unusual problems. It appears to me that the remaining reserved lands would have a correlative right with the inn property, although reserved lands are probably not riparian in the usual sense.[81]

But it is not believed that a court would hold that the inn property had an exclusive right to the waters of the streams involved, as against reserved lands.[82] If the analogy of riparians is used, the apportionment of the subject water; that is, the water left after the prior appropriative right is satisfied, would be made on an equitable basis, as determined by a court.

---

[78] 43 U.S.C.A. 1166 fixes a 6-year statute of limitations on such actions.

[79] 23 Calif. Adm. Code 657. "(a) Irrigation use. (1) In most portions of the Central Valley of California and elsewhere in the State where similar conditions prevail a duty of 1 cubic foot per second continuous flow to each 80 acres shall be considered a reasonable headgate duty for ordinary crops. Where there is a greater abundance of water and a heavy transportation loss, or the land to be irrigated is of a porous, sandy, or gravelly character a continuous flow allowance of 1 cubic foot per sesond to each 50 acres may be considered reasonable. Under other conditions where water supply is less abundant and conditions are favorable to a more economical use a duty of 1 cubic foot per second to 150 acres may be considered reasonable for ordinary crops. For the irrigation of rice the customary allowances shall be 1 cubic foot per second continuous flow to each 40 acres of irrigated land."

[80] Hutchins, p. 388.

[81] Hutchins, p. 56.

[82] The Government should not be held to have any less rights on reserved lands than its grantees of public lands would have.

According to the U.S. Geological Survey report, the domestic supply to the inn property is furnished by the buried tile, and production averages about 0.4 cubic feet per second. In 1956, the hotel company geologist-hydrologist estimated that the inn property use was 55 gallons per minute maximum, and 37 gallons per minute minimum for sprinkling, domestic, and customer use, thus varying from 0.08 to 0.12 cubic feet per second.[83] No factors indicating the need for a reduction of that quantity in equitable apportionment are known.

Thus an allowance to the hotel company of 2.48 cubic feet per second for irrigation, as an appropriative right, and 0.12 cubic feet per second for domestic, sprinkling, and customer uses, on the inn property, as a riparian right, would seem to be reasonable maximums. It may be noted from the table on page 15 of this memorandum that production of water by the hotel company did not exceed 2.48 cubic feet per second until sometime after the establishment of public water reserve No. 107. If for any reason the court should hold that no action by the Government affected the acquisition of appropriative rights by the hotel company until the withdrawal in 1930 for the purposes of the national monument, the appropriative right acquired by the company would increase to about 3 cubic feet per second.

CONCLUSION

To summarize, the hotel company, in appropriate litigation to determine its water rights relative to those of the United States, would, in my opinion, have its appropriative rights limited to the quantities reasonably put to beneficial use at the time of the creation of the public water reserves, or at least at the time of the withdrawal for the creation of a national monument, perhaps 2.48 cubic feet per second, but in no event more than 3.02 cubic feet per second, and would have its riparian rights for the inn property limited to a quantity which probably would not exceed 0.12 cubic foot per second.

Mr. Moss. Thank you, Mr. McDonough.

Mr. McClory?

Mr. McClory. Thank you, Mr. Chairman, and thank you, Mr. McDonough. As a fellow member of the bar, I want to commend the excellent legal opinion which you have prepared and which will be of invaluable assistance to this subcommittee.

Mr. McDonough. Thank you, sir.

Mr. McClory. With regard to your excellent qualifications to give this expert opinion, I would like to inquire whether you have had occasion to represent any private interests against public water bodies in the course of your legal experience.

Mr. McDonough. Yes, sir; I have done that, and I now have been, for some time, representing various private water users, both private and public, along the Sacramento River, as against the United States.

Mr. McClory. I think you stated that you started this work for the subcommittee back in 1960, is that correct?

Mr. McDonough. Yes.

Mr. McClory. Had you given any prior legal opinion to the subcommittee?

---

[83] Memo to executive departments from Ralph Brown, dated Aug. 20, 1957, p. 8. On the basis of 250 g.p.c.p.d., used as 1970 requirements by the State water rights board at Lake Tahoe, this would provide for 300 people.

Mr. McDonough. I prepared, as a result of my examination of the public records that I mentioned, an opinion which was qualified highly because of my lack of familiarity with the facts.

Mr. McClory. Have you received copies of other legal opinions from our subcommittee?

Mr. McDonough. Yes, sir. I have received a copy of a legal opinion written by the attorney for the hotel company.

Mr. McClory. That was Mr. Coleman?

Mr. McDonough. Yes, sir.

Mr. McClory. I notice in the minutes of our committee or the report of our committee given to the House Administration Committee back in 1960 that the committee had received an opinion from a leading California water rights attorney. Have you——

Mr. McDonough. I do not recognize myself there, but I had rendered an opinion.

Mr. McClory. That was your opinion, was it?

Mr. McDonough. Very probably, yes.

Mr. McClory. Now, as I understand, you have a contract with the committee for the services that you have rendered?

Mr. McDonough. Yes, sir.

Mr. McClory. And is there a scale of compensation in that contract?

Mr. McDonough. As I recall the contract—I didn't read it recently—it has no scale of compensation. I did give a scale of compensation to the staff members who talked to me.

Mr. McClory. Have you been paid for the services that you have rendered?

Mr. McDonough. The services I rendered in 1960 I was paid for. I haven't been paid for the services I have rendered lately. I haven't billed them.

Mr. Moss. Will the gentleman yield?

Mr. McClory. I yield.

Mr. Moss. In view of the fact that contracts must be approved by the Committee on House Administration prior to their final execution by the chairman, on behalf of the subcommittee, I assure everyone that payment will be made.

Mr. McClory. Your opinion was just delivered to the subcommittee today; is that correct?

Mr. McDonough. Yes, sir, this morning.

Mr. McClory. You haven't had any earlier drafts of this opinion that have been submitted to this subcommittee?

Mr. McDonough. Yes, I have shown drafts of various portions of it to the staff of the committee.

Mr. McClory. Your submitting drafts or your conferences or any earlier work on this opinion hasn't affected your final opinion, has it?

Mr. McDonough. No, sir, in the sense that I haven't changed my opinion during the course of any of this process.

Mr. McClory. I find frequent reference to the *Silver Lake* case in other opinions that I have seen, and I notice you make reference to the *Silver Lake* case. Is there some particular aspect, though, that distinguishes the *Silver Lake* case from the case which we now have under consideration? That was not a case which involved a withdrawal of water from a reservation without exception, was it?

Mr. McDonough. The withdrawal was made under a different act of Congress, and that act of Congress contained an exception which has different language in it from the exception that the act under which the withdrawal here was made, and I believe that Mr. Coleman thinks that there is significance there.

Mr. McClory. Do you think that that case is controlling with regard to the present case?

Mr. McDonough. Well, the decisions of the Supreme Court of California would not be controlling in this instance, I believe, since it is a Federal matter, but I think the decision is indicative of what a good court might hold.

Mr. McClory. Now, with regard to the use of water for irrigation purposes, were you considering the irrigation use of water on the ranch property?

Mr. McDonough. Yes. The filings were originally made, I believe, for irrigation and the water was used for that purpose with, of course, incidental domestic use, for many years.

Mr. McClory. You are giving recognition to that earlier use?

Mr. McDonough. Yes, sir.

Mr. McClory. Mr. Chairman, I think that is all that I care to ask at the present time. I might have a question or two after the other interrogation.

Mr. Moss. Certainly.

Mr. Indritz?

Mr. Indritz. Mr. McDonough, on pages 13 and 14 of your opinion, you refer to the fact that the company had not obtained permanent easements across Federal lands prior to 1955; that the Solicitor of the Department has held that rights-of-way could be obtained for irrigation and related purposes over Federal lands without more than simply constructing the conveyance works up to 1891, and that subsequent thereto, so far as any records show, the company and its predecessor had not complied with any of the regulations relating to obtaining rights-of-way prior to the establishment of the national monument.

Now, on page 19 of your opinion you refer to the fact that the 1955 grant of easements has specifically declared, "nothing herein shall be deemed to grant or deny either the grantee or the United States the right to establish, initiate or perfect water rights in conformity with the appropriative water laws of the State of California in effect when each appropriation is, or has been initiated."

Will you indicate your views as to what effect the failure by the company to comply with the requirements for obtaining easements after 1891 may have upon the rights of the company to water itself, so far as the record show?

Mr. McDonough. I took the view that since the company has now acquired easements for its pipelines in 1955, pursuant to the act of 1952, the United States has no ability now to prevent the company from putting the water across Federal lands and therefore any defect that the right of the hotel company had before no longer existed.

Mr. Indritz. Well, would that view be incompatible with the declaration in the easements that the easement wasn't intended to either grant or deny any right or to affect the water rights that may have been in existence?

Mr. McDonough. I did not think that the saving language involved here prevented the document from clearing up the title of the hotel company so far as getting access to the water supply is concerned.

Mr. Indritz. Would it, therefore, be your opinion that the inclusion of the saving language in the easements, which was intended to prevent any effect upon the water rights, was a nullity?

Mr. McDonough. I wouldn't think it was a nullity, but I would think it was not appropriate to the particular situation of access to the water supply.

Mr. Indritz. I am not speaking of the access. I am speaking of the effect on the water rights.

Mr. McDonough. Well, the deficiency which existed in the water rights theretofore was the liability of being excluded from the Federal land and the liability to be excluded from access to the water supply, and I take it that the granting of easements remedied that defect. I don't want to say that it may not be argued either way. I only give you my view on it.

Mr. Indritz. At the end of your opinion you indicate that the view you have arrived at is that the water rights of the company would be limited to the quantities reasonably put to beneficial use at the time of the creation of the public water reserves in an amount up to 2.48 cubic feet per second. You then state an alternative, at least as of the time of the 1930 withdrawal for the creation of the national monument, which you quantify at 3.02 cubic feet per second. Would you explain the basis upon which you differentiate between the effect of the withdrawal made by the public water reserve orders and the effect of the withdrawal made in 1930, so far as it may affect water rights?

Mr. McDonough. Well, let me say first that, of course, as I have indicated earlier in my opinion, I think a court will hold that the withdrawal for a public water reserve will withdraw the water. I have considered the alternative here merely to indicate the range of possibilities. When the United States withdraws public land for a particular purpose, under the statute it does also withdraw certain appurtenant water rights as to which no quantity is assigned and that quantity depends on the purpose for which the withdrawal was made, and frequently it is very difficult for anyone to determine what quantity of water is intended to be withdrawn for a particular reserve. And I do not know whether the withdrawal for the public water reserve intended to reserve all of the remaining water there—according to this analysis about 2.5 cubic feet per second—or only some part of that remaining water. So I am clear that the withdrawal for the national monument would have included all of the remaining water. I am not entirely clear as to the effect of the public water reserve, but I think it would also have withdrawn all of the remaining water.

Mr. Indritz. As I understand, then, you say that you think that all three of the reserves would have the effect of withdrawing the remaining unappropriated water?

Mr. McDonough. Yes, sir; I think the 1913 withdrawal did.

Mr. Indritz. Now, in the *Silver Lake Power & Irrigation* case, the case brought by the Silver Lake Power & Irrigation Co. against the city of Los Angeles—176 California 96, 167 Pacific 697 (1917)—by the way, I assume you have read the case and you are fully familiar with the *Silver Lake* case?

Mr. McDonough. Well, I have read the case, Mr. Indritz.

Mr. Indritz. Was the Silver Lake Co. in that case engaged in construction to utilize the waters of the Owens River for irrigation and development of hydroelectric energy?

Mr. McDonough. Yes.

Mr. Indritz. Do you recall the nature of the withdrawal orders effected by the Secretary of the Interior in 1903 and 1905?

Mr. McDonough. Well, the withdrawal orders, as I recall, were in aid of a potential reclamation project and request made under an act of Congress which contained a general reservation for existing rights, as I recall. I don't have the language of the statute with me.

Mr. Indritz. Did the statute have an exception? Did the statute in that case have a provision excepting valid existing claims?

Mr. McDonough. My recollection is that those were not the precise words, but this was the effect of the exception. I thought it was the effect of the exception.

Mr. Indritz. Do you recall that the court in that case pointed out that the 1866 statute under which water rights are acquired, section 2339 of Revised Statutes—30 U.S.C. 51; 43 U.S.C. 661—specifically applied to protect rights "which had vested and accrued"?

Mr. McDonough. Yes.

Mr. Indritz. Would you state the holding of the case?

Mr. McDonough. Well, the case held that the construction of works to divert water did not give the one constructing those works a right as against the United States to continue to construct the works or divert the water to use or to appropriate it; that you had no right to appropriate water under those circumstances which the United States was bound to or had to respect to making the withdrawal.

Mr Indritz. Did the court indicate that under the conditions existing in that case the company would have a possessory right to continue with diligence the prosecution of the work until completion against all the world except the United States?

Mr. McDonough. Yes.

Mr. Indritz. Did the court rely on any Federal cases?

Mr. McDonough. Yes. It relied on two cases I cite in one of my footnotes here. One involving the——

Mr. Indritz. *Bear Lake Irrigation Co.* v. *Garland*, 164 U.S. 1——

Mr. McDonough. Yes, sir.

Mr. Indritz (continuing). And *U.S.* v. *Rickey Land and Cattle Co.*, 164 Fed. 496?

Mr. McDonough. That's right. They discussed those cases and relied on them, along with some other Federal cases.

Mr. Indritz. Do you recall the facts in the *Rickey Land* case?

Mr. McDonough. Not at the moment, I am afraid.

Mr. Indritz. Would it refresh your recollection if I were to mention that in the *Rickey* case, Rickey and the company had taken proper steps to secure a reservoir site on the public domain and purchased lands of considerable value for the purpose of diverting water into the reservoir site and were actually engaged in the construction of the tunnel to lead the waters from the reservoir for useful distribution, and while this was going on, the lands were temporarily withdrawn by the Secretary of the Interior for reservoir purposes?

Mr. McDonough. Yes, I do recall that, and it was held that the withdrawal defeated the right of the person that had been constructing the works in anticipation of using it for water development.

Mr. Indritz. You also referred to the *Bear Lake* case.

Mr. McDonough. Yes, sir. That was the U.S. Supreme Court case on which the California court relied in the *Silver Lake* case.

Mr. Indritz. Were the results of that case similar in legal effect to those in the *Silver Lake* and *Rickey Land* cases?

Mr. McDonough. Yes. Again, it was the case of works being constructed and the right existing to complete those works under all law except for the withdrawal which cut off their right.

Mr. Indritz. Do you know of any other cases, State or Federal, in which a person who had been engaged in constructing diversion works, or utilizing waters, and there came about a withdrawal by the Federal Government of the public lands, where the person doing such construction or utilizing the water was unable to defeat the effect of that withdrawal with respect to any waters that he had not, prior to the withdrawal, diverted and beneficially used so as to acquire a vested right?

Mr. McDonough. I do not know of any such case and I have looked for it on several occasions.

Mr. Moss. Mr. Romney, did you have any questions?

Mr. Romney. Yes, sir, I have one question.

Were you present this morning, Mr. McDonough, when Mr. Kunkel described, using one of the maps on the board, the geosyncline area which formed a basin to which they had drilled a test well?

Mr. McDonough. I had heard Mr. Kunkel, yes.

Mr. Romney. I believe he surmises that these are percolating waters, not a clearly defined stream. In your opinion what character of right would the United States have if it were to drill a well into that geosyncline trough and take these presumably percolating waters, when at the same time it would be reducing the water flow in the Texas Spring tunnel on land of the hotel company? I am assuming the drilling of the well by the United States would be on Federal land.

Mr. McDonough. If the United States were to drill a well on Federal land and it took from it percolating water and thereby reduced the flows which the hotel company was diverting, it would be actionable if it interfered with the quantity of water that the hotel company needed for its riparian use.

Mr. Romney. Another question that occurs to me, then, is:

Could there be a riparian right under the laws of California to the taking of percolating waters below the land of the United States, as in the case of this well?

Mr. McDonough. Well, if the waters are legally percolating waters, then what we are talking about, I guess, is overlying rights, rather than riparian. And the situation would be that there would be a sharing of the water between overlying owners over a percolating water basis rather similar to the sharing of water that would occur between two riparian owners in a stream.

Mr. Romney. Your earlier answer, Mr. McDonough, was that should the United States drill such a well, which would have the result of diminishing the flow from the Texas Spring tunnel, it would be actionable against the United States. Now, your later reply seems

to indicate there would be a sharing of these waters, and I am not sure now what, in your opinion, the position of the United States would be.

Mr. McDonough. Well, I think I was confused when we talked about the Texas Spring tunnel. I think I was thinking about the inn tunnel, so let me rephrase my thinking here.

If the United States drills a well on Federal land into percolating water and reduces the flow of the springs which the hotel company taps on its lands, in my view here, the hotel company has an appropriative right to the one-half cubic foot per second which it has been taking from the Texas Spring. I would assume that this ground water basin was overdrawn, and I would assume that if the water available to the company, the appropriative right was diminished, then it would have a right to prevent the taking of the water from the underground water basin.

Mr. Romney. Now, you have said that the company would have an appropriative right to Texas Spring for the Texas Spring waters?

Mr. McDonough. I did.

Mr. Romney. But if these waters were conveyed across lands of the United States to noncontiguous lands where they were put to use, this would be consistent with the doctrine of the appropriative right. Now, switching to the riparian rights which the hotel company appears to have developed on the so-called inn tract, that is, of the Furnace Creek Inn, if waters taken by the hotel company from the inn tract, pursuant to this riparian right, were conducted across noncontiguous lands for use on, let us say, the Furnace Creek Ranch, would this defeat the riparian right which otherwise would inhere in the company?

Mr. McDonough. The hotel company would have no right to use water under a riparian claim on the inn property anywhere else. It would not have the right to use that water on the ranch property under a claim of riparian right for the inn property.

Mr. McClory. And may I just ask this for clarification:

Unless the inn also claimed to possess some riparian right?

Mr. McDonough. You mean the ranch?

Mr. McClory. The ranch, yes.

Mr. McDonough. If the ranch claimed some riparian right, if it established some riparian right, it might divert upstream at any place where it could secure access to the stream, and it would have to get a right-of-way across public lands for that purpose.

Mr. Moss. Do you have further questions?

Mr. Romney. No.

Mr. Moss. Mr. Carlson, do you have some questions?

Mr. Carlson. Just one or two.

Mr. Moss. You may proceed.

Mr. Carlson. Mr. McDonough, there seems to be some implication in Mr. Coleman's statement that the Government, except possibly with reference to the 35 gallons per minute from Texas Spring, is not an intervening claimant, and therefore cannot raise the issue of due diligence. Is there any question in your mind that it is an intervening claimant?

Mr. McDonough. Well, I always accord a fellow lawyer the benefit of a question, but I would think it to be reasonably clear, under the Arizona case, and similar cases affecting withdrawals, that when the

United States does reserve lands and reserves water with them, it constitutes about the most effective kind of adverse claim.

Mr. CARLSON. Certainly, by virtue of the Executive proclamation creating the national monument?

Mr. MCDONOUGH. Yes, sir.

Mr. CARLSON. You state that prior to March 3, 1891, under the act of July 26, 1866, rights-of-way could be obtained by merely constructing the conveyance works. Was there another right-of-way act in 1891?

Mr. MCDONOUGH. Yes, sir, there was. I noted when I read this that I didn't cite the act in 1891, which does require the granting of a right-of-way, and I do not now recall what it is, but there was either an administrative or congressional act at that time.

Mr. CARLSON. Is that act still in effect?

Mr. MCDONOUGH. Yes, sir.

Mr. CARLSON. So that subsequent enactment just created alternate methods not covered in the 1891 act?

Mr. MCDONOUGH. Yes. There are various acts under which to acquire rights-of-way across Federal lands, but I do not believe now you can acquire right-of-way across them merely by use as you could prior to 1891.

Mr. CARLSON. Does the 1891 act put any discretion on the Secretary with respect to anyone who is not complying with the formalities required by the 1891 act?

Mr. MCDONOUGH. Unfortunately, I do not remember that.

Mr. CARLSON. Isn't failure to comply with the formalities required by the act merely a technicality that in some cases could probably be perfected even now?

Mr. MCDONOUGH. Well, the fact that it was done by act of Congress in this instance indicates to me that there was something more than a technicality involved. However, I do not recall the specific nature of the discretion vested in the Federal authorities to grant these rights-of-way.

Mr. CARLSON. That's all, Mr. Chairman.

Mr. MOSS. Mr. McClellan, do you have any questions you would like to direct to Mr. McDonough at this time?

Mr. MCCLELLAN. I do not, no, sir.

Mr. MOSS. Well, Mr. McDonough, I want to express to you my appreciation for your undertaking this work on behalf of the subcommittee. I think you have admirably fulfilled the role I desired—of having the subcommittee provided with an informed independent opinion—and I thank you on behalf of the subcommittee.

Mr. MCDONOUGH. Thank you, sir.

Mr. MOSS. You are excused.

At this point I would like to request that all of the documents relied upon by Mr. McDonough supplied by the subcommittee be included in the record. This conforms with a request made to the committee by representatives of the Death Valley Hotel Co., and would include the opinions supplied by their counsel to the subcommittee.

If there is no objection, they will be included in the appendix to the record.

In view of the hour, we will not proceed further with witnesses, but the subcommittee will adjourn to reconvene tomorrow morning at 9:30. The subcommittee is adjourned.

(Whereupon, at 5:05 p.m., the subcommittee adjourned.)

DEATH VALLEY NATIONAL MONUMENT

(Furnace Creek Area—Water Rights and Related Matters)

TUESDAY, JANUARY 28, 1964

HOUSE OF REPRESENTATIVES,
SPECIAL SUBCOMMITTEE ON
DEATH VALLEY NATIONAL MONUMENT
OF THE COMMITTEE ON GOVERNMENT OPERATIONS,
Washington, D.C.

The special subcommittee met, pursuant to call, at 9:30 a.m., in room 4202, State Capitol, Sacramento, Calif., Hon. John E. Moss (chairman of the special subcommittee) presiding.

Present: Representatives John E. Moss and Robert McClory.

Also present: Phineas Indritz, chief counsel; Sidney McClellan, assistant counsel; Miles Q. Romney, associate general counsel, Committee on Government Operations; and J. P. Carlson, minority counsel, Committee on Government Operations.

Mr. Moss. The subcommittee will be in order.

At this time I would like to request Mr. E. M. Hilton and Mr. George W. Norgard to come forward. Mr. Hilton, you are here in response to a subpena issued by this subcommittee; is that correct?

Mr. HILTON. That is correct.

(E. M. Hilton and George W. Norgard, called as witnesses on behalf of the Special Subcommittee on Death Valley National Monument, were duly sworn.)

Mr. Moss. Will each of you identify yourselves for the record?

TESTIMONY OF ELTON M. HILTON, FORMER CHIEF OF MAINTENANCE, SAN FRANCISCO OFFICE, NATIONAL PARK SERVICE; ACCOMPANIED BY GEORGE W. NORGARD, REGIONAL ARCHITECT, NATIONAL PARK SERVICE

Mr. HILTON. My name is Elton M. Hilton. I retired from the National Park Service on May 31, 1956. At that time I was regional chief of maintenance in the San Francisco office.

Mr. NORGARD. I am George W. Norgard. I think on the correspondence "Norgard" has two small "a's." It is a single "a."

Mr. Moss. All right.

Mr. NORGARD. N-o-r-g-a-r-d. I am regional architect, western regional office at present, and I was regional architect at the time of the visit.

Mr. Moss. Would you gentlemen take a seat?

Mr. MCCLORY. Could I make this inquiry, Mr. Chairman?

You mentioned that Mr. Hilton is here in response to a subpena. All of the witnesses who are in Government service now have come voluntarily; is that it?

Mr. Moss. All have come voluntarily.

Mr. McCLORY. We issued subpenas with regard to all witnesses who were not in the Government service?

Mr. Moss. That's correct.

Mr. McCLORY. There is no significance to the fact? Mr. Hilton didn't refuse to come or anything like that?

Mr. Moss. None whatsoever.

Mr. McCLORY. Just a formality of issuing the subpena because he was not now in Government service.

Mr. Moss. It is both a formality and in accordance with custom of the committees. I think most of the committees have done that.

Mr. McCLORY. I see.

Mr. Moss. Does either of you gentlemen have a prepared statement?

Mr. HILTON. No, I have no prepared statement

Mr. NORGARD. No.

Mr. Moss. Mr. Romney, you may proceed.

Mr. ROMNEY. Mr. Hilton, would you give us a brief account of your general background and professional contacts as they relate to the Death Valley National Monument?

Mr. HILTON. I have had 33 years of Government service, including 5½ years with the Army, mainly the Corps of Engineers. The rest of the time has been with the Park Service. I first visited Death Valley on an assignment from the Superintendent of the Yosemite National Park to accompany Harry B. Hommon, sanitary engineer of the Public Health Service, to the valley to assist Mr. Homman in the investigation of the potability and quantity of water supplies in the valley, and our trip there extended from March 5 to 8, 1933.

Mr. ROMNEY. I'd like now to ask the same question of Mr. Norgard before I proceed into a specific questioning of you.

Mr. NORGARD. Well, I have a little over 31 years of service with the Federal Government; 24 years of that has been with the National Park Service in the western region. Since November of 1950 I have been regional architect with the western regional office. During the war, before and after the war, for almost 8 years I was project planner with the Federal Public Housing Authority here in the West, western region of the Federal Public Housing.

Mr. ROMNEY. Mr. Hilton, you referred to a study you made of water resources in Death Valley National Monument back in 1933. Do you recall from that document or from that study anything significant about the springs which were in the Furnace Creek Area? I am referring specifically now to fences that were in the vicinity of those springs.

Mr. HILTON. We found a large number of springs in the vicinity of Furnace Creek Wash and a number to the north of the wash. There were fences around the springs, apparently to protect against contamination.

Mr. ROMNEY. Could you give us an estimate of the size of the fencing which surrounded the springs; what were the dimensions?

Mr. HILTON. Well, as I remember, they were considerably extensive. We did wonder about them and other fences as to the area covered by

the company and that question did appear in our minds, as we didn't have any papers which would indicate the holdings of the company. We wondered about them, as well as those of Walter Scott in the upper end of the valley.

Mr. ROMNEY. Would you be able to say whether some or all of those fences were on lands of the United States, rather than lands owned by the company?

Mr. HILTON. No; I would not.

Mr. ROMNEY. Would you offer an opinion as to that point?

Mr. HILTON. Well, I hesitate to offer an opinion, although the question did occur to us; we didn't ask the manager of the inn, or general superintendent of the company about them.

Mr. ROMNEY. Mr. Chairman, I have here a letter from the National Park Service from the acting assistant regional director of the National Park Service to the Director, dated May 24, 1963. Attached to this letter is a map which shows the total footage of fences located on lands in the area of the Furnace Creek Wash. The letter states that the Park Service does not have any information as to the purpose of the fences or when they were built, but it is believed that they were constructed prior to the establishment of the monument. Some of the fences on this map appear to be on lands of the United States. I would like to offer this document in evidence as an exhibit.

Mr. MCCLORY. Is this one you have furnished to the other members of the subcommittee prior to this time?

Mr. ROMNEY. No, sir.

Mr. MCCLORY. Any reason why we haven't had this in advance?

The thing that disturbs me is why is part of the file withheld and part is furnished to the subcommittee. I can't understand. Are we trying to surprise somebody here or entrap somebody in some way? I am disturbed about that. I don't know what the significance of this is in the first place, but it does seem to me that the members of the subcommittee should be given significant evidence about which we are to make inquiry at this hearing. From purely a legal standpoint, the witness is incompetent to testify here. He's already said he doesn't know. Now you have asked him an opinion, and we are not here for the purpose of getting opinions; we are here for the purpose of getting facts, and on the basis of the facts we are going to try to come to some conclusion; and so I would object as a lawyer to the nature of the inquiry of this witness beyond this point since he has already stated that he doesn't have any knowledge as to what the facts are, on what land the fences were or were not constructed.

Mr. Moss. Are you asking for a ruling on the point you raised, Mr. McClory?

Mr. MCCLORY. Well, I am asking for a ruling as to further inquiry of the witness with regard to anything beyond what he knows.

Mr. Moss. Well, the gentleman knows the committees of the House do not operate under any rules of evidence that are applicable in any legal proceeding. Their rules permit broad discretion and inquiry. We are trying here to establish all facts possible, but because of the long period of time we must, on occasion, rely upon the best opinion available to us. The Chair will not permit counsel to press any witness unnecessarily beyond the scope of his knowledge or his relevant opinion. However, in order to develop the record fully, I think it is

necessary that we continue with the questioning, and I will deal with any effort to press too far with any witness.

Do you have an objection to this going in the record?

Mr. McCLORY. No further objection than what I have stated.

Mr. Moss. The item will become an exhibit in the record at this point. It is a memorandum of May 24, 1963, to the Director from the Acting Assistant Regional Director, Western Region of the National Park Service, and includes a map of fence locations. It states:

> Enclosed are three prints for your use and that of the House Subcommittee on Government Operations of a map showing the location and approximate length of fences constructed by the United States Borax Co. on public lands in the vicinity of Furnace Creek. The Superintendent does not have any information as to the purposes of the fences or when they were built. He believes, however, they were constructed prior to the establishment of the monument.

This is signed by Robert S. Luntey. He does not identify himself, nor does the map.

(Memorandum dated May 24, 1963, to the Director from the Acting Assistant Regional Director, Western Region of the National Park Service, including a map of fence locations, is in the subcommittee files.)

Mr. ROMNEY. Mr. Chairman, I would like to ask another question on this same point. Perhaps the witness may have personal knowledge as of the condition of these fences now.

Mr. HILTON. I don't believe the fences were particularly well constructed.

Mr. ROMNEY. And have you had occasion to view these fences in recent years?

Mr. HILTON. I accompanied Mr. Norgard to Death Valley in April of 1956, and did observe some remnants of fences at that time.

Mr. ROMNEY. I think for the record, Mr. Chairman, I want to just close this point by saying that from our own view of the site recently, the members of the subcommittee and the staff were able to see that the fences no longer constitute an enclosure but were in general disrepair and appear to be at random places on the terrain.

Mr. McCLORY. Well, may I just inquire further. This map doesn't show that there is any enclosure. As I understand these fences, they were to impede the progress of animals that might come and use the waters in the springs and they were placed at sort of key locations where animals might be approaching the springs, and that looks to me to be what this diagram here indicates. This doesn't indicate an enclosure of fences to me. Is there some difference between what the map shows and what we observed?

Mr. Moss. In 1933, Mr. Hilton accompanied Mr. H. B. Hommon, sanitary engineer, to Death Valley for the purpose of inspecting its water resources, determining potability, and so forth. In the report prepared at that time it was indicated that in the Furnace Creek area there were enclosures, effective enclosures, around a number of the springs. In view of the fact that fencing on public lands may be contrary to law, I assume we are merely to determine if these remnants of fencing now in the monument were from the fences observed by Mr. Hilton at the time he and Mr. Hommon made their inspection back in 1933.

Mr. HILTON. Yes, that is my general conclusion, although I believe in 1956 there were still some enclosures of springs to avoid contamination.

Mr. Moss. Thank you.

Mr. MCCLORY. It does refer to enclosures of fences, but it doesn't sound to me as though the fences that the gentlemen saw are the fences to which reference is made in this report. There seem to be two different types of fences, one to enclose, to protect the springs from contamination, as the witness states, and other fences which seem to be erected over a large area, not an enclosure, which are there for the purpose of impeding animals.

Mr. HILTON. That is correct, Mr. McClory.

Mr. MCCLORY. Two different types of fences?

Mr. HILTON. Yes.

Mr. MCCLORY. I think the fences that we saw during our inspection tour were those that relate to the animal approaches and not the smaller enclosures to which you made reference and which you saw at an earlier date.

Mr. HILTON. That is probable.

Mr. Moss. On that basis, the Chair would like to make this observation: It becomes important only, I suppose, from an academic standpoint, as to whether these are remnants of the fences that you observed in 1933. If they are, in fact, fences of later construction, it would show a tendency on the part of the tenants or the owners of land bordering the Federal lands to actively operate on the Federal lands in a manner almost consistent with proprietorship because they certainly sought no permission from the Government nor from any other source for the construction of these fences. Whatever the purpose might be, they may constitute as much an evasion of public lands or a trespass as any action that would enclose them completely. It is not the privilege of any citizen to undertake to use the public lands in a manner inconsistent with law or regulation or established policy, and however well intended they might be, whatever justification there might be, they still should seek, through proper means, to get the authority for their actions.

Mr. ROMNEY. Mr. Hilton, do you have before you a copy of the memorandum prepared jointly by yourself and Mr. Norgard to the regional director, dated April 24, 1956, on the subject of "Permanent Headquarters Death Valley"? It is D–3.

Mr. HILTON. Yes, I do.

Mr. ROMNEY. Would you briefly tell the subcommittee the purpose of this memorandum, please?

Mr. HILTON. The general purpose of the memorandum was to advance recommendations to the regional director prior to further consultations with interested parties regarding a final decision on the location of the headquarters area, which would include residences and utility buildings and at that time the administration site area.

Mr. ROMNEY. As to the activity which is summarized in the memorandum, would you characterize this activity as extensive and thorough?

Mr. HILTON. By "extensive and thorough," I assume you mean consultations on the ground with other individuals and meetings. We did jointly inspect an area recommended by the superintendent

about 1 mile easterly of the inn, and also inspected it on the ground with Mr. Hill of the design and construction office, in San Francisco; his assistant, Mr. Hall; the park landscape architect, Mr. Knowles; and the park engineer, Mr. Linn Spaulding; and we later had conferences with the superintendent in the Administration Building with the same people present, as I recall.

Mr. ROMNEY. Could you give us a brief summary of the discussions which are related in the document, please?

Mr. HILTON. A summary would consist of our preliminary recommendations in which we favored the location for the new site as proposed by the superintendent, and gave reasons which we believe favored that site over the Cow Creek area. We also recommended the conversion of the Cow Creek area to a public use area for camping, picnic areas, and organized group use.

Mr. ROMNEY. Mr. Chairman, in the interest of saving time, I should like to suggest that the document be placed in the record without an itemized discussion of the individual points, because these individual points will be discussed in subsequent documents, and I believe that there might be a repetition if we went over these documents in detail.

Mr. Moss. Are there any objections or any questions?

Mr. MCCLORY. No, I wouldn't have any objection. I think it should be emphasized in receiving this in the record that, as the witness has stated, these are preliminary investigations which were made, and for that reason I think it should be received as part of the record, and I have no objection.

Mr. Moss. Thank you.

(The memorandum referred to, D–3, follows:)

D–3

DEPARTMENT OF THE INTERIOR,
NATIONAL PARK SERVICE,
April 24, 1956.

MEMORANDUM

To: Regional director.
From: Regional chief of maintenance and regional architect.
Subject: Location of permanent headquarters, Death Valley.

While at the monument during the period April 16 to 22 inclusive, considerable time was spent on inspections and conferences regarding the location of permanent headquarters for Death Valley, the Cow Creek site versus a new site proposed by the superintendent and covered in some detail in his memorandum of April 10, 1956, to the regional director.

Mr. Sanford Hill and Mr. Robert Hall arrived in the area April 21. The afternoon of the 21st and the entire day of the 22d were devoted to discussions and inspections of each of the sites. Present on these occasions were Messrs. Hill and Hall from the Western office, Division of Design and Construction; Hilton and Norgard from the regional office; and area representatives, Superintendent Fred Binnewies, Park Landscape Architect Lawrence F. Knowles, and Engineer Linn Spaulding.

SUMMARY OF DISCUSSIONS

Mr. Hill emphasized the need for as much information as possible at an early date which could be presented to the Washington office together with the views of the WODC and the regional office. The following was agreed upon:

1. The area will prepare and forward the following drawings:

(*a*) One showing rather schematically a proposed development of the Cow Creek area for Government headquarters, residences,, shops, and Visitor Center Building.

(*b*) One for the Cow Creek area showing suggested conversion to public use facilities, campgrounds, picnic areas, organized group use, and Visitor Center Building.

(*c*) Drawing showing schematic layout for residences and utility buildings at the proposed new headquarters area.

(*d*) An overlay of a small scale vertical aerial photograph on which is to be shown the relation of the Cow Creek area, the proposed new headquarters area, the water system alternates, and existing nearby developments such as Texas Springs campground.

2. The area will forward preliminary tentative cost estimates for headquarters developments at the Cow Creek site and for the proposed new headquarters site. These estimates will include buildings, utilities, and roads. They will also have estimates for alternate water supplies for the new headquarters area, one based on a gravity supply from Nevares Springs, the other a pumped supply from Furnace Creek Wash. The analyses will also contain comparative operation costs on the water supplies for Cow Creek versus Furnace Creek.

3. When the preceding information (in 1 and 2 above) is received within a period of 2 weeks from April 22, then a meeting will be arranged for attendance by representatives of the regional office, WODC, and by Mr. Binnewies to discuss this matter prior to recommendations to be advanced to the Washington office.

4. It was agreed that these preliminary layouts for Cow Creek and the new site could show 62 permanent residential units consisting of 50 single family and 2- to 6-unit buildings, and 2- to 10-unit buildings for seasonal employees. It was the consensus that this number of units, although more than the employee limitation set by the Washington office for Mission 66, would be desirable in order to indicate greater requirements that would accrue beyond the year 1966.

LOCATION OF PROPOSED "FURNACE CREEK" HEADQUARTERS SITE

The location is slightly over 1 air mile due east of Furnace Creek Inn and about one-eighth mile west of the section line between sections 23 and 24, on gently sloping ground at an elevation of between 400 and 500 feet.

It is accessible by means of a dirt road extending approximately one-half mile from the highway at Travertine Springs and would be about 3.1 miles by road from Furnace Creek Ranch.

The location can also be generally determined from its relationship to the 40 acres owned by the Pacific Coast Borax Co. and consisting of the SW¼ of SW¼ of sec. 24, T. 27 N., R. 1 E., of the San Bernardino meridian, lying northwest therefrom. Incidentally, the area maps show two locations of this property which are incorrect and the correct location of the 40 acres is as described from the maps in the water right docket concerned.

CONSIDERATIONS AFFECTING CHOICE OF HEADQUARTERS SITE

Mr. Binnewies' April 10 memorandum contains some excellent considerations in its numbered descriptive factors for both the Cow Creek and the proposed Furnace Creek sites. These do not need to be mentioned again in this report. From our observations of the Cow Creek area, expansion beyond the present development will require using scattered, narrow fingered, rocky barren sites. It probably would not be the thing to do if we started all over again. However, we do have the following observations which are not entirely covered in Mr. Binnewies' memorandum respecting the proposed Furnace Creek headquarters site:

1. Planning is necessary for shade and landscaping. It will require irrigation and may not assume sufficient growth for adequate shade for a number of years. This will also be true at the new building sites to be developed at Cow Creek. Soil conditions are much better at the new site.

2. We inquired into the possibility of heavy winds which the present headquarters experiences. We were advised that at this new site the winds are not as strong as at Cow Creek.

3. A distant view of the area may be had by visitors along a 1-mile tangent while descending the highway to the valley from Death Valley junction. This is not considered as an important disadvantage.

4. Investigations should be made as to the most advantageous source of water supply. The area is to submit preliminary analyses of development and operating costs of such supply—from Nevares Spring, and for a pumped supply from a source near Travertine Springs. The latter, according to applications 10001 and 10002 of 1940 would have available 1.5 cubic feet per second, and water right docket files indicate the source as "NPS Well" (former PCB Co. test well) located in SE¼, SE¼, SW¼, sec. 23, T. 27 N., R. 1 E. Various proposals were indicated in these applications including a gravity supply for the Texas Springs campground where there is now available only 35 gallons per minute for domestic purposes.

5. The most important consideration to us is that, if the proposed new headquarters site is chosen, then the Cow Creek area will be available for campgrounds, picnic areas, and group or other types of use for the public. One of the fundamental purposes of Mission 66 is to provide facilities for the public. They are certainly lacking at Death Valley. Cow Creek area could easily be converted. It has a substantial vegetative growth with shade trees. Texas Springs is entirely inadequate and will be difficult to expand. The proposed new site, if chosen for public campgrounds, would not be inviting for several years until tree growth affords shade.

GENERAL

Among the various discussions was the suggestion of Mr. Norgard that planning time might be saved and more suitable designs accomplished by contracting comprehensive development plans of the new site with a private firm experienced in desert development planning of this nature.

This was not viewed favorably by Mr. Hill, primarily because of the general lack of experience in park concepts by private consultants.

There appears to be sufficient time between now and the advent of summer, and during the early fall period, to obtain all the data required and prepare plans regardless of which site is finally chosen, provided decision is made on the site location. The 1957 construction program, as far as funds are concerned, may not be affected very much nor would the 1957 construction be delayed.

RECOMMENDATIONS

1. It appears to us at present that the proposed Furnace Creek development site should be chosen as the permanent headquarters area for administration, residential, and utility buildings.

2. It is recommended that Cow Creek area be converted to public use on a long-range plan with some campground facilities as the first priority.

3. We realize that recommendations (1) and (2) above are somewhat preliminary and, before any final decision is made, a meeting should be held attended by the superintendent, and by representatives of WODC and the regional offices in order to reach conclusions before presentation of recommendations to the Washington office.

4. Since both areas can be planned for a larger number of residential units beyond the Mission 66 personnel ceiling established by WASO, the personnel ceiling should not be an important factor in arriving at a decision on the location of the permanent headquarters.

Attached are a reproduction of a portion of a U.S. Geological Survey map illustrating the vicinity relationships of the Cow Creek and proposed headquarters sites, and four photographs taken by Mr. Summer on which we have indicated pertinent features.

E. M. Hilton,
Regional Chief of Maintenance.
Geo. W. Norgard,
Regional Architect.

Copy to Supt., Death Valley Chief, WODC.

Cleared for Distribution: _____ Lawrence C. Merriam, Regional Director.
(Date)

Mr. Romney. The memorandum that we are discussing on page 3, subparagraph 5, reads in part as follows:

The most important consideration to us is that if the proposed new headquarters site is chosen, then the Cow Creek area will be available for campgrounds. picnic areas, and group or other types of use for the public. One of the fundamental purposes of Mission 66 is to provide for facilities for the

public. They are certainly lacking at Death Valley. Cow Creek could easily be converted. It has a substantial vegetative growth of shade trees. Texas Spring is entirely inadequate and will be difficult to expand. The proposed new site, if chosen for public campgrounds would not be inviting for several years until the tree growth affords shade.

Would you indicate for the record what the proposed new site for the campgrounds would be?

Mr. HILTON. Our proposal was for the Cow Creek area, but we thought that someone might want to consider the area proposed for the new headquarters site, so that is why we made the observation in respect to the headquarters site as a possible campgrounds.

Mr. ROMNEY. Thank you.

Do you have before you a memorandum to the Director from the regional director, region 4, dated May 21, 1956, entitled, "Supplement to Mission 66 Prospectus, Death Valley Permanent Headquarters Location"? This is D–18.

Mr. HILTON. I don't seem to have that. Do you have it?

Mr. NORGARD. I don't have it.

Mr. HILTON. What is the date of the memorandum?

Mr. ROMNEY. May 21, 1956.

Mr. HILTON. Yes; I do have it. It is rather an indistinct copy.

Mr. MOSS. See that the witness is supplied with a clear copy.

(Document handed to the witness.)

Mr. ROMNEY. Are you familiar with this document?

Mr. HILTON. I have read it over but I am not too familiar with the background since I believe, considering my retirement within a comparatively few days after that, I was not called in on a number of these consultations?

Mr. ROMNEY. Mr. Norgard, are you familiar with this memorandum?

Mr. NORGARD. Well, no; I am not.

Mr. MOSS. In view of the fact that both witnesses disclaim any familiarity with the document, I think we will pass it over and take it up with another witness at a later time.

Mr. ROMNEY. Mr. Hilton, I would like to ask if you have before you a memorandum to the regional director, region 4, from the superintendent, dated May 10, 1956, subject: "Supplement to Mission 66 Prospectus, Permanent Headquarters Location"?

Mr. NORGARD. April 10?

Mr. HILTON. May 10.

Mr. ROMNEY. May 10.

Mr. MOSS. It should be, on the top or on the side, marked D–19.

Mr. HILTON. I'd like to make the correction on my statement regarding that May 21 memorandum from the Director, or to the Director from the regional director. Mr. McClellan has called to my attention that I have initialed off on the routing on this copy, but I will again say that I was not called in on consultations considering my retirement within a comparatively short time, and for that reason I didn't pay too much attention to it.

Mr. ROMNEY. Now, referring to the May 10 memorandum to the regional director from the superintendent of Death Valley National Monument, do you have that document, sir?

Mr. HILTON. Yes.

Mr. ROMNEY. Since this is somewhat earlier than the previous document we discussed, are you familiar with this document?

Mr. HILTON. Yes; I am generally.

Mr. ROMNEY. Would you give us the purpose of the document and its general content, please?

Mr. HILTON. Well, I believe Mr. Binnewies, the superintendent at Death Valley at that time, would be better prepared than I am to answer your question. However, the gist of the memorandum is his thesis that positions in Death Valley should be expanded eventually beyond the ceilings set by Washington, and he has given more arguments in favor of the new administration area as proposed versus Cow Creek, along with objections to the Cow Creek area for an administration site.

Mr. ROMNEY. Do you have any comment, Mr. Norgard, to add to Mr. Hilton's?

Mr. NORGARD. No; none beyond that.

Mr. ROMNEY. Mr. Chairman, I would like to offer this document for the record, and in this case I should like to suggest that the detail be discussed by one of the witnesses. The detail is of the type which I suggested we omit from the first exhibit we discussed, but I believe at this point it would be helpful to the committee if we went over the items which are listed in this document.

Now, we can do it with these two witnesses, because I think it tends to build the story, or if you prefer to wait until Mr. Binnewies testifies. He could also discuss it.

Mr. MOSS. Are you gentlemen sufficiently familiar with the details to take part in a discussion of it?

Mr. NORGARD. Well, on this particular one I would not. I would have to look it over. I have had no recent review of it.

Mr. MCCLORY. Mr. Chairman, this document appears to have been prepared by Fred Binnewies, who is going to be a witness shortly. I would think that the details and the reasons for his recommendations should be discussed by him.

Mr. MOSS. Well, if the witnesses are sufficiently familiar with the details to give us their own opinion, I think it might be helpful to the subcommittee. If they feel they are not sufficiently familiar with the details, then I would have it held aside for consideration when Mr. Binnewies is a witness before the subcommittee.

Mr. HILTON. Inasmuch as we reviewed many of these points on the ground with Mr. Binnewies, I would not object to answering any questions, although I feel that he can answer them in more detail.

Mr. MOSS. He was park superintendent at the time you were in the western headquarters?

Mr. HILTON. Yes.

Mr. MOSS. I think it might be helpful for us to have the views of both witnesses. If you are sufficiently familiar with the contents of the document to discuss them. We will proceed. If you are not, indicate that and we will hold it up.

Mr. HILTON. I believe I am familiar enough with it.

Mr. MCCLORY. Can we just get their opinions? We are talking about two different locations here, and they must have opinions which, I assume, coincide pretty much with Mr. Binnewies'.

Mr. Moss. I think that is the import of the line of questioning that counsel wanted to take.

Mr. Romney. I wonder if you gentlemen could establish your relationship within the regional office to the Director. What would your function be with respect to a recommendation which had been proposed by the superintendent, for example?

Mr. Hilton. You wish me to answer that, or Mr. Norgard?

Mr. Romney. You.

Mr. Hilton. Our position would be advisory to the regional director, as well as informative to WODC through the regional director, and he, in turn, to Washington. Our initial recommendations, as indicated in our memorandum to the regional director, were qualified by further recommendations for study and review of all plans, as well as preparation for additional material by the superintendent's staff. Our relation to the Director briefly was through the regional director.

Mr. Moss. Do you concur in that, Mr. Norgard?

Mr. Norgard. Yes. Our positions were entirely advisory to the regional director, I on the architectural phases of planning development, and so forth.

Mr. McClory. May I inquire: What does WODC mean?

Mr. Norgard. The Western Office Division of Design and Construction, of which Mr. Hill is the head.

Mr. Romney. Beginning on page 2 of the document, is a recital of the factors upon which the study of the Cow Creek and Furnace Creek areas was based. Would you briefly discuss these factors for the subcommittee?

Mr. Hilton. You wish me to discuss them?

Mr. Romney. Well, Mr. Chairman, I would like to suggest that whichever witness feels he would like to comment in answer to the question, be free to do so.

Mr. Moss. Let's take Mr. Hilton first. He's prepared, apparently, to go ahead.

Mr. Hilton. As brought out in Mr. Binnewies' memorandum, in which we concurred, the Cow Creek area briefly did not appear to us suitable because of the terrain, the long fingers, for the number of residences required in the ultimate expansion of personnel for the monument. The ground terrain seemed to be very unsuitable and only a limited number of buildings could be constructed. It was likewise not very suitable for the utility buildings. For the residential construction, the water and sewer lines, would be more costly and more difficult to lay out, particularly in respect to the gullies and the fingers—that is, the land extending along the ridges—and there would be probably a number of sewage disposal sites, in contrast to one single one at the proposed headquarters area. We also felt that the location was favorable for future, direct future development of a campground and other visitor facilities. That relates to Cow Creek, and we haven't gone on to Furnace Creek. Was that the question—on Cow Creek, rather than Furnace Creek?

Mr. Romney. Yes. Well, you may proceed, if you wish, unless there is a question from a member of the subcommittee?

Mr. McClory. Well, I am going to have a number of questions sometime.

Mr. ROMNEY. I had in mind asking the witness to continue in his discussion of the next aspect.

Mr. MCCLORY. I think that is better. Let him finish his testimony and then we will have our other examination.

Mr. HILTON. Well, continuing to the Furnace Creek location for the proposed headquarters, it seemed to us that it offered many advantages that could not be met by the Cow Creek location. The terrain is more suitable; the buildings could be grouped advantageously together and oriented very well. The utility lines also would not need to be broken up and one sewage disposal system would serve the entire area. The elevation, as brought out by Mr. Binnewies, is higher than Cow Creek and would afford more comfort to the employees. The water supply, as he brought out in this memorandum, would have to be pumped from Travertine Springs, I believe, or a gravity water system would have to be supplied from Nevares Spring. The required number of buildings, as advocated by the superintendent for the housing of employees, could be placed at the Furnace Creek area, in contrast to the limited number in the Cow Creek area. He also brought out that multiple units could be constructed in more advantageous terrain than at Cow Creek. Briefly, that is it.

Mr. ROMNEY. Do you happen to know specifically what the temperature differential might be between the Cow Creek site and the Furnace Creek site? Can you give us an idea of the extent of this difference?

Mr. HILTON. I really do not know. I imagine that it would be only a few degrees, and the houses would still have to have air conditioning.

Mr. ROMNEY. With this document, there were some enclosures, were there not?

Mr. HILTON. Yes, sir; there were quite a number of enclosures. These included the Cow Creek preliminary residential plan, as drawn up by the superintendent's staff in the area, the proposed new area layout, with the proposed residences and the utility lines; and it states here, also, that it has a personnel operations plan and aerial photographs, and I believe he had proposed a conversion of Cow Creek to a public use area if the new headquarters area was approved.

Mr. Moss. Do you have any questions to ask Mr. Hilton now?

Mr. MCCLORY. Yes. Mr. Hilton, at the time you made this report, was there an approved plan with regard to the location of headquarters facilities and housing for Park Service personnel?

Mr. HILTON. Oh, no. We were in there, as part of our trip to the Death Valley, to investigate and recommend to the regional director regarding the proposal of the superintendent in respect to the new administration area.

Mr. MCCLORY. Tell me what this means toward the end of the report where it says, "Making the change at this time will not materially affect the approved 1957 and future construction programs." Now, there is a change there that is being made by this recommendation?

Mr. HILTON. Well, the superintendent could answer that better than I could, and probably Mr. Norgard could, too, but I would assume that that meant in respect to the amount of funds which might be available for the construction and would not, as he said, materially change those preliminary plans.

Mr. McCLORY. Now, you have mentioned the advantages of the vegetation and other characteristics at Cow Creek as far as its use as a public campsite is concerned; in other words, you were thinking of making it a more attractive and a more suitable site for the campgrounds than the Furnace Creek area, weren't you?

Mr. HILTON. Yes; we were, if you mean as far as the Furnace Creek area is concerned, this proposed new area, but we had under consideration also the Texas Spring area campground, which appeared to us extremely overcrowded and not unsuitable—unsuitable, I should say, unless further planning were done in that area. The limitations of that area for expansion and the need for public service led us to recommend, along with the superintendent, the Cow Creek area for public use.

Mr. McCLORY. You wanted to separate, really, the camping development and the personnel development and put them in different locations so that they could both have opportunities for expansion?

Mr. HILTON. Oh, yes.

Mr. McCLORY. And really you were thinking of providing the best site for the public and the secondary site for the Park Service personnel?

Mr. HILTON. That is true.

Mr. McCLORY. Now, in your opinion at that time did you feel that there was any greater danger from cloudbursts and washes that might occur at Cow Creek than from those that might occur at Furnace Creek?

Mr. HILTON. No. As far as the campground locations were concerned, I don't believe there would be any difference.

Mr. McCLORY. You weren't trying to protect the Park Service and subject the public to any greater danger in this report in any way, were you?

Mr. HILTON. Indeed, not.

Mr. McCLORY. Do you have any feeling with respect to either the plan that was being proposed by Mr. Binnewies, which followed your study and was ultimately rejected, and the other plan that was approved, that any official was approving measures which would jeopardize the safety of either the public or the Park Service personnel?

Mr. HILTON. Since my retirement in 1956, I have not been to Death Valley, but I do understand that additional campground facilities have been developed to the north of the ranch. In my mind, that does not appear suitable when there may be disadvantages there which would not appear at Cow Creek.

Mr. McCLORY. Now, during your visit between April 16 and April 27, 1956, did you have occasion to visit or communicate with management officials of the Borax company or the hotel company?

Mr. HILTON. No, we did not.

Mr. McCLORY. You didn't contact them in any way?

Mr. HILTON. I didn't.

Mr. McCLORY. We will get to Mr. Norgard later.

Did they contact you in any way?

Mr. HILTON. No.

Mr. McCLORY. Did they ever contact you at any time with regard to the plans for development?

Mr. HILTON. No. However, in the previous visit in 1933 the manager did take us around with respect to the water supplies, but even then I don't recall any questions by him on development of the area.

Mr. MCCLORY. Now, as you know, the proposal that you and Mr. Norgard made, the recommendation that you made, and the recommendations that were followed up by Mr. Binnewies, were not followed in connection with the development of the headquarters?

Mr. HILTON. That is what I understood after my retirement.

Mr. MCCLORY. Do you have the feeling that there was anything ulterior or sinister or anything wrong, any wrongful conduct, committed by any person in the Park Service as a result of that change in the plan?

Mr. HILTON. No; I would not. Even when we were there, we did feel that these preliminary recommendations of ours would be followed by consultations, and I understand they were generally approved, but I would not feel that anyone had been influenced by anyone outside the Park Service.

Mr. MCCLORY. Do you feel that these are just matters of opinion and that other opinions might be worthy of being followed or respected, as well as the opinions that you gave?

Mr. HILTON. Yes; there are other people in the Park Service who may have had, and undoubtedly did have, contrary opinions to ours.

Mr. MCCLORY. Are you aware of the plan of July 1955, which would be a year prior to your plan, approximately, which the Park Service initiated and which recommended the headquarters site in the Cow Creek area?

Mr. HILTON. I do not recall that. About that time, or shortly before, I was in another position—recreational planning of the Park Service. I may have seen it, but I do not remember.

Mr. MCCLORY. Well, there might have been such a plan?

Mr. HILTON. Yes.

Mr. MCCLORY. Yes. I think that was in Mr. Hill's statement and that might have been in the office and you might not have known about it?

(Mr. Hilton nods head affirmatively.)

Mr. MCCLORY. Now, it is true that when you inspected the Death Valley area there was a water supply at the Cow Creek area at that time, was there not?

Mr. HILTON. Yes.

Mr. MCCLORY. Thank you very much, Mr. Hilton.

Mr. MOSS. Well, Mr. Hilton, you were familiar with the area at the time—with both the proposal for Cow Creek and the proposed new headquarters site above Furnace Creek—were you not?

Mr. HILTON. Yes

Mr. MOSS. Did you come to a judgment on your own as to which location had the greatest merit?

Mr. HILTON. I would say that it was a joint one with Mr. Norgard. We discussed the advantages and disadvantages of each location, and that was subsequently incorporated in our memorandum of May 1956.

Mr. MOSS. And you recommended the new site rather than development at the old one?

Mr. HILTON. Yes.

Mr. Moss. Does that accurately reflect your own views, Mr. Norgard?

Mr. NORGARD. Well, you mean you want me to answer on this particular question, or do you mean questions about recommendations of site, and so forth, or the subject from the beginning?

Mr. Moss. We are dealing now with the period of 1956.

Mr. NORGARD. Yes.

Mr. Moss. You came to a conclusion—Mr. Hilton has just stated what it was—and I asked you if you concur in that statement.

Mr. NORGARD. Well, this report of mine indicates that I concur.

Mr. Moss. You don't disavow the report?

Mr. NORGARD. Yes, definitely. I mean, this was a joint report of which we both agreed fully.

Mr. Moss. Was it then your opinion that the new site had the greater merit?

Mr. NORGARD. That's right, at that time.

Mr. MCCLORY. Mr. Norgard, I'd just like to ask you the same question that I asked Mr. Hilton about factors which resulted in the change of plan from the plan that you and Mr. Hilton recommended. Did anybody from the hotel company or the Borax company contact you in any way at any time with regard to these plans?

Mr. NORGARD. No.

Mr. MCCLORY. And do you know of any such contact or any such relationship which may have influenced the Park Service in deciding that the headquarters should be located in the Cow Creek area?

Mr. NORGARD. No.

Mr. MCCLORY. It is your feeling that these are just matters of opinion which were considered in the Department and that the final decision resulted in locating the campground and the headquarters housing and the headquarters facility itself in the Cow Creek area?

Mr. NORGARD. Yes. Well, this is a kind of a—it's a thing that is continually growing. I mean, many things enter into the thing during the planning and development stage. It isn't static, and in each period there are things that come into the picture.

Mr. MCCLORY. There were many logical reasons for locating the headquarters housing development in the Cow Creek area?

Mr. NORGARD. Yes. For instance, I think when this thing started, we were getting into practically a construction program. There was a master plan which showed the headquarters at Cow Creek. The residential and the utility and even the visitor center at one time was proposed at Cow Creek. Then as the thing went along, we got into this Mission 66 program and we got practically into a construction project stage of the thing. Then as we got into more detailed studies of the site plan, it was indicated that Cow Creek residential area would be very restrictive in the long-range development of Death Valley.

Mr. MCCLORY. Are you now considering a substantial campground facility in the Furnace Creek area up in the area where you and Mr. Hilton recommended?

Mr. NORGARD. I think that would be in Mr. Hill's Department, the Planning and Construction Department.

Mr. MCCLORY. You heard about that?

Mr. NORGARD. I think Mr. Hill indicated yesterday there will be an expansion in the Texas Spring Campground area, particularly, and I believe he has outlined various other campgrounds that would be developed.

Mr. MCCLORY. How do you feel now about the development of the Death Valley improvements in the Cow Creek and Furnace Creek areas; you think that they have followed good logical plans and are you satisfied that the right decisions have been made?

Mr. NORGARD. Well, I have no reason to think otherwise. We were talking about visitor centers and campgrounds and so forth. It would be natural and good planning to locate them where the heavy use would be, and not have them too scattered. We have made a start already in the Cow Creek area. The Furnace Creek area would naturally continue that.

Mr. MCCLORY. You concur in the——

Mr. NORGARD. Yes; I do.

Mr. MCCLORY (continuing)—development that has occurred?

Mr. NORGARD. We have proven water there. There's been a certain amount of discussion on what the size of personnel organization would be. It appears now that the Cow Creek area is going to be adequate to take care of the organization in the foreseeable future, and I guess, as indicated in the earlier statement here, that it was quite a change to pick up and just leave Cow Creek headquarters area and go to a brandnew area, but at that time it was also felt that if we are talking of, say, 41 permanent employees at the Cow Creek headquarters, it would be very difficult and probably eventually prove very expensive to try to develop that number in the Cow Creek area. Then, I think one thought was to convert Cow Creek for public use. If we pulled out of the Cow Creek area for our headquarters, it would be natural then to make use of the Cow Creek area for other purposes, and the best purpose would be to convert it to public use, because of the start we had on the vegetation and everything, and there were a certain amount of utilities in there, and so forth, that could be continued.

Mr. MCCLORY. Well, from a standpoint of vegetation at the Cow Creek area, the headquarters personnel have received the benefit of that, and they have the advantage of the attractiveness which is provided?

Mr. NORGARD. That is for the shade; but then if it developed that the Cow Creek area was inadequate, was too restrictive, as headquarters, with residences for 41 families, then we would have to go way up on the barren and exposed ridges, and so forth, and we would have then the problem of also creating shade and livable conditions up there which would be more difficult than at Furnace Creek area.

Mr. MCCLORY. Thank you.

Mr. NORGARD. For that reason it was necessary to decide whether we should struggle along with Cow Creek, which, at that time, was felt by practically everyone would be very limited and very restrictive and very difficult to fully develop for all the headquarters that would be required.

Mr. MCCLORY. Because of the reduced number of employees, or because of the number of employees which are needed, the Cow Creek area is completely adequate in your opinion?

Mr. NORGARD. Yes; according to the present thinking of the size of the organization, and so forth.

Mr. MCCLORY. And you are satisfied with that thinking?

Mr. NORGARD. Yes.

Mr. MCCLORY. Thank you.

Mr. MOSS. Mr. Norgard, as a visitor—and apparently that was your role in the preparation of preliminary surveys, and then in the evaluation of them—recommendation was made by you and by Mr. Hilton for an alternative site to Cow Creek. Did you ever change that recommendation?

Mr. NORGARD. Well——

Mr. MOSS. I know that the Park Service did not finally concur and different plans were adopted, but did you ever change your recommendation?

Mr. NORGARD. No; not in—no.

Mr. MOSS. And we are talking now of 29 permanent employees predicated apparently on studies through 1970?

Mr. ROMNEY. Yes, sir.

Mr. MOSS. Would you regard that as about the maximum that could conveniently and feasibly be accommodated at Cow Creek?

Mr. NORGARD. I think it was more or less that amount, during the study at that time that it was possible to develop at Cow Creek. Yes, approximately 29 permanent residents.

Mr. MOSS. So if we went to 41, say by 1980, we would have to undertake development farther up the reaches of Cow Creek, and that is the type of development which you have characterized as not being overly feasible and somewhat expensive?

Mr. NORGARD. Well, Mr. Hill now talks about getting more into multiple-type housing, which would require much less area. How far you would have to go beyond the present developed area would have to be studied, but when we say 29 permanent units there, why, it was more or less indicated feasible at the time, and with other studies on the basis of multiple housing it seems that you could expand beyond the 29.

Mr. MOSS. Of course, you could have the high-rise apartments to accommodate the personnel.

Mr. NORGARD. In the Park Service, whatever we would do, would be on our standards which don't permit that type of development. We do get into multiple housing and Mr. Hill has indicated that it has been done in other areas, probably for the same reasons, and we would then get into that area.

Mr. MOSS. But I think the record correctly reflects the fact that you did not initiate a revised recommendation on your own?

Mr. NORGARD. That's right.

Mr. MOSS. I think at this time I will ask Mr. Hill to come forward again and we will excuse you two gentlemen. I ask that you remain available to the subcommittee.

Mr. Hill, you have already been sworn?

Mr. Romney?

Mr. ROMNEY. Mr. Hill, I think you have before you a memorandum dated May 17, 1956, to the Director from the Chief, Division of Design and Construction, from yourself; subject: "New Headquarters

Location, Death Valley National Monument"; is that correct? It is D–20.

Mr. HILL. That's right.

Mr. ROMNEY. Would you briefly give us the purpose and content of this memorandum?

FURTHER TESTIMONY OF SANFORD HILL, CHIEF, WESTERN OFFICE OF DESIGN AND CONSTRUCTION, NATIONAL PARK SERVICE

Mr. HILL. We had just completed our review of the plans and cost figures for the new headquarters at Death Valley as proposed by the superintendent, and this contains a general summary of cost estimates and comparisons.

Mr. ROMNEY. Can you give us the cost estimates and the comparisons, please?

Mr. HILL. I believe I gave those to you the other day in my initial report. The new headquarters facility is a total of $1,861,500, which is only $108,600 more than the Cow Creek area.

Mr. ROMNEY. In the second paragraph of the memorandum, you state:

D–20

The new headquarters location will provide a much better site for the development of residential and utility facilities. This can be done all in one unit and it is our belief that the site will prove more livable once the planting has been established. The first 5 years will be very barren since all the planting will have to be started from scratch. The other major justification for this move is that the Cow Creek area be available for public use and since it is located on the main traveled highway of the area, it might be desirable to reserve this for campground development and cabins if determined necessary.

Do you still subscribe to the conclusion which you expressed in that paragraph, Mr. Hill?

Mr. HILL. No; because this particular statement was based upon the management requirements furnished us as far as housing is concerned.

Mr. ROMNEY. Let me phrase the question differently:

Is there anything you have learned since you prepared this which would make your estimates and the evaluations as of that time any less valid or sound?

Mr. HILL. I think as far as the cost estimates are concerned, they have all gone up, because of the increased cost of construction within the past 5, 6 years, but the relationship, I think, probably would remain pretty much the same.

Mr. ROMNEY. And you feel that your conclusion then, based on the then existing factors, was sound?

Mr. HILL. Yes. As far as the costs are concerned, but the basic reason for going to the new area was because management furnished us with our requirements that apparently could not be met at Cow Creek.

Mr. ROMNEY. That is why I asked the question in terms of the factors then existing, meaning at the time you prepared this memorandum. You believe your conclusion as of that time, based on the then existing factors, was a sound one, do you not?

Mr. HILL. That's right.

Mr. ROMNEY. On the second page, Mr. Hill, in the last paragraph, you state, "Another justification for the development of the proposed site is the firming up of water rights for the Service in the Furnace Creek Wash."

Could you elaborate on that sentence for us, please?

Mr. HILL. Well, this has been a matter of discussion as long as I have been associated with Death Valley. It has been our understanding all the way along that they were going to have to arrive at some conclusion with regard to the water rights. In the initial development on the proposed area, we were planning to bring water in from Nevares Springs, or, if the water was available, from Furnace Creek, and if this was a more economical system of providing water for this new headquarters, we would tap the Furnace Creek area. This of course, had to be determined from the standpoint of the land and water rights people.

Mr. ROMNEY. You are not saying then that it was your opinion at that time that the Furnace Creek Wash should be the source of the water to the exclusion of the other possible sources at Cow Creek?

Mr. HILL. The two possibilities were involved in the initial planning.

Mr. ROMNEY. But it was an important factor that in order to bring water from the Furnace Creek Wash, the matter of firming up water rights would be involved?

Mr. HILL. Well, we certainly have been hoping that the water rights could be settled for many years. I'd say yes.

Mr. MOSS. Do you have any questions, Mr. McClory?

Mr. MCCLORY. Mr. Hill, just for the purpose of clarification, was there a plan in existence prior to the time the recommendations were made by Mr. Hilton and Mr. Norgard with regard to the location of the new headquarters housing site in the Furnace Creek area; there was an earlier plan?

Mr. HILL. You mean at Cow Creek?

Mr. MCCLORY. At Cow Creek.

Mr. HILL. Yes. There was very definitely an approved plan in the Cow Creek area. As a matter of fact, the Park Service has, I think, originated the master plan idea back in 1924 and we have always maintained development plans for the areas that we have developed. I think if you check the records, that even at the start of Mission 66, that the Park Service made a survey of the headquarters problem, looking at different sites, and they concluded that Cow Creek—I think there is a recommendation to this effect—should be the headquarters.

Mr. MCCLORY. In other words, you had an approved plan at the time Mr. Norgard and Mr. Hilton made their inspection, and notwithstanding their inspection, which would have revised the approved plan, you discussed it, and considered it in the office, and you then reaffirmed the approved plan, went ahead with that; is that substantially right?

Mr. HILL. I don't quite follow you, Congressman.

Mr. MCCLORY. Well, you had a plan in your office which had been approved for expansion or enlargement or improvement of the headquarters housing site in the Cow Creek?

Mr. HILL. At Cow Creek, that's right.

Mr. MCCLORY. That was before Mr. Norgard and Mr. Hilton went out on their inspection tour?

Mr. HILL. That's right.

Mr. McCLORY. After you received their report, you nevertheless went ahead with the approved plan; you considered what they reported, but what you continued to proceed with was the plan that you had previously approved?

Mr. HILL. Yes. Until we received approval of the new plan, we continued with the old plan at Cow Creek, because the new studies that were going on included in Mr. Norgard and Mr. Hilton's report were preliminary studies of the sites, and the old plan would still hold until management approved the new plan. Management furnishes us the requirements, and on this basis we make studies and recommendations. That is what their report was concerned with.

Mr. McCLORY. Now, their report is still useful to the Park Service, is it not, in that it has set forth a location which you are now considering for a campsite, isn't that correct?

Mr. HILL. In the new headquarters area? Maybe I can explain that best with this.

Mr. McCLORY. I am talking about a new Furnace Creek camp area. Aren't you considering a new camp area development above Furnace Creek Inn where the test well is?

Mr. HILL. This is not in the present plan. This might come into the future plan some time.

Mr. McCLORY. I see.

Mr. HILL. If there is additional need for expansion. But at the present time we only have the 400 sites as recommended for Texas Spring and Furnace Creek campground.

Mr. McCLORY. I see.

Mr. HILL. I'd be glad to point out the areas for these.

Mr. McCLORY. Well, I think I understand.

Mr. HILL. OK.

Mr. McCLORY. Thank you very much. I think that is all.

Mr. Moss. Well, now, Mr. Hill, at the time the monument was created in 1933, the Park Service proceeded to develop a master plan, did it not?

Mr. HILL. That's right.

Mr. Moss. And they have always had before them a master plan because you have to have something to work against?

Mr. HILL. That's correct.

Mr. Moss. But at the commencement of Mission 66 planning, you were instructed to develop a new master plan to study, to reevaluate, and to come up with new recommendations; is that correct?

Mr. HILL. That is correct.

Mr. Moss. You made your evaluations and then came up with a recommendation?

Mr. HILL. That's correct.

Mr. Moss. The determination not to accept the recommendation occurred in Washington and not as a result of changed thinking in your shop; is that correct?

Mr. HILL. That's correct.

Mr. Moss. All right. So that you are now working with a master plan which is not the same plan that existed prior to the planning required under Mission 66, but which developed as an alternative to the recommendations made by the western regional planning people; is that correct?

Mr. HILL. We are continuing the development of Cow Creek on the basis of our previous plan, previously approved master plans, making adjustments in accordance with management's requirements as far as facilities are concerned.

Mr. Moss. Their facilities which expanded as a result of Mission 66?

Mr. HILL. Yes; their proposed requirements.

Mr. Moss. You made a statement that Texas Spring afforded an appropriate site for expansion of camping facilities; is that correct?

Mr. HILL. That's correct.

Mr. Moss. Is that your firm opinion?

Mr. HILL. Yes, it is going to require development of planting and so forth, just like any area in Death Valley.

Mr. Moss. Would it be of interest to you to know that the superintendent of the park and at least two of his assistants told me that Texas Spring campground was about as badly deteriorated as any campsite could be, that it was their judgment that it would be impossible to expand it and create appropriate facilities without closing the campgrounds for a period of a few years to permit some development of planting in the area, and even then it would not be, in any sense, an ideal—or even an appropriate—site for expanded camping facilities?

Mr. HILL. Well, this is their opinion.

Mr. Moss. Do you think their opinion has any validity?

Mr. HILL. We are going to have to develop the Texas Spring campground just like we will any other campground in Death Valley. This again gets back to the fact we have to have water.

Mr. Moss. Well, you have very limited water available there; you get part of that 35 gallons a minute at the site, but I am talking of the site itself. Would you agree that it has deteriorated——

Mr. HILL. Oh, yes.

Mr. Moss. Because of excessive use of recent years?

Mr. HILL. That's right, but this does not mean that we cannot go in there and fix it up so that it will be a good desert camp.

Mr. Moss. It will do, is that it?

Mr. HILL. It will be usable and be as attractive as the one we are proposing down at the visitor center.

Mr. Moss. Would you go in and look over the valley and say, "This is the ideal spot to undertake this development?"

Mr. HILL. I would say that the facilities at Furnace Creek where you already have overnight accommodations is what the public wants.

Mr. Moss. You mean the public wants the type of facilities they will encounter at the Texas Spring campground?

Mr. HILL. After we complete the development there. I don't think that a desert camper is going to object to this at all.

Mr. Moss. I can assure you, sir, that I was on the ground there on Saturday and I stopped at the Texas Spring campground. I got out and walked around it. I observed a number of people there with trailers and other camping equipment, and I was somewhat horrified by the nature of the facilities available to them—the generally depressing aspects of the site and the inadequacy of development. When I was told by Mr. Aubuchon, the monument superintendent, his honest opinion of the site and its potential for future expansion, I found no

reason, no visual evidence, that would have led me to disagree with him in the slightest. I was just interested in how you feel, what led you to conclude that a proper development can be undertaken there that would provide the public not with what they should put up with but what they should have if this is to remain an attractive area which will draw people into the park.

Mr. HILL. Do you want——

Mr. MOSS. If you have any comment, go ahead.

Mr. HILL. No, I have no further comments, other than that.

Mr. MOSS. Mr. McClory?

Mr. MCCLORY. I'd like to ask a couple of questions, and make a couple of observations myself.

What our chairman has indicated I must confirm, in that Mr. Aubuchon felt that this was the poorest campsite of any that he was aware of in the Park Service, and I can't help but observe myself that campers who go to Death Valley for camping shouldn't expect to find trees or shade trees growing and other things that characterize areas other than a desert. Nevertheless, there's certainly a wide area for improvement.

The other observation that I'd like to make, and I think that this bears on the future plans and may be the reason for modification of future plans, is that camping takes on a different character almost every year. We used to camp in tents and in hammocks and things of that nature when I was in the National Parks with our children, but now you camp in a trailer or you camp in a "camper" with inside plumbing, and I have observed that you have found a need for a new type of sewage disposal system to dispose of the sewage from the self-contained plumbing, and that this may mean that you are able to accommodate a great many trailers or "campers" with facilities like that which you have to plan on, and for which you are going to possibly require less area, not the kind of accommodations we used to have when we used tents, but you have to be constantly changing and revising plans for development to meet the changing modes of camping which people engage in. Is that right?

Mr. HILL. That's right, Congressman. Desert camping is completely different than camping in the forest, and we are doing many things in the way of providing facilities to take care of the changing camping trends.

Mr. MCCLORY. I'd like you to be completely frank with us. Can you give any opinion or any observation or speculation, anything that you want to, in order to help enlighten us and that is this:

Has the hotel company, insofar as you know, affected your judgment or the judgment of anybody else in the Park Service in your decision to continue the Texas Spring public campground and to enlarge it, or in the decision to retain the headquarters, the personnel housing development in the Cow Creek area and expand it?

Mr. HILL. I have never talked with anybody or they have never come to me in connection with the development at Death Valley.

Mr. MCCLORY. You don't know of them talking to anyone else, no one else in the Park Service has told you that they were influencing the change in the decision?

Mr. HILL. No.

Mr. MCCLORY. Thank you.

Mr. ROMNEY. Mr. Chairman, I'd like to ask at this time that the memorandum of May 17, 1956, which we have just referred to, be included as part of the record. It is D–20.

Mr. MOSS. Is there objection?

Mr. MCCLORY. No objection.

Mr. MOSS. It may be included.

(The memorandum of May 17, 1956, entitled "New Headquarters Location—Death Valley National Monument," D–20, follows:)

D–20

MAY 17, 1956.

MEMORANDUM

To: The Director, attention: Chief, Division of Design and Construction.
From: Chief, Western Office, Division of Design and Construction.
Subject: New headquarters location—Death Valley National Monument.

We have just completed our review of the plans and cost figures for the new headquarters location at Death Valley, as proposed by the Superintendent. This proposal was reviewed on the ground by Mr. Hall and me on my return trip from Big Bend. At that time, Messrs. Norgard and Hilton and the regional office were also in Death Valley and they reviewed the proposal with us. The park prepared drawings and material which the regional office is submitting to you for final determination. It was agreed in conferences with the Superintendent and region 4 office that this be handled as part of the Mission 66 proposal and we assume it will receive early consideration in the Washington office since the 1957 program contains residential projects for which plans should be started as early as possible in order to obligate these funds within the fiscal year.

The new headquarters location will provide a much better site for the development of residential and utility facilities. This can be done all in one unit and it is our belief that this site will prove to be more livable once the planting has been established. The first 5 years will be very barren since all the planting will have to be started from scratch. The other major justification for this move is that the Cow Creek area be available for public use and since it is located on the main traveled highway of the area, it may be desirable to reserve this for campground development and cabins if determined necessary.

We have checked the comparative costs which have been prepared by the park and have included revised estimates for the various items listed in the area's comparison. These estimate increases have merely increased the general overall cost of each area. It will be noted that the new area can be developed for a total cost of approximately $1,861,500, which is only $108,800 more than the Cow Creek area. The following is a breakdown of the comparative cost of the two sites as shown on drawing NM–57–2085:

	Cow Creek	Furnace Creek
Buildings:		
Utility area	$404,000	$426,000
Residential area	699,100	677,200
Visitor center	60,200	55,000
Total	1,163,300	1,158,200
Utilities:		
Water	225,600	369,900
Sewerage	75,500	58,000
Electrical	72,700	62,100
Telephone	4,100	11,700
Radio		3,000
Total	377,900	498,700
Roads	152,000	108,800
Miscellaneous	59,500	95,800
Total	1,752,700	1,861,500

While no detailed estimates were made, we have compared the drawings with the figures determined by the park engineer. In general, we checked his figures

but have reviewed the costs based on our estimates obtained for work in other areas. In checking the buildings we thought that the prices in general were about 10 percent low and have increased the costs accordingly. The water estimates are satisfactory. We believe the sewerage system to have been low and have increased the costs due to our belief that larger septic tanks and daming chambers will be required. The electrical system has been increased due to the addition of building transformer units. Three thousand dollars has also been included for a radio system at Furnace Creek.

While the Superintendent had advised us that they had good cost estimates on roads we believe that such costs were based on day labor and did not include all the requirements for a higher class road. As $10,000 is a low figure for normal road construction, we have found that $25,000 is an average cost for good park roads. Since the material in place is good road material we have only doubled the cost per mile from $10,000 to $20,000.

While we realize that the Harvey Co. is taking over operation of the Furnace Creek Inn and the Furnace Creek Ranch, and may be able to provide all necessary overnight accommodations, we believe the proposal has considerable merit in retaining the Cow Creek area for public use and at the same time providing a more livable area for Service personnel at the proposed site.

Another justification for the development of the proposed site is the firming up of water rights for the Service in the Furnace Creek Wash.

SANFORD HILL,
Chief, Western Office, Division of Design and Construction.

Mr. ROMNEY. At this time I'd also like to refer to a memorandum, a copy of which apparently went to your office, to the regional director, region 4, from the Associate Director of the National Park Service, dated June 18, 1956. It is D–21 and it is a brief memorandum, which I believe can be quickly read into the record at this point. The text reads:

D–21

We have reviewed Superintendent Binnewies' excellent presentation of his proposal to locate park headquarters at Furnace Creek and to develop Cow Creek into a visitor use area. We note that your office and the Western Office, Division of Design and Construction, recommend the plan. Mr. Wirth has approved the proposal.

The memorandums, drawings, estimates, and photographs submitted as a supplement to the final Mission 66 prospectus, were studied prior to a general review of the entire Death Valley prospectus because of your request for early advice on this matter. We expect to undertake the study of the final Mission 66 prospectus soon. Pertinent comments on the supplement and the main prospectus will be forthcoming at that time.

The 1957 buildings and utilities construction program contains items of work at Cow Creek. If the decision to move headquarters to a different location necessitates a change in the allocation of these funds, we should be so notified as soon as possible.

E. T. SCOYEN, *Associate Director.*

This then represents an approval of the proposal by the Superintendent and endorsed by region 4—the relocation of the headquarters and residence site to the Furnace Creek Wash area—does it not?

Mr. HILL. No. This is a Mission 66 proposal, and this prospectus, a Mission 66 prospectus, was not approved. This was merely a narrative statement that was submitted and this was not approved until February of 1956 by the Director.

Mr. ROMNEY. Excuse me. You mean February of 1957, do you not?

Mr. HILL. No, February 20, 1956.

Mr. MOSS. Well, here they are referring to a memorandum dated June 18, 1956. Do you have that before you?

Mr. HILL. June 18, that's correct.

Mr. MOSS. They're referring to the last sentence in the first paragraph, asking the import of that statement.

Mr. HILL. Yes, I am in error. I was thinking this was the prospectus but this is after the prospectus had been approved, that's correct.

Mr. ROMNEY. I'd like at this time, Mr. Chairman, to offer this as an exhibit into the record.

Mr. MOSS. Well, I believe that is unnecessary in view of the fact that it was just read into the record.

Mr. ROMNEY. I have no further questions.

Mr. MOSS. Do you have any further questions, Mr. McClory?

Mr. MCCLORY. I am a little puzzled by this letter of June 18, 1956. Does this indicate that the proposal made by Mr. Binnewies was approved as part of the Mission 66 and that this June 18, 1956, letter reiterates that approval?

Mr. HILL. Yes; this does indicate the approval.

Mr. MCCLORY. In other words, the recommendations originally being made by Mr. Norgard and Mr. Hilton and then supported by Mr. Binnewies were approved, and this must have been disapproved at some later time?

Mr. HILL. That's right. The Director made a decision regarding the change of going back to Cow Creek on his visit to the monument in March.

Mr. MCCLORY. That is March of 1957?

Mr. HILL. That's correct.

Mr. MCCLORY. Previously he had approved it according to this letter?

Mr. HILL. That's correct, he had approved it.

Mr. MCCLORY. There must have been a later disapproval?

Mr. HILL. He approved the proposed new location above Furnace Creek. I think he approved the plan on February 5.

Mr. MCCLORY. Were you present when the Director visited Death Valley?

Mr. HILL. Yes.

Mr. MCCLORY. And then you participated in the decision to locate the headquarters at Cow Creek?

Mr. HILL. Yes; I was with him at the time. As a matter of fact, I think I was probably one of the strongest advocates of the new site during our discussions at Death Valley.

Mr. MCCLORY. Mr. Hill, I want to pursue this a little bit further. Following this recommendation to the regional director, this went on to the Director in Washington, Mr. Wirth; is that correct?

Mr. HILL. You mean this particular——

Mr. MCCLORY. This plan to have the headquarters building in the Furnace Creek area.

Mr. HILL. That's correct.

Mr. MCCLORY. Yes; and you were supporting the recommendation at that time?

Mr. HILL. That's correct.

Mr. MCCLORY. And you were backing up Mr. Hilton and Mr. Norgard and Mr. Binnewies and you were satisfied yourself in this new proposal?

Mr. HILL. That's correct, based upon the management requirements that they had given to us to work with.

Mr. MCCLORY. You mean by that, the larger number of personnel?

Mr. HILL. The larger number of employees, permanent employees.

Mr. McCLORY. That was 41 or so, I think you testified earlier?

Mr. HILL. Right.

Mr. McCLORY. Now, following this, at some time in 1957, Mr. Wirth came out here?

Mr. HILL. That's right, it was March 18 and 19, I believe, that he visited Death Valley.

Mr. McCLORY. Then did you spend some time at Death Valley at that time?

Mr. HILL. Yes; we arrived in Death Valley on the 18th and spent the 19th there and left the next morning, I believe, on the 20th.

Mr. McCLORY. And did you stay at the Furnace Creek Inn at that time?

Mr. HILL. That's correct.

Mr. McCLORY. Then did you confer with some of the hotel management at that time with regard to these subjects?

Mr. HILL. We reviewed the entire proposal with the director and the Park Service staff on the 18th, and on the morning of the 19th.

Mr. McCLORY. Where did you hold your meeting?

Mr. HILL. These were out on the ground looking over the sites.

Mr. McCLORY. Who all was present, do you recall the names?

Mr. HILL. I think I have a record in here where I can find out exactly who was there. The Superintendent and members of his staff.

Mr. McCLORY. This would be Mr. Binnewies?

Mr. HILL. Mr. Binnewies. I do not have the individuals of his staff that were present; and the regional director.

Mr. McCLORY. You are the regional director?

Mr. HILL. No; I am the chief of the design office.

Mr. McCLORY. Who was the regional director?

Mr. HILL. Mr. Merriam.

Mr. McCLORY. And who else?

Mr. HILL. The Park Service representatives included the director, the regional director, chief of the design office, and the Superintendent, and members of his staff.

Mr. McCLORY. Now, were representatives of the Borax Co. or the hotel company with you during part or all of these discussions?

Mr. HILL. No. The Director, after reviewing the whole problem, met on the afternoon of the 19th with the State and county public health people, and he talked with Mr. Stern of the hotel company separately. We were not present during this discussion, but he had made his decision, as far as what he wanted us to do, before he went in and talked to the hotel company people. He told us what his decision was going to be.

Mr. McCLORY. And he said his decision was going to be to recommend the Cow Creek Area for the Headquarters?

Mr. HILL. That's right. I can give you a rundown on the various items that he referred to, if you'd like.

Mr. McCLORY. Would you do that, please?

Mr. HILL (reading):

No. 1. Moving to the Texas Spring campground in the area north and west of the proposed museum site at Furnace Creek.

In other words, we talked at that time of moving the campground out of Texas Spring over into Furnace Creek. [Reading:]

2. Construction of the administration wing and four residences plus necessary utilities in conjunction with this development at Furnace Creek Ranch facilities.

This was the visitor center. I assume that you visited the visitor center when you were there. [Reading:]

3. Construction of necessary utilities with particular emphasis on the establishment of irrigation ditches and planting similar to that undertaken at the Rio Grande development at Big Bend in connection with the museum and campground development. * * *

4. Development of campground facilities as rapidly as funds are made available.

5. Road relocation of the main aproach to Death Valley from Death Valley junction, which traverses Furnace Creek Wash, to a new location on higher ground from Zabriski Point through the area previously proposed for a new headquarters through Texas Spring campground, with an intersection of the main Death Valley road near the proposed museum. This will permit realinement of the very bad junction near Furnace Creek Inn and would call for abandonment of the section from the Furnace Creek Inn up the wash to Zabriski Point. The section to be abandoned would probably be retained as a service road to the water systems and could be of a reduced standard.

6. The remaining funds programed for 1957 and 1958——

Mr. Moss. Pardon me, just a moment. You are reading from a document. Would you identify it? I find that we have not been supplied with a copy of that.

Mr. Hill. This is a memorandum dated May 2, 1960.

Mr. Moss. And who is it from and who is it to?

Mr. Hill. It's my report to the Director, of his decisions.

Mr. McClory. Is that what you prepared after you had your meeting?

Mr. Hill. Yes.

Mr. McClory. Your meeting was in 1957, but you prepared a memorandum in 1960?

Mr. Hill. That's right.

Mr. McClory. What was the occasion for preparing the memorandum at that time?

Mr. Hill. Well, this was a request from the director's office.

Mr. McClory. Did you use any notes or anything else from which you prepared that, or was that prepared from memory?

Mr. Hill. That is prepared from memory. It covers the various subjects that we discussed.

Mr. Moss. Did you have any contemporary memorandums as the basis for the preparation of that report. The Chair is puzzled because he requested of the Department that he be supplied with all pertinent documents. This document has not been supplied to the subcommittee, and I will ask that you supply a copy of it to the subcommittee forthwith.

Mr. Hill. We will be glad to.

(The document, D–51.1, follows:)

D–51.1

May 2, 1960.

Memorandum

To: The Director.
From: Chief, WODC.
Subject: Visit to Death Valley, March 1957.

The following report is submitted as a result of your request, through Mr. Merriam, that I report on the details of our visit to Death Valley in March 1957.

The following is an excerpt from the Western design office's weekly report for the week ending March 29, 1957 (file D–2623). This report is addressed to the Director—Attention: Chief of Design and Construction. The excerpt is merely a record of decisions.

"Death Valley—My visit to Death Valley with the director resulted in the following decisions:

"1. Moving of the Texas Spring campground in the area north and west of the proposed museum site at Furnace Creek Ranch.

"2. Construction of the administration wing and four residences plus necessary utilities in conjunction with the development of Furnace Creek Ranch.

"3. Construction of necessary utilities with particular emphasis on the establishment of irrigation ditches and planting similar to that undertaken at the Rio Grande development at Big Bend in connection with the museum and campground development referred to above.

"4. Development of campground facilities as rapidly as funds are made available.

"5. Road relocation of the main approach to Death Valley from Death Valley junction which traverses Furance Creek Wash to a new location on higher ground from Zabriski Point through the area previously proposed for a new headquarters through Texas Spring campground, with an intersection of the main Death Valley road near the proposed museum. This will permit realinement of the very bad junction near Furnace Creek Inn and would call for abandonment of the section from the Furnace Creek Inn up the wash to Zabriski Point. The section to be abandoned would probably be retained as a service road to the water systems and could be of a reduced standard.

"6. The remaining funds programed for 1957 and 1958 for B. & U. would be utilized for construction of houses at Cow Creek within the present residential area. Necessary utility lines would also be constructed with funds available. The Cow Creek utility area would be retained.

"7. The Director requested that plans for the ranch area be so designed so that additional houses could be added in this location at a later date."

We arrived at Death Valley late on the afternoon of March 18 and reviewed in general the various development proposals programed. Field inspections were made the following day of the Cow Creek development and the Nevares Springs area. We also looked over the general location of the suggested new headquarters area above Furnace Creek Inn and the Texas Creek campground plus the proposed museum and headquarters building near the Furnace Creek Ranch. This field inspection was made with the Director, the regional director, and Superintendent Binnewies and members of his staff.

On the morning of March 19 the Director met with the State and county health officials of Inyo County regarding their protest of the proposed sewer lagoon for the new headquarters site. After our field review of the proposal the Director outlined to the Park Service group his decision regarding the various items mentioned above which include the approval of the location of the combined visitor center and headquarters building near the Furnace Creek Ranch. This also included approval of the campground area between the visitor center and the existing airport.

After our final Park Service meeting regarding the developments, the Director had an informal discussion with Mr. Stern of the Borax Co., in which he outlined to Mr. Stern his decisions regarding the proposed developments. As I recall this included his decisions regarding the general location of the combined museum and administration building, and campground near the ranch, the residential area, and Government utility area at Cow Creek, plus a possibility of the location of a bypass road covered by item No. 5 in the weekly report.

SANFORD HILL, *Chief, WODC.*

Mr. Moss. You may proceed.

Mr. HILL (reading):

No. 7. The Director requested that plans for the ranch area be so designed so that additional houses could be added in this location at a later date.

Mr. MCCLORY. Will you give me the date of the meeting you had on the site?

Mr. HILL. That was March 18 and 19, 1957.

Mr. MCCLORY. Did you know at the time that you were meeting on March 17 and 18 that there had been an exchange of correspondence between Mr. Wirth and Mr. Albright of the Borax Co.?

Mr. HILL. Yes.

Mr. McCLORY. And Mr. Wirth had informed Mr. Albright of the plan of the Department to build the employees' housing up the Furnace Creek area?

Mr. HILL. That's right, he had.

Mr. McCLORY. That was the decision right down to the time of the meeting that you had on the ground, is that right?

Mr. HILL. Right.

Mr. McCLORY. Did you have any reason to believe that any prior decision or any prior commitment had been made by the Director to the hotel company or the Borax Co.?

Mr. HILL. No. I made a trip in there with Mr. Vint, who was my Chief in Washington. I believe it was in January, and on his return to Washington, as I understand it, he recommended that the Cow Creek area be retained as headquarters.

Mr. McCLORY. Did you discuss the objections of the hotel company to the location of the Furnace Creek area?

Mr. HILL. You mean with Mr. Wirth when he was there?

Mr. McCLORY. Well, did you discuss it with anybody?

Mr. HILL. No. As a matter of fact, even with Mr. Vint's trip, we were working on the new area because it had been approved——

Mr. McCLORY. You say "the new area because it had been approved." You mean the Cow Creek area?

Mr. HILL. No; the Furnace Creek area. You see, it had been approved prior to the Director's visit.

Mr. McCLORY. Did anyone say, "Better not go ahead with the Furnace Creek plan because the hotel company, the Borax Co., would object to our interfering with the water supply there?"

Mr. HILL. No. We were told, in advance of the Director's coming out, to hold up planning on the Furnace Creek area until he had a chance to come out and look it over.

Mr. McCLORY. Was the donation of the 90 acres of land under consideration at that time, or did that come into the conversations?

Mr. HILL. That's right. I think on this trip that he made the decision to locate the visitor center at its present site.

Mr. McCLORY. How did you feel about that?

Mr. HILL. I was very much in favor of it.

Mr. McCLORY. And did that influence the decision to abandon the Furnace Creek location for the new housing?

Mr. HILL. No; I don't think so. I think the reason that most people favor this particular location is because it places the visitor center right in the area of greatest public use.

Mr. McCLORY. Did anyone say that if they would accept this donation and put the visitor center down there, that the land would be given providing you abandoned the Furnace Creek area headquarters?

Mr. HILL. No; there was no connection that I know of between the proposed Furnace Creek headquarters and the decision on the visitor center. The visitor center, I feel quite sure, was placed there because it was the place to put it, as far as public use is concerned.

Mr. McCLORY. The considerations that got involved in the visitor center location concerned more the participation by the State of California and the Federal Government in connection with the development there; is that right?

Mr. HILL. That's correct.

Mr. McCLORY. Well, in your opinion, did the hotel company or the Borax Co. interests influence this change of location at all, the abandonment of the Binnewies recommendations, or the Hilton-Norgard recommendations?

Mr. HILL. You're going to have to ask this of the Director, because I don't know. In my opinion, no.

Mr. McCLORY. It is your opinion that it didn't influence it, and as far as you know, it did not influence it?

Mr. HILL. That's right, as far as I know it did not.

Mr. McCLORY. You have heard that charge made, haven't you?

Mr. HILL. Yes.

Mr. McCLORY. You have read things possibly in the newspapers and elsewhere?

Mr. HILL. That's right.

Mr. McCLORY. But you don't believe it?

Mr. HILL. No. I have no basis for believing that it is true.

Mr. McCLORY. You believe it is untrue?

Mr. HILL. Yes; I definitely believe it is untrue because I have no basis to believe otherwise.

Mr. McCLORY. All the rest of this is just suspicion, speculation, rumor, groundless charges, and baseless allegations?

Mr. HILL. I'd rather not use that descriptive language.

Mr. McCLORY. Well, you describe what they are.

Mr. HILL. Well, I think I'll leave it just on the basis that I previously commented; that I have no reason to believe that there had been any dishonesty on the part of the Park Service in the actions that they have taken in this development.

Mr. McCLORY. Do you think there might be a little bit of everybody trying to get along, trying to cooperate?

Mr. HILL. I think you have to do that, no matter what kind of a situation you are in, if you are working with people. In working with the Death Valley Hotel Co., as far as I know, the association has always been very favorable.

Mr. McCLORY. Favorable to the Park Service?

Mr. HILL. Yes; it has been very favorable to the Park Service, and I have no reason to believe otherwise.

Mr. McCLORY. Thank you.

Mr. MOSS. Now, on this matter of allegations, the Chair is not aware of any allegations which have been made. In a statement opening these hearings yesterday, the Chair made certain inferences of possible activities of the Park Department employees which were not in accord with the then current rules and regulations. At the appropriate time the Chair is prepared to document the facts to demonstrate clearly beyond any shadow of a doubt that such did occur. The Chair would have reached those points and had them on the record by now if it had not been for the fact that one of the principal persons involved was unable to attend these hearings because of illness. The Chair, therefore, had not intended touching directly upon them during the course of the series of hearings here in Sacramento because toward the end of February the committee will convene in Washington, a location convenient for the other parties. The matter will be discussed more specifically at that time.

The characterizing of such inferences as possibly irresponsible would place you in a position where you could not respond directly from your own knowledge as to whether or not there was any basis for them, could you, Mr. Hill?

Mr. McCLORY. Mr. Chairman, I just want to explain in my examination I was certainly not making any reference whatever to the chairman's opening statement or anything the chairman may have said. I have read quite a bit of literature on this subject, and I was referring to some thoughts and some matters that came to my attention in other areas, and I don't want to imply otherwise than to affirm very emphatically the very direct and straightforward manner of the chairman.

I think I should comment, too, on the chairman's challenging of the need for public information and getting at the facts, and you've made a great record in that direction. I know that is what we are trying to do here. So I was merely trying to find out from this witness, since he is here testifying at this time, his opinion with regard to other charges or other inferences that other witnesses may make, and that was all I had in mind.

Mr. Moss. Well, the Chair appreciates the gentleman's statement; but now, touching upon the changes that did occur—the question of why they did occur—the location of the visitor center was somewhat dictated by the terms of legislation passed by the Legislature of the State of California, was it not?

Mr. HILL. The State of California donated the funds for the construction of the building.

Mr. Moss. And that donation of funds included a requirement that construction be on donated lands; is that correct?

Mr. HILL. I am not familiar with the exact terms, but I assume that that is probably correct.

Mr. Moss. Well, I wouldn't want you to make an assumption here unless you had a basis for arriving at it. I think the legislation clearly has a provision requiring that it be on donated lands. Item 401.2, State of California Budget Act of 1956, approved April 13, 1956, provides as follows:

D–23

For the construction and equipment of a State museum in, or in the vicinity of, Death Valley, Inyo County, to be known as the Death Valley Museum, Division of Beaches and Parks, Department of Natural Resources, payable from the State Park Fund, $350,000: *Provided*, That no money shall be expended for acquisition of land, and all facilities comprising the Death Valley Museum shall be constructed on land donated for that purpose.

That was a requirement and somewhat restricted the site for it. But nailing down the visitor center at that point did or did not have, in your judgment, any bearing upon the location of a headquarters site, either at Cow Creek or at Furnace Creek?

Mr. HILL. No, I do not think it did.

Mr. Moss. The merits of one site continued, in your judgment, to be superior to those of the other under the conditions then prevailing?

Mr. HILL. Are you speaking now of the visitor center?

Mr. Moss. No, I'm talking about the facilities for the headquarters, which you had proposed to change from Cow Creek to Furnace Creek, because you had made a determination that the Furnace Creek site offered the best facilities in the long run.

Mr. HILL. In my judgment at that time, yes.

Mr. MOSS. Yes. And the location of the visitor center did not modify your views?

Mr. HILL. Well, the location of the visitor center at Furnace Creek was—my recommendations in either case.

Mr. MOSS. The point I am raising is whether the determination of the location of the visitor center down near the ranch did not in any way modify your convictions—as expressed in your recommendations which were subsequently adopted and then at a later date abandoned—for the construction of a new headquarters at the Furnace Creek site?

Mr. HILL. That's right.

Mr. MOSS. Mr. Hill, you may stand aside. We will now call Mr. Fred W. Binnewies.

(Fred W. Binnewies, called as a witness before the Special Subcommittee on Death Valley National Monument, was duly sworn.)

Mr. MOSS. Mr. Binnewies, will you identify yourself for the record?

TESTIMONY OF FRED W. BINNEWIES, SUPERINTENDENT, POINT REYES NATIONAL SEASHORE, NATIONAL PARK SERVICE

Mr. BINNEWIES. I am Fred W. Binnewies, currently Superintendent, Point Reyes National Seashore, formerly Superintendent, Death Valley National Monument.

Mr. ROMNEY. Mr. Binnewies, would you please give the subcommittee a brief summary of your background and particularly your experience in and with the Death Valley National Monument?

Mr. BINNEWIES. Yes. I first started with the Park Service as a seasonal employee in 1931, at Rocky Mountain National Park, Colo., and I received a permanent appointment as ranger at Mammoth Cave National Park, Ky., in 1936. In 1947 I was promoted to the position of Superintendent of Bandelier National Monument in New Mexico, and in 1954 I received a promotion to Superintendent, Death Valley National Monument. I was there until February of 1960, at which time I received a promotion to the assistant superintendency of Glacier National Park, and only recently, July of this year, have been transferred to the superintendency of Point Reyes National Seashore in California.

Mr. ROMNEY. Mr. Binnewies, mention has already been made of your 1955 prospectus for the Mission 66 program. That is D–22. Is the document sufficiently fresh in your mind that you could give us a brief résumé of its purpose and content?

Mr. BINNEWIES. I haven't reviewed this recently, but I think it is because I did more of the preparation of this initially along with the Death Valley staff, and I think I am in the position to comment on it, yes.

Mr. ROMNEY. What was its purpose?

Mr. BINNEWIES. This was a requirement at the beginning of the Mission 66 program, and I think the Mission 66 program has been identified already as a 10-year program of development of the areas administered by the National Park Service. Each area was asked to prepare this prospectus, which was an analysis of the area, the travel, and the manner in which the area was used. There were certain proposals or guidelines that were included in the prospectus of things

that we felt should be accomplished in order to properly prepare the area or have the area reasonably well developed for the benefit of the people.

Mr. ROMNEY. Did you have any comment on visitation of the monument?

Mr. BINNEWIES. Yes. The travel to Death Valley showed a steady increase after the war years. Of course, during the war there was almost no travel out there, but after the war years, it increased at a fairly steady flow, and it was our estimate that by the end of 1966 travel would have reached somewhere in the vicinity of 600,000 visitors, and, let's see, in 1947, 162,000; 1954 there were 338,000 visitors; and it was on the basis of that trend that we estimated that the visitation would reach the vicinity of 600,000 by the end of 1966.

Mr. ROMNEY. Did you have anything to say about seasonal trends in connection with visitation?

Mr. BINNEWIES. Only to the extent that, of course, Death Valley is a winter-use area because of the high summer temperatures. There is not the heavy travel during the normal vacation months of the summer that is experienced in other areas. I know that after being in Death Valley for some time, I felt that the stories that had been put out about how horrible it was during the summertime were more of a sensation rather than the factual type, and that it was possible, and perfectly good planning, to think that visitations might be increased some during the summer months.

Mr. ROMNEY. Have you in later years noticed any increase in the visitation during the summer months?

Mr. BINNEWIES. Yes; yes, there was.

Mr. ROMNEY. Was this proportionate to the increase in the so-called season months?

Mr. BINNEWIES. I don't recall percentages offhand. I would think that it was fairly close to the general increase in travel.

Mr. ROMNEY. Can you also give us any comments you may have made in your prospectus concerning visitor day use?

Mr. BINNEWIES. Yes. Death Valley is located a hundred miles or more from any facilities, that is, small towns or places with overnight accommodation, and for this reason the visitor's stay at Death Valley is generally a little longer than it might be in areas that are closer to such facilities. In other words, there is a fairly high percentage of visitors that will stay more than 1 day. They just don't drive into the area, spend the day, and drive back out again to quite the extent that is experienced in areas in which towns and facilities are closer. The peak periods of visitation, of course, have been found to be the holiday periods during the winter months, largely because the schools are out then and it's possible for family groups to visit the desert at that time. There are about five or six periods during the winter months in which you might say there are peak periods of visitation.

Mr. ROMNEY. Would you please give us your opinion as to the adequacy of the facilities in the Death Valley National Monument for present and future visitation?

Mr. BINNEWIES. Well, I think they're very much in need of expansion. I don't think that they're adequate at the present time. I think particularly they need upgrading so far as the cabin accommodations at the ranch are concerned. For example, many of the cabins are quite

substandard and they need to be upgraded and they need to be expanded. Camping facilities are one of the big problems down there, and I think there is a definite need for expansion of camping facilities. There are many, many people that thoroughly enjoy a camping experience out in the desert, and it is somewhat different than it is in the mountainous areas, and I am sure, although I haven't been in touch with it for about 4 years now, I am sure that there is a demand for increased camping facilities.

Mr. ROMNEY. In your opinion, would 400 campsites be enough to take care of the needs in 1980?

Mr. BINNEWIES. Well, I have never made a projection of visitation to 1980. I think that 400 would be more than adequate for the projection to 1966, which is the period which I projected travel figures for. However, I might state that according to the chart, Mr. Hill shows that travel trends are not increasing at the rate that I had anticipated, based on the data that was available to me at the time that this prospectus was prepared, and there'd be a lessening of percentage increase, so that visitation may not reach the 600,000 by 1966.

Mr. ROMNEY. I believe yesterday's testimony indicated there would be approximately 700,000 visitors in the monument as of 1980. On that basis would you say 400 campsites would be adequate?

Mr. BINNEWIES. Are you referring now to just the Furnace Creek area, or the entire monument, because, you see, there are quite a number of smaller campgrounds scattered throughout the monument. There is one up in the north end at Mesquite Spring. There have been others proposed for Warm Spring, Saratoga Springs, other places like that. Now, I would think that 400 campsites at Furnace Creek would certainly be adequate for that travel with the addition of some use at these outlying campgrounds.

Mr. ROMNEY. Now, in your evaluation, are you taking into consideration the seasonal peaks like Thanksgiving, when you would have a great influx of visitors who might be wanting to use these facilities?

Mr. BINNEWIES. No, I am considering the average visitation. Now, there are periods when undoubtedly 400 campsites would not be nearly enough. For example, at the Death Valley '49er encampment. When I was there we were getting about 15,000 in the general Furnace Creek area for about 3 or 4 days, and, of course, camping facilities were badly overcrowded. We had to provide auxiliary overflowing camping, and this was true of the Easter period, possibly some of the other vacation periods. There are two or three periods during the year in which overflow camping would have to be provided during these special periods.

Mr. ROMNEY. Turning to your prospectus again, what did you propose with respect to the monument headquarters?

Mr. BINNEWIES. I proposed in this prospectus that one permanent year-round headquarters be established, because up to that time it had been the practice to move out of the valley in the summertime, move up into the mountains at Wildrose. This was rather a tedious process in having to move all the files up there. I understand, before I went there back during the CCC days, that they even moved entire houses up to Wildrose, and it was just not an efficient method of operating.

Now, we kept a ranger at Cow Creek during the summer months even when the headquarters was moved to Wildrose, and he had found that

it was perfectly livable, not too bad, so I proposed that we try living down there for the summer, just to see how it was, and we did. We found that it was perfectly livable with coolers, of course, and so I recommended that a permanent year-round headquarters be established at Cow Creek.

Mr. ROMNEY. Mr. Binnewies, on April 10, 1956, you submitted to the regional director, region 4, a memorandum, subject: "Location of Permanent Headquarters." This is marked "D–17." Is this document sufficiently fresh in your mind that you could give us a short statement of the reasons for its being written and how it came to be written?

Mr. BINNEWIES. Yes, if you can just give me a moment to review it. Yes. I had previously recommended that Cow Creek be the site of the permanent headquarters, and I did this on the basis of a number of studies that we had made of possible headquarters locations. Previously, we considered a location at Hell's Gate, one over at Hanapaugh Canyon, one at Ryan Junction toward the eastern edge of the monument.

Mr. ROMNEY. Excuse me. You might point these out and perhaps the Chair would appreciate, and I believe the reporter would appreciate, your spelling these unusual names.

Mr. BINNEWIES. I might state that when I first went to Death Valley, one of the first instructions I received was to consider the location of headquarters, and I was told to not necessarily consider the development that we already had at Cow Creek, but that if I could find a more suitable location, that seemed to be definitely better, I should so recommend it.

So in making these studies I considered the location at this intersection which is called Hell's Gate; I considered a location up here at Ryan Junction—that is R-y-a-n—I considered a location in Hanapaugh—that is H-a-n-a-p-a-u-g-h—Canyon; and we considered the possibility of using Wildrose area as a permanent headquarters, rather than one down in the valley. There were disadvantages to all of those, and we did not recommend any of them. We finally came to the conclusion that Cow Creek was the best. Then, I think it was February or early in 1956, anyway, Mr. Paul Thomas from the Western Office of Design and Construction was in Death Valley, and he happened to observe this location at Furnace Creek, and wondered if we had ever considered that. I went out with him and looked at the site, considered its advantages, had our engineer, Linn Spaulding, and our landscape engineer, Lawrence Knowles, look at the site, also, and make an evaluation of it. After careful consideration, we came to the conclusion that it did have good possibilities, certain advantages over the Cow Creek area, and, consequently, we recommended, or I recommended in this memorandum of April 10 that the Furnace Creek area be considered for the permanent headquarters.

Mr. ROMNEY. I wonder if you would please point out on the big aerial map to your right the locations that you are talking about.

Mr. BINNEWIES. Well, it doesn't show on that map, unfortunately. It's just off of the map at the top. It would be in this general vicinity, right up here.

In this memorandum I gave certain reasons that I felt were valid reasons for recommending the Furnace Creek site, and some disadvantages of the Cow Creek site. Did you want me to review those?

Mr. ROMNEY. I think it would be helpful if you would review them. First, may I ask you, who told you to begin looking around for possible new headquarters sites when you took over your superintendency at the monument?

Mr. BINNEWIES. Oh, I am sorry, I just can't remember positively who that was. I think that the regional director, region 3, Mr. Tillotson at that time, discussed this with me at the time that I accepted the superintendency. Because I recall very well one of the statements made was that even though we might have to pipe water some distance, don't let that be too great a deterrent, because they just completed a long pipeline into Mesa Verde of some 25 miles or something like that for headquarters' water supply there. I just don't recall positively who it was that suggested that I do it.

Mr. ROMNEY. Would you please review these factors in your evaluation of the Cow Creek-Furnace Creek sites?

Mr. BINNEWIES. Yes. At Cow Creek we had made a study there of the available space and had determined that 29 units would be about the maximum that could be constructed conveniently at that location. Seasonal units would have to be located at the utility area or near the administration building, and that at least nine houses would be located in undesirable sites, three of these dangerous to children due to high, steep banks. The area is elongated, on two levels, and badly cut by erosion. Utilities must be scattered with spurs and laterals. Two and probably three sewer systems would have to be provided. Road construction would be relatively expensive. House orientation cannot be efficient due to topography. The use of multiple units or duplexes vary, limited by topography. Water and sewer lines must all be replaced, which is complicated by existing structures. Some buildings must be constructed on soil containing bentonite, that is unsuited for heavy construction. Some landscaping can be saved, but most will be lost during construction. The power distribution system is new but most of it can be salvaged. Five utility buildings can be used, but they will require extensive remodeling. The visitor center would be located near the present administrative area about 1 mile from the residential area.

Furnace Creek: The topography was relatively flat, with no erosion channels. Expansion is unlimited. Houses can be oriented to best advantage. Multiple units can be used extensively. Utility system can be compact and efficient. Area lends itself well to subdivision type of design. Water can be piped from Travertine Springs or brought by gravity from Nevares Springs. Four miles of pipeline would be needed, compared to approximately 3 at Cow Creek. The vistior center would be located between Furnace Creek Inn and Ranch, a distance of approximately 1½ miles from the residential area. There would be no grouping of employees due to house locations. Area would lend itself to more pleasant living, due to better views and more spaciousness. Both areas are about the same distance from main traveled roads.

Those were the things that we considered in making the recommendation for the Furnace Creek area.

Mr. ROMNEY. You mentioned disadvantages in connection with Furnace Creek area. What were they?

Mr. BINNEWIES. Oh, one of the main disadvantages of the Furnace Creek area was the fact that water would have to be brought to the site or construct a pipeline from the Nevares Springs in order to bring it over by gravity, and the other one that I mentioned was that the visitor center would be located between Furnace Creek Inn and Ranch, and away from other Park Service development. I might explain that there had been at least three locations considered for the visitor center. One of them was at the old CCC campsite at Cow Creek, and our thinking was at this time that it would be better to have all of the National Park Service development together and that the visitor center could be located at Cow Creek. However, if it were moved to Furnace Creek, then it would not be practical from the visitor standpoint to locate the visitor center with the rest of the development and it would be located down near the ranch and the inn.

Mr. ROMNEY. Would you please explain what is meant by house orientation? You referred to house orientation not being efficient in Cow Creek because of the topography.

Mr. BINNEWIES. Yes. Landscape Architect Lawrence Knowles made quite a study of the positioning of the sun during various periods of the year, and the best orientation for a house in order to take advantage of sunlight in the winter months and also to orient it for the maximum possible shade in the summer months. I don't recall exactly what that orientation is. I know it is not exactly north and south or east and west. I think it shows on one of the plans here if you'd like to see that.

This is a proposal for location of residences at the Furnace Creek area, and this insert over here is the orientation of the house, showing that during the summer months with the garage at this location and that covered trellis here, which would give some shade to the house, that this would be the most efficient type of orientation during the summer months. Now, at Cow Creek we thought at that time that there were certain sites that were over on the toe of the ridge that would not lend itself very well to that type of orientation without a great deal of excavation. At the Furnace Creek site, of course, the terrain is level enough that they can orient the houses there any way you want to.

Mr. ROMNEY. With respect to the Furnace Creek site, you state that the topography is relatively flat with no erosion of channels. What is the significance of the lack of erosion channels?

Mr. BINNEWIES. Oh, the fact that during the infrequent times that you get rain out there, there is a considerable amount of runoff that, of course, follows the erosion channels. I think this statement is not strictly correct due to the fact that there were some very shallow channels at the Furnace Creek site, but they were of such a minor nature that slight diversion, just in the process of construction, would eliminate them, so that they would present no particular problem. At the Cow Creek area, it is located largely in a gully, large ravine, and, of course, the houses were located up on a bench out of the wash itself, but there is some runoff occasionally that runs down the wash.

Mr. ROMNEY. Would you please give us a résumé of the amount of work and the type of work that went into the later refinement of this proposal prior to its submission to the Office of the Director?

Mr. BINNEWIES. There were a number of people that looked at the site and prepared reports on it. The proposed layout was prepared. That includes the residential and utility areas. I don't recall anything else.

Mr. ROMNEY. One additional factor does not seem to be discussed in the papers which I have read. This is the question of employee morale. Would you care to comment on the effect upon employee morale of the residence site in the Furnace Creek area as opposed to the Cow Creek site?

Mr. BINNEWIES. Well, I think that this was rather a minor consideration, but I did find that in the Cow Creek area some of the houses were built up on what we call the mesa there, the upper level, and some were built down below. There was some separation of employees, you might say. For example, the superintendent, the chief ranger, and some of those in the higher positions, lived in one general vicinity and some of the laborers and truckdrivers, equipment operators, and so forth, lived up on the mesa portion, and I suppose this did, in a sense, give some sort of class; well, some sort of a distinction between the two areas. I think, in looking back now at it, it was a very minor consideration, although I must say that employee morale in an area such as Death Valley is quite important.

Mr. ROMNEY. Another aspect of this I think that you might want to comment upon is that the location at Cow Creek is approximately 4 miles from the ranch and the inn. What was the distance between the Furnace Creek site and the ranch?

Mr. BINNEWIES. Oh, as I recall, that was about a mile and a half. It would depend somewhat on whether or not Highway 190 would be rerouted as was proposed. If that was rerouted, then the distance would be, I think, about a mile and a half, but if it was not, the distance would be greater, something over 2 miles.

Mr. ROMNEY. As has been testified, the proposal which originated with you was approved by the Office of the Director. Would you recount for us what took place with respect to this proposal after the approval and up to the time when the proposal was actually changed, as has been testified to, by the Director in March of 1957?

Mr. BINNEWIES. Yes. After the approval of the Furnace Creek site, we were allotted construction funds and made preparations to go ahead with the development of the site, and I think we started to construct shortly after the first of the year in 1957. It may have been in December of 1956, but it was in about that time, and in the latter part of 1956, I know Mr. Albright, the former Director of the National Park Service, visited Death Valley, and I showed him the proposed site of Furnace Creek. He was a little concerned about the visibility from one of the main roads that comes down Furnace Creek Wash. And later in January, the latter part of January 1957, Tom Vint, who is Chief of Design and Construction, the Washington office, was in Death Valley, along with Mr. Hill. I showed them this site, went over it with them, and Mr. Vint seemed to be quite concerned. He was not particularly favorable toward the site. I understand, although I did not see the correspondence, but I understand that upon

his return to Washington, he recommended to the Director that the Director come out and take a look at it himself. He felt it was important that he do so. Subsequent to that, we received a stop order to stop construction and we did so. That was in February of 1957, and at that time we were working on an entrance road, had only done a small amount of rough grading for a road from the main road in Furnace Creek Wash up to the site.

Then the Director came out to Death Valley in March of 1957. He was accompanied by Mr. Merriam and Mr. Hill. My park engineer, Linn Spaulding, and the landscape architect, Lawrence Knowles, were there at the same time, too, and it was at that time that we went over both the Cow Creek area and the proposed Furnace Creek area very much in detail, discussed both of them, and the Director finally made the decision then to remain at Cow Creek. He made that decision, it's my understanding, because he felt that he just could not justify giving up the development that was already at Cow Creek.

Mr. Moss. It is obvious that we will not be able to conclude with your testimony, Mr. Binnewies, before a reasonable lunch hour. Therefore, the subcommittee will now recess to reconvene at 2 o'clock.

(Recess taken at 12:17 p.m.)

AFTERNOON SESSION

Mr. Moss. The subcommittee will be in order.

Mr. Romney, you may proceed.

Mr. ROMNEY. Mr. Chairman, I neglected to offer for the record today two documents marked D–17 and D–22, about which Mr. Binnewies has testified. They are, respectively, the memorandum of April 10, 1956, and the prospectus for Mission 66, dated July 27, 1955. I should like to request they be accepted for the record.

Mr. Moss. Is there objection?

Mr. MCCLORY. No objection.

Mr. Moss. Very well. So ordered.

(The memorandums referred to, D–17 and D–22, follow:)

D–17

DEPARTMENT OF THE INTERIOR,
NATIONAL PARK SERVICE,
DEATH VALLEY NATIONAL MONUMENT,
Death Valley, Calif., April 10, 1956.

MEMORANDUM

To: Regional director, region 4.
From: Superintendent, Death Valley.
Subject: Location of permanent headquarters.

Following the discussion on the location of permanent headquarters that was held in the regional office during my visit the week of March 5, I did not intend to reopen the subject unless more detailed studies of the Cow Creek area made it necessary to do so.

Landscape Architect Knowles and Engineer Spaulding spent all of last week going over the present residential area very carefully in order to determine the feasibility of locating the residences that will be required under the Mission 66 program. The results of their study showed that it would be possible to construct 29 houses and a recreation building but that some of them would of necessity have to be placed in highly undesirable locations. For example, three residences would be located on the point of a ridge that is approximately 110 feet wide, including the access road, and that has very steep slopes on both sides down to gullies that are from 30 to 40 feet deep. Also a group of six

houses would be located across the road from the present eight houses on the so-called mesa on a slope that would require excavation for at least three of them and which has very poor exposure. Both this group and those on the ridge would, in all probability, require separate sewer systems. It is Mr. Knowles' opinion that it would be very difficult to properly orient the houses in the present residential area to afford protection from summer sun and to take advantage of winter sun, due to the fact that they must be placed according to the topography that would be favorable in only a few instances.

I think that a very important factor that must be considered with regard to the residential area location is the fact that the number of permanent personnel approved under Mission 66 was reduced by some 21 positions from those that were recommended. Even though the recommended figure of 62 permanent positions is not reached by 1966 they will undoubtedly have to be established before too many years in order to have an organization that can properly administer, protect, and maintain an area the size of Death Valley. Of the 62 positions, 41 would be quartered at headquarters, with the remainder being at outlying stations. The 29 residences that it will be possible to construct at the present residential area would take up all of the available space and would leave nothing for the future. The only alternative then for future expansion would be to establish units at some distance from the present area, which is certainly to be avoided if possible. It is just not practical to let ourselves get into such a bottleneck.

In considering the overall picture now that detailed studies have been completed the following facts seem to be apparent:

COW CREEK

1. Twenty-nine units are the maximum allowing nothing for future expansion and making no provision for seasonal housing. Seasonal units would have to be located at the utility area or near the present administration building.
2. At least nine houses must be located at undesirable sites—three of these are dangerous for children due to high, steep, banks.
3. Area is elongated, on two levels, and badly cut by erosion.
4. Utilities must be scattered with spurs and laterals. Two and probably three sewer systems will have to be provided.
5. Road construction will be relatively expensive.
6. House orientation cannot be efficient due to topography.
7. Use of multiple units or duplexes very limited by topography.
8. Water and sewer lines must all be replaced which is complicated by existing structures.
9. Some buildings must be constructed on soil containing bentonite that is unsuited for heavy construction.
10. Some landscaping can be saved but most will be lost during construction.
11. The power distribution system is new but most of it can be salvaged.
12. Five utility buildings can be used but they will require extensive remodeling.
13. The visitor center would be located near the present administrative area about 1 mile from the residential area.

FURNACE CREEK

1. Topography relatively flat with no erosion channels.
2. Expansion is unlimited.
3. Houses can be oriented to best advantage.
4. Multiple units can be used extensively.
5. Utility systems can be compact and efficient.
6. Area lends itself well to subdivision type of design.
7. Water can be pumped from Travertime Springs or brought by gravity from Nevares Springs. Four miles of pipeline would be needed compared to approximately three at Cow Creek.
8. The visitor center would be located between Furnace Creek Inn and Ranch, a distance of approximately 1½ miles from the residential area.
9. There would be no grouping of employees due to house locations.
10. Area would lend itself to more pleasant living due to better views and more spaciousness.
11. Both areas are about the same distance from main traveled roads.

There are only two disadvantages that we can think of in connection with the Furnace Creek area, both of which are of minor importance. One is that water may have to be pumped, although it would not be very expensive to bring it by gravity from Nevares Springs, a distance of about 4 miles. The other is that the visitor center would be located between Furnace Creek Inn and Ranch and away from other National Park Service developments.

I fully realize the problems involved in making a decision to change the headquarters location at this late date but it is better to do it now than to regret not having done it in later years. Mr. Spaulding has made estimates of actual costs and believes that the program contemplated for 1957 and 1958 would fit Furnace Creek with only a few minor adjustments. The house construction program would, if anything, be cheaper at Furnace Creek than Cow Creek due to the more favorable terrain. While some consideration must also be given to existing facilities at Cow Creek there actually would be little loss since the cost of remodeling existing utility buildings to make them suitable for year-round use would be very expensive and it would probably prove to be more practical in the long run to construct new buildings. Of course there are no residences that are worth saving for other than very temporary uses. The entire utility system, with the exception of the powerline at Cow Creek, must be reconstructed and it would certainly be cheaper and much more efficient if they can be installed at Furnace Creek.

Mr. Spaulding is on assignment at WODC and he has with him the preliminary plans for the Cow Creek residential area as worked out with Mr. Knowles. He will be very pleased to take it to the regional office for review if you so desire.

From the landscape point of view Mr. Knowles strongly favors abandonment of Cow Creek in favor of the Furnace Creek site. From the engineering viewpoint the Furnace Creek site lends itself well to construction and orientation that would be difficult at Cow Creek. Administratively, there is little difference between the two locations although we believe that a well-designed residential and utility area helps to simplify administrative problems. Employee morale should be better at Furnace Creek and future expansion is assured.

We recognize the problems that may be encountered in moving from one area to another and it would mean that in all probability the Cow Creek utility area would continue in use for a number of years and that some of the existing houses at Cow Creek would be used for temporary employees. However, these are problems that can be solved without undue loss of efficiency since the two areas are only some 6 miles apart.

This problem was only reopened at this time because information that was not available to us before has made it apparent that Cow Creek is very limited and unsuited to future expansion or to comfortable living. It has served its purpose well and we feel that the investment has been repaid so that in effect little will be lost by the move. With the exception of some adjustments in the cost of the utility buildings the entire program planned under Mission 66 can be accomplished within estimated funds. Messrs. Knowles and Spaulding can do the necessary planning and I do not forsee any particular difficulties.

After taking everything into consideration and recognizing that this is an extremely important decision that will affect Death Valley for years to come, I see no alternative than to recommend that the permanent headquarters be located at Furnace Creek. Your comments will be welcome but we hope that this will conclude this very important discussion.

FRED W. BINNEWIES, *Superintendent.*

D–22

DEATH VALLEY NATIONAL MONUMENT,
Trena, Calif., July 27, 1955.

MEMORANDUM

To: Director.
From: Superintendent, Death Valley.
Subject: Mission 66 prospectus.

Attached is the "Prospectus" for the operation, development, and interpretation of Death Valley National Monument, prepared in accordance with Mission 66 Memorandum No. 3, June 27, 1955.

Some statistical data, particularly for travel trends, land acquisition, etc., was not readily available but can be furnished at a later date after the move to winter headquarters.

FRED W. BINNEWIES, *Superintendent.*

Death Valley National Monument Prospectus, 1966

SIGNIFICANCE

Death Valley National Monument contains 1,907,000 acres that were s aside to preserve and protect an area of great scenic, geological, biological, a historical values. It is an ideal specimen of typical North American dese with elevations from the lowest point in the Western Hemisphere—282 fe below sea level, to over 11,000 feet above sea level. It is a fault basin that the result of some of the most dramatic earth movements that ever occurr anywhere in the world. Rocks that represent all five of the great geolog ages are found within the boundaries in complicated faults, folds, overthrus intrusions, and chaotic conditions. There are many forms of animals and plan that are found nowhere else in the world and that have adapted themselv to survive under high temperatures that have been surpassed at only o other place. The weather is typified by low humidity, average rainfall of abo 2 inches a year, and mild temperatures except during the summer months.

VISITATION

1. Annual trend

Travel to Death Valley National Monument has shown a steady increa with a few fluctuations, since its establishment in 1933. In 1940 there we 80,000 visitors and in 1941, 95,000. There was a decrease during the w years followed by a steady increase to 162,000 by 1947. Since then there h been a steady increase to 338,000 in 1954. In the absence of unusual influenc it is estimated that travel will reach 600,000 by 1966.

2. Seasonal trend

Death Valley has been known for years for its delightful weather duri the winter but a place to be avoided in summer months. Within the last fe years, however, with improved automobile travel there has been a gradu relaxing of the fear of the high temperatures that might be encounter and a consequent increase from summer travel. In 1954, 92,000 visitors we through Death Valley from May to September. With continuing improveme of automobiles, and the development of air conditioning for them, it is expect that this trend will continue to increase, making Death Valley more tru an all-year area.

3. Day use

Due to the distance of Death Valley from large centers of population a the size of the area there is a tendency for a high percentage of visitors stay more than 1 day. Peak periods of visitation occur on holidays a during special events such as the Death Valley '49ers encampment, Christm Washington's Birthday, and Easter. While weekend travel continues to be t heaviest during a weekly period the differential is less than in many areas.

(Note.—Statistics to support the travel statements are not read available but will be prepared at a later date.)

PROPOSALS

1. Establishment of permanent, year-round headquarters.
2. Operation of checking stations.
3. Development of adequate interpretive program.
4. Completion of interpretive, informational, and traffic control sign progra
5. Legislation to acquire exclusive jurisdiction.
6. Acquire all private lands, particularly those on which commercial ent prises are now operating.
7. Revoke applicable mining laws.
8. Complete road system.
9. Develop trail system.
10. Construct administration-public use building.
11. Develop adequate camping facilities.
12. Establish outlying maintenance stations.
13. Change status from monument to park.
14. Increase accommodations and eating facilities.
15. Construct comfort stations at points of visitor concentration.
16. Improve communication facilities.

MANAGEMENT AND PROTECTION

1. Monument headquarters

At present two headquarters are maintained, one for winter use at Cow Creek, and one for summer use at Wildrose Canyon. The move twice a year from one headquarters to the other is expensive, causes loss of efficiency, and materially increases maintenance costs. All of the residences and most of the shop and office buildings are of flimsy, temporary construction that are more than 20 years old and must be replaced at an early date.

It is proposed to establish a permanent, year-round headquarters at Cow Creek and eliminate the use of Wildrose headquarters except as a maintenance station. This will entail the construction of adequate housing, administration-public use building, and shops with suitable air conditioning to withstand extreme summer temperatures.

Cow Creek is located geographically in the central portion of Death Valley where the greatest number of visitors can be served. It does not encroach on any of the natural features of interest to visitors but is accessible to many of them. There is an adequate water supply that is lacking in other locations that have been considered. It would be more desirable to locate headquarters at an elevation of at least 2,000 feet rather than sea level and below as at Cow Creek, but sufficient water has not been found at the higher elevations.

2. District ranger stations

The monument contains over 1,900,000 acres, and is divided into three ranger districts at present. The southern district contains over 1 million acres and is entirely too large for proper administration and protection. It is proposed to divide this district into two and establish a new district ranger station at Rhodes Spring on the Jubilee Pass Road. The station will be in conjunction with the proposed checking station and outlying maintenance station.

3. Checking stations

During the time that CCC manpower was available checking stations were operated on main highways into Death Valley. However, with the start of World War II and the resultant decrease in personnel the stations were removed and have not been reestablished. Experience has proven that checking stations are a vital necessity to provide accurate information to 350,000 visitors at present, and an estimated 600,000 by 1966. The information is necessary for public safety due to long distances without habitations, extreme of temperature during the spring, summer, and fall months, and the great variety of points of interest within the monument. In addition to dispensing information it is proposed to collect entrance fees in accordance with Public Law 137.

It is proposed to establish the checking stations at all of the main highway entrances that include Grapevine Canyon, Daylight Pass, Furnace Creek, Jubilee Pass, Wildrose Canyon, and Towne's Pass.

The establishment of checking stations and fees would make it mandatory to transfer the jurisdiction over Highway 190 from the State to the National Park Service.

4. Exclusive jurisdiction

In order to adequately preserve and protect the natural features for the benefit of present and future generations it is necessary to have better authority than is afforded by the present proprietary jurisdiction. The long distance, 225 miles to the nearest U.S. commissioner, and 100 miles to the nearest State court, creates a very difficult problem in enforcing regulations.

It is proposed that legislation should be sponsored to acquire exclusive jurisdiction.

5. Change in status from monument to park

Death Valley was established as a national monument in 1933 because of the very outstanding geology, desert plants and animals, and history that it contains. It is a veritable outdoor museum of features found few other places in the world. The unique desert conditions create unusual scenic values that are becoming more and more important to the visitors. The recent survey of "visitor needs and interpretive services" emphasize the scenic quality of the area and they are considered to be of equal or greater significance than the scientific values. It is therefore proposed that the designation of Death Valley be changed from "monument" to "park."

6. Acquisition of private holdings

There are some 50,000 acres of private lands within the boundaries of Valley National Monument. Three of the major holdings contain private prises that are Furnace Creek Inn & Ranch, owned by Pacific Coast Bora Stove Pipe Wells Hotel, owned by Mrs. Margaret Putnam; and Scotty's owned by the Gospel Foundation. All of these private operations are un control or supervision by the National Park Service and, therefore, create lems that cannot be resolved under these conditions. It is therefore pr to acquire all private holdings with particular attention to those on which are commercial operations. The balance of the private land consists of n claims and State-owned school sections.

7. Elimination of mining

The mining laws of the United States were extended to include Death shortly after it was created a national monument in 1933. Since then the been sporadic prospecting but little mining of commercial value. The only operating on a commercial scale at present are four talc mines in the sou end of the monument, two small tungsten mines in Trail and Emigrant Ca a lead mine near the Racetrack, and occasional borax mining in Corkscrew yon. This activity prior to the establishment of the monument added to its h and legend. Much of the prospecting is now done with bulldozers, jackham and power drills that cause irreparable damage to the primary values. M is not in keeping with the basic concept of the National Park Service, and fore it is proposed to request legislation revoking the mining laws as they in Death Valley.

8. Boundary survey

There has never been a boundary survey of the monument and at many it is impossible to determine it without extensive survey. A systematic s will be conducted and the boundary will be properly posted to prevent enc ment from private sources and aid in general protection.

DEVELOPMENT

1. Outlying maintenance stations

Death Valley has an area of 1,907,000 acres and a road system of nearl miles. Distances are too great to economically maintain the area from a ce location and therefore maintenance stations will be established in conjun with district ranger stations. They will be located at Grapevine, Wildrose Rhodes Spring, and will be 50, 60, and 55 miles, respectively, from headqua The stations will be staffed with sufficient personnel to perform the build utilities, road, and trail maintenance in the various districts. Major equip repair will be performed at a central repair shop at headquarters.

2. Campgrounds

The campground facilities at Texas Springs will be expanded to include ignated spaces for trailers and additional tent camping.

Additional campgrounds will be developed at Saratoga Springs, Bradbury Warm Springs, Eagle Borax Works, Wildrose Canyon, Midway Well, Mes Spring, and Quartz Spring.

3. Concessions

Death Valley is located 100 miles from the nearest towns at which over accommodations could be provided, and even with the development of more transportation there remains the need for accommodations and eating faci within the boundaries of the monument. Existing facilities at Furnace C Stove Pipe Well, and Scotty's Castle should be expanded to provide for an mated 600,000 visitors annually. The concession at Wildrose Station shou moved to a more suitable location that will allow for expansion.

In anticipation of increased travel by air a hangar and related services be provided at the Furnace Creek Airport. A public transportation conce should be established to provide access to the various points of interest for who arrive by air.

All of the existing commercial operations are in locations that do not encr on the natural features and therefore no consideration need be given to mo them.

4. Roads

With minor realinement and general improvement the existing road system of nearly 500 miles is considered to be adequate. It provides access to all of the major points of interest but leaves a great deal of untouched natural area for the enjoyment of those individuals who have the interest to get off the beaten track.

Gravel roads that should be paved include Aguerreberry Point, Charcoal Kilns, Artist Drive, 20 Mule Team Canyon, Sand Dunes Leap, Natural Bridge, west side of valley, and Ashford Mill to Saratoga Springs.

A new road is to be constructed from Stove Pipe Wells Hotel to Cottonwood Canyon, a distance of 10 miles.

5. Trails

The only existing trail is the one to Telescope Peak from Mahogany Flat, a distance of 7 miles. There are a number of other locations and points of interest to which trails will be constructed and include such points as north from Dantes View along the crest of the Black Mountains, Hansupah Canyon, Tucki Mountain, and other points to be determined.

Most of the terrain in Death Valley is such that high standard trails are not needed and they will serve as guides to points of interest.

6. Signs

A program to provide necessary directional, interpretive, informational, and traffic control signs is already in progress. This program is to be completed and additional signs installed where desirable.

7. Comfort stations

There are only four permanent, government-owned comfort stations in the area, and a few temporary pit toilets. Additional permanent stations will be constructed at campgrounds and points of visitor concentration.

8. Communications

Present telephone communication is by a local system owned by the Pacific Coast Borax Co., and one long-distance phone provided by Pacific Coast Telephone & Telegraph Co. The local system is extremely limited and highly unsatisfactory. It is to be replaced by a Government-owned rural dial system that will provide adequate communication for the headquarters area. Communication to outlying stations will continue to be by radio.

INTERPRETATION

Death Valley National Monument is an area that cries out for interpretation. It is a great natural museum in which the geology, flora and fauna are unique in the experience of the average visitor and they are, almost without exception, avid for information. They continually ask, "What, why, where, and how?" For many a visit to the valley is their first experience with desert conditions and they are amazed at the wildlife and vegetation that exists under the extreme climatic conditions here. They want to know about the geology, climate, and other natural phenomena.

In order to satisfy the demands of the visitors an adequate interpretive program must be developed that will include a good public use building, interpretive talks, guided tours, self-guiding tours, wayside interpretive devices and workshop.

The public-use building will have an auditorium where trained naturalists will have facilities for presenting educational and inspirational talks. There will be a museum containing exhibits on geology, biology, ethnology, and history. There will also be a library and workshops for the preparation and care of scientific collections. The building will be located at the Cow Creek headquarters and will be open all year.

A series of self-guiding motor tours will be developed. They will start at monument headquarters and will include the following: Badwater, Dantes View, Sand Dunes, Daylight Pass and Titus Canyon, Scotty's Castle and Ubehebe Crater, Charcoal Kilns and Mines, and West Side of Valley. Others will be developed as the need increases.

Campfire circles will be developed at Texas Springs campground and near Stove Pipe Wells Hotel.

Interpretive signs, markers, and wayside exhibits will be installed where desirable and necessary.

Conducted motor tours and the program of interpretive talks will be expanded to meet the increasing need. Full use will be made of mechanical interpretive aids.

Mr. ROMNEY. Mr. Binnewies, you were discussing the changes that occurred in your treatment of the proposal which you had made with respect to the headquarters site. At this point, however, I should like to digress into another subject; namely, the proposed visitor center site for the Death Valley National Monument, and I should like to refer to three documents, D–27, D–27a, and D–28. [The documents handed to Mr. Binnewies.]

This document, D–27, is a memorandum dated July 11, 1956, from you to the regional director, region 4; subject: proposed visitor center site.

Is this memorandum fresh enough in your memory so that you could give us a summary of its purpose and content?

Mr. BINNEWIES. If I might just have a moment to review it again.

Yes, this memorandum is a report of a meeting of the Death Valley '49ers board of directors at Newhall, Calif., in which a site for the proposed visitors center was discussed. State Senator Charles Brown, who, of course, was the primary moving factor in getting the allotment of $350,000 from the State for the visitor center, suggested that the site which had been proposed previously between the ranch and the inn up on a fan directly below the mouth of Furnace Creek would probably be subject to severe cloudburst damage, and, therefore, he favored a site just north of Furnace Creek Ranch. I at that time felt rather strongly that the best site was between the ranch and the inn. However, I was not aware of this cloudburst situation, and so in view of the suggestion by Senator Brown and in which the Death Valley '49ers concurred, I arranged to have Park Engineer Linn Spaulding make a study of the site between the ranch and the inn to determine if there was potential cloudburst damage.

He did make that study, and it was later determined that there was potential cloudburst damage, that there had in the past been rather severe cloudbursts come down Furnace Creek Wash that had taken out sections of road and had damaged buildings at Furnace Creek Inn, poured on down the fan in question, across this proposed site. It would have taken a considerable amount of money to construct a building at this site with sufficient protection to prevent damage by cloudbursts, and later I changed my opinion then and recommended the site just north of Furnace Creek Ranch.

Mr. ROMNEY. The document contains a sketch or map of the location which you had suggested, does it not?

Mr. BINNEWIES. Yes.

Mr. ROMNEY. At this point, Mr. Chairman, I'd like to request that the document be received in evidence as an exhibit.

Mr. MOSS. Are you requesting that both items, D–27 and D–27a be received?

Mr. ROMNEY. No, sir. D–27.

Mr. MOSS. Is there objection?

Mr. MCCLORY. No objection.

Mr. MOSS. It will be so included at this point in the record.

(The memorandum referred to, D–27, follows:)

D–27

DEPARTMENT OF THE INTERIOR,
NATIONAL PARK SERVICE,
July 11, 1956.

MEMORANDUM

To: Regional director, region 4.
From: Superintendent, Death Valley National Monument.
Subject: Proposed visitor center site.

There was considerable discussion of the site for the proposed museum to be built with State funds at the meeting of the board of directors of the Death Valley '49ers at Newhall, Calif., last Saturday. State Senator Charles Brown was present and it was his opinion that the way to get action started toward designing and constructing the museum was to offer a site to the Division of Beaches and Parks. He had already discussed this with the Pacific Coast Borax Co., and they were willing to donate any one of the three sites numbered 1, 2, and 3 on the attached map. Senator Brown favored site 3.

I told the group that a number of officials and technicians of the National Park Service had considered several sites and it was their opinion that the museum should be located between Furnace Creek Ranch and Inn in order to make it accessible to more people and to take advantage of an excellent view of the valley that would be of definite advantage to the interpretive program. There is no view to speak of at the No. 3 location.

The objection to the site which I proposed was that it might possibly be subject to damage by cloudbursts since it is on the fan below the mouth of Furnace Creek Wash. There was a severe cloudburst that came down the wash in 1942 that did considerable damage to buildings near Furnace Creek Inn, but after that a diversion has been built at Gower Gulch and just below the inn. Charles Scholl stated that no cloudburst has gone over the lower diversion since then.

Based largely on the statements about possible cloudburst damage and a desire to go along with whatever Charles Brown wanted the '49ers voted in favor of site 3.

I feel very strongly that a location between the ranch and inn is much more desirable and would undoubtedly serve the visitors better. However, since the question of possible cloudburst damage cannot be taken lightly I have asked Engineer Linn Spaulding to make a drainage study to determine just what would be necessary to protect the building. He will also study soil conditions, etc., to determine the relative merits of both sites. Part of my objection to site 3 is that the ground is largely silt and bentonite that may not prove to be a good building site. It is also subject to a great deal of dust during windstorms.

Theoretically, I suppose we should not have a great deal to say about the location and if the State wants to go ahead and build the museum on site 3 they can do so. However, we are sure that they will want to place it where it will best serve the visitors and we plan to make a detailed study of all proposed sites so that accurate data will be available for consideration.

FRED W. BINNEWIES, *Superintendent.*

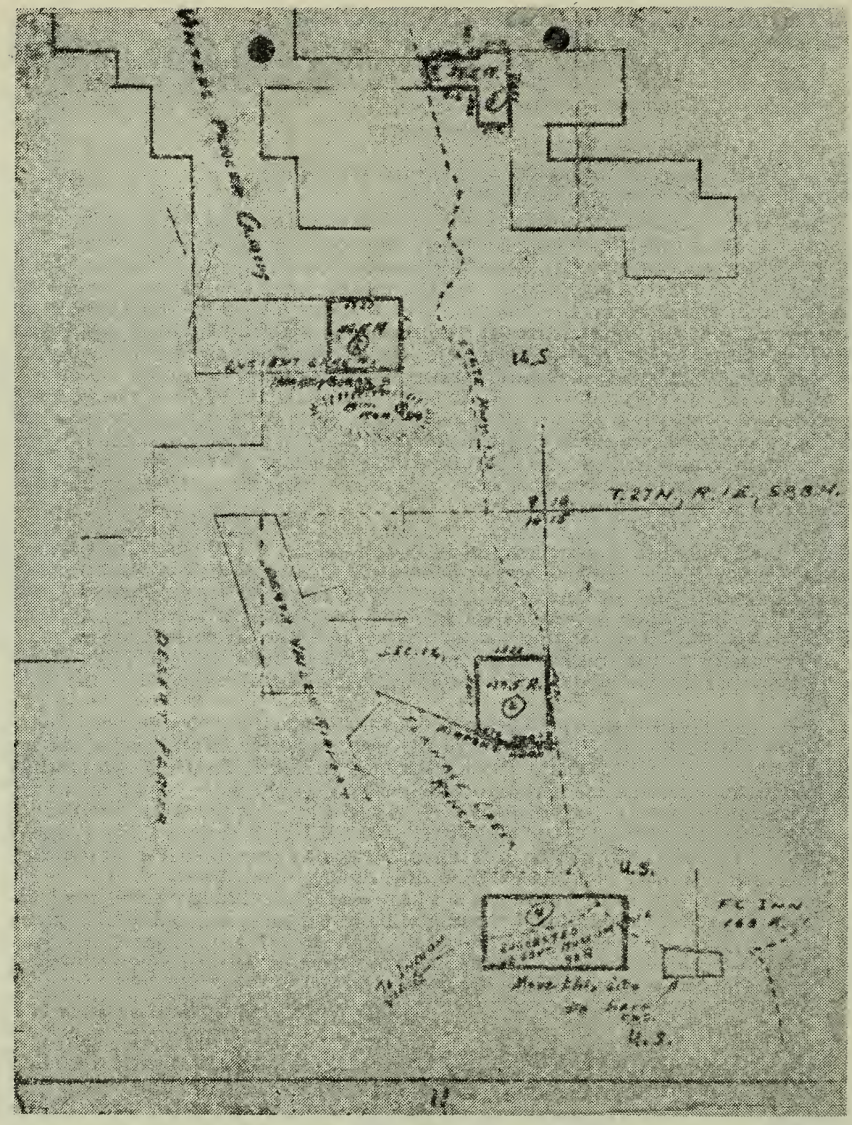
Mr. ROMNEY. I should like now to refer to the document marked "D–27a." It is a memorandum dated July 25, 1956, to you, from the regional chief of interpretation, region 4. The subject is: "Proposed Site for Visitor Center, Death Valley." I think we can read the letter into the record since it is very short. It reads as follows:

D–27a

Thank you for your memorandum of July 11 on the above subject. We shall be most interested to learn the findings of Engineer Linn Spaulding in connection with the drainage study to determine what would be necessary to protect the visitor center were it located on the site between the ranch and the inn.

As you know, I have always felt, and I believe it represents the consensus of this office and WODC, that the site between the ranch and the inn is desirable from several points of view.

When you refer to Mr. Spaulding's findings in connection with the matter of flooding, would you say that that study of Mr. Spaulding



is the same as is referred to in the first paragraph of this document as a drainage study?

Mr. BINNEWIES. Yes, it is.

Mr. ROMNEY. And did Mr. Spaulding in fact determine what would be necessary to protect the visitor center?

Mr. BINNEWIES. Yes. He had some ideas on that, and, of course, this would have been subject to review by the design office. This was primarily a field study and certainly subject to modification later on. However, as an engineer, he did think of ways and means by which flood damage might have conceivably been prevented.

Mr. ROMNEY. But did this study form a basis of any recommendation that the site could be located at that place on the fan safely, provided that the protective works were constructed?

Mr. BINNEWIES. I don't recall that he recommended specifically. He said, yes, that it was possible to construct the museum at this location, providing there were sufficient structures constructed to protect it.

Mr. ROMNEY. The museum was in fact constructed on the site north of the ranch, was it not?

Mr. BINNEWIES. Yes, it was.

Mr. ROMNEY. I refer now to a document, a memorandum limited to official use, dated November 2, 1956. Do you have a copy of that before you? It is D–28.

Mr. BINNEWIES. Yes, I do.

Mr. ROMNEY. Could you give us a short summary of the purpose and the content of this memorandum?

Mr. BINNEWIES. This memorandum was signed by the regional director, Lawrence C. Merriam, and reports on a recent conversation with Mr. Newton Drury, who was then chief of the State Division of beaches and parks, and states that in the negotiations between the Death Valley '49ers, Inc., and the Pacific Borax Co., the borax company is prepared to donate 50.8 acres of land to the State of California as a museum site, and Mr. Drury requested our opinion as to the appropriateness of the site.

Through discussions with Park Naturalist Ingham, they learned that the 50.8-acre site proposed is directly north of the ranch, which was not satisfactory to me, and that the regional office was in accord with this thinking. It then states:

D–28

The site which this office and WODC prefer, and we believe that you are in agreement with this, is on the south side of the highway between Furnace Creek Inn and the ranch. This is the site which Messrs. R. F. Lee and Yeager discussed with you on their last trip to Death Valley.

There is attached an overlay taken from drawing No. 2026, Furnace Creek area development, Death Valley master plan. We believe that location of the museum, upon which we all agree, is within the colored section of the overlay on Pacific Borax Co. land. We believe, actually, that this would represent less acreage than the 50.8 acres the company has offered to donate but that it will be sufficient for the needs of this project.

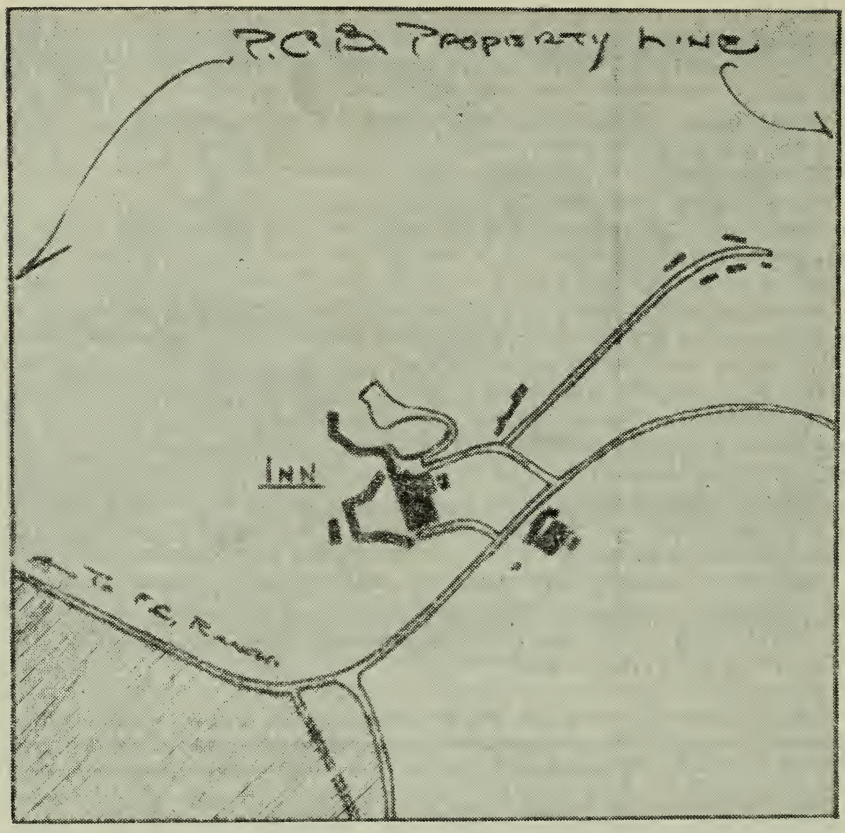
Mr. Maier seems to recall that you suggested that the parking area, which will need to be extensive, should, if practicable, be located on the south side of the building so as to be as much out of sight of the highway as possible.

As we see it, at this stage, negotiations would be between the State and the Pacific Borax Co., with, of course, the Death Valley '49ers as an interested party. The Service, we feel, should for the time being confine its participation in the matter to furnishing the State with such information as may be helpful.

Please submit your comments on the above, including reference to the cloudburst problem.

Mr. ROMNEY. There is attached to this letter that you have read, a map. Would you please point out the area indicated by the cross-hatching on the map where the site was? Perhaps your copy doesn't show it.

Mr. BINNEWIES. Well, I think I know the site as proposed that we were thinking of at that time and it was right down in this corner of the property owned by the Death Valley Hotel Co. and would extend on to Government land down in this direction. At that time it was thought that the museum portion of the visitor center would have to be built on land donated to the State for that purpose and the Death Valley Hotel Co. had indicated their willingness to make such a donation. Because of the complications of donating Govern-



ment land for this purpose, which would probably require an act of Congress, we thought it practical that it should be built on land that was donated by the hotel company, so we were thinking of a site right down in this lower corner, which would be the lower left corner of this map.

Mr. ROMNEY. Is this the same site which you discussed in your memorandum of July 11 which you have just referred to?

Mr. BINNEWIES. Yes; yes, it is.

Mr. ROMNEY. So that by November 2, you had not yet received the advice of Mr. Spaulding with respect to flood danger?

Mr. BINNEWIES. No, apparently not. I don't recall offhand just when I did receive that from Mr. Spaulding.

Mr. ROMNEY. Did you submit comments to the regional director as suggested on this?

Mr. BINNEWIES. Yes, I did, but I do not have a copy of them.

Mr. ROMNEY. These were comments which you submitted in writing?

Mr. BINNEWIES. I really don't recall whether I submitted those in writing or whether it was by discussion. During all of these negotiations, we carried on a good deal of this through discussions and by memorandum, also, and I just don't recall on this particular one whether it was reduced to writing or not.

Mr. ROMNEY. I don't have any further questions.

Mr. Moss. Mr. McClory?

Mr. MCCLORY. Mr. Binnewies, referring specifically to this subject and the matter of the location of the museum and visitor center, the proposed site referred to between the ranch and the inn would be a much greater distance from the visitors at the ranch, the trailer visitors there, and others who visited at the ranch, and also the visitors who used the park's campgrounds than the site ultimately agreed upon right alongside of the ranch, isn't that correct?

Mr. BINNEWIES. It wouldn't be a great deal farther, probably in the order of half a mile, between that and three-quarters of a mile.

Mr. MCCLORY. Between a half and three-quarters mile farther away from the real center of the population?

Mr. BINNEWIES. The ranch.

Mr. MCCLORY. So from the standpoint of the visitors who might walk in Death Valley, there would be much more likelihood that they would walk to the visitor center in its present location than if it were located at this distance down the road closer to the inn, isn't that correct?

Mr. BINNEWIES. That's correct, and particularly so from the campgrounds.

Mr. MCCLORY. The only people who would be benefited by the location near the inn, in contrast to the location ultimately agreed upon would be the visitor to the inn, isn't that correct?

Mr. BINNEWIES. That's right.

Mr. MCCLORY. Now, in general, the Park Service was sort of an adviser or bystander in the negotiations resulting in the location of the visitor center, were you not?

Mr. BINNEWIES. Well, no, only to the extent, of course, that we originally thought that it would have to be built on land donated to the State, and that, of course, limited the possible sites.

Mr. MCCLORY. Well, the State was financing the museum, was it not?

Mr. BINNEWIES. Yes, it was.

Mr. MCCLORY. So that we didn't want to lose that benefit and so, unless there were some serious objection on the part of the Park Service, the Park Service would have no occasion to disagree with the decision made by the State and the donor, would they?

Mr. BINNEWIES. I suppose they could have built it in any location that they wanted to since it was their money.

Mr. MCCLORY. Were you satisfied with the location that was ultimately agreed upon?

Mr. BINNEWIES. Yes.

Mr. MCCLORY. Do you feel that that is a better location than the location between the ranch and the inn discussed earlier?

Mr. BINNEWIES. Yes, because I was convinced later, after we made these studies on the cloudburst potential, that it was a definite threat, and there is no such threat at the site on which it was finally constructed, and I think this is a very important thing because those cloudbursts out there in the desert can be real frightening. They could do a terrible amount of damage.

Mr. MCCLORY. There was some view that was sacrificed, isn't that correct?

Mr. BINNEWIES. That's true, but here again is a place where I must confess I changed my mind because I thought a view initially was rather important, but some of the more experienced people in this line in Park Service convinced me that a view is not necessarily of any particular importance so far as a visitor center is concerned, because the people are inside, they're looking at museum exhibits inside of a building that is entirely enclosed with no windows in the museum portion, and that the view is really not of major importance.

Mr. MCCLORY. Exactly. And, for instance, the show that you put on, the lectures, and things of that nature, are much more easily accessible to a larger group of people with the visitor center located at its existing location, isn't that correct?

Mr. BINNEWIES. That's right. That's right.

Mr. MCCLORY. And a person who wants a view can find it at Zabriskie Point or almost any place in the area, isn't that correct?

Mr. BINNEWIES. Yes; and, of course, one of the primary functions of the visitor center museum is to encourage people to go out and see the things for themselves, so we can present or stimulate the visitor within the visitor center and certainly accomplish our purpose.

Mr. MCCLORY. Do you feel that there is anything mysterious that hasn't been answered in your own mind, or that should arouse suspicion, or further inquiry on the part of this subcommittee with regard to the decision locating the visitor center and the museum at the place it was decided upon?

Mr. BINNEWIES. Certainly not to my knowledge. I think it was a good decision. I think it is logical and I think later events have proved that it is quite satisfactory.

Mr. MCCLORY. Do you think that there is anybody in the Park Service who was influenced unduly, adversely, or improperly, by the borax company or the hotel company in any way?

Mr. BINNEWIES. No.

Mr. MCCLORY. In rendering this decision?

Mr. BINNEWIES. No; I certainly don't, and I would like to state that at one of the Death Valley '49ers board of directors' meetings, Mr. David Stern, who was an official of the borax company, stated that the company was not concerned with the location, that this was strictly a National Park Service problem, and that they would be satisfied with the location, wherever it was.

Mr. MCCLORY. Just for my information, who are the '49ers, Inc.?

Mr. BINNEWIES. They're a group of citizens that were organized in 1949 during the centennial celebration of the State of California, and they put on quite a dramatic celebration out in Death Valley. They are people that are particularly interested in the desert and in Death Valley, particularly. As I say, they were organized for that centennial celebration and they decided to become then a permanent organization with their primary purpose the providing of a museum for Death Valley.

Mr. MCCLORY. Now, getting back to an earlier part of your testimony, you testified that the decision not to go ahead with the headquarters housing and other developments in the Furnace Creek area was reached, in your opinion, because of a recommendation made by Mr. Vint to the Director?

Mr. BINNEWIES. Vint.

Mr. McCLORY. What is his first name?

Mr. BINNEWIES. Thomas.

Mr. McCLORY. Thomas Vint, V-i-n-t?

Mr. BINNEWIES. Yes. After his visit to Death Valley the latter part of January 1957, he apparently was not satisfied with the Furnace Creek location and when he got back to Washington, as I understand it, he recommended, strongly urged the Director to go out to Death Valley and take a look at it himself before things went any further.

Mr. McCLORY. What is Mr. Vint's title?

Mr. BINNEWIES. He was Chief of Design and Construction in Washington, D.C.

Mr. McCLORY. He is still with the Park Service?

Mr. BINNEWIES. No, he is retired now.

Mr. McCLORY. Do you know where he lives now?

Mr. BINNEWIES. No, I don't. I don't know whether he moved from Washington or not.

Mr. McCLORY. Did you visit with him when he was out looking over the sites and the work that was progressing?

Mr. BINNEWIES. Oh, yes. He was with Mr. Hill. I went around with both of them and showed them the proposed site, and of course, we went over the Cow Creek area again, too.

Mr. McCLORY. Did he indicate to you while he was out here that that might be his recommendation?

Mr. BINNEWIES. He didn't say very much about it to me. He did indicate that he thought the Furnace Creek site was quite barren and it would take a long time to develop any sort of vegetation. We discussed it rather generally. But he didn't indicate what action he was going to take.

Mr. McCLORY. About how many residential buildings were located at that time in the headquarters housing area at Cow Creek?

Mr. BINNEWIES. I believe there were 16 or 18. I just don't recall offhand.

Mr. McCLORY. Those would be 16 or 18 permanent houses to accommodate Park Service personnel?

Mr. BINNEWIES. Yes, they were very poor. They were temporary-permanent houses.

Mr. McCLORY. Well, they weren't the CCC housing projects, were they?

Mr. BINNEWIES. Yes, they were. No new houses had been built at that time.

Mr. McCLORY. Have all of the houses accommodating the Park Service personnel been built since that time at Cow Creek?

Mr. BINNEWIES. Yes; they're still using some of those old ones, I understand, but after the decision to stay at Cow Creek, 18 new residences were constructed at Cow Creek, and some of the older ones were removed, but some of them are still in use.

Mr. McCLORY. I see. But part of the reasoning behind Mr. Vint's decision, you feel, was that he didn't think that the existing buildings there should be abandoned or that you'd have a problem finding out what to do with those buildings and with the improvements there?

Mr. BINNEWIES. Well, I don't think he was concerned very much with the houses themselves, because he recognized that those were all

going to have to be replaced sooner or later, but it was the utility area and the building that we were using for the administration office at that time, along with the fire reservoir-swimming pool that we had there, and the utility lines, all that.

Of course, the vegetation that had been developed there at Cow Creek would be an influencing factor, too.

Mr. McCLORY. In connection with your investigations and your recommendations, as well as the ultimate decisions that were made, was consideration given to the water rights?

Mr. BINNEWIES. Yes, some consideration was, as, for example, in making the studies on the Furnace Creek site, we were aware of the filing that the National Park Service had made quite a number of years ago for about one and a half second-feet of water in Furnace Creek Wash below the diversion of the hotel company, and we thought that if that could be developed, if that amount could be developed and pumped up to the site, that that would be certainly an adequate supply. As an alternate, of course, we had the right on Nevares Springs, and if a sufficient amount could not be developed in Furnace Creek Wash, then we could always fall back on bringing the pipeline over from Nevares Springs.

Mr. McCLORY. So that the consideration with regard to water rights was that under either of the alternate plans there would be an adequate supply of water to accommodate the headquarters housing development at the Furnace Creek site?

Mr. BINNEWIES. Yes.

Mr. McCLORY. That was the extent of the consideration of the water rights?

Mr. BINNEWIES. Yes.

Mr. McCLORY. Now, you served as superintendent of Death Valley National Monument for a period of about 6 years, didn't you?

Mr. BINNEWIES. Yes.

Mr. McCLORY. During your 6 years of service there, was there any conduct on the part of the borax company, or any attempts on the part of anyone connected with the borax company or the hotel company, to influence your decision adversely to those of the Federal Government or the National Park Service in any way?

Mr. BINNEWIES. No, none whatsoever.

Mr. McCLORY. Do you feel that any of the treatment that you received from the officials of the hotel company—you must have had some contact with the management there and with the employees, the guests and others—is there anything about your relationship there which you feel was designed to influence your decisions or to soften you, as far as your loyalty to the Federal Government was concerned?

Mr. BINNEWIES. Certainly nothing at all that I am aware of, and our relationships were always very cordial, most cooperative. I considered them much in the same status as a concessionnaire, although technically they were not, but they operated in much the same manner, and our relationships were really quite fine. I know of nothing, no way in which they ever tried to exert any undue influence or act other than in a cooperative manner.

Mr. McCLORY. Would that opinion apply with regard to others in the Park Service that you worked with?

Mr. BINNEWIES. Insofar as I know, yes.

Mr. McCLORY. You do not have any knowledge of any decisions having been made by the Park Service as a result of favors or undue influence of any kind which were exerted by the hotel company or the borax company or any of these people that were operating the private interests in Death Valley National Monument?

Mr. BINNEWIES. No, I certainly am not aware of any attempt to influence any Park Service employees in any way.

Mr. McCLORY. You are satisfied, are you, that there was a logical, reasonable basis for the ultimate decisions that were made with regard to the locations of the museum site, the visitor center, the campsite, the headquarters location, and so on, in the development of Death Valley National Monument?

Mr. BINNEWIES. Absolutely.

Mr. McCLORY. Now, your recommendation, your general recommendation with regard to the acquisition of all private interests in the Death Valley National Monument had nothing to do with any advantage that was being taken by the people that operated the Furnace Creek Inn or the ranch? You made a general recommendation after you became superintendent in which you recommended that Scotty's Castle be acquired and that the Furnace Creek Inn be acquired, and all of the private property be acquired.

Do you recall that?

Mr. BINNEWIES. Yes.

Mr. McCLORY. That is just your general view—that all of the private property should be acquired by the Federal Government; is that right?

Mr. BINNEWIES. That's right. This is a general policy of the National Park Service.

Mr. McCLORY. There wasn't anything in the operation or in the conduct or attitude or action of the people managing or operating the Furnace Creek Inn or the ranch which induced you to make that recommendation?

Mr. BINNEWIES. Oh, no, no, nothing.

Mr. McCLORY. That is your philosophy—that properties of that kind should be owned by the Federal Government?

Mr. BINNEWIES. Yes, and of course, prior to that time that I was there, I understand that, oh, in the forties they almost completed the acquisition of those properties, but something happened. They weren't. At least there was an earlier effort by the National Park Service to acquire the ranch and inn properties.

Mr. McCLORY. Well, I think, Mr. Binnewies, you made a very fine statement, and a definite contribution to the work of our subcommittee, and I can't help but feel that you made a definite contribution to the success of the Death Valley National Monument during your work as superintendent of the monument, and it involves a period in which we are investigating here. I just want to add that comment to the record.

Mr. BINNEWIES. Thank you.

Mr. Moss. Let me understand this correctly.

You concur in the site finally selected for the museum as being the best site under any condition?

Mr. BINNEWIES. Yes, I think it's proven that it is a good site and entirely satisfactory.

Mr. Moss. No, I didn't ask you that. I said the best site; not a good site, not a satisfactory one, but the best site.

Mr. BINNEWIES. Yes, I think it's the best site.

Mr. Moss. The ranch is located at a minus 179 feet, is that correct?

Mr. BINNEWIES. Yes.

Mr. Moss. What is the elevation at the site that was proposed but apparently abandoned because of the flood threat?

Mr. BINNEWIES. I don't have that information just offhand. I could guess at it because the inn is located at sea level, so that site would been about, oh, probably 50 to 75 feet below sea level.

Mr. Moss. For the purpose of visitor orientation, which you apparently had placed some emphasis on earlier in your studies, did it afford a better opportunity for such visitor orientation, visual orientation?

Mr. BINNEWIES. Yes. That was at a time when, as I stated, I did.

Mr. Moss. The major factor in changing your point of view was that of the flood threat?

Mr. BINNEWIES. That's right.

Mr. Moss. Mr. Binnewies, are you familiar with the fact that there's probably not a flood control works in this entire valley that's constructed to stand much more than the average 100-year-cycle flood, and here you are talking about a thousand-year-cycle possibility?

There's a wash coming down here over where the Texas Spring Campground is. Once in a thousand years you could have a cloudburst in that wash that could be as disastrous to the ranch properties in the present visitor center as you could have coming out of Furnace Creek Inn, couldn't you? In fact, out in that country you could have a wash come down any one of those valleys there where the alluvial deposits have been built up, couldn't you?

Mr. BINNEWIES. That's correct, but if my memory is correct, that wash does not head on nearly as large a drainage area as the Furnace Creek area, so that the potential is not nearly as great.

Mr. Moss. It's not necessary that it would be on the same magnitude of drainage area; it's the suddenness of the water and the amount that is dumped into the drainage area. In talking of a thousand-year projection, almost anything could happen, couldn't it?

Mr. BINNEWIES. Yes, I suppose so.

Mr. Moss. Then we are faced with the magnitude here that, for the prevention of that thousand-year occurrence, we have an investment of $30,000?

Mr. MCCLORY. Mr. Chairman, would you explain to me what this thousand-year flood is?

Mr. Moss. Yes. On a memorandum from the regional director, region 4, labeled D–32 in your document file, in the second sentence of the third paragraph is the following statement:

D–32

The upper site, while it commands a very desirable view, will require approximately $30,000 for diversion structures in the event of severe cloudbursts. However, Engineer Spaulding said that a cloudburst severe enough to do serious damage to the museum might not occur once in a thousand years.

We don't really plan that kind of protection against floods, do we? Do you know of any place where they do, as a matter of policy?

Mr. BINNEWIES. No, I do not.

Mr. Moss. That's really another significant factor, isn't it?

Mr. BINNEWIES. Well, the fact that there was a severe cloudburst there——

Mr. Moss. You could have an earthquake there once in a thousand years that could wipe out the whole valley. There has been some violent action in the past, hasn't there?

Mr. BINNEWIES. Yes.

Mr. Moss. There's evidence all around you?

Mr. BINNEWIES. Yes.

Mr. Moss. It's in a fault area, isn't it?

Mr. BINNEWIES. Well, I am not enough of a geologist to know. I do——

Mr. Moss. There appear to be some faults in the area——

Mr. BINNEWIES. That's right.

Mr. Moss. Flying over it.

Mr. BINNEWIES. Yes.

Mr. Moss. So that is not really material to a determination of the site. If a flood were to occur once in 20 years, once in 30 years, or even a hundred years, it would perhaps be prudent to plan necessary protection to prevent damage. But a thousand years is like reaching out into eternity. Whatever you construct might not even last a thousand years. The wind, erosion—I don't know how much that cuts it down, but that isn't significant enough, really, to play an important role in the selection of a site.

Mr. BINNEWIES. Well, on the other hand——

Mr. Moss. I am not challenging your selection. I am trying to determine the basis for the change, and I don't like something like this which I know is really without merit.

Mr. BINNEWIES. Well, I think that is probably part of my concern——

Mr. Moss. Isn't it that you had some parctical problems? Practical problem No. 1 was the terms of the legislation governing the appropriation of funds by the State of California which stated that it had to be on donated land?

Mr. BINNEWIES. That certainly limited the selection of sites; yes.

Mr. Moss. Were the company and the Government about the two best prospects for the donation of land to the State?

Mr. BINNEWIES. That's right.

Mr. Moss. Apparently here we have a valid issue injected because they raise the problem of congressional legislation to effect the granting of the land to the State.

Mr. BINNEWIES. Yes.

Mr. Moss. That might have been a rather formidable undertaking. On the other hand, it might be merely a perfunctory operation——

Mr. BINNEWIES. That's right.

Mr. Moss (continuing). —because there was some bait on this hook, $350,000 of it. We in Congress are sometimes ready to jump at bait when we think we can get someone else to share the cost, but at least it had far more validity than the item raised in the previous paragraph.

Now, you had two possible donees, the State and the company. The company offered three sites, none of the three being the one felt most desirable by you a the time of your original evaluation; is that correct?

Mr. BINNEWIES. May I refer back to this sketch map?

Mr. Moss. Certainly. If you haven't one, we will get one for you. It's attached to document D–27. In other words, you have a negative of it there?

Mr. BINNEWIES. Oh, yes; yes.

Mr. Moss. Not one of these three sites was a site which you felt preferable to the one you had originally determined on; is that correct?

Mr. BINNEWIES. Well, I didn't give much consideration to either sites 1 or 2, as shown on this sketch, because I just felt they were not practical from other points.

Mr. Moss. They're pretty far down and there are rather heavy deposits of bentonite, aren't there?

Mr. BINNEWIES. Well, number one is on a ridge and that is the point at which at one time there was supposed to be a memorial to a Father Crowley. There was just not sufficient room on site 1 to put the size structure that the visitor center, with the administration building and the attendant parking and everything that was planned for, there.

Mr. Moss. Was that inadequate?

Mr. BINNEWIES. It was inadequate. And site 2 was somewhat the same. It was also on a hill that would have required a great deal of excavation and much more costly construction. It was also away from, you might say, the center of visitor use and I didn't feel that would be suitable at all. So it really came down to the question of a selection of either sites 3 or 4, and if you note on there, I indicated moving that up the fan so that it overlapped onto the property owned by the hotel company on the inn tract.

Mr. Moss. So that you could build the administrative feature on one side of the line and the other, the museum, on the other, and comply with the terms of the legislation?

Mr. BINNEWIES. Yes, yes, that's right. So in the final analysis it was the relative merits of those two sites that received serious consideration.

Mr. Moss. You were not offered the site farther up as a donation; these three were the only ones offered for the donation, were they not—1, 2, and 3?

Mr. BINNEWIES. I don't recall that 1 and 2 were offered. They may have been. I think we considered those, and had we decided that that would have been a suitable site, then we would have been prepared to request that donation by the borax company, but we felt that they just were not suitable, and, consequently, we never went very far with those.

Mr. Moss. Now, there were disadvantages to the site that was ultimately selected, weren't there?

Mr. BINNEWIES. I don't think of any offhand, except as I have testified on this view business. It is not as spectacular a view from that location, but the construction is less expensive at that location. It is a more easily adaptable site. Little excavation is needed. And altogether I think it is a more satisfactory site than the one that I had originally favored.

Mr. Moss. It is your personal, firm conviction that that is the better site then?

Mr. BINNEWIES. Yes. I had favored this other one because of the view, and when I became convinced that the view did not carry the relative weight that I had originally attached to it, then I thought that the other site was very good.

Mr. Moss. You came to that change independently?

Mr. BINNEWIES. Yes.

Mr. MOSS. How about a campground at that site bordering the museum now; do you think that is a good site for a campground?

Mr. BINNEWIES. I think it is as good a site as there is in that general vicinity.

Mr. MOSS. It's subject to heavy dust when it blows, isn't it?

Mr. BINNEWIES. To some extent, but it is pretty well protected by the date groves that are on the Furnace Creek Ranch. It's protected from the south, and the mesquite thicket and the tamarisk growths or trees that are growing down in there pretty well help to break up the wind.

Mr. MOSS. In your judgment, would the Texas Spring campground be susceptible for expansion to 400 units or sites?

Mr. BINNEWIES. 400 sites?

Mr. MOSS. Yes.

Mr. BINNEWIES. I think it would be rather a problem to expand Texas Spring that much.

Mr. MOSS. All right. 200. Let me correct it. I am in error. 200 sites.

Mr. BINNEWIES. I think that could be done. As I recall, we made some studies of that, and by going up, going back into some ravines, and going on up farther, it would be feasible to get quite a number of additional sites in there. Our thinking at the time was that Texas Spring should be abandoned for some years, and allow the vegetation to reestablish itself. It's been pretty well beat down by the campers. On the other hand, the people that go out into the desert year after year and have used that campground were very much in favor of it. They really like it even though by our standards we think they are rather uncomfortable, yet, because of the colorful hills and also some protection that is afforded by being in between or up in the hills there, they really do like it. I know that at the time when we proposed the new campground down near the visitor center, there were a number of campers that expressed their hope that Texas Spring would be retained. I think it would take quite a bit of work to bring it up to satisfactory standards, but it can be done.

Mr. MOSS. It would require, though, that it be withdrawn from use for a period of time in order to effect that type of improvement?

Mr. BINNEWIES. That would probably be the quickest way to bring it back, because it would require a considerable amount of replanting and protection of the vegetation out there to allow it to reestablish itself. It could be done and remain open to use at the same time, but it would require more attention and protection of the plantings and the vegetation.

Mr. ROMNEY. Mr. Binnewies, I'd like now to return to the matter we were discussing just before the lunch recess. You had mentioned, I believe, in your testimony, that you, as superintendent of the monument, had received a visit from Mr. Horace Albright in connection with the proposals for implementing the Mission 66 program. Did that visit occur in November of 1956, to your recollection?

Mr. BINNEWIES. I don't recall the exact date. I know that it was either in November or December 1956.

Mr. MOSS. During my examination, I referred to a memorandum from the regional director, region 4, in the matter of the flood problem

at the proposed site for the visitor center. I'd like to ask that it be placed in the record. Is there objection?

Mr. McCLORY. No, I have no objection, Mr. Chairman, but I'd just like to make this comment at this point, though, if you don't mind, and that is that these documents that are going in are documents which relate to preliminary work and that they are subjected to further review, and that the decisions which appear to have been reached were not in accordance with a number of these documents that are going in. I wouldn't want it to appear in the record, insofar as my lack of objection is concerned, that these had any compelling force with regard to the ultimate decisions that were made by the National Park Service, nor should they, in my opinion, reflect upon the good judgment of the Park Service which was ultimately exercised. But as certainly bearing on the general subject, as preliminary to what was ultimately done, and centainly for purposes of our inquiry, why, they are part of the inquiry, and I have no objection to them whatsoever.

Mr. Moss. It is in order that the record have complete clarity that the chairman has asked that each of these items be introduced once they are referred to. Then the item in its entirety is reproduced and available for anyone who wants to study the hearings or the ultimate report of the subcommittee.

(The memorandum referred to, D–32, follows:)

D–32

U.S. DEPARTMENT OF THE INTERIOR,
NATIONAL PARK SERVICE,
November, 16, 1956.

MEMORANDUM

To: Regional director, region 4.
From: Assistant regional director.
Subject: Death Valley Museum—discussion with Superintendent Binnewies,

Those in attendance were: Superintendent Binnewies and Engineer Spalding from Death Valley, Messrs. Maier, Johnston, Whitworth, and Hussey of the regional office; and Messrs, Krueger, Russell, and Benson of the D. & C. office.

The meeting started with a historical review of the project—the Park Service's thinking in the past and as now included in the Mission 66 program (we are advised the museum has been omitted from the final prospectus). The interest of the Death Valley 49'ers, the bill they put through the State legislature, and the current offer of 50.8 acres of land to the State by the Pacific Coast Borax Co. were discussed.

The three possible sites—the upper one opposite the inn, the lower one which was the original choice, and the site now proposed north of the ranch—were discussed and all were considered to have good possibilities as well as some drawbacks. The upper site, while it commands a very desirable view, will require approximately $30,000 for diversion structures in the event of severe cloudbursts; however, Engineer Spaulding said that a cloudburst severe enough to do serious damage to the museum might not occur once in a thousand years.

The earlier determined site as shown on the master plan is on Federal land and it would probably represent too complicated and lengthy a transaction to donate the land to the State, in view of congressional legislation that would probably be required if the Service were to desire that the State build here.

The site north of the ranch was considered to be the easiest to build on because it is flat. Dr. Russell felt that the fact that it has little or no view is not a serious drawback. It has the advantage of being on the highway coming from the west over which most of the travel comes. It was felt that the PCB Co. would, in the event the State erects the museum, donate part of this tract to the Federal Government so that the Park Service could build an administrative unit adjacent to the museum and connect the two with a short ramada which would result in a comprehensive visitor center.

Regardless of whether the museum is built by the State or the Federal Government, all agreed that the Service should at the earliest date decide upon the most appropriate site, or sites—in priority. We must apparently soon give an answer to the State as to whether the land offered to them would be appropriate in our opinion.

The group recommended that a team visit Death Valley and review the three sites on the ground as soon as practicable. Mr. Krueger said that Al Kuehl, who is now in Europe, knows most about the problem, and it would be best to send such a group down as soon as he returns early in December. If for any reason a decision must be made before then he said D. & C. can send someone else, but in any case they want Dr. Russell to go along. They felt a representative of interpretation and one from operations from this office should also be present, as well as Messrs. Spaulding and Knowles.

Mr. Binnewies is to advise us concerning the forthcoming discussions he will have with such visitors as Horace Albright and Mr. Powell, of beaches and parks, and we can then better gage the need for action.

HERBERT MAIER,
Assistant Regional Director.

Mr. ROMNEY. I believe, Mr. Binnewies, you had before you a memorandum dated November 6, 1956, from the Director; subject: Proposed visit of Mr. Horace M. Albright. Do you?

Mr. BINNEWIES. Yes.

Mr. ROMNEY. I think I can briefly summarize the contents of this. You were advised that Mr. Albright had planned to visit Death Valley National Monument on the 16th or 17th of November, and that he would like to discuss certain development matters with you since he raised a number of questions on such subjects as new headquarters, the museum, et cetera. In addition, you received with this memorandum a copy of Mr. Albright's letter to the Director and a copy of the Director's reply to Mr. Albright. These documents you have before you, I think, and they are marked D–29, D–30, and D–31, the last being the two attachments to D–29. Mr. Albright did make this visit, did he not?

Mr. BINNEWIES. Yes, he did.

Mr. ROMNEY. Would you briefly recount what took place when Mr. Albright made the visit?

Mr. BINNEWIES. Mr. Albright visited me there in Death Valley at which time we discussed quite a number of problems relating to the area. I took him to see the new proposed headquarters site at Furnace Creek, and we discussed several other matters. One of them was the transfer of roads. We at that time were trying to work out an exchange of roads with the State in order to facilitate the administration there. This is another subject that probably we shouldn't get into right now, unless you want more information on that, but I don't recall very many of the details of that discussion. We discussed the proposed museum, and, as I recall, we discussed the relationship of the museum which the Borax Co. has at Furnace Creek Ranch to the new proposed museum, generally whether or not that should be incorporated with a new museum or whether it should remain where it is, or whether it should be abandoned entirely, or just what should happen to it.

Mr. ROMNEY. Did Mr. Albright indicate to you in what capacity he was visiting the monument?

Mr. BINNEWIES. Only that he had been requested by the Director to come out and take a look at some of these things, and as the former Director of the National Park Service, he always retained a keen inter-

est in Death Valley. He is probably more familiar with it than many of the Park Service officials.

Mr. ROMNEY. You say he told you that he had been requested by the Director to come out?

Mr. BINNEWIES. Yes.

Mr. ROMNEY. Is this your recollection? I'd like to refer you to the attachment to the memorandum directed to you dated November 6, 1956. The attachment is Mr. Albright's letter to Mr. Wirth, dated November 1, 1956. In the first paragraph of the November 1 letter, Mr. Albright states:

D–30

Mr. J. M. Gerstley, who is president of our enlarged company and who was formerly president of Pacific Coast Borax Co., has asked me to familiarize myself with affairs in Death Valley, of course with special reference to the interests of the company out there, but also in any other respect where my background of experience might be useful to either our company or the National Park Service.

Is this not slightly at variance with what you have said about Mr. Albright coming out at the request of the Director?

Mr. BINNEWIES. Yes, it is. I quite possibly could be wrong on that. I thought at the time that he was out there at the request of the Director, because I knew he had been furnished with some of this information by the Washington office.

Mr. ROMNEY. Subsequent to Mr. Albright's visit, did you prepare a report to the Director on the subject?

Mr. BINNEWIES. Yes; I think I did.

Mr. ROMNEY. Is that the document which you have before you, marked D–33, a letter dated November 23, 1956——

Mr. MCCLELLAN. Memorandum.

Mr. BINNEWIES. Yes.

Mr. ROMNEY (continuing). —to the Director, National Park Service, subject: Visit of Mr. Albright?

Mr. BINNEWIES. Yes. This is my report of this visit.

Mr. ROMNEY. In the report itself, D–33, you mention: "In the afternoon Mr. Albright, Scholl, Spaulding and I went over the proposed water diversion in Furnace Creek Wash."

That is at the bottom of the first page. It continues:

D–33

Mr. Albright is interested in this as a representative of the U.S. Borax & Chemical Co. (formerly Pacific Coast Borax Co.) and Mr. Scholl was helpful in pointing out the locations of the company diversion: the supply Furnace Creek Ranch and Inn. Our diversion will be designed so that it does not infringe on theirs. We also looked over the new residential and utility area site, possible museum sites, and discussed Mission 66 generally.

First, could you identify for us Mr. Scholl so that we can get his relationship to the parties?

Mr. BINNEWIES. Mr. Scholl is an employee of the Borax Co. and was manager for a number of years of the Furnace Creek Inn, Furnace Creek Ranch properties.

Mr. ROMNEY. You also stated in that paragraph I read that "our diversion will be designed so that it does not infringe on theirs." What did you mean by that?

Mr. BINNEWIES. I was referring to the diversion on which we had filed a water right application for 1½ second-feet in Furnace Creek Wash that was below the diversion of the Borax Co. or the Death Valley Hotel Co.

Mr. ROMNEY. Mr. Chairman, at this point, I'd like to request that the four documents which we have just made reference to, D–29, D–30, D–31, and D–33, be introduced into the record.

Mr. Moss. Is there objection?

Mr. MCCLORY. No objection.

Mr. Moss. So ordered.

(The documents referred to, D–29, D–30, D–31, and D–33, follow:)

D–29

NOVEMBER 6, 1956.

MEMORANDUM

To: Superintendent, Death Valley.
From: Director.
Subject: Proposed visit of Mr. Horace M. Albright.

I have had a letter from Horace Albright to the effect that he will be in Death Valley around the 16th or 17th of November. He would like to talk with you concerning the development of Death Valley, and the relationship of their operations there with the National Park Service.

I told Horace that you would be very glad to see him and would discuss in detail your plans for the development and management of Death Valley National Monument. He raised several questions such as the possibility of transferring highways to the State, new headquarters, museum, etc. I have sent him a copy of the prospectus which you sent in to us, together with our memorandum pertaining to same. Attached are a copy of Horace's letter and my reply. I feel that with these two documents you will be able to sit down with him and discuss your problem and get a lot out of his suggestions. I should like very much to have a brief summary of your discussions with Horace as soon as possible after his visit because I will be seeing him in the Virgin Islands and know he will want to discuss the matter with me at that time.

CONRAD L. WIRTH, *Director.*

D-30

U.S. POTASH CO.,
New York, N.Y., November 1, 1956.

Mr. CONRAD L. WIRTH,
Director, National Park Service,
Department of the Interior, Washington, D.C.

DEAR CONNIE: I think I have written to you within the past few months about my contemplated visit to Death Valley National Monument in November. Mr. J. M. Gerstley, who is president of our enlarged company and who was formerly president of Pacific Coast Borax Co., has asked me to familiarize myself with affairs in Death Valley, of course, with especial reference to the interests of the company out there, but also in any other respect where my background of experience might be useful to either our company or the National Park Service. I am leaving here on November 11 and will be at Winthrop Rockefeller's Ranch Winrock for meetings of Colonial Williamsburg, Inc., November 12 and 13. On the night of the 13th I will fly to Los Angeles for a board meeting of our company. About the 16th or 17th I should be in Death Valley for a 3- or 4-day stay.

Unless you have some objections to doing so, I would appreciate it if you would write me a memorandum regarding any matters you would like to have me familiarize myself with while in the valley, and would appreciate also your writing to the superintent, Fred Binnewies, about my contemplated trip and suggesting that he try to spend some time with me.

Of course I would like to have any material you have available regarding the application of the Mission 66 program to Death Valley National Monument. I understand there are some problems relating to the location of the new headquarters of the monument that are under discussion. There is also the matter of the proposed museum to be built with State funds. There is also a movement to change the monument status to that of a national park, and I am informed there is a good deal of opposition to this proposal.

Summarizing, I will be grateful for a memorandum on any matters relating to the Death Valley National Monument that you would like to have me consider while I am out on the forthcoming trip.

Faithfully yours,

HORACE M. ALBRIGHT.

D-31

NOVEMBER 6, 1956.

MR. HORACE M. ALBRIGHT,
New York, N.Y.

DEAR HORACE: I hasten to answer your letter of November 1, which for some reason or other did not arrive here until November 5 and reached my desk today. It has to do with your trip to Death Valley.

I note that you will be stopping at Winrock to see Winthrop Rockefeller. Please give him my best.

Enclosed is a copy of my memorandum to Fred Binnewies which I think will serve as an introduction and open the way, if that is at all necessary. I say that because I know all of our people will always be glad to see you, and to discuss the proposed development of the area under their jurisdiction with you, at any time. They welcome your visits and your suggestions and ideas—as do I.

As to the new monument headquarters; that has all been settled. I will not try to describe it to you in this letter, but Fred will show you the maps and show you exactly what we are planning to do. We plan to put it up the road from Furnace Creek Inn, on the slope about a mile back from the road. We propose to build year-round houses there, with air conditioning, rather than to move from winter headquarters to summer headquarters and back again each year.

Horace, I am also enclosing the prospectus sent in by the superintendent, together with a copy of the memorandum we have sent to the field concerning it. This is the first time I have done this, and it is not general public information; therefore, I am sure I can depend on you to keep our confidence in this report. We are constantly trying to improve it and you know that when you let information out and then try to change it, you run into difficulties because people try to pin you down to what you have said previously before you had all the facts or had fully analyzed the conditions. However, Horace, in this case I am sending it to you in order that you might look it over before you get to the field, and Fred will be glad to go over everything with you. I shall be very glad to have your reactions, and I know Fred will also. Please return the prospectus to me as soon as you have finished with it.

I do want to say something to you confidentially about the museum. I am not at all pleased with the idea of the State building a museum on Federal property and retaining title to it, and I understand that is the condition by which it can be d ne under the present State law. We have included within our Mission 66 prog am funds for a museum building, or what we call a visitor center building, in practically all of the parks, and there is no reason why we shouldn't do the same thing in Death Valley—and we definitely intend to go ahead on that basis. However, in going over the Mission 66 prospectus and approvals of September, I notice the visitor center item is not included.

As to changing Death Valley National Monument to Death Valley National Park; there has been no real strong effort to do that, nor have I heard any great amount of opposition. I have always felt that Death Valley does rate national park status and I don't believe there would be any great amount of opposition to it. The only opposition that I can think of is that we will most likely always have to continue prospecting in the area and some people may feel that allowing prospecting in a national park would be more dangerous and objectionable than prospecting in a national monument. Of course, we have always stated that we give the same protection to monuments that we do the parks. As you know, prospecting is permitted in Mount McKinley National Park. But, Horace, we have so many problems on our hands now in really getting rolling that I don't see any reason why we should go out and get into more trouble by trying to change the monument to a park at this time. If it could go through without any trouble I think I would definitely be in favor of it, but if we would get into a lot of arguments about it it isn't worth it.

You raise a question that I don't know anything about, Horace, and that is about the proposed State highways in the area. Perhaps Fred can give you some information on that. It isn't anything that we are concerned about at the present time, although I believe all of the highways in the area should be ours except the through highways, and they should be reduced to a minimum.

Horace, I realize this letter is not as full as it might be, but I hope it gives you the information you need.

Sincerely yours,

CONRAD L. WIRTH, *Director.*

D–33

NOVEMBER 23, 1956.

To: Director, National Park Service.
From: Superintendent, Death Valley National Monument.
Subject: Visit of Mr. Albright.

Mr. Albright arrived in Death Valley Friday afternoon, November 16, and stayed until Tuesday, November 20. I returned from San Francisco Friday afternoon and saw Mr. Albright that evening at Furnace Creek Inn.

On Saturday morning I took Mr. Albright to Rhyolite and through Titus Canyon which he enjoyed immensely since it was his first visit to it. During this drive we discussed the mining situation in the monument, possibility of National Park status, signs and need for entrance stations. He favors national park status and at the same time realizes that it may take some time to accomplish. The mining problem is probably the most difficult obstacle to realizing this objective.

I explained to Mr. Albright that there are only three or four mines at present that might be considered of commercial value and the tungsten mines particularly are of marginal quality. He thought that there is little probability of any large-scale mining of minerals not already located and gave me the impression of favoring the reduction of mining in the area.

Mr. Albright is very much interested in adequate signs and I explained that we have a sign construction program underway that will improve the situation considerably.

We discussed the need for entrance stations and Mr. Albright is all in favor of them. He thinks that it will take some public relations work in the county to get them to accept the idea of entrance fees.

In the afternoon Mr. Albright, Scholl, Spauling, and I went over the proposed water diversion in Furnace Creek Wash. Mr. Albright is interested in this as a representative of the U.S. Borax & Chemical Co. (formerly Pacific Coast Borax Co.) and Mr. Scholls was helpful in pointing out the locations of the company diversion: the supply Furnace Creek Ranch and Inn. Our diversion will be designed so that it does not infringe on theirs. We also looked over the new residential and utility area site, possible museum sites, and discussed Mission 66 generally.

Sunday morning I took Mr. Albright down the west side of the valley as far as Eagle Borax works, stopping at Tule Spring and the Shorty Harris-James Dayton grave. I explained to him that we would like to acquire the Eagle Borax property from the borax company for a campground. I had discussed this with Mr. Gerstley, the president of the company, last spring but no further action has been taken. Mr. Gerstley thought that there were no mineral values on the property that the company would be interested in but that he would have to check further to be sure about it. Mr. Albright may discuss this further with Mr. Gerstley.

A number of officials of the borax company came in Sunday afternoon and Mr. Albright was busy with them for the balance of his visit. He went to Scottys Castle with some of them on Monday.

I thoroughly enjoyed the opportunity to visit with Mr. Albright. He is an inspiring person and it is a privilege to talk with him.

FRED W. BINNEWIES, *Superintendent.*

Mr. ROMNEY. Mr. Binnewies, do you have before you document marked "D–34"?

Mr. BINNEWIES. Yes, I do.

Mr. ROMNEY. Do you recognize this document?

Mr. BINNEWIES. This apparently is a telegram from Director Wirth to the regional director of region 4.

Mr. ROMNEY. And what is the date of that telegram?

Mr. BINNEWIES. November 26, 1956.

Mr. ROMNEY. The telegram is short and I will read it.

D–34

Defer starting any water, road, or other projects new headquarters and residence area Death Valley until further word from me. Possible land exchange with company will be discussed with Albright at advisory board meeting.

That's signed by the director.

When this telegram was received, was work stopped on the new headquarters and residence area?

Mr. BINNEWIES. No, I don't think this was—this was not the one that stopped the work on the new area.

Mr. ROMNEY. Did it stop any preparations for this work?

Mr. BINNEWIES. Well, yes. If I recall, the stop order was in February of 1957.

Mr. ROMNEY. Yes. We will reach that presently.

Mr. BINNEWIES. Excuse me, then.

Mr. ROMNEY. I would like to request, Mr. Chairman, that this document, D–34, a telegram just referred to, be received into the record.

Mr. Moss. Is there objection?

Mr. MCCLORY. No objection.

Mr. Moss. Very well. So ordered.

(The telegram dated November 26, 1956, D–34, follows:)

D–34

WASHINGTON, D.C., *November 26, 1956.*

REGIONAL DIRECTOR, REGION 4,
National Park Service,
San Francisco, Calif.:

A–98C. Defer starting any water, road, or other projects, new headquarters and residence area Death Valley until further word from me. Possible land exchanges with company will be discussed with Albright at advisory board meeting.

WIRTH, *Director.*

Mr. ROMNEY. Mr. Chairman, we have made reference to the inspection of Mr. Thomas Vint of the Division of Design and Construction. I think it would be helpful if at this point in the record, which occurs in the period of time in which we are dealing, that this memorandum dated January 3, 1957, to the regional director, region 4, be read into the record. This is document D–36.

Mr. Moss. Go ahead.

Mr. ROMNEY. This is a memorandum dated January 3, 1957, to the regional director, region 4, from Chief, Division of Design and Construction, subject: Location of headquarters, Death Valley. "Copies of Mr. Wirth's letter of December 28 addressed to Mr. Horace M. Albright on the above subject were sent to your office, WODC, and to the Superintendent of Death Valley.

"You will note that the Director's reconsideration of the master plan and Mission 66 proposal to relocate headquarters has resulted in a reaffirmation of his original approval of the Furnace Creek site. Accordingly, the preparation of surveys, plans, and estimates may again proceed on the basis that the Furnace Creek site is approved for headquarters.

"The possible land exchanges with United States Borax & Chemical Corp., mentioned in Mr. Wirth's teletype of November 26 (file A–98C) did not develop as a consideration." Signed,

"Thomas C. Vint, Chief, Division of Design and Construction."

The memorandum which I have just read makes reference to a letter dated December 28, 1956, from the Director, National Park Service, to Mr. Horace M. Albright. It is the document marked "Document D–35."

Mr. Moss. Is there objection to including item D–35 in the record?

Mr. MCCLORY. No objection.

Mr. Moss. And item D–36, which has been read and is now in the record?

Mr. McCLORY. No objection.

Mr. Moss. So ordered.

(The documents referred to follow:)

D–35

DECEMBER 28, 1956.

Mr. HORACE M. ALBRIGHT,
30 Rockefeller Plaza,
New York, N.Y.

DEAR HORACE: First of all, I want to thank you for your interest in the Service's program at Death Valley. We are making some important decisions there and we want them to be the best.

We have reconsidered carefully the Mission 66 proposal to locate park headquarters at Furnace Creek along with your constructive comments and observation.

In going over the prospectus we are convinced that the Cow Creek site is not suitable for the construction of a headquarters development into an efficient unit and to a size that will eventually be needed. The Furnace Creek site, we believe, has advantages of terrain, location, and air circulation for all-year occupancy over any other site. You point out the fact that the development will be visible from the road. It is true that the development will be visible; however, the facilities should not be very obvious and they will be isolated from visitor routes. Views of the buildings will be from a distance of several miles rather than close up and if our planning is properly done, the effect should be picturesque and the scene subdued. Careful attention to details of road and building location and planting arrangements will be important. Several years' growth on our plantings will be necessary before residents can derive benefits from it. However, the same situation would be at least partly true if we expanded at Cow Creek.

We are certain that our water line will not interfere with the United States Borax & Chemical Corp. lines. Sanitation installations will be cleared in the plan stage by the U.S. Public Health Service to insure against possibilities of contamination.

Horace, I want you to know how fortunate I feel in having you personally review the Death Valley situation on the ground with Fred Binnewies and to have your reactions. Thank you very, very much.

Sincerely yours,

CONRAD L. WIRTH, *Director.*

D–36

JANUARY 3, 1957.

MEMORANDUM

To: Regional director, region 4.
From: Chief, Division of Design and Construction.
Subject: Location of headquarters, Death Valley.

Copies of Mr. Wirth's letter of December 28 addressed to Mr. Horace M. Albright on the above subject were sent to your office, WODC, and to the superintendent of Death Valley.

You will note that the Director's reconsideration of the master plan and Mission 66 proposal to relocate headquarters has resulted in a reaffirmation of his original approval of the Furnace Creek site. Accordingly, the preparation of surveys, plans, and estimates may again proceed on the basis that the Furnace Creek site is approved for headquarters.

The possible land exchanges with the United States Borax & Chemical Corp., mentioned in Mr. Wirth's teletype of November 26 (file A–98C), did not develop as a consideration.

THOS. C. VINT,
Chief, Division of Design and Construction.

Mr. ROMNEY. Mr. Binnewies, you have before you a document marked D–39. This is a letter to Mr. Conrad Wirth, Director of the National Park Service, from Mr. Horace Albright, dated February 4, 1957, re Death Valley affairs?

Mr. BINNEWIES. Yes.

Mr. ROMNEY. Have you seen a copy of this letter before?

Mr. BINNEWIES. Yes; I have seen this.

Mr. ROMNEY. How did it come to your attention, Mr. Binnewies?

Mr. BINNEWIES. Well, they must have sent me a copy of it, although on the copy I have, the letter doesn't indicate that. I don't recall offhand.

Mr. ROMNEY. Do you have before you a copy of a document marked "D–43," a memorandum from you to the Director, dated February 21, 1957, subject: "Letter from Horace M. Albright, re Death Valley"?

Mr. BINNEWIES. Yes.

Mr. ROMNEY. Is this sufficiently fresh in your mind so that you could give us a summary of its purpose and content?

Mr. BINNEWIES. No; I'd like to review it for a few minutes.

This is my report on Horace Albright's visit, or, not on his visit, on the letter which he wrote to Mr. Wirth regarding his visit to Death Valley, a copy of which is entitled, "Death Valley Affairs," and the first item discussed was "Water interest in Furnace Creek." In that I mentioned the water right application for one and a half second-feet that was filed in 1940 by the National Park Service on the basis of the test well that had been constructed below the company's diversion, and to which the company could not protest the application. I thought at that time that there was good possibility of developing water at a site below the company diversion, which would not in any way interfere with theirs. Also under consideration at that time, in talking with members of the U.S. Geological Survey's Ground Water Division, was a test well, or they had indicated that they thought that a well could be drilled at the Furnace Creek headquarters site that would furnish a good supply of water. If this was so, of course, it would eliminate the necessity of building a pipeline from the Furnace Creek diversion up to the headquarters site, which was a distance of some, well, as I recall, about three-quarters—a half to three-quarters of a mile. We felt that there was some possibility that such a well would affect the underground supply that was feeding the travertine springs from which the company got their water, but we planned to run an exhaustive test to determine if that might be the case, before it was actually put into use. It was the preliminary opinion of the people from the Geological Survey that the well would not affect the springs, but that that could only be verified after the well was dug and the tests were made.

The next item is "Roads and trails," in which I made a short comment on a proposed road to Cottonwood Canyon. This road was way up the valley, and in no way involved with the Furnace Creek area, and I think the question raised was about the desirability of constructing that road. I commented that it undoubtedly deserved further study and could well have been one of the last of the Mission 66 projects.

Then I commented on the new residential and utility areas, which Mr. Albright raised certain questions on. One of them was that the site was quite barren and that sufficient water cannot be developed in Furnace Creek Wash, and that it would be visible for a long distance to travelers on the main road through Furnace Creek Wash. I commented that it was true that the site was barren, but so would any new

site be that would necessarily have to be developed if the headquarters remained at Cow Creek. Sites at Cow Creek would present more of a landscaping problem than at Furnace Creek, due to the uneven terrain. I mentioned that there was no question but that some of the present trees and shrubs at Cow Creek could be saved, but that many would be destroyed as new units were relocated and constructed. There are only four or five sites on which new houses could be constructed without destruction of existing plants, and the engineers have estimated that it would cost about $5,000 or more for landscaping at Furnace Creek than it would at Cow Creek. So far as visibility is concerned, the closest place from which the Furnace Creek area can be seen from the main road is one and a half miles, airline, and from this point it is then visible eight-tenths of a mile to a point at the junction of Furnace Creek and Zabriskie Point Road that is 2.3 airline miles from the site. I pointed out that the present utility area is only three-tenths of a mile from Highway No. 190, and is visible for approximately one-half mile. I also mentioned that there was a difference there in that the development at Cow Creek was at right angles to the highway and the proposed site at Furnace Creek would be directly in line, or almost directly in line with the road at Furnace Creek Wash, which, of course, might make it a little more noticeable. I believed that the Furnace Creek area would not be any more noticeable, if as much, as the present Cow Creek development. This was due to the much greater distances than the Cow Creek development.

Insofar as the water is concerned, the USGS Ground Water Division believes that a sufficient supply can be obtained from the test well near the Furnace Creek site, and, if this is so, it will eliminate, for the time being, the necessity of building a pipeline to Nevares Springs. The question seems to be one of relative costs; that is, would the cost of pumping water over a period of years be less or exceed the cost of a gravity pipeline.

The well and pump would probably be installed for around $10,000, as compared with $100,000 for the pipeline. So far as the comparison with Cow Creek is concerned, the entire distribution system at Cow Creek must be replaced and this is somewhat more complicated than the proposed installation at Furnace Creek, because of existing structures.

I then commented about the problem of space. From detailed landscaping studies made at Cow Creek there appears not sufficient space for expansion of future development without breaking up into two or three disconnected units which would require more complicated and costly facilities and would result in an unsatisfactory administrative unit.

This was the major reason for the decision to move to Furnace Creek.

It is recognized that the water situation was more favorable at Cow Creek. There are certain existing facilities that can be utilized. However, when it is considered that the development probably will double in its size within the next 10 years, and that there must be space for additional expansion beyond Mission 66, it is considered that it simply is not practical to remain at Cow Creek. We do not say that Cow Creek could not be used satisfactorily for the next few years, but since what we are doing now will affect the area for a considerable length of

time, we must consider the space that will be necessary in 20, 30, or 40 years.

Then we commented on public relations in which I agreed with Mr. Albright that more contact should be made with local communities.

The next comment was on the Visitor Center, in which I stated that we certainly appreciated the opinions of State Senator Charles Brown, Mr. Albright, and others on the location of the Visitor Center. We favored rather highly a location on the fan below Furnace Creek Inn, but it was the unanimous opinion of the people who knew Death Valley well that this would be in great danger of damage from flash floods. Consequently, the site has now been selected just north of Furnace Creek Ranch on land owned by the Borax Co. that will be entirely free from possible flood damage. It is on Highway 190, and will be readily accessible to the majority of visitors, and, taking everything into consideration, it is a very fine location. We hope that the plans may now move along without undue delay toward the early construction of the Visitor Center.

Mr. ROMNEY. Mr. Chairman, I'd like to request that Mr. Albright's letter to Mr. Conrad L. Wirth, dated February 4, 1957, Document D–39, and Mr. Binnewies' memorandum to the Director, dated February 21, 1957, Document D–43, be included in the record.

Mr. Moss. Is there objection?

Mr. MCCLORY. No objection.

Mr. Moss. Being none, so ordered.

(The documents referred to, D–39 and D–43, follow:)

D–39

U.S. POTASH CO., INC.,
New York, N.Y., February 4, 1957,
[At Los Angeles, Calif.]

Re Death Valley Affairs.

MR. CONRAD L. WIRTH,
Director, The National Park Service,
Department of the Interior, Washington, D.C.

DEAR MR. WIRTH: Now that Mr. T. C. Vint, the Chief of the Division of Design and Construction of the Service, with staff associates, has reviewed plans for the Death Valley National Monument in the Mission 66 program, I assume you will soon come to some definite and final conclusions on questions that have been raised, especially concerning the proposed new residence and utility site. For your possible use in reaching your decision, I am putting down in writing things that I have mentioned briefly in notes to you and which in more detail I have discussed in conversation with you in Washington, New York, and the Virgin Islands.

DEATH VALLEY INSPECTION IN NOVEMBER 1956

As you know, at the request of my associates in United States Borax & Chemical Corp., I made a trip to Death Valley in November 1956. You very kindly made available to me the prospectus of the Death Valley Monument projects in the mission 66 program. This I studied very carefully before going to the valley and after I left there. I returned the prospectus to you personally late in November.

Therefore, while I was in Death Valley I had before me the interests of our company and the plans of the Service.

In the monument, Superintendent Fred Binnewies was most hospitable, considerate, and cooperative. He and Mrs. Binnewies entertained me at luncheon at their home, and Mr. Binnewies took time to drive me over much of the road system, including a trip out to Rhyolite and back through Titus Canyon, which I had never seen. He discussed the Mission 66 projects, showing me the old residence and utility area with its structures, and the site of the proposed new development. He joined Mr. C. A. Scholl of our company and me to review, on

the ground, the water problem in Furnace Creek Wash. He and I called on Mr. Water Rouzer, manager for Fred Harvey in Death Valley. We were together at both the inn and the ranch, and Mr. Binnewies took me through the campground. He also drove me down to the Eagle Borax Works, an old property of our company on the west side of the valley. No one could have done a better job of cooperating with me to the end that I saw and understood important projects and problems. I am indebted to him for all the consideration shown to me and my business associates.

I may say that while I was in Death Valley, President J. M. Gerstley of our company, Vice President David V. Parker, Vice President Paul Spear, Director Fred Lesser, Lord Clitheroe, and Norman Pearson of London, England, and others spent 2 or 3 days in Death Valley. Superintendent Binnewies and Mrs. Binnewies were with the whole party one night and made a most favorable impression.

Personally, I have always liked Mr. and Mrs. Binnewies. I knew them at Bandelier National Monument, as did some of my associates in the old United States Potash Co.

I regard Mr. Binnewies as an excellent superintendent and I see no reason why he should not be successful in his administrative activities in Death Valley. What I say to you in this statement must not be regarded as reflecting on him in any respect whatever.

OUR COMPANY'S INTERESTS

Our United States Borax & Chemical Corp.'s interest in Death Valley is confined to water, lands, and easements. The company owns 7,325 acres of land in the monument and 6,377 acres outside, principally along the eastern border of the reserved area in the Ryan and Monte Blanco region. It owns ancient water rights growing out of its pioneer developments long before the Park Service had any interest in Death Valley. Its associate, the Death Valley Hotel Co., owns the inn and Furnace Creek Ranch structures, the golf course, etc. The old Harmony and Eagle Borax Works belong to the United States Borax & Chemical Corp. As proprietors of land and water and structures, the companies have interests to protect.

The water problem is the only interest of immediate concern to the companies and the Service.

It is important that the Service take no action that will diminish the present water supplies which our company has made available. Our Mr. Charles A. Scholl and I have discussed the water problem on the ground with Superintendent Binnewies; his engineer and ours have reviewed all available data and I have discussed the situation with Mr. van Dunn in Washington.

Personally, I can see no reason why the water problem cannot be worked out to the satisfaction of everyone concerned and with full protection of every interest. However, I strongly advise complete understanding between all interested before the "go ahead" signal is given on the new road to the new residence and utility site or any building on the site.

It will be remembered that in connection with the autocamp development years ago the company developed a tunnel to handle Texas Spring water but that arrangements were made to let the Service obtain its full quota of Texas Spring water from the company line. Some such cooperation arrangement, this time fully protecting the company's water supply from Furnace Creek Wash, might be made.

Of course, you also will have the U.S. Geological Survey study to guide you—and use, too, when it is completed. I talked with Director T. B. Nolan of the USGS about his survey of Death Valley water when I saw him in Washington last week. So much for the water problem.

As to land, there are no problems now before us. If the Service contemplates acquiring the company's landholdings, we would be pleased to know your ideas on what should be acquired and when acquisition might be discussed. I have seen some suggestions on these scores.

Mr. Binnewies mentioned the desirability of acquiring the Eagle Borax Works so a campground can be developed there. His proposal seemed very reasonable. I have recommended that the company consider giving the property to the Government, and later on, perhaps, the Harmony Works, both of the old plants to be kept in repair as a part of the interpretative program of the monument.

As to other company holdings, my view is that they should stay in company ownership as long as mining is permitted in the monument. Of course, the com-

pany is not going to sell or donate minerals to the Government when the Secretary of the Interior has the power to grant permits and leases under which some other operator, a competitor, might develop the deposits of borax and other minerals. Therefore, should the company be disposed to sell or donate the surface of its lands, retaining the minerals, it would also want the right retained to build access roads and erect necessary mining structures, dispose of tailings or other mine waste, etc.

Please understand that in my opinion there will be no more borax mining in the monument area. I am merely outlining the conditions under which the company's holdings (surface only) might be acquired.

Should mining in the monument be prohibited by law, the company might then be disposed to consider unrestricted transfer of their properties (except inn and ranch lands) to the Government.

As to whether mining should or should not be prohibited in the monument, I doubt if we would want (as company men) to take a stand on the question. We do not think that mining in the past in the Death Valley region has impaired the natural features of the park. On the contrary, many of our people—and Service people too—have expressed themselves as satisfied that the old remains of bygone mining operations are intensely interesting to the traveling public. Take Leadfield, for instance, in Titus Canyon, or Skidoo, high on the western flank of the valley; these have always interested the traveler as "ghost camps." Eventually they will disappear, as has Greenwater. I see no reason to antagonize local people by advocating now a repeal of the provision that permits mining in the monument. I am sure it will be repealed in time.

As to easements, we have no matters to discuss now, but a review of all easements in which we are interested may be in order so that as we settle the Furnace Creek water question we make sure that no easement matters remain for future consideration.

Summing up our interests:

1. We regard the Furnace Creek water problem as vital but see no reason why it cannot be quickly settled in such a way as to protect our rights and Service interests.

2. Our company has offered to donate up to 50 acres to the State of California for a museum, this to be adjacent to the main road and north of the Furnace Creek Ranch. Mr. Binnewies would like to see 25 acres given to the State and 25 acres to the Service for its headquarters office and tourist orientation center to be built adjacent to the museum. I will recommend that this decision be offered by the company.

As to other lands, the Service may get the Eagle Borax Works for a campground, provided the old works themselves are retained and protected; and, perhaps at an appropriate time, the Harmony Works should be transferred to the Service as a historic site.

Other lands should be kept by the company until a final policy with respect to mining in the monument is worked out; or if transfer earlier seems very important, then only the surface could be transferred, all minerals being reserved together with the right to use surface areas for mining structures and operations.

Easements to be reviewed, but these are probably in good order and adequate.

MISSION 66 PROJECTS

The big items are for roads and trails on the one hand and new headquarters, new residence, utility and ranger stations on the other. These projects will cost several millions of dollars.

ROADS AND TRAILS

The road and trail projects seem to be what are needed and are well planned. Certainly, the roads need widening, turnouts for picture taking and better and more permanent surfacing. The Dante's View road particularly needs early attention. I do not see that anything can or should be done to the Titus Canyon road, except keep it open for one-way westbound traffic.

Only one new road is proposed. This is to Cottonwood Canyon. I have not been in this canyon. I am willing to take Mr. Binnewies' word that it is a wonderful place, deserving access by road. However, in view of the large road mileage now available to the motorist and the need for large expenditures on the existing system, the new road project should have no priority. It should be at the bottom of the list of road items of all kinds.

NEW RESIDENCE AND UTILITY AREA

I am familiar with the present residence, headquarters, and utility areas. I know that most buildings were constructed for the CCC camps in the early 1930's. I know they are old, inadequate, and in poor repair. I certainly fully sympathize with the expressed needs for new residences and utility structures.

However, I was disturbed by the proposals to build an entirely new residence and utility complex on barren land back of the inn a mile or thereabouts to the east and in somewhat higher altitude. My doubts on the decision to do this arose when I learned that (*a*) the site is utterly barren; (*b*) sufficient water for it cannot be developed in Furnace Creek Wash and will have to be piped from the Nevares Spring at a cost of about $200,000; and (*c*) the new village will be visible for a long distance as travelers go down the main road to Death Valley.

I also feared, and still fear, that the size and extent of the new development will be criticized as an extravagance in Government expenditure. Add criticism of the landscape impairment, and perhaps ridicule for building in a place where it will take 20 years to develop shade, abandoning a site where much shrubbery is growing near a natural water course and hidden from the main stream of travel, and you have potentially some trouble ahead of you, or could have trouble.

On the other hand, I recognize the natural desire for a new and adequate headquarters plant—residences, utilities—and I know too that the old site is probably the only other one available for tourist accommodation development.

I do not question the projected costs which may prove low when you get estimates for construction, and certainly will be low for future construction as costs are now rising.

The point I want to make is that if I were in your place now I would have this part of your program discussed during the spring with men like Senator Charles Brown, I think now dean of the State senate, who has lived in the Death Valley country all of his life; by Todd Watkins, editor of the county's papers, and get public support for the building program. Or, I would try to use the old site for the new residence and utility units and abandon any further idea of using that new higher and completely barren site, so clearly visible from the main entrance road.

I would certainly recommend early construction of a new headquarters and visitor center north of the ranch whether the State builds the museum or not.

The State, I think, will build the museum. Senator Brown will insist on it. Newton B. Drury writes me that he expects to build it, but wants to see what land trade he works out first.

OTHER MISSION 66 ITEMS

Aside from what I have written about the proposed new residence and utility site, I have praise for the Death Valley Mission 66 prospectus. I wonder why you should build up the permanent staff so much. It would seem good policy to keep the staff small and rely on use of trainees, temporary men, etc., for the relatively short winter season. It is hard to see what so many men can do in this park area in such overwhelming heat. Of course, you have to have at least four permanent ranger stations at higher elevations and an alternate or two to man these stations when the permanent men go on vacation. Extra naturalists, clerks, etc., it would seem should be transferred for winter work or hired temporarily. However, I make no serious point of this personnel item. Whatever you do on personnel, it is my hope, as an old Service man, that men permanently on duty wear their uniforms even when off duty in order that the public be assured of the Government protection and advice they expect in a park area.

PUBLIC RELATIONS

Death Valley is in the county—Inyo—where I was born and reared. I know the people of this mountain-desert region. The old-timers are descendants of miners and cattlemen, pioneers of the region. They have long memories of troubles with the Government—Reclamation Service, Los Angeles Water Department, Forest Service, etc., and even the Indian Bureau. They have never been "sold" on the Park Service.

On the other hand, the Park Service has never done enough public relations work to gain the confidence of the people. Even in my time, it was difficult to get the superintendents of Yosemite and Sequoia Parks to visit Inyo County, ex-

cept occasionally. It was a long trip around to get to Inyo and trips were few and far between. When Death Valley was set aside as a national monument, a third unit was here for Inyo folks to worry about. Superintendent Goodwin, I think, won their confidence and held it a long time. Superintendent Binnewies they like, but I was told when I was in Inyo in September that they see little of him and he has never told them much about National Park Service plans.

Old friends told me they were disposed to oppose the return of the Minarets country to Yosemite because they thought it would mean curtailment of economic and recreational opportunity if National Park Service plans went through. Nobody had been over to discuss the project with them, they said. The Forest Service opposes it and the Forest Service stands far higher in Inyo than the National Park Service.

There was a suggestion to add the whole summit of Mount Whitney to Sequoia. They were opposed to this. They thought National Park Service would be disposed to advertise Whitney as a west side feature, etc.; that the Service had not tried to develop even trail use of Whitney from the east.

As to Death Valley, the Inyo people feared the National Park Service would take over State roads in the monument and charge automobile fees. They thought this would cut down travel to Inyo which largely depends upon tourist traffic.

I think I gave them some assurances that helped the situation but I strongly advocate a season of real public relations in Inyo-Mono by National Park Service personnel working with Todd Watkins of the Chalfant Press which publishes all the papers, with Inyo Associates, a cooperative group of business and professional men, and with the Death Valley 49'ers, devoted to Death Valley. Good relations, full confidence in the National Park Service, and real help can be secured for the Service if some solid work is done soon. And through these people you can get the Minarets, Mount Whitney and even abolition of mining with perhaps a Death Valley National Park if you want them. Above all, have all your superintendents give some attention—not too much—but over several months to State Senator Charles Brown. Remember, too, that Clair Engle represents all this country in Congress and he has never been a national park enthusiast. He prefers to be a mining Congressman, as I know from American Mining Congress contacts.

THE DEATH VALLEY PARK PROPOSAL

You and I have discussed this and agree nothing can be done about making this area a national park until the mining problem can be solved. It would be well to drop this project for a while, but never forget it. I do not think that Congress would give California a fifth national park now, but sooner or later with the terrific increase in population this will come.

CHANGE IN MONUMENT BOUNDARY

The plan to throw out of the monument certain lands in Nevada, thus curtailing the monument, is a good one but not one that should cause any anxiety if not carried out soon. The monument as it stands is in pretty fine shape so far as boundaries are concerned.

Under no circumstances should the Defense Department be permitted to encroach on the monument and every proposal to extend Defense Department reservations in the Death Valley region—Saline Valley, etc.—should be resisted by the Secretary of the Interior.

NATIONAL PARK SERVICE ROAD CONTROL

Good administration ordinarily should include control of the State roads through Death Valley—from Towne's Pass across the valley and out Daylight Pass and on down to Furnace Creek and up the wash and out to Death Valley Junction. These roads are in good repair but the National Park Service could take better care of them and improve them under Mission 66. However, unless at this time you are prepared to state a policy of no entrance fees for autos and trucks you could not get State cession of control to the National Park Service.

My recommendation is that you not try to take control now. But after good public relations work you might find it posible to take over these roads.

SIGNS

I finally come to an old "chestnut" of mine—signs.

In my judgment no national park is now adequately signed. Few ever had enough signs. Those that did, in the period of "landscape mental lapse" lost them. Yellowstone was one and the cost was pretty heavy.

Death Valley has signs that were put up fully 40 years ago by the Automobile Club of Southern California but in Nevade, Arizona, and Utah!

It needs many good signs. The entrances are pretty well marked but these could be higher so as to be seen by fast-moving cars before they are reached—and passed. The sign pointing the way to headquarters office is not on the road at all, but a quarter of a mile east of the road and cannot be seen or read from the road.

There is a crying need for a headquarters and visitor center on the main road.

I think there is much to be said for the site on the playa or "fan" of the Furnace Creek Wash for both headquarters and museum but people who know Death Valley well and have had vast experience with its flash floods insist that it would be foolhardy to build there. The expansive panoramic views from this site are marvelous, but much of the same can be gotten by building a platform on the roof of a headquarters building or museum at the now-accepted site north of the ranch.

COLLECTION OF ROCK SPECIMENS

There are signs rather conspicuously placed in the monument prohibiting collection of natural objects, including rocks. Of course, I was all through the ordeals of controlling collection of wild flowers, shed antlers, rocks, etc., when I was in the Service. I know how difficult it is to enforce regulations in this direction.

I do not advocate opening Death Valley to indiscriminate collection of natural objects, but I do think, from the public relations standpoint, you could work out a permit system whereby bona fide collectors of minerals—rocks—could get the right to collect away from the roads and trails.

Death Valley is a very large area and there are millions of tons of rocks that the visitor will never see or need to see. Furthermore, every rain or flash flood uncovers new layers of rocks or piles up new strata of rocks. California has many rock collectors, some of whom have been collecting in and around Death Valley for years. Desert magazine is a sort of official organ of the "rock hounds," as they call themselves. There is no better conservationst than Randall Henderson, the editor of Desert magazine of Palm Desert, Calif.

You could depend on the magazine and the "rock hounds" to cooperate in col lecting under a permit system. I urge you to consider seriously this suggestion.

THE DEATH VALLEY 49'ER ENCAMPMENT

This is a very important thing, and should be a matter of cooperation between the organization and the Service. I think there is close cooperation but I want to emphasize the matter here. I think very highly of the 49'ers and feel the National Park Service is fortunate in having it ready to help on Death Valley matters. It would be splendid if every park area such a supporting association.

If you want more of my data and views on Death Valley do not hesitate to write to me. I would appreciate advice as to what you decide to do about the matters discussed herein. But, no hurry.

Finally, let me again express appreciation of the many courtesies extended to me in Death Valley and my admiration of the work of the men and women on duty there. And thanks for your own cooperation in supplying me with data and listening to my views.

Sincerely yours,

HORACE M. ALBRIGHT.

D–43

FEBRUARY 21, 1957.

MEMORANDUM

To: Director.

From: Superintendent, Death Valley.

Subject: Letter from Horace M. Albright re Death Valley.

Mr. Vint's memorandum of February 15 to the regional director of region 4, copy of which was furnished this office, requested comments on Mr. Albright's letter of February 4 with regard to certain matters pertaining to Death Valley.

WATER INTERESTS IN FURNACE CREEK

We see no reason for there to be any conflict between the present use of water from Travertine Springs by the U.S. Borax & Chemical Co. and the proposed diversion by the National Park Service. Our diversion is planned to be below that of the company so that it in no way could affect the flow from the springs or the amount of water that is being developed by the company.

The water right application for 1½ second-feet was filed in 1940 on the basis of a test well that was below the company's diversion and the company did not protest the application nor have they raised any question about it since then. The only possible complication as we see it might be from the well that it is proposed to drill near the new headquarters site on recommendation of the U.S. Geological Survey's Ground Water Division. The well could conceivably tap the underground supply that is now feeding the Travertine Springs and possibly affect the flow. However, we plan on running exhaustive tests on the well to determine if this might be the case before it is actually put into use. Should it be found that it does affect the spring flow to the detriment of the company diversion we would then make other arrangements for water. It is the preliminary opinion of the USGS that the well will not affect the springs but this can only be verified after the well is dug and the tests made. We wish to work quite closely with the company to secure the most beneficial use from the available water and we know of no reason for any conflict.

ROADS AND TRAILS

We quite agree with Mr. Albright's comments concerning the proposed road to Cottonwood Canyon. While this is included as an item in Mission 66 we do not intend to program it until most of the other projects are accomplished. It undoubtedly deserves further study and could well be one of the last of the Mission 66 projects.

NEW RESIDENTIAL AND UTILITY AREA

Mr. Albright raised certain questions concerning the proposed new residential and utility areas in Furnace Creek. They are that the site is completely barren, that sufficient water cannot be developed in Furnace Creek Wash, and that it would be visible for a long distance to travelers on the main road through Furnace Creek Wash. It is true that the site is barren, but so would be any new sites that would necessarily have to be developed if the headquarters remained at Cow Creek; in fact, sites at Cow Creek would present more of a landscaping problem than at Furnace Creek due to the uneven terrain. There is no question but that some of the present trees and shrubs at Cow Creek could be saved, but many would be destroyed as new units were relocated and constructed. There are only four or five sites on which new houses could be constructed without the destruction of existing plants. The engineers have estimated that it would cost in the neighborhood of $5,000 more for landscaping at Furnace Creek.

So far as visibility is concerned the closest place from which the Furnace Creek area can be seen from the main road is 1½ miles airline; from this point it is then visible eight-tenths of a mile to a point at the junction of the Furnace Creek and Zabriskie Point road that is 2.3 airline miles from the site. The present utility area is only three-tenths of a mile from Highway 190 and is visible for approximately one-half mile. Of course, there is a difference in that the present area is at right angles to Highway 190 where the Furnace Creek area is almost directly in line with the road in Furnace Creek Wash. We believe that the Furnace Creek area will not be any more noticeable, if as much, as the present Cow Creek development.

So far as the water is concerned, the USGS Ground Water Division believes that a sufficient supply can be obtained from a well near the Furnace Creek site and if this is so it would eliminate—at least for the time being—the necessity of building a pipeline to Nevares Springs. The question seems to be one of relative costs; that is, would the cost of pumping water over a period of years be less or exceed the cost of a gravity pipeline. The well and pump could probably be installed for around $10,000 as compared with $100,000 for the pipeline. So far as a comparison with Cow Creek is concerned, the entire distribution system at Cow Creek must be replaced and this is somewhat more complicated than the proposed installation at Furnace Creek because of existing structures.

Of course, the whole residential and utility location problem resolves itself to one of space. From detailed landscaping studies made at Cow Creek it appears

that there simply is not sufficient space for expansion and future development without breaking up into two or three disconnected units which would require more complicated and costly utilities and would result in an unsatisfactory administrative unit. That was the major reason for the decision to move to Furnace Creek.

It is recognized that the water situation is more favorable at Cow Creek and that there are certain existing facilities that could be utilized; however, when it is considered that the development will probably double in size within the next 10 years and that there must be space for additional expansion beyond Mission 66, it is considered that it simply is not practical to remain at Cow Creek. We do not say that Cow Creek could not be used satisfactorily for the next few years but since what we are doing now will affect the area for a considerable length of time we must consider the space that will be necessary in 20, 30, or 40 years.

PUBLIC RELATIONS

We appreciate very much Mr. Albright's comments on public relations and agree that more contacts should be made in local communities. I have been aware of that need but our budget has not allowed us to visit the communities nearby as much as we would like to. This is a situation which we expect will be improved by next year and a determined effort will be made to improve our public relations.

VISITOR CENTER

We have certainly appreciated the opinions of State Senator Charles Brown, Mr. Albright, and others on the location of the Visitor Center. We favored highly a location on the fan below Furnace Creek Inn but it was the unanimous opinion of the people who knew Death Valley well that this would be in great danger of damage from flash floods. Consequently, the site has now been selected just north of Furnace Creek Ranch on land owned by the borax company, that will be entirely free from possible flood damage. It is on Highway 190 and will be readily accessible to the majority of visitors and, taking everything into consideration, it is a very fine location. We hope that the plans may now move along without undue delay toward the early construction of the Visitor Center

We certainly enjoyed Mr. Albright's visit to Death Valley and the opportunity to discuss some of the problems with him. He has always had a keen interest in the area, and we value highly his opinion and recommendations.

FRED W. BINNEWIES, *Superintendent.*

Mr. ROMNEY. Mr. Binnewies, do you have a document marked D–42?

Mr. BINNEWIES. Yes.

Mr. ROMNEY. What is that document?

Mr. BINNEWIES. This is a copy of a telegram to the superintendent, Death Valley National Mounment, dated the 20th of February 1957, in which it states:

D–42

Stop any construction work on new headquarters projects. Questions have arisen as to advisability of moving to new site. Believe we should take another look before proceeding further. Signed by Wirth, Director.

Mr. ROMNEY. Mr. Binnewies, I think you have before you document marked "D–47." This is a memorandum to the Director from the acting regional director, region 4, dated February 21, 1957, subject: Letter from Horace M. Albright in regard to Death Valley.

Have you previously seen a copy of this memorandum?

Mr. BINNEWIES. Yes.

Mr. ROMNEY. Can you summarize the contents of this memorandum for us, please?

Mr. BINNEWIES. This is a memorandum from the acting regional director to the Director which comments on Horace Albright's letter in regard to Death Valley, dated February 21, 1957. It states that Mr. Albright's letter has been thoroughly reviewed by members of the

regional staff, and they have the following comments to offer. The water problem. It states that—

D–47

concerning the question of an adequate water supply at the proposed new residential and utility area we are pleased to learn that Mr. Albright feels there is no reason why the problem cannot be worked out to the satisfaction of everyone concerned. As you know, it is now planned to put down a test well on Federal lands to ascertain whether an adequate water supply can be developed from such a well to meet the needs of the new residential and utility area without infringement upon the company's established water rights.

The next subject was lands.

D–47

We believe the only lands now in private ownership in the mounment other than those held by the company are the Stovepipe Wells Hotel and the Scotty's Castle tracts. It appears that the only properties owned by the company in which the Service would be interested at this time are the Eagle Borax Works, for a campground, and possibly a 40-acre tract near Warm Springs in Furnace Creek Wash adjacent to the new headquarters area, and also sufficient land adjacent to the parcel to be donated to the State for a museum so that we can construct our Administration Building abutting the museum. Superintendent Binnewies thinks also that it would be desirable ultimately, at least, to attempt to secure that company trust in the 20-Mule Town Canyon, but this probably has mineral values.

I think that's a typographical error. That should be "to attempt to secure that company tract in the 20-Mule Team Canyon." This probably has been improvised.

Now, the next topic is on mining. You want me to discuss all of these, or——

Mr. Romney. I think we can omit the summary of the mining. Proceed to the next one.

Mr. Binnewies. The next topic is on easements.

We agree it might be well to review all of the easements and/or permitted rights-of-way at an early opportunity. This probably should be initiated by the company because it knows what its present and future needs might be. Any such review should be made with the assistance of the superintendent and the park engineer.

That reference to easements, I am sure, refers to easements for water lines, so forth, crossing Government lands from the water diversions and between the ranch and the inn tracts.

I don't think the next one on roads is pertinent.

New resident and utility area:

Replying to Mr. Albright's doubts concerning the proposal to build a new residence and utility area, it is realized that the site is barren. However, with sufficient water for irrigation we believe a good showing of shade material can be made in from 5 to 10 years by using such planting as cottonwood, tamarisk, and the native mesquite trees.

As for the probability of developing sufficient water in Furnace Creek Wash, this will have to await the test earlier referred to. While it would be costly to bring water over from the Nevares Spring, it should be considered that the Cow Creek development is in need of a complete new distribution system. We have had to face the fact that Cow Creek is too small to permit of present and future expansion. At the same time, it is badly needed for new campgrounds.

Mr. Albright is probably correct in his opinion that the new residential and utility area proposal could well be discussed with prominent local citizens so as to avoid any appearance of extravagance.

We also agree that it is undesirable to have the new residential area visible from the main road; however, the existing headquarters area can be seen for about half a mile along the main road, and it is only 0.3 mile off the road. If we expand farther in the present area, the development will extend out on a ridge which will then be visible along the road for a full mile. On the other

hand, the proposed new site is only 0.3 mile off the main road, and it is visible only between a point 2.3 air miles away until you get to a point 1.5 air miles away. Of course, the view of the new area is a more direct one than that of the present.

We note that Mr. Albright recommends locating the new Administration Building and Visitor Center north of the ranch, whether the State builds the museum or not.

Do you want the next one on staff?

Mr. ROMNEY. I think it might be well to summarize it.

Mr. BINNEWIES (reading):

We believe that Mr. Albright need have little concern that Mission 66 will build up the permanent staff so much. Our area management survey team recently made a thorough study in the area and proposed a considerable reduction in the estimates for the permanent staff for the foreseeable future, and in this Superintendent Binnewies concurred.

DEATH VALLEY PARK PROPOSAL

Mr. ROMNEY. I think we can skip that.

Mr. BINNEWIES. Skip that?

Mr. ROMNEY. Yes.

Mr. BINNEWIES. How about changes in monument boundaries?

Mr. ROMNEY. I think we can skip that, as well.

Mr. BINNEWIES. National Park Service road control?

Mr. ROMNEY. No, I think you have summarized sufficient of this for our purposes. Thank you.

Do you also have before you a document marked "D–48," a memorandum to the regional director from the Director, subject: Headquarters location, Death Valley, dated February 21, 1957?

Mr. BINNEWIES. Yes.

Mr. ROMNEY. Have you seen this document before, a copy of this document before?

Mr. BINNEWIES. Yes, I have.

Mr. ROMNEY. And can you tell us what information this document conveys?

Mr. BINNEWIES. This document is a memorandum sent to the regional director by the Director in which he quotes the telegram which was sent to the superintendent of Death Valley to stop all construction work on the new headquarters project. He then goes on to state the reason for the wire was that he had asked Tom Vint on his recent trip to take a close look at the new headquarters location at Death Valley, and he had an opportunity to discuss this question with me late on the afternoon of February 19, before we sent the wire. He said he questions the advisability of moving to the new site and recommends that the situation be given consideration by others before proceeding further.

Without going into further detail, this explains why the teletype was sent.

Then it goes on to say that he will be in San Francisco on March 15 and 16 and believes that he could visit Death Valley on the return trip, leaving San Francisco on March 17, driving into Death Valley that night. "Monday the 18 would be spent in viewing the headquarters site problem. Tuesday, March 19, I could leave Death Valley and drive to Boulder City to be there 1 day returning to Las Vegas Airport and proceeding to Washington that night." He states he

would like for you, referring to the regional director, Sanford Hill, Chief, Western Office, Design and Construction, "to accompany me on the Death Valley portion of the trip."

Mr. ROMNEY. Mr. Chairman, I'd like to request that the two documents which the witness has just discussed, D–47 and D–48, be introduced into the record.

Mr. MOSS. Is there objection?

Mr. MCCLORY. No objection.

Mr. MOSS. Hearing none, so ordered.

(The documents referred to, D–47 and D–48, follow:)

D–47

FEBRUARY 21, 1957.

MEMORANDUM

To: The Director.
From: The Acting Regional Director, Region 4.
Subject: Letter from Horace M. Albright in regard to Death Valley.

We have Mr. Vint's memorandum of February 15 transmitting to us a copy of Mr. Horace M. Albright's letter to you of February 4 wherein he sets forth his views on many matters affecting Death Valley as the result of his visit to the monument last November. Mr. Albright's letter has been thoroughly reviewed by members of the regional staff, and we have the following comments to offer.

THE WATER PROBLEM

Concerning the question of an adequate water supply at the proposed new residential and utility area we are pleased to learn that Mr. Albright feels there is no reason why the problem cannot be worked out to the satisfaction of everyone concerned. As you know, it is now planned to put down a test well on Federal lands to ascertain whether an adequate water supply can be developed from such a well to meet the needs of the new residential and utility area without infringement upon the company's established water rights.

LANDS

We believe the only lands now in private ownership in the monument other than those held by the company are the Stovepipe Wells Hotel and the Scotty's Castle tracts. It appears that the only properties owned by the company in which the Service would be interested at this time are the Eagle Borax Works, for a campground, and possibly a 40-acre tract near Warm Springs in Furnace Creek Wash adjacent to the new headquarters area, and also sufficient land adjacent to the parcel to be donated to the State for a museum so that we can construct our administration building abutting the museum. Superintendent Binnewies thinks also that it would be desirable ultimately, at least, to attempt to secure that company trust in the Twenty Mule Town [Team] Canyon, but this probably has mineral values.

MINING

We agree with Mr. Albright that mining in the past has not substantially impaired the natural features of the monument and that evidences of bygone mining operations at several locations are of great interest to many visitors. Repeal of the provision that authorizes mining should, we feel, be tied in with legislation to change the status of the area to a national park. If and when that time comes we believe provision should be made to close the park to mining after a specified term of years as was done when the Olympic National Park was established. An indication by the company of its willingness to transfer all its patented mining claims and the mineral rights to the United States would in itself be rather definite proof that the remaining mining values in the monument are not important.

EASEMENTS

We agree it might be well to review all of the easements and/or permitted rights-of-way at an early opportunity. This probably should be initiated by the company because it knows what its present and future needs might be. Any such review should be made with the assistance of the superintendent and the park engineer.

ROADS

Mr. Albright, in mentioning the proposed Cottonwood Canyon Road, suggest it should have no priority for new road construction This road is not included in the 10-year program although it is mentioned under Mission 66.

NEW RESIDENCE AND UTILITY AREA

Replying to Mr. Albright's doubts concerning the proposal to build a new residence and utility area, it is realized that the site is barren. However, with sufficient water for irrigation we believe a good showing of shade material can be made in from 5 to 10 years by using such planting as cottonwood, temarisk, and the native mesquite trees.

As for the probability of developing sufficient water in Furnace Creek Wash, this will have to await the test earlier referred to. While it would be costly to bring water over from the Nevares Spring, it should be considered that the Cow Creek development is in need of a complete new distribution system. We have had to face the fact that Cow Creek is too small to permit of present and future expansion. At the same time, it is badly needed for new campgrounds.

Mr. Albright is probably correct in his opinion that the new residential and utility area proposal could well be discussed with prominent local citizens so as to avoid any appearance of extravagance.

We also agree that it is undesirable to have the new residential area visible from the main road; however, the existing headquarters area can be seen for about half a mile along the main road, and it is only 0.3 mile off the road. If we expand further in the present area, the development will extend out on a ridge which will then be visible along the road for a full mile. On the other hand, the proposed new site is only 0.3 mile off the main road, and it is visible only between a point 2.3 air miles away until you get to a point 1.5 air miles away. Of course, the view of the new area is a more direct one than that of the present.

We note that Mr. Albright recommends locating the new administration building and visitor center north of the ranch, whether the State builds the museum or not.

STAFF

We believe that Mr. Albright need have little concern that Mission 66 will "build up the permanent staff so much." Our area management survey team recently made a thorough study in the area and proposed a considerable reduction in the estimates for the permanent staff for the foreseeable future, and in this Superintendent Binnewies concurred.

DEATH VALLEY PARK PROPOSAL

We are inclined to agree with Mr. Albright in thinking that the time is not yet at hand when the proposal for park status should be pushed. Definite progress in development under Mission 66 will bring luster to the monument and to the Service. Also, as we earlier stated, the mining question, which bears a relation to park status, will not appear so important if and when the company indicates its willingness to transfer all its patented mining claims and the mineral rights to the United States. This will in itself be rather definite proof that the remaining mining values in the monument are not important.

CHANGES IN MONUMENT BOUNDARIES

Some boundary changes, as you know, are contemplated. A final decision in the matter has not been reached. Further field study will likely be necessary.

We share Mr. Albright's concern over the threats of boundary encroachments through possible Defense reservations. So far, since the close of World War II, we have been completely successful in warding them off.

NATIONAL PARK SERVICE ROAD CONTROL

The possibility of taking over full control of the main highway across the monument, commonly referred to as State Highway 190, has, of course, been under discussion for some time. Mr. Binnewies raised the question soon after he became superintendent. As indicated by the attached copy of Field Solicitor McClellan's memorandum of January 15, the legal status of this highway is

uncertain. The latest proposal by Mr. Binnewies, of which Mr. Albright may not be cognizant, would permit travelers who are interested merely in crossing the monument to do so without paying an entrance fee. The proposal is based on a possible trade with the State of our Daylight Pass Road from Sand Dunes Junction to the east boundary for their interests in the Furnace Creek Road from Death Valley Junction to the Sand Dunes Junction. An entrance station at Sand Dunes Junction would permit the free passage of cars east and west but would enable the collecting of fees from cars intending to use monument roads to the north and south. A second entrance station would probably be needed on the road to Death Valley Junction. Such an arrangement should satisfy the Inyo people since it would not discourage tourist travel to Inyo. In any case, there is a serious need for contact or information stations—entrance fees or not.

SIGNS

We share Mr. Albright's concern over the fact that adequate signing of the monument has never even been approached. Fortunately we now have a $5,000 sign program underway which is approximately 50 percent complete except for their erection. A very good showing is being made with these funds, and the sign program will continue to be prosecuted vigorously until it has reached a fully satisfactory stage.

COLLECTION OF ROCK SPECIMENS

We agree that the rock specimens in Death Valley are limitless and if every visitor filled his car it would make little difference as to quantity, but this is true not only of Death Valley but of every area in the Service. We are dealing, however, with a basis principle. If permitted in Death Valley, why not in all other areas? The difficulty is with our collecting policy. It would be logical, we believe, to permit rock hounds to collect surface material, except for commercial purposes, but, at the same time, to prohibit the taking of certain things, such as fossils, cave foundations, and such other rocks and minerals as may be designated by the superintendent. This, of course, would mean a change in present policy.

PUBLIC RELATIONS

Mr. Binnewies has already talked with Senator Charles Brown in connection with the proposal for a new residential and utility area and has invited the Death Valley '49ers to attend a ground-breaking ceremony.

Mr. Albright's comments on the need to develop the very best public relations are well taken. To date these relations have never approached their potential, largely because of the very small staff at the monument. It has hardly been possible to carry on much of a program of public relations over so vast an area as southern California with only two or three administrative personnel. Furthermore—and this is very important—the monument headquarters have been at Cow Creek, 4 miles from the center of activity. With an excellent museum and administrative building located on the main monument road and in the heart of things, as well as contact stations and a larger staff, an effective program of public relations can be carried forward.

We trust the above fully comments on the points made in Mr. Albright's communication.

HERBERT MAIER,
Acting Regional Director.

D–48

DEPARTMENT OF THE INTERIOR,
NATIONAL PARK SERVICE,
Washington, D.C., February 21, 1957.

MEMORANDUM

To: Regional Director, Region 4.
From: Director
Subject: Headquarters location, Death Valley

Wednesday, February 20, we sent a wire to the superintendent of Death Valley National Monument as follows:

"Stop all construction work on new headquarters projects. Questions have arisen as to advisability of moving to new site. Believe we should take another look before proceeding further."

Air mail confirmation copies were sent to you and WODC. The reason for this wire was that I had asked Tom Vint on his recent trip to take a close look at the new headquarters location at Death Valley and he had an opportunity to discuss this question with me late afternoon of February 19 before we sent the wire. He questioned the advisability of moving to the new site and recommended the situation be given consideration by others before proceeding further. Without going into further detail, that explains why the teletype was sent.

Since I will be in San Francisco on March 15 and 16 to attend the Wilderness Society meetings I believe I could visit Death Valley National Monument on the return trip leaving San Francisco on March 17 by air for Las Vegas and picking up a Hertz-U-Drive-It car there, driving into Death Valley that night. Monday, March 18, would be spent reviewing this headquarters site problem. Tuesday, March 19, I could leave Death Valley and drive to Boulder City to be there 1 day returning to the Las Vegas airport and proceeding to Washington that night.

I would like you and Sanford Hill, chief of WODC, to accompany me on the Death Valley portion of the trip. Since all field offices concerned are unanimous in recommending the new headquarters location, I think the superintendent, regional director, and chief of WODC, should be present when I make this review of the problem on the site.

DIRECTOR.

Mr. ROMNEY. Mr. Binnewies, do you have a document before you, D–50, a letter to you from Mr. J. D. Stern, vice president and general manager, Death Valley Hotel Co., Ltd., dated March 13, 1957?

Mr. BINNEWIES. Yes.

Mr. ROMNEY. Will you tell us briefly what this letter says?

Mr. BINNEWIES. This states that Mr. Stern, vice president and general manager of the Death Valley Hotel Co., Ltd., understood Director Wirth would be at Death Valley on March 18th and 19th, and that he had planned on being there from March 17th through the 20th or 21st, and would appreciate the opportunity of meeting Director Wirth and discussing with him the above subjects, referring to the plans for the new residential area and the attendant problems of sewage disposal and water development.

Mr. ROMNEY. Mr. Chairman, I'd like to request that this letter be introduced.

Mr. MOSS. D–50 and D–51. Any objection?

Mr. MCCLORY. No objection.

Mr. MOSS. Hearing none, so ordered.

(The documents referred to, D–50 and D–51, follow:)

D–50

DEATH VALLEY HOTEL, LTD.,
Los Angeles, Calif., March 13, 1957.

Mr. FRED W. BINNEWIES,
Superintendent, U.S. Department of the Interior, National Park Service, Death Valley National Monument, Death Valley, Calif.

DEAR FRED: I understand that Director Wirth will be in Death Valley on the 18th and 19th of this month to discuss with you and your staff the plans for your new residential area, and also the attendant problems of sewage disposal and water development.

I currently plan to be in the Valley from March 17 through the 20th or 21st and would appreciate the opportunity of meeting Director Wirth and discussing with him and you the above subjects. Possibly we could also have some general discussion on the new museum and the information center which you plan to build adjacent to the museum.

I think that a general discussion of all of these problems would be of mutual benefit and will look forward to seeing you next week.

Yours very truly,

J. D. STERN, *Vice President and General Manager.*

D-51

DEPARTMENT OF THE INTERIOR,
NATIONAL PARK SERVICE,
March 25, 1957.

MEMORANDUM

To: Regional Director, region 4
From: Superintendent, Death Valley National Monument
Subject: Summary of discussions with Director Wirth

On March 18–19, Director Wirth, Regional Director Merriam, and chief, WODC, Sanford Hill visited Death Valley for the purpose of reviewing certain problems which are summarized as follows:

1. *Headquarters location.*—The proposed new headquarters location near Furnace Creek as well as the existing location at Cow Creek were examined on the ground and problems connected with the development of each location were reviewed. Problems that were considered included availability of water, sewage disposal, and elevations. It was determined that there were existing buildings in the utility area at Cow Creek that can be used satisfactorily with modifications, and that vegetation in the residential area can be utilized effectively. After consideration of all factors it was decided that the utility area at Cow Creek should be retained and that maintenance personnel at least should be housed there.

The Furnace Creek area is to be abandoned entirely and a district ranger station will be established near the visitor center to provide housing for the district ranger, ranger, museum attendant, and caretaker. Under the present program of 8 residences in 1957 and 10 in 1958—or a total of 18, 4 will be built near the visitor center and 14 in the existing Cow Creek residential area. Sites were examined for proposed development of residential areas for the administrative and fiscal personnel near Furnace Creek Ranch but away from the visitor center site, but no definite site was selected. This particular problem will require further study.

2. *Visitor Center.*—The proposed visitor center site approximately one-fourth mile north of Furnace Creek Ranch that is to be donated by the U.S. Borax and Chemical Co. was examined, and it was agreed that it was a satisfactory location and that plans for the visitor center should proceed without further delay.

3. *Campground.*—The present Texas Spring campground was examined and it was considered that it will be difficult to get vegetation growing and to make a suitable campground out of it. It is therefore recommended that the campground be moved to a location north of the proposed visitor center site and to be between that and the Harmony borax works, provided the land can be obtained from the borax company. This is flat land with a considerable growth of mesquite and tamarisk, and development of an oasis would tie in very well with the existing Furnace Creek Ranch development. One consideration that will require study is the fact that it is a habitat of an endemic species of ground squirrel that is found nowhere else. A survey will be made by the naturalist to determine the exact range of the ground squirrel and to find what effect, if any, the campground development will have on them.

4. *Airport.*—The airport was inspected and it was pointed out that the north end has deteriorated rapidly with a considerable portion of it now unsafe due to heaving by the soil that contains bentonite. It was recommended that the north one-half of the strip be eliminated and that the south one-half be retained for use by light planes. The superintendent is to contact the CAA to get their recommendations on minimum lengths of runway and standards for this type of use. It was also decided that if the airport is reduced in size that the National Park Service should retain maintenance and control rather than negotiate for its operation by an outside agency.

FRED W. BINNEWIES, *Superintendent.*

Mr. ROMNEY. The document before you, D–51, is a memorandum from you to the regional director, dated March 25, 1957, subject: "Summary of Discussions With Director Wirth"?

Mr. BINNEWIES. Yes.

Mr. ROMNEY. Would you please recapitulate for us the four items in this summary, and if you wish to add any comments, please do.

Mr. BINNEWIES. Item 1 is titled "Headquarters location."

D–51

The proposed new headquarters location near Furnace Creek as well as the existing location at Cow Creek were examined on the ground and problems connected with the development of each location were reviewed. Problems that were considered included availability of water, sewage disposal, and elevations. It was determined that there were existing buildings in the utility area at Cow Creek that can be used satisfactorily with modifications, and that vegetation in the residential area can be utilized effectively. After consideration of all factors it was decided that the utility area at Cow Creek should be retained and that maintenance personnel at least should be housed there.

The Furnace Creek area is to be abandoned entirely and a district ranger station will be established near the visitor center to provide housing for the district ranger, ranger, museum attendant, and caretaker. Under the present program of 8 residences in 1957 and 10 in 1958, or a total of 18, 4 will be built near the visitor center and 14 in the existing Cow Creek residential area. Sites were examined for proposed development of residential areas for the administrative and fiscal personnel near Furnace Creek Ranch but away from the visitor center site, but no definite site was selected. This particular problem will require further study.

No. 2 is "Visitor center."

The proposed visitor center site, approximately one-fourth mile north of Furnace Creek Ranch that is to be donated by the United States Borax & Chemical Co. was examined, and it was agreed that it was a satisfactory location and that plans for the visitor center should proceed without further delay.

Item 3, "Campground."

The present Texas Spring campground was examined and it was considered that it will be difficult to get vegetation growing and to make a suitable campground out of it. It is therefore recommended that the campground be moved to a location north of the proposed visitor center site and to be between that and the Harmony borax works, provided the land can be obtained from the borax company. This is flat land with a considerable growth of mesquite and tamarisk, and the development of an oasis would tie in very well with the existing Furnace Creek Ranch development. One consideration that will require study is the fact that it is a habitat of an endemic species of ground squirrel that is found nowhere else. A survey will be made by the naturalist to determine the exact range of the ground squirrel and to find what effect, if any, the campground development will have on them.

No. 4, "Airport."

The airport was inspected and it was pointed out that the north end had deteriorated rapidly with a considerable portion of it now unsafe due to heaving by the soil that contains bentonite. It was recommended that the north half of the strip be eliminated and that the south half be retained for use by light planes. The superintendent is to contact the CAA to get their recommendations on minimum lengths of runway and standards for this type of use. It was also decided that if the airport is reduced in size that the National Park Service should retain maintenance and control rather than negotiate for its operation by an outside agency.

Mr. Binnewies (continuing). I might comment that with respect to item 1, it was considered during the Director's visit that we might develop a residential area in a location between the ranch and the inn in the general vicinity of a road that leads into the Texas Spring campground, but this was only thought of as a possibility, and later was abandoned in favor of the complete development remaining at Cow Creek.

Mr. Romney. We would like to ask your opinion with respect to the campground which was later located north of the ranch. Was this discussed during the March 18 and 19 special inspection trip by persons in the group?

Mr. Binnewies. Yes; it was.

Mr. Romney. And was there a consensus amongst these persons; what was the outcome of the discussion?

Mr. BINNEWIES. It was considered that that area would lend itself to development for a campground for quite a considerable distance there if we could acquire the land. It had a growth of mesquite and tamarisk on it already that campsites could be worked in around for some shade, and it is a level area, relatively level, and could be fairly easy to develop. It was considered that this would require some further study but it was recognized that the Texas Spring campground was inadequate and that we would need additional camping sites other than at Texas Spring.

Mr. ROMNEY. Was any discussion had of the problem of duststorms in that area and the fact that there was no natural topographical barriers to isolate this campground from the commercial area to the south?

Mr. BINNEWIES. Yes; I think that was discussed. I mentioned before the date groves at the ranch do present somewhat of a barrier to the wind from the south. However, it was recognized that that location would be subject to probably more wind than the more sheltered location up in the Texas Spring.

Mr. MOSS. What is the direction of the wind in the valley?

Mr. BINNEWIES. Generally north and south.

Mr. MOSS. Generally north and south?

Mr. BINNEWIES. Only occasionally is there one that goes across the valley, but the valley, particularly in the Furnace Creek area, runs generally north and south and the wind follows the valley.

Mr. ROMNEY. Were you with the inspecting party at all times on this inspection trip?

Mr. BINNEWIES. I was with the party at all times when we were making the inspection in the field; yes.

Mr. ROMNEY. Could you give us an idea of how much time was spent in actual viewing of the various sites that were under discussion?

Mr. BINNEWIES. Well, as I recall, we spent about a full day, certainly the better part of a day, going over the sites in the field. I remember quite well that the final decision was made when we parked the car just off of Highway No. 190 in the shade of a date grove there, and in the afternoon, and squatted down there to examine maps and plans, and that is when Director Wirth made the decision to retain the headquarters at Cow Creek.

Mr. ROMNEY. Was it the afternoon of March 19? This would be the second day.

Mr. BINNEWIES. As I recall, I think it was the afternoon of the 18th. I couldn't be positive on that, though. I think it was the 18th.

Mr. ROMNEY. So that there was more than 1 day occupied by the inspection trip?

Mr. BINNEWIES. Yes; they were there on the 19th, also.

Mr. ROMNEY. But the decision you say was made in the afternoon of the 18th?

Mr. BINNEWIES. I can't be positive whether it was the afternoon of the 18th or the morning of the 19th. I just don't recall those dates exactly.

Mr. ROMNEY. Were there any others in the party besides those mentioned in your memorandum of March 25, 1957—besides yourself, of course?

Mr. BINNEWIES. Yes. Park Engineer Linn Spaulding and Landscape Architect Lawrence Knowles were also with the party, at least during part of the time.

Mr. ROMNEY. And were there any others who joined the party at any time?

Mr. BINNEWIES. I think that when we went up to the new headquarters site that we—I hope I am not confusing this with another time—but I think this was the time we went up to the new proposed headquarters site, and we also went down to the location for the proposed sewage lagoon, because there had been a question raised by the county health authorities that this sewage lagoon might potentially contaminate the water supply in Furnace Creek, and I just don't recall if there was anybody else present or not.

Mr. ROMNEY. Did you see Mr. Stern during this time?

Mr. BINNEWIES. Yes; I saw Mr. Stern. I introduced him to Mr. Wirth. What date that was, I don't recall—whether it was the 18th or the 19th.

Mr. ROMNEY. Were there any other representatives of the hotel company there at the time whom you saw in connection with this inspection trip?

Mr. BINNEWIES. I just don't recall exactly. Mr. Scholl may have been there, also. I just don't recall. They certainly were not with us during the bulk of the inspection. I am just trying to remember whether I am confusing this time with another time or not. I do recall that we went up with Mr. Scholl to that sewage lagoon site because he was, I think, a member of the county antipollution board, something like that, and he's the one who had raised the question on that sewage disposal. I recall accompanying him up there, but I just can't be positive whether it was this time or another one.

Mr. Moss. Mr. McClory?

Mr. MCCLORY. Mr. Binnewies, this report that Mr. Albright made really received a lot of consideration, did it not?

Mr. BINNEWIES. Oh, yes; yes. It was considered, of course, by me and by members of the regional office staff.

Mr. MCCLORY. You knew at all times, of course, that his interests at the time he was visiting at the Death Valley National Monument were in the interests of the hotel company, the borax company, didn't you?

Mr. BINNEWIES. Well, I always considered that his interest was more from the National Park Service standpoint because he was so vitally interested in Death Valley, having been the director at the time it was created, or just at the time it was proposed, and he always retained a keen interest in it. Now, certainly I knew that he was also working with the company and was looking after their interests out there, although certainly in my discussions with him they were almost entirely on, you might say, National Park Service matters. We discussed such things as mining in the valley there, and signs and interpretation, and this sort of thing, that are Park Service matters.

Mr. MCCLORY. Well, to a certain large extent the interests of the hotel company and the Furnace Creek Inn and the ranch are synonymous with the interests which the Park Service has, aren't they?

Mr. BINNEWIES. Yes.

Mr. McCLORY. To the extent that if the Death Valley National Monument is attractive and develops nicely, and things like that, you have a common interest?

Mr. BINNEWIES. That's right.

Mr. McCLORY. Now, with regard to the subject of the abandonment of the Furnace Creek housing development for the staff, certainly Mr. Albright's opinion and his views entered into the ultimate decision, did they not?

Mr. BINNEWIES. They could; yes. I expect that his comment about the visibility of it certainly carried considerable—or was considered.

Mr. McCLORY. Is there anything about this other testimony that we had, the visit of Mr. Albright, to which reference has been made, and his report to the Director, and your comments on his report, and things of that nature, that would lead you to depart in any way from the previous answers to questions that I have put to you?

Mr. BINNEWIES. No; not that I recall.

Mr. McCLORY. Was there anything that occurred in connection with his visits or with the visit of Mr. Scholl, who, I guess, is also a representative of the hotel company, or anything in the relationships which occurred during that time, which you feel adversely affected the interest of the Park Service in connection with its plans and its development of the Death Valley National Monument?

Mr. BINNEWIES. No; I certainly don't. I might comment just a little more on that sewage disposal problem if you'd like to have that enlarged on any.

Mr. McCLORY. Well, that was a consideration which was raised by Mr. Albright for the first time, wasn't it; that hadn't entered into the question as to the location of the headquarters housing at one place or another, had it?

Mr. BINNEWIES. No. You see, the sewage lagoon type of disposal was rather new to that area and new to many of us, but Curtis Richey, who was with the U.S. Public Health Service, was out there and made an inspection of the area, and he thought that this type of sewage disposal would lend itself very well to that particular situation. It was on the basis of his recommendations that we considered that for the new headquarters site. It was after that that the county raised the question about it, but I always felt they did so without really understanding the type of structure that is used for the lagoon or the method by which the sewage is disposed of there.

Mr. McCLORY. Well, the county raised the question but also the hotel company raised the question; didn't they?

Mr. BINNEWIES. Yes, yes; because conceivably if there had been a rupture in the lagoon it would have dumped sewage into the Furnace Creek Wash with the possibility of contaminating the supply of water at the Furnace Creek Inn. It was then below the diversion works of Travertine Springs, but it conceivably could have, and that was their interest.

Mr. McCLORY. In other words, the question raised by the county and by the hotel company may have had some validity as far as the preservation of this valuable, this precious source of water from the Travertine Springs and the Furnace Creek area?

Mr. BINNEWIES. That is quite right. It would have been below the Travertine Springs, but, as I say, it could have possibly contam-

inated the supply at the inn which is a well with sandpoint out into the wash there. We didn't feel that this was a serious objection at all because of the fact that the Public Health Service had approved, had suggested it, in fact, and recommended that we use this type of disposal.

Mr. McCLORY. Whether the question was raised by the hotel company or by anyone else, it was proper consideration for the Park Service review in connection with its other considerations?

Mr. BINNEWIES. Certainly it was a valid question.

Mr. McCLORY. Do you feel at all that Mr. Albright's visit and his long report in connection with a great many things, his suggestion to convert the monument into a national park, and the roadways and the preservation of rocks, and limiting the mining interests, and so on—do you think that these were all some kind of device or scheme to divert attention from the primary interest of water rights that he was concerned about?

Mr. BINNEWIES. Oh, no; I certainly do not. These are matters that I discussed with Mr. Albright at other times, and this particular time, too. These are things that were National Park Service matters in which he did have an interest, and I see no attempt to divert attention, or anything else. These are just matters that needed consideration and that we did discuss from time to time.

Mr. McCLORY. His visit occurred in November of 1956, or about then?

Mr. BINNEWIES. Yes.

Mr. McCLORY. And the decision with regard to the location of the camp and the headquarters development, so on, was reached in March of the next year?

Mr. BINNEWIES. That's right.

Mr. McCLORY. Are there other persons who have retired from the Park Service that you can think of who have continued an interest in the national parks?

Mr. BINNEWIES. Oh, certainly, there are many of them. Dr. Bryant who is one of the naturalists and superintendent of the Grand Canyon National Park; Dr. Carl Russell; any number of retired Park Service personnel who have retained a very direct interest in the Service, and some of them are serving as consultants and some of them are serving in other capacities. I think anyone that is bitten by the National Park Service bug retains it. They don't lose it just by retiring.

Mr. McCLORY. Was Mr. Albright on some kind of an advisory committee at this time that we refer to: 1956 and 1957?

Mr. BINNEWIES. Yes, he was on the National Park Service Advisory Board, which is a board appointed by the Secretary of the Interior to advise the National Park Service on matters relating to it.

Mr. McCLORY. That's all I have.

Mr. MOSS. When you received the memorandum of February 21, 1957, D–48, which was directed to the regional director, Regional 4, from Mr. Wirth, the concluding paragraph was phrased in this fashion:

D–48

I would like you and Sanford Hill, Chief of WODC, to accompany me on the Death Valley portion of the trip. Since all field offices concerned are unanimous in recommending the new headquarters location, I think the superintendent, regional director, and Chief of WODC, should be present when I make this review of the problem on the site.

Is that correct?

Mr. BINNEWIES. That's correct, yes.

Mr. Moss. Now, let's get to the accuracy of the statement itself. It reflected the situation that existed in the Park Service. Everyone who had reviewed this problem, including the Director, had, up to this point, approved the relocation of the headquarters; is that correct?

Mr. BINNEWIES. Yes, that's correct.

Mr. Moss. Now, following the visit of Mr. Albright, we have emerging here for the first time a dissent—a rather substantial dissent—on this location; is that correct?

Mr. BINNEWIES. Yes. He was not satisfied with it. He criticized it largely because of the barrenness, and the view.

Mr. Moss. Yes. He detailed his criticism of the matter.

Mr. BINNEWIES. Yes.

Mr. Moss. Now, that did not end the expressions of Mr. Albright's views, did it, because there continued then an exchange of correspondence between the Director and Mr. Albright; is that correct? In other words, the visit of Mr. Albright cannot be looked at apart from intervening correspondence and discussion, leading finally to the March visit of Mr. Wirth and the on-the-spot revision of the proposal; is that correct?

Mr. BINNEWIES. That was probably a part of it. The main reason for Mr. Wirth's visit was that he was urged to come out and take a look at it by Mr. Vint.

Mr. Moss. Well, he had ordered Mr. Vint to go there and take a look at it, or to review the matter too, hadn't he?

Mr. BINNEWIES. Yes.

Mr. Moss. And that had not resulted in a recommendation that it be abandoned or substantively changed, had it?

Mr. BINNEWIES. No.

Mr. Moss. No. Continuing right up until the visit of Mr. Wirth in March, it would appear that he was there on the 18th, because he then departed on Tuesday, the 19th, for Boulder City, where he intended spending 1 day, returning that evening to the Las Vegas Airport, and proceeding to Washington that night. So he did leave the monument then on the 19th. And you say that the discussion here took place in the daytime after the trip reviewing the physical layout of the various sites and projects under consideration?

Mr. BINNEWIES. Yes.

Mr. Moss. So that in arriving at the reasons for changing the plans, we must at least ascribe some pertinency to the interests as expressed by Mr. Albright.

Mr. BINNEWIES. Yes.

Mr. Moss. And right up to the moment when the plans were changed, the subordinate officials in the Park Service remained unanimous in their position supporting their original recommendations?

Mr. BINNEWIES. Yes.

Mr. Moss. All right. So that the change then was undertaken solely by the Director; in other words, he instructed, after the inspection, that the Cow Creek site be retained and that other things happen; is that correct?

Mr. BINNEWIES. That's correct. We discussed all the pros and cons rather thoroughly that day between the interested parties before the Director then made the final decision.

Mr. Moss. Now, let me make it very clear that sometimes in the course of handling committee assignments I don't always find great pleasure in them. This is one that I was handed almost 4 years ago and I have handled it more or less on an ad hoc basis in the intervening period. But at the time of Mr. Albright's visit to the national monument, we had a man who served on the Advisory Committee, a very distinguished gentleman with a most distinguished record; but he also served the company whose interests were not always complementary to those of the Government and where there could be a conflict between those interests. Am I correct?

Mr. BINNEWIES. I would think so, yes.

Mr. Moss. And the consideration of the placement of a well which might be of great benefit to the Park Service and be under their rights—legal and appropriate in every sense—could be viewed by an officer of the corporation as potentially prejudicial to their interests. Is that correct?

Mr. BINNEWIES. I would think so.

Mr. Moss. So that we must then look at these recommendations considering the potential for conflict as we evaluate it—not necessarily a knowing or a conscious conflict, but nevertheless one which is clearly inherent in the dual role: That of advising one principal and at the same time advising and acting to protect the interests of the other, a very difficult role for any man, however pure of motive, to undertake. And yet, reviewing the chronology of events from the advice of Mr. Albright to the ultimate modification of planning in March of 1957, we cannot in conscience overlook the impact of his recommendations and the fact that they stood alone in the recommendations then reaching the Director. Would you concur in that statement?

Mr. BINNEWIES. I don't think you could say they stood alone. I think you have to consider also the discussion Mr. Vint had with Mr. Wirth after his return, and certainly Mr. Vint——

Mr. Moss. Did Mr. Vint recommend that the plans be changed?

Mr. BINNEWIES. I don't know what occurred. As I remember from the correspondence, Mr. Vint had a discussion with Mr. Wirth, and I am not aware of whether he reduced it all to writing or not, but I believe that he did have a discussion with him.

Mr. Moss. Well, the latest that I find is the January 3, 1957, letter from Thomas A. Vint, Chief, Division of Design and Construction, addressed to the regional director, region 4, D–36. This is now in the record. It states that, "You will note that the Director's reconsideration of the master plan and mission 66 proposal to relocate headquarters has resulted in a reffirmation of his original approval of the Furnace Creek site. Accordingly, the preparation of surveys, plans, and estimates may again proceed on the basis that the Furnace Creek site is approved for headquarters."

Now, that is the last expression by Mr. Vint, isn't it? I ask you because I want to be accurate. We have encountered one document today that we had not received a copy of from the Service. It is perfectly possible that there may be others that we have not received.

Mr. BINNEWIES. So far as I know, as I stated before, I recall that, whether it was in the letter that Mr. Wirth prepared or not, I am not positive, but I think he did refer to a discussion that he had with Mr. Vint following his return from the inspection at Death Valley the latter part of January.

Mr. McCLORY. Mr. Chairman, there should be a memorandum from Mr. Vint. If you will look at this exhibit D–47 in the report from Herbert Maier, acting regional director, to the Director, it says that "we have Mr. Vint's memoradum of February 15, transmitting to us a copy of Mr. Horace M. Albright's letter to you of February 4." We don't have that?

Mr. Moss. I am informed that that is a transmittal letter. We do not have a copy of it. We will, however, get a copy of it, and it will be included in the record at this point so that whatever its contents, it will correctly reflect the facts—because that is all we want in this record.

(The memorandum referred to, D–43.1, follows:)

D–43.1

DEPARTMENT OF THE INTERIOR,
NATIONAL PARK SERVICE,
Washington, D.C., February 15, 1957.

MEMORANDUM

To: Regional director, region 4.
From: Chief, Division of Design and Construction.
Subject: Letter from Horace M. Albright in regard to Death Valley.

I am attaching a copy of a letter dated February 4 from Mr. Horace M. Albright concerning Death Valley National Monument.

The Director would like to have your comments regarding this letter in this office before February 25. I am sending a copy directly to the Superintendent so that he may also let us have his comments by the above date.

THOS. C. VINT,
Chief, Division of Design and Construction.

Mr. Moss. Would Mr. Vint be part of the field offices?

Mr. BINNEWIES. No, he is in the Washington, D.C., office.

Mr. McCLORY. And he is retired now?

Mr. BINNEWIES. Yes.

Mr. Moss. We have nothing then that shows that there were any dissents in the Park Service up to that moment. Is that correct?

Mr. BINNEWIES. Apparently so.

Mr. Moss. Now, on this matter of the sewage and its pertinency, the county of Inyo did not initiate the inspection of the proposed sewage disposal facilities at Furnace Creek headquarters site, did it?

Mr. BINNEWIES. I think it was at the request of Mr. Scholl who was on the county antipollution board.

Mr. Moss. And that would be reflected in a memorandum dated March 6, 1957, item D–49, which is not in the record, and I ask unanimous consent to place it in the record.

Mr. McCLORY. No objection.

(The document referred to, D–49, follows:)

D–49

DEPARTMENT OF THE INTERIOR,
NATIONAL PARK SERVICE,
March 6, 1957.

MEMORANDUM

To: Regional director, region 4.
From: Superintendent, Death Valley National Monument.
Subject: Inspection of proposed sewage system by State and county health service.

On February 28 Mr. Leggett, executive officer, water pollution control board, and Mr. Walter Carrington, director of sanitation, Inyo County Health Department, made an inspection of the proposed sewage system at the Furnace Creek headquarters at the request of Mr. Charles Scholl. Mr. Scholl arranged for the inspection as a representative of the U.S. Borax & Chemical Co., and as a member of the local water pollution control board.

No advance notice of the inspection was furnished this office and unfortunately the superintendent was not available. However, Engineer Linn Spaulding accompanied the other men and went over the proposed system on the ground.

The main question seemed to be the possibility of contaminating the water supply from Travertine Springs and also the well diversion at Furnace Creek Inn. It was explained that Curtis Richey, U.S. Public Health Service, had inspected the area and recommended the lagoon system. Mr. Leggett agreed that such a system was satisfactory but believed that the site was a poor location. He will write Mr. Richey and try to arrange for a meeting here to coincide with the director's visit.

The possibility of contamination of the well at the inn seems to be a very remote possibility. The soil at the proposed lagoon site is relatively impervious so that there will be little seepage. Even if there was an appreciable amount of seepage it is approximately 1⅛ miles by Furnace Creek Wash with the ground largely fine gravel fill.

Another point that was raised was the possibility of cloudburst damage. This, too, is an extremely remote possibility since the site is on high rolling ground well away from any wash. The only possible damage would have to come from direct rainfall and a lagoon can take several inches without danger of overflow. Even assuming the possibility of dike failure we believe that the contamination of any water supply is remote due to the absorption by the gravel in Furnace Creek Wash.

Mr. Scholl stated that he called the inspection to get State and county viewpoints before the project got too far along "in view of the fact that the Park Service must submit its water and sewer plans to the State of California for approval." If this is true we were unaware of it since it is our understanding that the U.S. Public Health Service provides the approval.

An additional copy of this report is furnished in the event that Curtis Richey should be informed of it.

FRED W. BINNEWIES, *Superintendent.*

Mr. Moss. It's a memorandum to the regional director, region 4, from the superintendent, Death Valley—from you; and that memorandum states rather plainly that—

D–49

On February 28 Mr. Leggett, executive officer, water pollution control board, and Mr. Walter Carrington, director of sanitation, Inyo County Health Department, made an inspection of the proposed sewage system at the Furnace Creek headquarters at the request of Mr. Charles Scholl. Mr. Scholl arranged for the inspection as a representative of the U.S. Borax & Chemical Co., and as a member of the local water pollution control board.

I assume that that means the Inyo County Water Pollution Control Board?

Mr. BINNEWIES. Yes; yes, that's correct.

Mr. Moss. No advance notice of this was given you, and you were absent at the time of the visit.

Mr. BINNEWIES. That's right.

Mr. Moss. At the time of his visit he was acquainted with the fact that Mr. Curtis Richey, of the U.S. Public Health Service, had inspected the area and recommended the proposed disposal system. Is that right?

Mr. BINNEWIES. Yes.

Mr. Moss. So that it's quite clear that the interest here was stimulated by the company rather than by the water pollution control board or the county of Inyo. The company was aware of the fact that the U.S. Public Health Service had made an on-site inspection and made recommendations which it proposed the Park Service follow in its plans?

Mr. BINNEWIES. I am sorry, I didn't quite follow that.

Mr. Moss. Was the company aware of the fact of the on-site inspection by the U.S. Public Health Service and the further fact that

they had recommended a type of sewage disposal system proposed for the development?

Mr. BINNEWIES. I doubt if they were aware of the fact until this inspection.

Mr. MOSS. Wasn't a rather comprehensive briefing or documentation of the proposals for the entire development supplied to a representative of the company? Wasn't it given to Mr. Horace Albright?

Mr. BINNEWIES. Yes, yes.

Mr. MOSS. So we can assume, therefore, that this was comprehensive; that it reflected the proposal in its entirety; that the Park Service was dealing very openly; and that the company, therefore, was acquainted with the nature of the proposal?

Mr. BINNEWIES. I think that is a correct assumption, yes.

Mr. MOSS. I think that is all I have.

Mr. MCCLORY. May I ask a couple of clarifying questions?

Mr. MOSS. Certainly, Mr. McClory.

Mr. MCCLORY. We reviewed a lot of material here and a lot of interoffice and a lot of interservice material. Was there any coverup of any of these conferences or meetings or negotiations that you know of; was anybody trying to conceal anything from the public as to what actually went on?

Mr. BINNEWIES. Oh, certainly not. I think everything was pretty well documented.

Mr. MCCLORY. So when you talk about the interests of the company and Mr. Albright's interest, which is certainly very obvious to everyone here, and which, I am sure, he admits frankly, there isn't anything in any of these disclosures or the memorandums or exhibits that we are discussing here today which was intended to be kept from the public, is there?

Mr. BINNEWIES. No, no, certainly not.

Mr. MOSS. May I interrupt to suggest that you say "to the best of your knowledge" there was not?

Mr. BINNEWIES. Thank you. To the best of my knowledge.

Mr. MCCLORY. Nobody told you to keep anything from the public, did they?

Mr. BINNEWIES. No.

Mr. MCCLORY. Have you been prevented in any way from talking with anybody or discussing with anyone any of the conversations or activities relating to the development of Death Valley National Monument?

Mr. BINNEWIES. In fact, I was encouraged to inform interested people and local communities, interested organizations, and ones like that, of our plans.

Mr. MCCLORY. Now, if, as a matter of fact, or, if, as a matter of public health consideration, the location of the sewage disposal plant in the Furnace Creek area, above the Furnace Creek Inn, would endanger the water supply, you certainly wouldn't want to recommend going ahead with it, would you?

Mr. BINNEWIES. No, absolutely not.

Mr. MCCLORY. Notwithstanding that it might only affect private interests; there is no intention ever on the part of the Park Service to damage private interest, is there?

Mr. BINNEWIES. No, not to my knowledge.

Mr. McCLORY. Now, with regard to the decision reached on the spot, when you and the others and the Director met and the Director made the decision—and I assume the Director makes all ultimate decisions with regard to the operation of the Park Service—did you or your associates concur in the decision that was made, or were there divided views on the decision reached?

Mr. BINNEWIES. No. I think we concurred that Cow Creek could be usable, that we could make it work all right. There certainly were things that the Director gave more weight to than we had in our studies, and in which we recommended the Furnace Creek site, particularly the development that was already at Cow Creek. I am sure that he gave more weight to that, certainly, than I had when I made my recommendations for the other site. But we felt that he had made the decision, and we would make the thing work to the best of our ability.

Mr. McCLORY. That's all I have.

Mr. Moss. I want to clarify the reason for my injecting the statement "to the best of your knowledge." I had not intended to rake up old coals on the matter of the availability of all the facts regarding those activities; but I will now ask a place be held in the record, and I will submit at the next meeting of the subcommittee a complete documentation of the facts of this subcommittee after it was given a letter of authorization to organize and proceed to investigate and study certain allegations which had been brought to the attention of the full Committee on Government Operations. This subcommittee, for a considerable period of time, had the utmost difficulty in getting the records it requested. The record here should reflect the fact that they were refused us, and that we were denied them when we had certain knowledge that private parties had exactly what we were seeking.

It took considerable communication and meetings with the Department of the Interior and the Park Service, which became somewhat acrimonious, I might add, before we succeeded in getting the documentation which this subcommittee required in order to proceed with the assignment given to it by the Congress. So that it is difficult for me to accept the statement that there was no effort made to conceal facts, because I was forced to publicly charge to the contrary on more than one occasion. It had under serious consideration the advisability of taking up this case in another subcommittee of which I am chairman because of the difficulties encountered in securing the information which was originally requested by the chairman of the Government Operations Committee, the Honorable William L. Dawson, and which I followed up for a number of months after I had been given the assignment under the then Assigned Land Problems Subcommittee to study the allegations which were made in connection with the Death Valley National Monument. It is for that reason, Mr. McClory, that I injected, as I did—because the documentation and the difficulties of the subcommittee in securing the information stands as irrefutable evidence that difficulty was indeed encountered, and it was a most trying period of time before the documentation was received.

(Documentation of the committee's efforts to obtain data from the Interior Department concerning Death Valley National Monument

appears in H. Rept. 2084, 86th Cong., 2d sess., entitled "Availability of Information From Federal Departments and Agencies, 1959–60," pp. 96–106.)

Mr. McCLORY. Well, Mr. Chairman, I think that we are not talking about the same thing, because I know that you had sought something from the Park Service or from the Department of Interior, and there was quite an exchange of public statements that were made, and I have reviewed those. I think they relate to something a little different, though, than we have been examining here today, and I will be glad to have the subject gone into at some later time.

The point I was trying to make was this, that if the Park Service was endeavoring to conceal any of their actions or if there was anything that was sinister or ulterior or dishonest in any way, they couldn't have documented their actions any more completely than they have through these documents that we have been looking at today, and I just can't help but feel that there is, on their part, a full and clean breast of what they were doing, including the interest of Mr. Albright and the hotel company concerning the sewage disposal and affecting their water rights, and things of that nature, which are made available here to the subcommittee and which the witnesses frankly admit were involved in the ultimate decision—notwithstanding that there were other bases for the decisions which were also made. I just thought as I looked at all this material that we have before us that there was certainly a great and full exchange of information, reports, just every possible documentation of the actions that were taking place, so that belies any effort to conceal or to deal mysteriously in what was actually done.

Mr. Moss. Well, when the dam broke, it broke completely, and from that time on we have had a very open relationship with the Park Service, and I would want the record to reflect the fact that the chairman has not arrived at any conviction that there have been deliberate efforts to take advantage of the Government or to abuse relationships with the Government. The facts on this, I think, illustrate, however, the interesting theories of developments here. In mentioning Mr. Albright's role, I indicated it could happen without any conscious effort to attempt to consider one principal above the other. The effect, however, was to change a plan which up until the moment of change was endorsed by everyone in the Park Service, up to and including the Director himself. The record does not reflect any persuasive evidence which would have justified the change in plans. There was no careful reevaluation—no one advisory to the Director stepped forward and said, "Sir, we have erred." Nothing of that type occurred. There was a summary change in programing. It is a very interesting change because, while it is well to sit there and say that this will do, your best advice to your client, the Government, was that if it was to do adequately for the future, that which we are now doing does not do as well as that which was proposed; isn't that a fact? What we are doing now at Cow Creek and the campgrounds does not meet the needs of the future as adequately as what you had contemplated in the original proposal recommended by you; does it?

Mr. BINNEWIES. Well, in some ways, no, but I think it will prove to be quite workable, quite feasible.

Mr. Moss. From your own record, when you get up to 29 units, that takes care of the next few years. But—I think I quote you cor-

rectly—what about 20, 30, 40 years from now? And, after all, if we are prudent planners, certainly we don't want to plan in any manner anything that is prejudicial to the legitimate interests of any private party. I think the Government, of all your institutions, has to be most careful in exercising its powers so that it does not interfere with the rights of individuals, whether they be corporate individuals or individual persons.

Do you have other questions, Mr. Romney?

Mr. ROMNEY. Mr. Binnewies, are you familiar with an area in the Furnace Creek vicinity which is referred to as Parcel No. 3, containing 13 acres, fenced, presently being used by the owner of the Furnace Creek Ranch as a woodyard and storage area?

Mr. BINNEWIES. Yes. That is on the western side of the ranch, I believe on the south—let's see. The southwest corner of the ranch.

Mr. ROMNEY. To your knowledge, is this Government-owned land?

Mr. BINNEWIES. If I identify it correctly, it is, yes.

Mr. ROMNEY. So there is occupancy of that land by the Furnace Creek Ranch for its own private purposes?

Mr. BINNEWIES. Yes; I am really not very familiar with what is there.

Mr. ROMNEY. But it does contain, according to your recollection, a woodyard and storage area?

Mr. BINNEWIES. Yes.

Mr. ROMNEY. Are you also familiar with an area which I will describe as a picnic area in Breakfast Canyon?

Mr. BINNEWIES. Yes.

Mr. ROMNEY. To your knowledge, are there facilities installed on that area?

Mr. BINNEWIES. Yes, there are. There are some picnic tables, a barbecue pit, and a small cement floor.

Mr. ROMNEY. And who built those facilities?

Mr. BINNEWIES. Those were built, so I have been informed, by the Death Valley Hotel Co.

Mr. ROMNEY. Are you also familiar with a structure which I will describe as a company dormitory building?

Mr. BINNEWIES. Can you give me any further information about the location of it?

Mr. ROMNEY. This is near the end, near the line.

Mr. BINNEWIES. Oh, yes; yes.

Mr. ROMNEY. To your knowledge is that structure on Government-owned land?

Mr. BINNEWIES. I think a portion of it is. I am not sure whether all of it is or not. I think that is quite close to the line. I am not familiar with just where the line runs there.

Mr. ROMNEY. For how long a period during your superintendency were you aware of these structures, privately built on Government-owned land, or the uses of Government-owned land by private persons?

Mr. BINNEWIES. Oh, I recall that I didn't know that the structures in Breakfast Canyon were on Government land until, oh, I think that was—let me see, about 1958, I believe. It was several years after I went there, I know, but I don't recall the exact time, and it had been mentioned to me that the dormitory was possibly on Government land, or a portion of it, anyway. As I say, I am not familiar with

where the line runs there, exactly, so I do not think I ever was aware of whether a portion of it, all of it, or just how much was.

Mr. ROMNEY. You are aware, are you not, that occupancy of this type is a violation of the Department's regulations?

Mr. BINNEWIES. Yes.

Mr. ROMNEY. And do you know of any effort or discussion with respect to enforcing the regulations against the unauthorized occupancy?

Mr. BINNEWIES. I recall that I had a discussion with some officials of the borax company relating to the installation in Breakfast Canyon to the effect that that could not be used exclusively by the company or their employees, it would have to be left open to the use by the visitors if they cared to make use of it. I don't recall that any consideration was given on the dormitory, I think, until the property lines were established there. I really don't recall much about that.

Mr. ROMNEY. But at the time you were last in the monument these structures and uses were still existing?

Mr. BINNEWIES. As far as I know, yes.

Mr. MCCLORY. Were these conditions to which Mr. Romney made reference present at the time you became Superintendent?

Mr. BINNEWIES. They were there prior to the time that I became Superintendent.

Mr. MCCLORY. So they were all in existence at the time you became Superintendent?

Mr. BINNEWIES. Yes; that's right.

Mr. MCCLORY. And with regard to whatever the installation was at Breakfast Canyon, was that enclosed in any way to keep the public out?

Mr. BINNEWIES. No; it wasn't. It was just up a hillside canyon off the main road leading down to Badwater, and it was a facility in which they used to conduct horseback rides into that from the ranch, and that is the way it got its name, they'd have breakfast rides into that.

Mr. MCCLORY. Did the public use that?

Mr. BINNEWIES. The public could use it, too. I might say that I recall now on the 13-acre tract that I was not aware that that was Government land for quite some time after I became superintendent or that it was being used by the hotel company. I think I first became aware of it when the proposal to exchange certain lands was raised, exchange certain Government lands for certain lands owned by the borax company, and this was one of the parcels that was proposed to be included in that exchange.

Mr. MCCLORY. That's all I have, Mr. Chairman.

Mr. MOSS. Mr. Binnewies, I want to thank you for being a most patient and responsive witness. You are excused.

Mr. BINNEWIES. Thank you very much.

Mr. MOSS. We will take a 5-minute recess.

(Short recess taken.)

Mr. MOSS. The subcommittee will be in order, and I will ask now that Mr. Roger Wilson and Mr. Beverly W. Capell of the Bureau of Land Management come forward and be sworn.

(Roger F. Wilson and Beverly W. Capell, called as witnesses before the Special Subcommittee on Death Valley National Monument, were duly sworn.)

Mr. MOSS. Please identify yourselves for the record.

TESTIMONY OF ROGER F. WILSON, CADASTRAL SURVEYOR, BUREAU OF LAND MANAGEMENT, DEPARTMENT OF THE INTERIOR; ACCOMPANIED BY BEVERLY W. CAPELL, CADASTRAL SURVEYOR, AND LINN S. SPAULDING, SUPERVISORY HIGHWAY ENGINEER, WESTERN OFFICE, DIVISION OF DESIGN AND CONSTRUCTION, NATIONAL PARK SERVICE

Mr. WILSON. I am Roger F. Wilson, cadastral surveyor, Bureau of Land Management, Department of Interior, and I started in 1919 and I received my appointment on the 13th of December, 1921, and I have been with the Bureau ever since, or that was the General Land Office at that time. I have been a land surveyor active since then. I retired on the 15th of July, 1963, and I am back now on a temporary assignment.

Mr. CAPELL. I am Beverly W. Capell, cadastral surveyor for the Bureau of Land Management. I first came to the Service in September of 1952, and I have been with the Department ever since.

Mr. Moss. Thank you, gentlemen. You may be seated.

I wonder if Mr. Linn S. Spaulding would also come forward and be sworn.

(Linn S. Spaulding, called as a witness before the Special Subcommittee on Death Valley National Monument, was duly sworn.)

Mr. Moss. Please identify yourself for the record.

Mr. SPAULDING. I am Linn S. Spaulding, supervisory highway engineer, Western Office, Division of Design and Construction, National Park Service.

Mr. Moss. You may be seated.

Mr. Indritz?

Mr. INDRITZ. Mr. Wilson, when was the Furnace Creek quadrangle first surveyed?

Mr. WILSON. In 1857; I prepared a report which I imagine you have a copy of, giving the chronological order of surveys and resurveys and investigations since.

Mr. INDRITZ. Was there a subsequent——

Mr. MCCLORY. I just think that if the gentleman has prepared a report, I certainly would like to have the advantage of that report. If he has it, I'd like him to furnish it for the members of the subcommittee.

Mr. Moss. Do we have copies of that report?

Mr. WILSON. After what happened this morning, we got some copies made.

Mr. Moss. Fine. That is very thoughtful of you. Just hand them to me and I will pass them down.

Mr. WILSON. Now, this report is subsequent to my going down with Mr. Capell to investigate the survey conditions in Death Valley. We were down there for 10 days in December of 1963, and it was the result of a complaint by the Death Valley Hotel that we had taken some land from them and they figured we had put the lines where we shouldn't have.

So Capell had a crew of field men on the transit and chain, standard surveying procedure, and we checked some lines that they were protesting, and after our return I prepared this report which is addressed to the director from myself, subject: Dependent Resurvey, T. 27 N.,

R. 1 E., SBM, that being San Bernardino Meridian, California. History of previous surveys and investigations. In 1857, Henry Washington, deputy surveyor, surveyed the boundaries and subdivisional lines of this township. He also surveyed the boundaries and subdivisional lines of adjacent townships to the north, south, and east.

In 1883, J. J. McGillivray, U.S. deputy mineral surveyor, surveyed a number of borate claims in this township. McGillivray could find no Washington corners, other than along the meridian, so his claims conformed in spirit to what would have been legal subdivisions of sections in T. 27 N., R. 1 E., had the Washington corners been found in place. One of the corners either established by McGillivray or marked in a preliminary survey was marked C.D. 58, near the record position for the southwest corner of section 16.

I was going to say—it isn't in my report here, but it might be pertinent at this time—the notes of Mr. McGillivray say he arrived at, in this case, C.D. 58 as though the post were already there, and it's my opinion as a surveyor that he established the corner himself. He arrived at the point and then he set the monument.

Mr. Moss. I think, Mr. Wilson, it might be more in keeping with the objective of the subcommittee at the moment if we received the report for the record and then let Mr. Indritz undertake to examine you and your colleagues on this matter.

Mr. McCLORY. May I just ask what the date of this report is? I don't see any date on it. How current is this?

Mr. WILSON. I prepared it, finished it up Christmas week.

Mr. McCLORY. December 1963.

Mr. Moss. On page 3 it says "from December 11 to 17, 1963."

(The memorandum referred to follows:)

DEPARTMENT OF THE INTERIOR,
BUREAU OF LAND MANAGEMENT,
DIVISION OF ENGINEERING.
Sacramento, Calif.

MEMORANDUM

To: Director.
From: Roger F. Wilson, cadastral surveyor.
Subject: Dependent resurvey, T27N R1E SBM, California.

HISTORY OF PREVIOUS SURVEYS AND INVESTIGATIONS

In 1857, Henry Washington, deputy surveyor, surveyed the boundaries and subdivisional lines of this township. He also surveyed the boundaries and subdivisional lines of adjacent townships to the north, south, and east.

In 1883, J. J. McGillivray, U.S. deputy mineral surveyor, surveyed a number of borate claims in this township. McGillivray could find no Washington corners other than along the meridian (W. bdy. of R. 1 E.), so his claims conformed in spirit to what would have been legal subdivisions of sections in T. 27 M., R. 1 E., had the Washington corners been found in place. One of the corners either established by McGillivray or marked in a preliminary survey was marked C.D. 58, near the record position for the southwest corner of section 16.

In 1884, G. W. Baker, deputy surveyor, retracted the San Bernardino meridian along the west boundary of this and adjacent townships to the north and south, records finding most of the Washington corners, and established closing corners for his fractional townships and sections to the west.

In 1904–05, Clarence M. Razor, U.S. mineral surveyor, was employed by Pacific Coast Borax to determine the boundaries of section 16 and the tract of land (N½NE¼) in sec. 21. Razor reports that he could find no corners of the Washington survey other than on the west boundary of the twonship, so he surveyed easterly from the cor. of secs. 18 and 19, found the post C.D. 58 at a point 2 miles E. of the starting corner and accepted same as marking the SW. cor. of

sec. 16. He continued a straight line to establish the S¼ sec. cor. and SE. cor. of sec. 16, apparently. We have no knowledge of a plat or notes to this effect. Razor's surveys apparently extend to 1925 for Pacific Coast Borax. In 1904, Clarence M. Razor executed Mineral Survey No. 4298, Mushroom Nos. 1 to 4 claims, in T26N R1E SBM. Razor tied these claims to what he designated as the cor. of secs. 3, 4, 33, and 34, Ts. 26 and 27 N., R1E.

In 1926 Mr. H. P. Gower, an employee of Pacific Coast Borax resurveyed the S. body. and 8½ of the E. bdy. of sec. 16, and surveyed the tract of land (N½ NE¼) in sec. 21. Gower states in his field book that he "Set up at stake marked C.D. 58 of Desert (Patented) Placer Claim, which is also the SW. cor. sec. 16, backsighted on sec. corner 1 mile west, then proceeded with the survey, placing 4 x 4 posts at proper distances for the ¼ sec. cor. of secs. 16 and 21, secs. 15, 16, 21, and 22, ¼ secs. 15 and 16, N 1/16 secs. 21 and 22, and CN 1/16 sec. 21." On March 19, 1926.

In 1926, Gene Valjean (also apparently employed by Pacific Coast Borax) started at the Gower post at the cor. of secs. 15, 16, 21, and 22, resurveyed the lines between secs. 15 and 22, 14 and 23, and 23 and 24. Valjean set posts at 40 chain intervals, marked A to F, in order.

In 1927, the boundaries of the tract of land in sec. 22 (S½ NE¼, and N½ SE¼) which embraces the Furnace Creek Inn and its improvements, was surveyed by Gower and the corners of the tract were monumented with 4 x 4 wood posts, still firmly set except the SW. corner post, which has been washed away. Portions of the N. and W. boundaries are marked by an old scraped roadway and tons of piled rocks. The NW. cor. of the tract (CN 1/16 sec. cor. sec. 22) was established S. 89° 41′ E., 40.00 chs. dist. from the SE. cor. of the tract in sec. 21 (N 1/16 sec. cor. secs. 21 and 22). We check the measurements around this tract very closely.

In 1934, I was engaged in the resurvey and survey of T27N R4E SBM. In order to reestablish the missing SW. cor. of that township it was necessary to go to the San Bernardino Meridian for control. I initiated my retracements in Death Valley at the local cor. of secs. 15, 16, 21, and 22, T27N R1E (the Furnace Creek Ranch cor.) Then marked by a 4 x 4 post, properly mkd, and found the SW. and NW. cors. of that township and standard cors. on the S. bdy. of secs. 31 and 32, T26N R1E. The only other exterior cor. I found, east of the Meridian, was the cor. of secs. 1, 2, 35, and 36, on N. bdy. of T27N R1E. This was also marked by a 4 x 4 post, firmly set, and obviously a local re-establishment, but one of a long while prior to 1934, and in proper relationship to the NW. cor. of the township, on the meridian. No corners, other than the initial corner, were found along the N–S center line of Ts. 26 and 27 N., R.1E.

In 1939–40, John L. Warboys and F. Wayne Forrest made extensive retracements, in connection with the boundary of Death Valley National Monument, and found a dearth of original corners.

In 1960–61, Louis V. Tout executed the resurvey now in question. Tout initiated his retracements at the same corner of secs. 15, 16, 21, and 22, which by that time was marked only by a 2 x 2 hub, the original 4 x 4 post as set by Gower having decayed and been removed and replaced by the hub. Tout accepted and remonumented the cor. of secs. 23, 24, 25 and 26, as originally set by Valjean in 1926, but reestablished all the remaining corners in the township by proportionate measurement.

From December 11 to 17, 1963, Beverly W. Capell made an investigation of the surveys and resurveys in T. 27 N., R. 1 E., SBM. Capell found C.D. 58 post (as had Tout in 1961) marking the SW. cor. of sec. 16; the hub marking the SE. cor. of sec. 16; the 4 x 4 post marking the E¼ sec. cor. of sec. 16 (set by Gower); stake "A" marking the N¼ sec. cor. of sec. 22; an iron pipe at the point for "B" marking the NE. cor. of sec. 22; an iron pipe at the point for "C" marking the N¼ sec. cor. of sec. 23; the 4 x 4 post marked "D" as set by Valjean for the NE. cor. of sec. 23; an iron pipe with brass cap at the point "E" for E¼ sec. cor. of sec. 23. These monuments are all within 1 or 2 lks. of 40.00 chs. apart, and the bearings of the lines are all within 20′ of cardinal and having the same deflection to the right of cardinal (about 10 to 20′).

SUMMARY

The boundaries of the tract in sec. 21 (N½NE¼) as determined by the claimants, are defined on the ground by a substantial rock wall along the east boundary, as well as a very old row of tamarisk trees; a substantial wire fence on steel posts, for the E. 20 chs., old wire fence for the W. 20 chs., and a row of very

old tamarisk trees along the south boundary, and an old fence and old row of tamarisk trees along the west boundary. Part of the north boundary lies between improvements such as rental cabins in section 21 and date palms in a grove in sec. 16. The locally returned courses and distances are very accurate. The tract in sec. 21 contains the main building of the Furnace Creek Ranch, Post Office, other buildings and too many rental cabins to count. Two rows of these cabins, a recreation building and part of the main building lie in sec. 22, according to our resurvey, as accepted October 25, 1962.

The south 8 chains of the east boundary of section 16, as surveyed by Gower in 1926, is now defined on the ground by a row of old tamarisk trees enclosing a date palm grove. The S½ of the E. bdy. of sec. 16, as resurveyed by Tout, is 180 to 264 lks. W. of the old line, thus placing about 3 rows of palm trees and the buildings and improvements of a very modern Richfield Service station on Government land in section 15.

The old post marking the corner of secs. 15, 16, 21, and 22, (set by Gower in 1926) which was found by me in 1934 and was the initial point for my retracements in the valley had been destroyed and replaced by a 2 x 2 inch hub at the time of the resurvey by Tout, in 1961. There is no doubt at all that the 2 x 2 hub is at the same point as was the older post. In 1934, the post and lines north and south from it were along the eastern edge of a row of tamarisk trees marking the east boundary of the improved lands. Even as now.

The improvements around Furnace Creek Inn would not be affected by a slight change in the boundaries of the tract (S½NE¼ and N½SE¼) in section 22.

The boundaries of the private land (NW¼NE¼) in sec. 23 are not marked, other than the N. bdy. of sec. 23 by the 1926 survey by Valjean.

The boundaries of the private land (SW¼SW¼) in sec. 24 are not marked, other than the W. bdy. of sec. 24 by the 1926 survey by Valjean.

It would be conservative to estimate that more than a million dollars have been invested in the improvements made in section 21 and 16 by Pacific Coast Borax and successors. And there is no reason to doubt their good faith in establishing the lines where they did, to the best of their ability in light of the absence of original corners.

RECOMMENDATION

I firmly believe, and recommend, that the resurvey of the subdivisional lines of T. 27 N., R. 1 E., SBM., as executed in 1961 and acepted on October 25, 1962. should be canceled.

The local corners marking the north boundary of sections 21, 22, and 23, the east boundary of section 23, and the S½ of the east boundary of section 16 should be given the same weight as original corners and remonumented as such.

This will necessitate recalculation of the positions of the remaining reestablished corners in the township and moving the posts to the new positions.

We have already accepted as original the cor. of secs. 23, 24, 25, and 26. This is the terminal corner of the survey made by Valjean, in 1926, which was initiated by him at the local cor. of secs. 15, 16, 21, and 22, which in turn was established at 80.00 chs. easterly from the post set in 1883 and accepted in 1904 as marking the cor. of secs. 16, 17, 20, and 21.

There can be no doubt as to the good faith of the original claimant (Pacific Coast Borax) in thus establishing the lines to the best of their ability. It made no difference, prior to their survey, where the surveyed lines fell on the surface of the earth in that vicinity, at that time. Particularly in secs. 16 and 21. The land was uniformly worthless and would remain so until the improvements were made, the soil was tilled, the trees were planted, and the water resources were developed.

It would have been practically impossible for Pacific Coast Borax surveyors to reestablish the exterior and subdivisional lines of this township, in accordance with the procedure we have followed. Control corners found by our surveyors, far to the east, and one mile north of their proper relationship to corners on the meridian would probably never have been found. Topographical calls of the original record would furnish no clues to the positions of original corners, since all of the subdivisional and most of the exterior surveys were fictitious.

We have already committed ourselves thru acceptance of the local cor. of secs. 23, 24, 25, and 26, plainly marked with an "F" as called for on the 1926 plat. The post equally plainly marked "D" at the cor. of secs. 13, 14, 23, and 24 is still in its original position, and the corners A, B, C, and E are either the original posts or remonumentations of same.

Our manual says that subdivision-of-section corners, established by qualified surveyors, have weight similar to original or accepted section corners. Which might be sufficient to permit acceptance of the subdivision of section corners now established in sections 21 and 22. Although a new subdivision of sections 21 and 22, based on the reestablished corners and the local corners would have no harmful effect on the land holdings in those sections.

The local cor. of secs. 9, 10, 15, and 16, was apparently established in the 1950's. It can be accepted or ignored and a new proportionate point monumented without materially affecting ownership in section 16.

ROGER F. WILSON.

Mr. WILSON. It was after January 1 that I prepared it, because I was saving it for a rainy day and it wasn't raining for 2 weeks, so finally I had to knock it off on the 3d of January.

Mr. Moss. OK.

Mr. INDRITZ. Mr. Wilson, I had asked you previously when the Furnace Creek quadrangle was first surveyed and you said it was surveyed in 1857 by Henry Washington, deputy surveyor; is that correct?

Mr. WILSON. Yes. Well, let me—that's the Furnace Creek Township.

Mr. INDRITZ. Furnace Creek Township.

Mr. WILSON. The quadrangle is put out by the U.S. Geological Survey.

Mr. INDRITZ. Was the Furnace Creek Township subsequently surveyed by any other surveyor acting under the authority of the U.S. Government?

Mr. WILSON. In 1960 and 1961 it was partially resurveyed.

Mr. INDRITZ. Was that an independent or a dependent resurvey?

Mr. WILSON. It was strictly dependent. I say "strictly." It was what we call a dependent resurvey. It was dependent on the accepted evidence of the original survey.

Mr. INDRITZ. And, therefore, was its purpose solely to ascertain the corners and lines as originally run in 1857?

Mr. WILSON. That was the intent.

Mr. INDRITZ. I now hand you a plat of survey marked T. 27 N., R. 1 E., of the San Bernardino, Calif., meridian, entitled "Dependent Resurvey and Subdivision," dated October 25, 1962, which states it was accepted on that date for the Director of the Bureau of Land Management.

Mr. WILSON. I have a copy in my files here. Not to exactly interrupt you, but in this report I covered a number of whatever we found. It might answer your question before you ask it.

Mr. INDRITZ. Well, is this the most recent accepted plat of survey?

Mr. WILSON. Yes.

Mr. INDRITZ. By the Bureau of Land Management?

Mr. WILSON. It's the only resurvey plat of this township.

Mr. INDRITZ. Mr. Spaulding, I will now show you copies of aerial photographs which were supplied to this committee by the Secretary of the Interior. These photographs cover portions of secs. 9, 13, 14, 15, 16, 21, 22, 23, 24, 25, 26, and 27 of T. 27 N., R. 1 E., San Bernardino, Calif., meridian, in Death Valley National Monument, and I will hand you the one dealing with section 21. The letter of the Secretary of the Interior to the chairman of this subcommittee, dated July 18, 1963, states, and I quote, "Each photo covers

slightly more than one entire section and the section corners and section lines, based on the resurvey, have been located on the photos."

Now, would you examine that photograph of section 21 in the upper right-hand corner in the vicinity of the Furnace Creek Ranch, and state whether that photograph, as furnished by the Secretary of the Interior, indicates that buildings appurtenant to the Furnace Creek Ranch appear to be to the east of the eastern north-south section line of section 21?

Mr. SPAULDING. I see a north-south line drawn on this aerial photograph, and there are buildings appearing to the east of the line.

Mr. INDRITZ. Did there come a time in November of 1962 when you personally examined the survey corner monument established at the northeast corner of section 21 in the vicinity of the buildings shown on that photograph?

Mr. SPAULDING. About the date you mentioned I was in Death Valley and I did find a Bureau of Land Management section corner at about the position that's marked with a circle on this aerial photograph.

Mr. INDRITZ. On the basis of your examination of the photograph, and your recollection of the location of the monument which you have said you have seen, are there any buildings of the Furnace Creek Ranch located east of the boundary line as set by the dependent resurvey of October 1962?

Mr. SPAULDING. I have just said that there are buildings east of the line that is shown on this drawing, and also at the time I visited the park I saw buildings east of a line that would have run north and south through a brass monument.

Mr. INDRITZ. Mr. Wilson, is the land that is east of the eastern north-south section line Government-owned land or non-Government-owned land?

Mr. WILSON. Based on this resurvey, they're on Government land.

Mr. INDRITZ. Insofar as shown in the records of the Department of the Interior, are the lands east of the lines shown on the dependent resurvey Government-owned lands or non-Government-owned lands?

Mr. WILSON. Well, it is Government land.

Mr. INDRITZ. Mr. Chairman, on December 12, 1962, you addressed a letter to the Secretary of the Interior, calling his attention to the fact that the October 25, 1962, resurvey shows that some of the buildings and other structures erected by the Death Valley Hotel Co. or its predecessors are on Government land rather than company land, and you asked the Interior Department to examine into the situation.

As a result of your letter, those photographs were sent to us and the letter from the Acting Secretary of the Interior, of July 18, 1963, stated, and I will quote, "Based on the resurvey, these buildings and other appurtenances are located on Federal land." Then the Secretary's letter further stated, "This Department is now considering what further action is required to resolve this problem. We shall advise you of all future developments."

Mr. Wilson, has the Department of the Interior made a determination as to whether the dependent resurvey of October 1962 is accurate and should be maintained, or has it vacated that resurvey?

Mr. WILSON. They awaited my report which you have a copy of.

Mr. INDRITZ. Has the Department taken any official action on your report?

Mr. WILSON. What they will do about my recommendations, I do not know.

Mr. INDRITZ. Has the Department acted on your report as yet?

Mr. WILSON. No, not to my knowledge.

Mr. INDRITZ. As a matter of fact, then, it is still pending before the Department?

Mr. WILSON. Yes.

Mr. INDRITZ. Mr. Chairman, I have no further questions.

Mr. MOSS. Mr. McClory?

Mr. MCCLORY. Well, Mr. Chairman, I'd like to comment again, as I have in the past, that here's an area of investigation about which I, as a member of this subcommittee, have not been previously advised. There are two witnesses appearing here today, Mr. Wilson and Mr. Capell, whose presence here I wasn't aware of until they appeared as witnesses, and I specifically requested a list of names of witnesses, so I'd be aware of what the inquiry was going to be, and in addition to that, counsel has produced some aerial photographs about which I have had no prior notice, and he has interrogated witnesses about a couple of letters or an exchange of letters that I was unaware of, and I object strenuously to this inquiry, about which I had not been advised and which is beyond my prior knowledge. I do have some questions I'd like to ask of the witnesses, primarily, I guess, Mr. Wilson.

Mr. Wilson, what is the date of the so-called resurvey or dependent resurvey, if you know?

Mr. WILSON. The dependent resurvey, it was most—it was entirely in 1961. It says April 11, 1960, to April 7, 1961, but in 1960 Mr. Tout, the cadastral surveyor who was assigned to do the work, got down there on the 11th of April and he couldn't see through his transit, it was so hot, so he just stayed about 3 days and then came back and did the work the following year.

Mr. MCCLORY. Was the Department of the Interior, as far as you know, aware of any inaccuracies in the earliest survey, prior to the time that you made the resurvey?

Mr. WILSON. Oh, yes. Perhaps I shouldn't say so. We were aware that the survey was fictitious in its entirety inside the township. You see, I was down there in 1934.

Mr. MCCLORY. That has always been known since 1934 that it was fictitious?

Mr. WILSON. Well, it was known since 1883. Mr. McGillivray stated—he was a U.S. mineral surveyor. In 1883 he made the statement that he searched all the lines and could find no evidence of the original survey.

Mr. MCCLORY. Did, however, the Department of the Interior, as well as the hotel company, rely upon the fictitious survey until the time you made the resurvey in 1961?

Mr. WILSON. Unfortunately they have to rely on the original survey.

Mr. MCCLORY. Buildings were constructed and roads were laid out and other work was done in reliance on a fictitious survey?

Mr. WILSON. No. What the monument people did, or the Pacific Coast Borax Co., they couldn't find any corners, so they provided their own corners, starting as far back as 1904, to find out where their property lines were, and in 1904 Clarence Razor, who was a deputy surveyor, found the corner of sections 18 and 19 on the meridian, that is.

the west boundary of the township, and ran east from there and at 2 miles he found McGillivray's corner, which is marked "C.D. 58," which was practically where the southwest corner of section 16 would have been if Washington had set it, and so he accepted that as the southwest corner of section 16, and ran a mile farther east to establish the southeast corner of section 16, and following that, the Furnace Creek or Pacific Coast Borax Co. constructed their property lines around the Furnace Creek Ranch.

Mr. McCLORY. And they were wrong?

Mr. WILSON. Well——

Mr. McCLORY. According to your resurvey, they were wrong?

Mr. WILSON. According to our resurvey, they were wrong.

Mr. McCLORY. According to their incorrect survey lines, did they construct any building on any Federal property?

Mr. WILSON. According to theirs?

Mr. McCLORY. Yes.

Mr. WILSON. No.

Mr. McCLORY. So then your statement that the buildings are now located on Federal property is based upon the resurvey which was completed in 1961?

Mr. WILSON. Yes.

Mr. McCLORY. Prior to that time, you could not have made such a statement; is that right?

Mr. WILSON. How do you mean?

Mr. McCLORY. You couldn't have said that they were on the Federal land prior to 1961, when the resurvey was made, could you?

Mr. WILSON. No.

Mr. McCLORY. And they couldn't have known themselves until the resurvey was completed?

Mr. WILSON. No. As I say, it does seem to me, in view of the information I have received in the last month or two, that they were acting in perfectly good faith. They started from a government corner and they searched, they made as thorough a search as they could unsuccessfully for corners to control their property, and found nothing, so they felt justified in establishing the lines as they did.

Mr. McCLORY. Do you know when the buildings were built which are located on the map there, on the aerial photograph, which appear east of the section line on figure 21?

Mr. WILSON. Those are recent buildings. I don't know just when they were; that is, they are more recent than most of the buildings. However, the new resurvey section line runs through the recreation building, the cafeteria, the main building, and I know it was in there in 1927 or 19—well, I was there in 1934 myself. I think I was there in 1927.

Mr. McCLORY. At least it was there in 1934?

Mr. WILSON. I know it was there then, and I am reasonably sure it was there in 1927.

Mr. McCLORY. Has there been any construction that you know of since the resurvey was completed?

Mr. WILSON. Not that I know of. The buildings were there when the resurvey was executed because Tout referenced the—the iron post corner monument he referenced to a corner of the house, which is one of the newer buildings.

Mr. McCLORY. Do you know whether the National Park Service headquarters building and museum was built in reliance on the old survey?

Mr. WILSON. Yes.

Mr. McCLORY. And, Mr. Spaulding, what about the roads that are in Death Valley in this area—are they developed in reliance on any surveys?

Mr. SPAULDING. They didn't, that I know of, tie their surveys into section corners.

Mr. WILSON. I think I might answer that a little bit. Back in 1933, the three C's had a camp down there and they had some engineers who were running a lot of lines and setting a number of iron pipes with their own marks and only they knew what they meant, and I think that they attempted to tie the roads to the lines, which would be extensions of the lines as surveyed by the Pacific Coast Borax engineers.

Mr. McCLORY. Are there any Federal buildings or any Federal structures on Borax Co. property?

Mr. WILSON. Only what was deeded to them in section 16, the present museum. Let's see. That is a State building, though.

Mr. McCLORY. Well, under the——

Mr. WILSON. There is a post office in Death Valley, the Furnace Creek branch. I am not sure it's Government property.

Mr. McCLORY. Who took the photographs that we have here; do you know?

Mr. SPAULDING. I don't know.

Mr. WILSON. I don't know.

Mr. INDRITZ. They were prepared by the Aerial Photo Service, according to the letter forwarding them. They were supplied to us by the Department of Interior.

Mr. McCLORY. They were prepared at the request of the Department of the Interior; is that right?

Mr. INDRITZ. Yes; they were prepared at the request of the Park Service.

Mr. McCLORY. That's all I have.

Mr. Moss. Well, the Chair would say, in response to a statement by his colleague, that he has endeavored in good conscience to supply a maximum of information to the gentleman and to his counsel; but after 12 years of serving in this Congress, 9 of those as chairman of subcommittees and serving on many other subcommittees, I know of no chairman who would guarantee that each and every document and each and every witness will be clearly a matter of prior notice. This is not intended in any manner to slight the member or to deny him any of his prerogatives as a Member of the House of Representatives or of the subcommittee. It is just not possible, in the mass of material you have, to touch upon each and every item.

Mr. McCLORY. Mr. Chairman——

Mr. Moss. And I, of course, apologize whenever it is brought to my attention that everything desired is not available. This is rather a unique subcommittee. I characterized it as ad hoc. It has been a subcommittee that works with a borrowed staff. Each of the gentlemen here is assigned to another subcommittee and they have been available to me to undertake what, in many respects, is a most onerous

assignment. They have been, in my judgment, very efficient and greatly overworked, and I would not undertake to assign to them any of my responsibility as chairman. The purpose of having these witnesses appear here is merely to get in the record the most recent survey and the maps.

The subcommittee, or its staff, in advising the chairman, had no intention, that I know of, of raising in the slightest the question of good faith of the Death Valley Hotel Co. in proceeding under the surveys it used and upon which it relied. The Chair recognizes that happenings of this sort are quite common in the more remote areas of the West, and sometimes in the very populous areas of the West. All of our surveys are not accurate.

There's basis here, certainly, for urging that the Department make a final determination, and I would imagine, if it's required, that appropriate legislation be enacted so that no one is denied his rights or penalized after having proceeded under good faith, as, in my judgment, is obvious in this case. But it was desired to have your testimony while we were here in Sacramento, and you were available, regarding the nature of your survey. I think that requirement has been satisfied in this brief appearance. I asked these witnesses to testify a day before they were scheduled because I wanted to have those who would respond in the briefest period of time, in order that we could wind up these hearings in time for dinner this evening.

Unless you have additional questions, Mr. McClory——

Mr. McCLORY. Well, I don't want the chairman to feel that I feel slighted. It is not that. It is that a new area of inquiry is involved in the inquiry being made of these witnesses, and while I have heard in our earlier conversations some suggestion of trespass, and I think there has been some comment made here in the course of the hearings, I didn't feel that the scope of our inquiry was going to include trespass of a type which would be involved in a recent survey and the recent discovery of preexisting buildings on Government land. That is why I expressed myself. I certainly don't think we want to appear, as a subcommittee, that we're, well, just going into that area. That is all. I just didn't think we were, and I agree with the chairman that it is important that we have this survey, that we have an accurate survey of the property in Death Valley where the respective property lines are, and in some way resolve the problems which may arise from an accurate survey and the added problem of buildings or improvements located on property belonging to someone else; but I was taken by surprise in connection with that inquiry, and I just wanted to express myself on it.

Mr. Moss. Well, the Chair apologizes to the gentleman and wants him to know——

Mr. McCLORY. I am not hurt.

Mr. Moss (continuing)—that under similar circumstances I would probably protest much more vigorously.

Mr. WILSON. Well, I was sitting in the hot seat back there when you were talking about property lines and finding out who the heck knows where the property lines are. To go back to that report, we have a sketch showing the relationship of the resurvey lines and the lines as surveyed by the Death Valley Hotel surveyors.

Mr. INDRITZ. Do you have some of those that you could supply the subcommittee?

Mr. WILSON. I have a few, if you want them.

Mr. INDRITZ. Thank you.

(The sketches referred to are in the subcommittee files.)

Mr. Moss. Gentlemen, I want to thank you for your appearance, and, Mr. Wilson and Mr. Capell, you are both excused.

Mr. Spaulding, we will require you tomorrow.

Mr. SPAULDING. Yes, sir.

Mr. Moss. The subcommittee will now adjourn until 9:30 tomorrow morning.

(Whereupon, the Special Subcommittee on Death Valley National Monument was recessed at 5:40 p.m.)

DEATH VALLEY NATIONAL MONUMENT

(Furnace Creek Area—Water Rights and Related Matters)

WEDNESDAY, JANUARY 29, 1964

HOUSE OF REPRESENTATIVES,
SPECIAL SUBCOMMITTEE ON
DEATH VALLEY NATIONAL MONUMENT
OF THE COMMITTEE ON GOVERNMENT OPERATIONS,
Sacramento, Calif.

The special subcommittee met, pursuant to call, at 9:30 a.m. in room 4204, State capitol, Sacramento, Calif., Hon. John E. Moss (chairman of the special subcommittee) presiding.

Present: Representatives John E. Moss and Robert McClory.

Also present: Phineas Indritz, chief counsel; Sidney McClellan, assistant counsel; Miles Q. Romney, associate general counsel, Committee on Government Operations; and J. P. Carlson, minority counsel, Committee on Government Operations.

Mr. Moss. The subcommittee will be in order.

I wonder if Mr. W. A. Ackerman would step forward.

Mr. Ackerman, we understand that the subcommittee counsel discussed with you the desire of the subcommittee to obtain certain very brief answers from you, and that you have indicated your willingness to do so.

Mr. ACKERMAN. Yes, sir.

Mr. Moss. Will you be sworn?

Mr. ACKERMAN. Yes, sir.

(Wesley A. Ackerman, called as a witness before the Special Subcommittee on Death Valley National Monument, was duly sworn.)

Mr. Moss. Will you identify yourself for the record?

TESTIMONY OF WESLEY A. ACKERMAN, SECRETARY, DEATH VALLEY HOTEL CO., AND SECRETARY, UNITED STATES BORAX & CHEMICAL CORP.

Mr. ACKERMAN. I am Wesley A. Ackerman, secretary of the Death Valley Hotel Co. and also secretary of the United States Borax & Chemical Corp.

Mr. Moss. Mr. Ackerman, will you be seated?

Mr. Indritz?

Mr. INDRITZ. Mr. Ackerman, calling your attention to a time in November of 1962, did you, in your capacity as secretary of the Death Valley Hotel Co., provide access by staff members of this subcommittee to certain documents of the hotel company relating to the use of water in the Furnace Creek area?

Mr. ACKERMAN. Yes, that's correct.

Mr. INDRITZ. Did you at that time state that the records so made available, and copies which were provided, constituted all of the records of the Death Valley Hotel Co. or related companies that you are aware of relating to the use of water in the Death Valley area?

Mr. ACKERMAN. That is correct as to the factual picture. With the exception of exclusively legal correspondence, all of the information or records which would constitute a basic source of factual information on water diversion or use or production were included.

Mr. INDRITZ. And were those the records and the information summarized in a document entitled, "Water Developments of Death Valley Hotel Co., Ltd., and Its Predecessors in Interest at Furnace Creek Area, Death Valley, Calif.," by W. A. Ackerman, Death Valley Hotel Co., Ltd., dated February 13, 1963?

Mr. ACKERMAN. Yes, that is correct. I tried to compile a summarization which would show the historical record of the water.

Mr. INDRITZ. In the documents which you had requested be inserted in the record earlier?

Mr. ACKERMAN. That's correct.

Mr. INDRITZ. Mr. Ackerman, have there, since that time and up to this date, come to your attention any other papers, documents, or information relating to the history of the diversion, the development, and the use of water in the Furnace Creek area?

Mr. ACKERMAN. There is only one additional bit of information, which would not appear offhand to be significant but which, no doubt, should be introduced in the record. Included in the material which we provided to the subcommittee was a notice of millsite location covering a Perkins Spring. We have in the past few weeks found some additional millsite recordings in the recorder's book of the local Death Valley mining district in which mining claims were recorded before they were recorded with the county recorder. These would appear to be no different than the Perkins notice, and I would presume, since neither counsel made a recognition of the Perkins notice, that these others would not be significant either, but, nevertheless, we like to have them in the record.

Mr. INDRITZ. If you will provide a copy of that to the subcommittee we will appreciate it.

Mr. ACKERMAN. Yes.

Mr. MOSS. We will hold the record so that it will be included.

(Information concerning additional millsites furnished by the Death Valley Hotel Co. appears in appendix 1, p. 620.)

Mr. INDRITZ. If you do come across any additional information, data, or papers relating to the use of water in Death Valley National Monument affecting the Furnace Creek area, would you send them to the subcommittee?

Mr. ACKERMAN. Yes, we'd be willing to provide any information we have or come across that comes to our attention.

Mr. INDRITZ. That's all. Thank you very much, Mr. Ackerman.

Mr. MCCLORY. Mr. Ackerman, how long have you been connected with the borax company and the hotel company?

Mr. ACKERMAN. I was first employed by the predecessor, borax organization, 16, almost 17 years ago. I have been secretary of the United States Borax & Chemical Co. for 6 years. I have been secretary of the hotel company about a year and a half.

Mr. McCLORY. So that your connection with this organization of the borax company and the hotel company dates back to about 1948, 1947?

Mr. ACKERMAN. 1947, I believe; yes, sir.

Mr. McCLORY. Now, have you had occasion to review the opinion furnished to the subcommittee by Mr. Martin McDonough?

Mr. ACKERMAN. Very briefly, yes.

Mr. McCLORY. Are there any documents, records, or facts referred to in that opinion which you feel should not have been included or are there any documents, records, or facts which you feel are pertinent to this hearing which have been omitted?

Mr. ACKERMAN. None are immediately apparent to me. Possibly additional background information could have been developed on the extent of planning for future development of the ranch, but I think nothing greatly significant came to my attention in the brief review I had.

Mr. McCLORY. Now, while the questions have been rather brief and few and your replies have been also brief, you have no reluctance to answer any or all questions which the subcommittee might have?

Mr. ACKERMAN. No, sir; none.

Mr. McCLORY. Your counsel is Ray Coleman; is that correct?

Mr. ACKERMAN. That is correct.

Mr. McCLORY. So that when you qualified your answer with regard to material furnished to this subcommittee, the omission to which you are making reference would consist of the exchange of correspondence, and things of that nature, of a confidential nature between the attorney and client?

Mr. ACKERMAN. Yes; there have been, of course, many attorneys over the long history of this thing.

Mr. McCLORY. Other attorneys?

Mr. ACKERMAN. Yes.

Mr. McCLORY. But it is your answer that there is no material in those files or in that exchange of correspondence which is material to the consideration of this subcommittee?

Mr. ACKERMAN. That is correct. I believe that the records that we have presented fairly present all the factual information to the best of my knowledge and that there would be nothing additional that would come factually from such sources.

Mr. McCLORY. Now, this reference you have made to a millsite relates to a property which is involved in the general Furnace Creek-Cow Creek area?

Mr. ACKERMAN. These millsite locations do not seem to be very well understood by anybody. Apparently Perkins Spring is in the Furnace Creek Wash. It was located in 1886. It was apparently filed as the intention of someone at that time to create a millsite on the location, and whether it would have any significance now I just am not able to find anyone with an opinion. I would suspect it has no significance.

Mr. McCLORY. It is located in the general area?

Mr. ACKERMAN. Yes; it is, in the Furnace Creek area.

Mr. McCLORY. And that information, together with all information which may come to your attention, you will inform the subcommittee about and if necessary will furnish copies to the subcommittee?

Mr. ACKERMAN. Yes; they have the Perkins notice. It's just that there are some additional ones of a similar nature that have been uncovered.

Mr. MCCLORY. As you appear here now as a witness, is there something additional that you would like to volunteer that you think is information for the subcommittee to have as a part of the record?

Mr. ACKERMAN. Well, I might say that I think the factual picture would appear to be fairly clear. To me it seems consistent within itself and I have no information, knowledge, or reason to believe that there would be any other information that would be contrary to what we have established as the factual picture on water history. The comments that we have on this document were compiled by me, but I believe they represent the comments of the company. Everyone concerned in the company feels that this is the appropriate comment and explanation of the factual material to be provided on behalf of the company.

Mr. MCCLORY. Thank you very much.

Mr. MOSS. Mr. Ackerman, before excusing you, I'd just like to express my appreciation to you for the excellent cooperation given the subcommittee and its staff. You are excused.

Mr. ACKERMAN. Thank you, sir.

Mr. MOSS. Mr. Lawrence C. Merriam.

Will you be sworn, Mr. Merriam?

(Lawrence C. Merriam, called as a witness before the Special Subcommittee on Death Valley National Monument, was duly sworn.)

TESTIMONY OF LAWRENCE C. MERRIAM, FORMER REGIONAL DIRECTOR, NATIONAL PARK SERVICE

Mr. MERRIAM. My name is Lawrence C. Merriam of Berkeley, Calif.

Mr. MOSS. And you are the former regional director, region 4, of the National Park Service?

Mr. MERRIAM. That's correct; I was.

Mr. MOSS. You have been retired for how long?

Mr. MERRIAM. Since early last July.

Mr. MOSS. Mr. Romney?

Mr. ROMNEY. Mr. Merriam, how long did you serve as regional director, region 4?

Mr. MERRIAM. From November 1950 until July of this past year.

Mr. ROMNEY. Were you present at the hearing yesterday when testimony was given with respect to the proposal to change the residence and utility site at Death Valley National Monument from the Cow Creek area to the Furnace Creek area?

Mr. MERRIAM. I was; yes.

Mr. ROMNEY. During the time the proposal was formulated and was being acted upon until the time when the proposal was reversed by the Director, what was your position with respect to the proposal?

Mr. MERRIAM. Well, up until, oh, I would say the early part—I am trying to remember the years on this—the early part of 1956, most of the number of the key people in the regional office and I were very strongly in favor of the Cow Creek site.

Mr. ROMNEY. And then did you change your position with respect to that site?

Mr. MERRIAM. I was looking at the letters yesterday. After the various studies had been made, we forwarded a memorandum, which you had here yesterday, studying Mr. Binnewies' memorandum in which—I don't have it before me so I can't give the exact words.

Mr. MOSS. If there is anything that you require to refresh your recollection, ask for it and it will be given to you.

Mr. MERRIAM. Well, there is a letter that I signed plus Mr. Binnewies' memorandum.

Mr. MOSS. All right. Will the staff locate those documents and supply Mr. Merriam with them?

Mr. MERRIAM. This question of residential area and utility area, combination headquarters, as has been pointed out I believe in the testimony, was one that was under study for a long time. The possibility of moving it somewhere at a higher elevation was looked into and tests were made as to whether people could stand the summer in Cow Creek, particularly determining whether air conditioning would make it possible, and as a result of that, up until the—well, I'd say the early spring of 1956—the Cow Creek site was the site which we, everybody was agreed on. This memorandum here I noticed yesterday when looking through it, I assume that I have the correct one——

Mr. ROMNEY. Would you identify the memorandum by date or by the "D" marking?

Mr. MERRIAM. This one that I have here is D–18 and it's from the regional director to the Director of the National Park Service. I just can't find the thing that I saw here yesterday, but it was to the effect that this recommendation was the consensus of the people in the regional office, and I remember at the time this was written that some of us even at that time had our doubts but we agreed that this was a reasonable proposal. But also this letter makes a suggestion that if the Washington office had any question whatsoever that they send a person or persons out to look the area over, which I think also brings in the idea that we wanted to be absolutely sure that that was the site. The Furnace Creek site I am referring to.

Mr. ROMNEY. But it was your position, however. You were part of the consensus?

Mr. MERRIAM. Yes; we agreed that that was a reasonable proposal but I wanted to bring in the fact that ours—some of us wondered still whether that was actually the best one.

Mr. ROMNEY. But until the Director of the National Park Service changed the plan in March of 1957, you had not changed your position?

Mr. MERRIAM. No; we had sent the plans in for the Furnace Creek area.

Mr. ROMNEY. In March of 1957, the 18th and 19th of the month, an inspection trip of the Death Valley National Monument was made by the Director of the National Park Service for the purpose of studying some of the problems with which we have dealt. Were you present on that inspection trip?

Mr. MERRIAM. I was on the trip; yes.

Mr. ROMNEY. Did you accompany the inspection party at all times?

Mr. MERRIAM. Yes: as far as I know I was with them at all times.

Mr. ROMNEY. Could you give us the names of the persons who you remember being in that party?

Mr. MERRIAM. There was the Director, Mr. Hill, myself, Mr. Binnewies, Mr. Spaulding, and Mr. Knowles. I am sure I haven't missed any of them.

Mr. ROMNEY. During this inspection trip, did you have any contact with any representatives of the Death Valley Hotel Co. or the borax company?

Mr. MERRIAM. I think it has been pointed out that the Director met with Mr. Stern of the Death Valley Hotel Co. very briefly.

Mr. ROMNEY. Did you have any such contact?

Mr. MERRIAM. I had none separately. I was with Mr. Wirth at the time we met with him.

Mr. ROMNEY. Do you know of other contacts between a member of the inspection party and representatives of the hotel company or borax company at the time of this inspection?

Mr. MERRIAM. I don't remember any at all.

Mr. ROMNEY. While at the Death Valley National Monument during this inspection, did you stay at the Death Valley Inn?

Mr. MERRIAM. I stayed at the Furnace Creek Inn, yes.

Mr. ROMNEY. I mean the Furnace Creek Inn. I am sorry.

Did you during your stay there receive accommodations either at a discount or on a complimentary basis?

Mr. MERRIAM. That particular time they complimented them.

Mr. ROMNEY. During the year of 1957, did you stay at the Death Valley and the Furnace Creek Inn or Furnace Creek Ranch in addition to the visit you have just mentioned?

Mr. MERRIAM. I was there one time; yes.

Mr. ROMNEY. When was that, Mr. Merriam?

Mr. MERRIAM. I believe it was in January if I am not mistaken.

Mr. ROMNEY. Would that have been January 20 to January 22, 1957?

Mr. MERRIAM. I imagine that's true; yes.

Mr. ROMNEY. While there did you enjoy rates for the accommodations either on a discount basis or on a complimentary basis?

Mr. MERRIAM. That was complimentary.

Mr. MCCLORY. You paid for your meals, didn't you, Mr. Merriam? Why don't you show him the record because we want the testimony to be concise? As I see the record, he paid for his meals at a discount at 20 percent and—oh, extra meals.

Mr. MERRIAM. I know there was something paid for. I remember that. I don't have that.

Mr. MCCLORY. Whatever the records show is correct?

Mr. MERRIAM. I assume it is; that's right.

Mr. MCCLORY. Why don't you put the record in, Mr. Chairman?

(Record handed to the witness.)

Mr. ROMNEY. Mr. Chairman, I have here a document marked "D–59.2," which I have just handed to Mr. Merriam.

Mr. MOSS. Is there objection to including it in the record?

Mr. MCCLORY. Well, don't you want to ask Mr. Merriam if it is correct, and if he says it is correct then there is no objection. If there is some question about it, why then, I would only object to the part as to which there was a question.

Mr. MOSS. Have you had an opportunity to study it, Mr. Merriam?

Mr. MERRIAM. I am doing that now, Mr. Chairman.

Mr. McCLORY. Mr. Romney, this is a record which has been prepared by the General Accounting Office, isn't it?

Mr. ROMNEY. Yes; it is.

Mr. McCLORY. After investigation of the records of the Furnace Creek Inn?

Mr. ROMNEY. That's correct, sir.

Mr. McCLORY. And they are reported to be accurate so I think unless the witness disputes it, why, the record should be the evidence as to what complimentary accommodations and meals were afforded to Mr. Merriam, and, as I understand, Mrs. Merriam was included——

Mr. MERRIAM. In one of these.

Mr. McCLORY (continuing). In one of these visits.

Mr. MERRIAM. At the proper time, Mr. Chairman, I would like to make a comment on this. I do not believe this is it.

Mr. Moss. The question now goes to the——

Mr. McCLORY. Is that accurate as far as you know?

Mr. MERRIAM. As far as I know, Mr. Chairman, yes.

Mr. McCLORY. I have no objection.

Mr. Moss. You have no challenge of the accuracy of the record?

Mr. MERRIAM. No; I think it probably is right.

Mr. Moss. Then the material will be included at this point in the record.

(The document referred to, D–59.2, follows:)

D–59.2

COMMITTEE ON GOVERNMENT OPERATIONS, HOUSE OF REPRESENTATIVES

The attached information, provided to the chairman of the House Government Opertaions Committee through the assistance of the General Accounting Office, covers special rates paid by Mr. Lawrence C. Merriam and Mr. Sanford Hill of the National Park Service for accommodations at Furnace Creek Inn, Death Valley National Monument, during 1957:

NOTE 1. The information source is the registration cards and statement folios of the Furnace Creek Inn.

NOTE 2. The "season" period for the inn is November 1 to Easter week of each year.

NOTE 3. In all cases, the type of service was American plan (room and three meals).

Mr. Lawrence C. Merriam and Mr. Sanford Hill, National Park Service, San Francisco, Calif.

Statement folio No.	Register date	Room No.	Number of persons	Number of nights	Dates of stay	Extra meals	Special daily rates	Charges actually paid	Standard daily rates	Standard total amount
22879	Mar. 18, 1957	227	2	1	Mar. 18, 1957	----------	Complimentary---	None	$40.00	$40.00

Mr. and Mrs. L. C. Merriam, National Park Service, San Francisco, Calif.

Statement folio No.	Register date	Room No.	Number of persons	Number of nights	Dates of stay	Extra meals	Special daily rates	Charges actually paid	Standard daily rates	Standard total amount
22725	Jan. 20, 1957	116	2	3	Jan. 20–22, 1957	$14.04 [1] 2.81 11.23	Complimentary---	$11.23	$36.00	$108.00

[1] 20 percent discount.

Mr. ROMNEY. Mr. Merriam, what was the purpose of your visit to Death Valley from January 20 to January 22, 1957?

Mr. MERRIAM. It was a regular inspection trip.

Mr. ROMNEY. Now, on the days in question, did you submit a claim for per diem for your expenses?

Mr. MERRIAM. You are talking about the January visit?

Mr. ROMNEY. Yes, sir.

Mr. MERRIAM. I think you have a copy of my voucher which shows that I reduced my per diem accordingly.

Mr. ROMNEY. You are referring to the January trip?

Mr. MERRIAM. That's right, yes, correct.

Mr. ROMNEY. Now, as to the reductions which you made on your per diem rate, what was the basis for these reductions?

Mr. MERRIAM. Well, it was the standard basis that was used for years in the Park Service where the Government furnishes the accommodations or in a case where a concessionaire furnishes accommodations without charge or one-fifth for each meal and one-fifth for the overnight accommodations.

Mr. ROMNEY. Mr. Chairman, I'd like to ask that the document be included in the record marked as D–59.3?

Mr. MOSS. Is there objection?

Mr. MCCLORY. No objection. Do you have an extra copy of this?

Mr. MOSS. Yes.

Mr. ROMNEY. Yes, sir.

Mr. MOSS. That's the extra copy. D–59.3. Without objection it is included as part of the record.

(The document referred to, D–59.3, travel voucher of Lawrence C. Merriam, February 4, 1957, is in the subcommittee files.)

Mr. ROMNEY. Now, did you submit a claim for per diem for the visit that you made to the monument on March 18 and 19 of 1957?

Mr. MERRIAM. I did and I found out after I had sent it in that there had been an omission, that I didn't make the deductions which I intended to make and which my notes called for making.

Mr. ROMNEY. Mr. Chairman, I have a copy of this travel voucher form and——

Mr. MOSS. That would be—D–59.4?

Mr. ROMNEY. Yes, sir.

Mr. MOSS. Is there objection to including item D–59.4? The record will receive the original photostats which are in the Washington office, I believe.

Mr. ROMNEY. Yes, sir.

Mr. MOSS. Which we will obtain from the Washington office of the General Accounting Office so that there will be no possibility of any omission on it.

Let the record show that all of the material now being discussed, the photostatic copies were supplied to the committee by the General Accounting Office in Washington.

(The document referred to, D–59.4, travel voucher of Lawrence C. Merriam, March 18 and 19, 1957, is in the subcommittee files.)

Mr. ROMNEY. Mr. Merriam, I have here a memorandum dated May 24, 1956.

Mr. Moss. Mr. McClellan, will you hand this to Mr. Merriam, please?

[Document handed to Mr. Merriam by Mr. McClellan.]

Mr. ROMNEY. Let this memorandum be marked as D–59.5.

Mr. Moss. Is there objection to putting in the record?

Mr. MCCLORY. No objection.

Mr. Moss. It will be so marked.

Mr. ROMNEY. Mr. Merriam, will you read the memorandum for us, please.

Mr. MERRIAM. Do you want me to read this whole memorandum?

Mr. ROMNEY. Yes, sir.

Mr. MERRIAM. On May 10, Administrative Assistant Secretary Beasley——

Mr. Moss. I think the subcommittee's staff counsel can read the memorandum.

Mr. ROMNEY (reading):

D–59.5

U.S. DEPARTMENT OF THE INTERIOR,
NATIONAL PARK SERVICE,
Washington, D.C., May 24, 1956.

MEMORANDUM

To: Washington office and all field offices.
From: Assistant Director.
Subject: Department policy as to gift acceptance and bestowal.

On May 10 Administrative Assistant Secretary Beasley issued a memorandum concerning the above subject which we quote in full below:

"Employees should be consistently aware of the Department's policy in regard to gifts. The subject is covered in general form in chapter ID–C2 of the Department Supplement to the Federal Personnel Manual. It is also treated in varying language and with varying degrees of emphasis in bureau handbooks and manuals. The Department policy is concisely restated as follows:

"'It is considered unethical to accept from or bestow upon any person or organization involved in an official relationship anything of economic value such as a gift, loan, or gratuitous service. Failure to obey this rule will make the employee liable to disciplinary action in such degree as the facts may warrant.'

"You are requested to implement this rule within your bureau in such manner as to assure maximum understanding and compliance by your employees."

Please be guided by the foregoing.

HILLORY A. TOLSON, *Assistant Director.*

Mr. ROMNEY. Did your office receive a copy of this memorandum?

Mr. MERRIAM. I assume we did. I don't remember.

Mr. ROMNEY. You say you do not remember having received it?

Mr. MERRIAM. No, I wouldn't remember.

Mr. ROMNEY. Were you, at the time you received free accommodations or reduced rate accommodations at the Furnace Creek Inn, aware of the directive which you hold in your hand?

Mr. MERRIAM. Well, Mr. Chairman, could I go into this thing, the background?

Mr. Moss. Certainly you may.

Mr. MERRIAM. I'd like to do it. Leading up to this point, in the national park system there are a good many concessionaires and the concessionaires in the national parks have a contractual responsibility to provide accommodations—originally the accommodations were provided on a complimentary basis to all National Park Service

employees. Then later it was changed to reduced rates except to a few of the top people. Then in recent years, I think maybe the last 3, 4, 5 years, something of that sort, it has been, the complimentary accommodations I think have been cut out entirely.

The public accommodations at Death Valley are operated by a firm which is a concessionaire at Grand Canyon and the Petrified Forest. They are not a concessionaire at Death Valley of the National Park Service, they're the lessee from the Borax company as I understand, or, at least, have the facility under lease. The concessionaires provide accommodations, as I say, at reduced rates, and at times used to provide them on a complimentary basis. The Harvey Co. has extended to considerable extent the same privileges to Park Service people coming to Death Valley.

Now, with reference to this matter of complimentary accommodations, I neither sought, desired, or appreciated complimentary accommodations. In every instance when I went down there I got ahold of the superintendent ahead of time and I told him I didn't want to be complimented and to make arrangements with the concessionaire accordingly, which, I am sure, he did, but when it came time to leave, why, there was no bill. It took considerable time, up to this time, in fact, to get them to the point where they realized what I wanted and what was intended, and the only thing I could do when they wouldn't present me with a bill was to proceed on the basis of making a deduction for the portion of the per diem for which I was given accommodations.

Mr. ROMNEY. The reduction of the per diem, of course, was a much smaller figure——

Mr. MERRIAM. That is true.

Mr. ROMNEY (continuing)—than the value of the accommodations received?

Mr. MERRIAM. That's right.

Mr. MCCLORY. You don't necessarily mean the value of the accommodations received but the amount of the charge was——

Mr. MERRIAM. Yes.

Mr. MCCLORY (continuing)—waived?

Mr. MERRIAM. I am not sure, Mr. Congressman.

Mr. MCCLORY. You took a reduction in your per diem because of the accommodation that was given?

Mr. MERRIAM. That is true.

Mr. MCCLORY. The value of a bed overnight can be of varying degrees of value. It can be 50 cents or nothing or $125, so that the amount of your reduction was the amount equivalent to the overnight accommodations, not necessarily the amount of the charge which the hotel company——

Mr. MERRIAM. Percentage of the per diem.

Mr. MCCLOY (continuing)—would present to a paying guest. That amounted to how much?

Mr. MERRIAM. Well, depended on what the per diem was.

Mr. MCCLORY. $3, something like that?

Mr. MERRIAM. It was a fifth of the per diem for each element and I suppose the per diem at that time was either $12 or $14. I don't remember.

Mr. McCLORY. That was the amount by which you reduced the per diem——

Mr. MERRIAM. Reduced the per diem.

Mr. McCLORY. Which you attributed to the sleeping accommodations?

Mr. MERRIAM. Or the eating accommodations, either one.

Mr. McCLORY. I see.

Mr. MERRIAM. In other words, if I stayed overnight and had three meals I'd deduct four-fifths, the other fifth being available for tips and things of that sort.

Mr. ROMNEY. Do you not feel there is an inconsistency between the acceptance of the free accommodations and the Department directive which had been sent to your office and all other offices of the Service for guidance?

Mr. MERRIAM. Well, technically there may be, but I certainly wasn't trying to avoid any responsibility to carry out the directive.

Mr. Moss. Mr. Hill, would you please come forward and join Mr. Merriam at the witness table?

Mr. Hill, you have been previously sworn and it won't be necessary to swear you again.

Mr. ROMNEY. Mr. Hill, you were in Death Valley on the dates of the inspection which we have referred to, namely, the 18th and 19th of March 1957; is that correct?

Mr. HILL. That's right.

Mr. ROMNEY. And did you stay at the Furnace Creek Inn?

Mr. HILL. That's correct.

Mr. ROMNEY. And did you receive free accommodations or reduced rate accommodations during that stay?

Mr. HILL. I received a complimentary rate.

Mr. ROMNEY. Did you submit a per diem for the period when you were at the inn?

Mr. HILL. Yes, I think the record shows that.

Mr. ROMNEY. Mr. Chairman, I have here the original photostat of the travel per diem claim of the witness which covers the period in question. I'd like to submit this for the record and mark it as D–59.6.

Mr. Moss. Is there objection?

Mr. McCLORY. No objection.

Mr. Moss. There being no objection, it may be included as D–59.6.

(The document referred to, D–59.6, per diem claim of Sanford Hill, March 18 and 19, 1957, is in the subcommittee files.)

Mr. ROMNEY. Mr. Hill, do you recall having stayed at either the Furnace Creek Inn or the Furnace Creek Ranch within the year 1947 in addition to the period in March?

Mr. HILL. Yes. I was there with Mr. Vint. I think it was in January.

Mr. INDRITZ. 1957.

Mr. ROMNEY. Excuse me. If I said 1947 I correct myself to 1957. Please proceed.

Mr. HILL. Yes, I was there with Mr. Vint. I believe it was in January.

Mr. ROMNEY. When you were there with Mr. Vint, did you receive accommodations at either a reduced rate or on a complimentary basis?

Mr. HILL. I believe in this case that I paid the bill as presented to me. I am not sure whether there was a reduced rate or what it was. I haven't checked the record in this case with the hotel company so I am not sure about that.

Mr. ROMNEY. Mr. Chairman, I have here a letter from the Fred Harvey Co. which indicates that Mr. Hill was the recipient of a 20-percent discount at this time.

Would you like to correct that information if you can or substantiate it?

Mr. HILL. Well, I am not sure exactly what the rate was. I am quite sure that it was based probably on Fred Harvey's rates that they give the National Park Service people on normal visits to the parks.

Mr. ROMNEY. When you paid the bill, would you, in a case such as this, have it indicated on the bill whether you were paying a reduced rate or not; is this your experience?

Mr. HILL. You mean the bill that is presented to me by the company?

Mr. ROMNEY. Yes. Did it show or would it, in your opinion, show whether you were receiving a reduced rate?

Mr. HILL. I don't remember that.

Mr. MOSS. Is there objection to his putting the Fred Harvey letter in the record?

Mr. MCCLORY. No; I have no objection. I was just objecting to this part of it, or I just pointed this out that this notation, the 20-percent discount, Park Service rate, has been affixed here by someone, but there is no indication as to whether that was put on before or after Mr. Hill saw the bill. This looks like a company record. I doubt if Mr. Hill ever saw this.

Mr. HILL. I have never seen that. As a matter of fact, I think this is more or less in accordance with their policy in the parks when we visit the parks.

Mr. MCCLORY. I have no objection to it.

Mr. MOSS. D–59.7 will be put in the record. The staff is instructed to recommunicate with the Fred Harvey Co., and ask them to resubmit this and to certify whether or not the discount notation was on the original bill issued to Mr. Hill. The record will be held at this point to receive that.

(The document referred to, D–59.7, follows:)

D–59.7

FRED HARVEY,
Chicago, Ill., January 7, 1963.

Hon. JOHN E. MOSS,
Chairman, Special Subcommittee on Assigned Power and Land Problems, House Office Building, Washington, D.C.

DEAR CONGRESSMAN MOSS: As a further reply to your letter of December 12, I have received the information you have requested from our Furnace Creek Inn & Ranch general manager. I will reply to the questions you have raised in the order shown in your letter.

(*a*) Dates of stay at the inn or ranch: Arrived on January 28, 1957, and departed on January 30, 1957; accommodations at ranch.

(*b*) Room number and regular rate for such room: No. 312–A, regular rate of $9.50 for two persons.

(*c*) Rate per day charged for use of room by these persons: Mr. Vint and Mr. Hill occupied one room and were charged $9.50, less the National Park Service discount of 20 percent, or $7.60 per day.

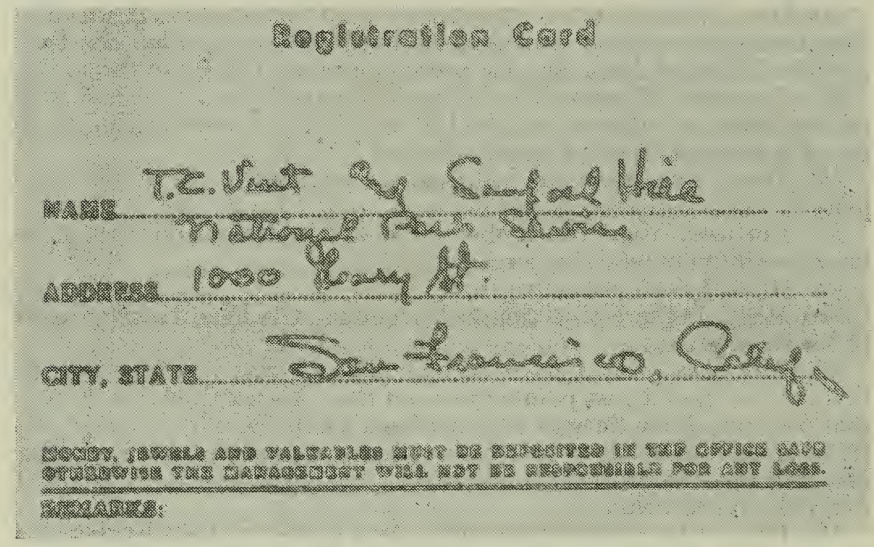
(*d*) What other services were provided to them, and actual and regular rates for such services: Registration card shows meals only at the ranch which evidently were discounted by 20 percent. Total of meals, less discount, $8.53.

(*e*) Who paid for the room and other services provided: Transcript shows that Mr. Vint and Mr. Hill paid the account of $23.73 on the date of their departure, January 30, 1957.

I am enclosing a photocopy of the guest registration card and the guest folio card.

Sincerely,

LESLIE W. SCOTT.



Registration Card

NAME T.C. Vint & Enfield Hill

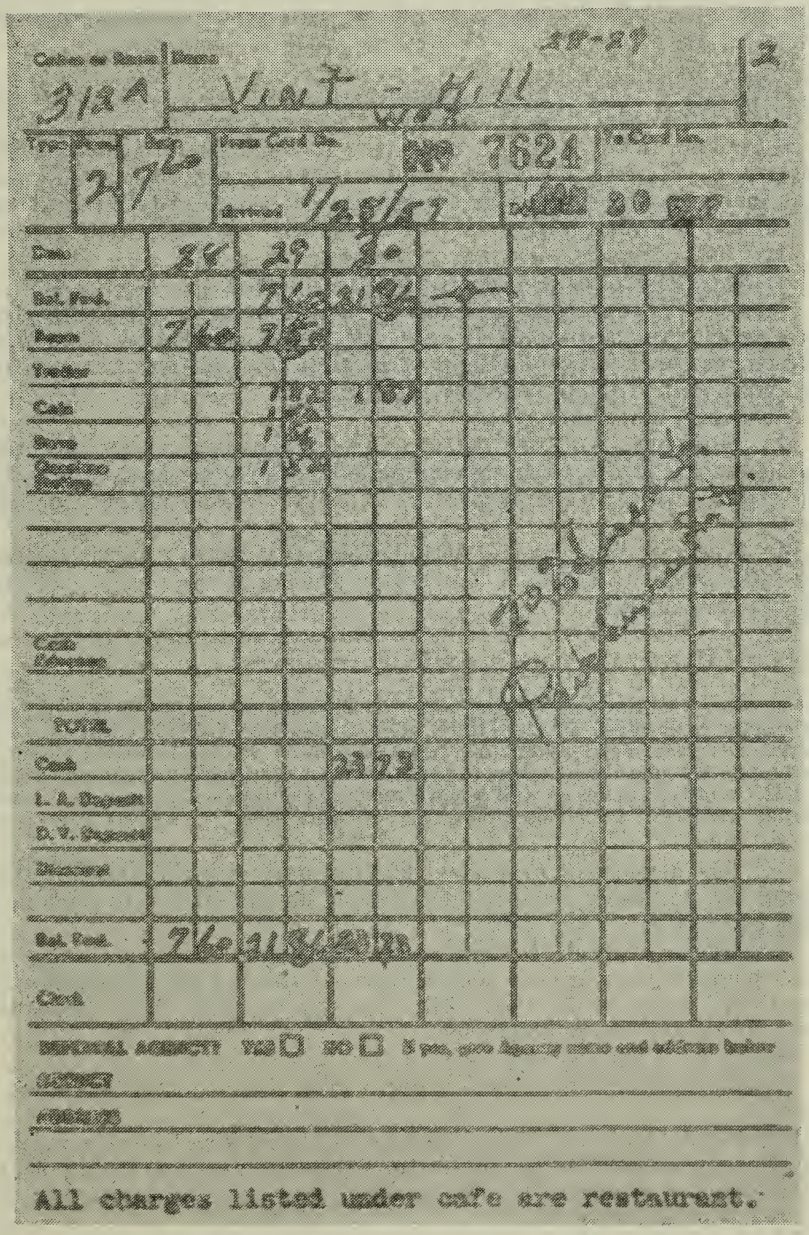
National Park Service

ADDRESS 1000 Geary St.

CITY, STATE San Francisco, Calif.

MONEY, JEWELS AND VALUABLES MUST BE DEPOSITED IN THE OFFICE SAFE OTHERWISE THE MANAGEMENT WILL NOT BE RESPONSIBLE FOR ANY LOSS.

REMARKS:


All charges listed under cafe are restaurant.

Mr. ROMNEY. Mr. Hill, are you familiar with the Department's memorandum of May 10, 1956, which was attributed to all offices of the National Park Service by Mr. Tolson and relates to the acceptance of gifts?

Mr. HILL. Yes.

Mr. ROMNEY. Is not the acceptance of accommodations, free or at reduced rates, in conflict with the departmental directive?

Mr. HILL. Well, I would make the same answer to that as Mr. Merriam. It probably is, yes; but here again I wish to state that this was just a case of—in the first instance—of just failing to reduce my per diem. I just slipped up on it. That's all.

Mr. MOSS. Mr. McClory, do you have any questions?

Mr. MCCLORY. Yes; I'd like to ask some questions.

First of all, with regard to these charges, in connection with your stay at the Furnace Creek Inn, Mr. Merriam, you said that you requested the park superintendent to arrange for your accommodations at Death Valley, is that correct?

Mr. MERRIAM. That's right.

Mr. MCCLORY. And did you ever direct anybody, either the hotel management or the park superintendent, or anyone else, to arrange for reduced rates or complimentary accommodations or anything like that?

Mr. MERRIAM. I never had arranged for any complimentary accommodations at any time. I think they always gave us reduced rates of some sort or another.

Mr. MCCLORY. Now, referring to this document D–59, I note that the Fred Harvey Co. states specifically as follows:

D–59

Our lease with the Death Valley Hotel Co. contemplates offering reduced rates to employees of Fred Harvey, the United States Borax & Chemical Co., and Government agencies. Article II, paragraph C(5) of the lease states: "(5) Lessee, until requested by lessor to discontinue such practice, may provide representatives of the parties as well as governmental agencies with rooms, meals, and similar courtesy accommodations free of charge or at special discounted rates * * *."

Did that agreement that Fred Harvey had with the Death Valley Hotel Co. correspond with the situation that prevailed to park concessionaires?

Mr. MERRIAM. Well, I would say it is basically the same thing with the exception that in very recent years—I think I am correct in saying this, I'd like to have Mr. Hill check me on that—they cut out the complimentary accommodations.

Mr. HILL. That's correct.

Mr. MCCLORY. This practice dates way back to the 1930's, as I recall?

Mr. MERRIAM. Well, I think it goes as far back as to the beginning of the concessions in the national parks. I am not trying to be facetious, but as far as I know it does. It was much broader in the early days than it is now.

Mr. MCCLORY. Now, if these charges, and I can't tell when you refer to three-quarters of a day or half a day whether you are referring to the overnight accommodations at Death Valley Inn or Furnace Creek Inn, or some other part of the day that you didn't claim a per diem

for. How much would be involved if you did omit to reduce your claim by a quarter of a day for the hotel accommodations?

Mr. MERRIAM. Well, for a quarter of a day? Mr. McClory, are you referring to the voucher itself?

Mr. MCCLORY. Your voucher; yes. You answered here that this voucher is correct and you made a claim for per diem in accordance with what the voucher says?

Mr. MERRIAM. Yes, yes.

Mr. MCCLORY. If you omitted the overnight accommodations for 1 day on the voucher, how much would that amount to in dollars and cents on your voucher?

Mr. MERRIAM. It would be a matter—assuming that the per diem was $12 at that time—it would be somewhere between $9 and $10.

Mr. MCCLORY. The total per diem would be $9 or $10?

Mr. MERRIAM. If you deducted four-fifths of your per diem for the day it would be between $9 and $10.

Mr. MCCLORY. I see. Do the overnight accommodations represent four-fifths?

Mr. MERRIAM. The overnight would represent one-fifth.

Mr. MCCLORY. One-fifth. Instead of $9 you mean it would amount to $3, wouldn't it?

Mr. MERRIAM. For a quarter of a day.

Mr. MCCLORY. If you omitted reducing for the overnight accommodations, it would amount to about $3?

Mr. MERRIAM. It would be a little less than that. I think it was $2.40 is what it was, the figure was.

Mr. MCCLORY. So the discrepancy or the overcharge that you might have made—and I understand you didn't make any, but if it were made—would amount to $3 if you received complimentary sleeping accommodations and yet charged it on your per diem?

Mr. MERRIAM. Well, for the sleeping, yes, that would be right, in other words, if no deductions were made, Mr. Congressman.

Mr. MCCLORY. And, Mr. Hill, is that your answer, too?

Mr. HILL. Yes.

Mr. MCCLORY. Now, Mr. Merriam, did you receive any gift or any favor or benefit or thing of value in connection with your service as regional director as relates to the Death Valley National Monument——

Mr. MERRIAM. No.

Mr. MCCLORY. At any time?

Mr. MERRIAM. No.

Mr. MCCLORY. Did you, Mr. Hill, receive any gift of value?

Mr. HILL. No.

Mr. MCCLORY. Now, Mr. Merriam, since you testified with regard to other subjects on which I have withheld questions earlier, I want to revert for a moment to some other matters about which you testified. During this time that you were receiving reports from the park superintendent and you were forwarding on reports with regard to the possible relocation of the staff personnel housing accommodations and considering moving in from Cow Creek to the Furnace Creek area, you were aware, of course, that there was some controversy, or there was some question, about availability of water, were you not?

Mr. MERRIAM. Well, I knew water was a problem; yes.

Mr. McCLORY. That was a problem, that was a consideration so that when you became aware later on that the Furnace Creek Inn or the Death Valley Hotel Co. were raising questions as to water, that naturally entered into the ultimate decision, didn't it?

Mr. MERRIAM. Well, this same site that we planned to use one of them for the Furnace Creek area is the site that we planned and still—I believe I am correct in that—to use in connection with the visitor center and park headquarters.

Mr. McCLORY. I see. But the water rights question had to be resolved?

Mr. MERRIAM. That's right, that's right.

Mr. McCLORY. And it still isn't resolved?

Mr. MERRIAM. It still isn't resolved.

Mr. McCLORY. In connection with the Cow Creek improvement, you were aware all the time, were you not, that the ground cover and the foliage and other advantages there made that a more favored location, at least in those respects; did it not?

Mr. MERRIAM. We had a going concern there.

Mr. McCLORY. Now, I notice in your report that you made to the Director that you said that in the course of your meeting it was the consensus——

Mr. MERRIAM. Yes.

Mr. McCLORY (continuing)—that the staff headquarters housing should be relocated at Furnace Creek. Does that mean that a majority of those who discussed it favored Furnace Creek or what does that mean?

Mr. MERRIAM. Well, Mr. McClory, I can't remember everything that happened that far back, but my recollection is—you know, these letters in an organization like the National Park Service, are worked on by a good many people, and my recollection is that I put that word "consensus" in there to show that we were giving it our blessing. However, some of us had a few reservations on it and I was one of them.

Mr. McCLORY. Now, it's true, is it not, Mr. Merriam, that you and others in the Park Service had a great deal of respect for the reputation, the judgment, and the recommendations of Mr. Horace Albright?

Mr. MERRIAM. Mr. Horace Albright is a man that everybody in the Park Service reveres.

Mr. McCLORY. There is no question in your mind, is there, but that his opinion entered into the final decision with regard to the location of the staff headquarters at Cow Creek?

Mr. MERRIAM. Well, I think that's possible. I didn't talk to Mr. Albright about it myself so I——

Mr. McCLORY. You know Mr. Wirth and Mr. Albright discussed it, and then when you had your final meeting there and the decision was made Mr. Wirth did recommend the Cow Creek location?

Mr. MERRIAM. He was favorable to the Cow Creek location; yes.

Mr. McCLORY. Isn't it a fact that to the extent that Mr. Albright's opinion, or views, or influence affected the ultimate outcome, it was because of his reputation and past services in the Park Service and not because of any benefit that any person in the Park Service would receive in connection with this final decision?

Mr. MERRIAM. That would be my opinion.

Mr. McCLORY. As you sit there now, do you know of any favor or any undue influence, any improper inducement of any kind that was made available or accorded to any persons in the Park Service with regard to the location of any services or facilities at Death Valley National Monument?

Mr. MERRIAM. I know of nothing.

Mr. McCLORY. If I asked you, Mr. Hill, would you give the same answer?

Mr. HILL. I certainly would. May I add one thing that came up in the discussions yesterday regarding Mr. Vint and his relationship to the change of headquarters?

Mr. McCLORY. I am sure there is no objection.

Mr. HILL. For the record. He told me that Mr. Lanigan of the subcommittee staff had been to see him in Washington and he had explained his position regarding the change. He made the statement that he had recommended to the Director—I think I included this in my original statement—that he preferred the Cow Creek site and recommended to the Director that he take a look at it himself.

Mr. McCLORY. I don't have any more questions. Thank you very much, Mr. Merriam. I'd just like to make this comment that as far as I am concerned, you, Mr. Merriam, and you, Mr. Hill, have both made very forthright and very candid statements to the subcommittee which I am sure will be very helpful to the subcommittee in connection with our task here and the ultimate decision that we are obliged to make, and I thank you.

Mr. HILL. Thank you, sir.

Mr. Moss. I want the record to reflect the fact that when the subcommittee reconvenes for another session of hearings in Washington it will call before it Mr. Lanigan and place him under oath and have him give the subcommittee, from whatever contemporary memorandum he prepared, the gist of his conversations with Mr. Vint. I think, however, Mr. Hill, that the record of this subcommittee, which I believe has been available for the inclusion of any documentation you care to offer, reflects the fact that at this point there is no documentation of any change of position of Mr. Vint in his original endorsement of the plans which were sent forward from the western region, nor is there a documentation of the change of position of any other Park Service official until the meeting in the park, at which time the summary change in planning was directed by Mr. Conrad Wirth.

Mr. McCLORY. Mr. Chairman, for my own information, are we going to hear from Mr. Vint in Washington?

Mr. HILL. I should tell you, to clear up the question that you asked about Mr. Vint. I think you mentioned it the other day. This is a little indication of the dedication in the Park Service. He is working for me in Hawaii as a project supervisor and is finishing up his work in June. He's a very sick man right now. But I can assure you that he is a completely dedicated individual and what I have told you regarding him is the truth.

Mr. Moss. The record reflects no challenge by the subcommittee or its staff of the dedication of Mr. Vint or any other employee of the Park Service.

Mr. Merriam, was the Fred Harvey Co. a concessionaire in Death Valley National Monument?

Mr. MERRIAM. No.

Mr. Moss. Mr. Hill, was the Fred Harvey Co. a concessionaire in Death Valley National Monument?

Mr. HILL. No.

Mr. Moss. Was the Death Valley Hotel Co. in any of its activities a concessionaire in Death Valley National Monument?

Mr. MERRIAM. No.

Mr. Moss. Was the parent company, the Borax Co., a concessionaire in the Death Valley National Monument?

Mr. MERRIAM. No.

Mr. Moss. Is there a rule or regulation of the Department of the Interior, National Park Service, which denies an employee the right to accept or receive reduced or free services from others than concessionaires in national parks or monuments?

Mr. MERRIAM. Well, I don't know of any in so many words, Mr. Chairman.

Mr. Moss. Well then, we will have the record reflect the fact that there is, or was, a policy which specifically directed the employees not to accept free or reduced services—"gratuitous," I believe it was characterized—and that was reasserted in a memorandum sent to all of the regions under the date of May 10. That memorandum has already been placed in this record. It is D–59.5.

Mr. MERRIAM. May I ask a question? You say May 10 of what year?

Mr. Moss. 1956 I believe was the date of the one I referred to and which I personally read in the record.

Mr. MERRIAM. May 24.

Mr. Moss. May 24, 1956, that's correct. It refers to a memorandum of May 10 from Administrative Assistant Beasley. It says that Mr. Beasley issued the memorandum on May 10. So that there was a policy within the Department. This becomes pertinent to these hearings because I, as chairman of this subcommittee, was a subject of a special press conference in Washington, D.C., where I was charged with having incorrectly stated the facts obtained from the General Accounting Office, and I did not incorrectly state the facts. The facts are that free or reduced charges were made to employees of the Park Service, contrary to the policies of the Service, because neither of the principals referred to here were, at that time, nor are they at this time, concessionaires. The contracts then in existence provided for reduced services from concessionaires in the parks or monuments. Since that time, as a result of activities by another subcommittee of the Committee on Government Operations, regulations of the Department have been changed so that now Park Service contracts no longer provide for free services for employees, even from the concessionaires in the parks where they hold a concession. This action was taken in order to avoid the appearance of any possible conflict, and also to do away with the requirement that private business interests subsidize either the Government or its employees.

Mr. MCCLORY. Mr. Chairman, I don't want to question the accuracy of your statement, but I would like to——

Mr. Moss. If there is any doubt of the accuracy I would appreciate the gentleman questioning it so that it may be fully documented at this point.

Mr. McCLORY. I would just like to supplement what you said, Mr. Chairman, referring again to this communication from the Fred Harvey people in which they continue to say——

Mr. Moss. Fred Harvey also refers to a contract between the Fred Harvey Co. and a private party. The Government is not bound by, nor can it be bound by, the contract of Mr. Fred Harvey or the Fred Harvey Co. with the Death Valley Hotel Co.——

Mr. McCLORY (continuing).—they seem to have been a beneficiary of the contract as far as I can see and it does appear that the same policy that applied with regard to concessionaires was followed with regard to the Fred Harvey operation of the——

Mr. Moss (continuing—in contravention of the policies of a governmental department, and, as I pointed out, whatever agreement the Fred Harvey Co., had with the Death Valley Hotel Co. could not be binding upon the Government of the United States or its employees. It certainly would not supersede either a rule or regulation of the Government of the United States.

Mr. McCLORY. No, but I think this should be pointed out. I'd just like to read this little paragraph from the letter from Fred Harvey (D–59).

Mr. Moss. That has been read into the record, Mr. McClory. The Chair has listened with great care.

Mr. McCLORY. Not this last paragraph. It says, "At this location"—that is, at the Death Valley location or the Grand Canyon—

D–59

At this location we follow the same policy as we do at Death Valley and extend discounts or complimentary accommodations to Federal and State employees who are there for business reasons.

So that as far as Fred Harvey was concerned they were adopting a policy identical with that which applied with regard to concessionaires, and that regardless of what the results or regulations were this was embodied in the lease and this was the policy that they were following.

Mr. Moss. I know, however, Mr. McClory, that you would not yield the right of the Government to prescribe the rules for its employees to any private interest.

Now, on this matter of changing the plans for the location of a headquarters at Death Valley National Monument, Mr. Merriam, you have indicated in response to the questions of my colleague that you have no doubt that the thinking of Mr. Albright had a rather important bearing on this decision; is that correct?

Mr. MERRIAM. Well, I think I indicated, Mr. Chairman, I know nothing about it directly but——

Mr. Moss. You were aware, however, of the Albright letter to Mr. Wirth dated February 4, 1957 (D–39), expressing his views as to the merits of the proposed changes in the headquarters site?

Mr. MERRIAM. As I recall I saw that.

Mr. Moss. And the issues raised in that as to the possible damage which might occur by drawdown of water at the new site, are you not?

Mr. MERRIAM. The drawdown of water at the—I don't—at present it doesn't register to me.

Mr. MOSS. On page 4 of that letter, in the second complete paragraph, it states:

D–39

It is important that the Service take no action that will diminish the present water supplies which our company has made available.

You were aware that there was detailed opposition expressed to the plans. Now, I will not deny in the slightest the very high regard which Mr. Albright has a right to expect from all of those in the National Park Service. As I pointed out yesterday, here we had Mr. Albright in a dual role: As a member of the Secretary's Advisory Board on National Parks and as a member of the board which had private interest.

Mr. Merriam, do you think that even the best of us can adequately serve two masters impartially and objectively?

Mr. MERRIAM. Well, I think it might be difficult. I don't know.

Mr. MOSS. Generally in law it is recognized as being difficult, is it not?

Mr. MERRIAM. Yes.

Mr. MOSS. And we are usually cautioned against the hazard of such an undertaking, isn't that true?

Mr. MERRIAM. Yes.

Mr. MOSS. So that any views expressed here had to be, of necessity, or should have been, carefully weighed to evaluate any potential for conflict, should they not?

Mr. MERRIAM. And I am sure they were.

Mr. MOSS. And we cannot just say that a reputation carefully built over many years is an absolute insurance, a complete barrier against that possibility, can we, if we are to prudently discharge our responsibilities to the Government? The fact is that you concurred in the recommendations for the new site, did you not?

Mr. MERRIAM. I did, yes.

Mr. MOSS. And you did not by any subsequent action change your position?

Mr. MERRIAM. Mr. Chairman, I did point out at the time when I signed that letter some of the things that were in it.

Mr. MOSS. Yes. I have gone over it with great care, and I think I have found the matter you referred to here on the second page of your memorandum to the Director dated May 21, 1956, subject: Supplement to Mission 66 Prospectus—Death Valley Permanent Headquarters Location (D–18), the one where you said that you couldn't find the area, where it reflected the consensus—in the second paragraph on the second page:

D–18

In accordance with the consensus at meetings with representatives of WODC, with this office and of the area, we recommend that the Furnace Creek site be selected as the permanent area for headquarters, residences, and utility buildings. Such a selection, in addition to fulfilling a very important precept of Mission 66 in providing for necessary public-use facilities by the conversion of Cow Creek area, would permit more judicious planning, early prosecution of 1957 fiscal year residential and utility construction without being hampered by existing installation and more adequately serve the long-range objectives of Death Valley.

That was a considered statement by you, was it not?

Mr. MERRIAM. Well, I am sure that it was, but, as has been pointed out, in the discussions after this report was made, after this correspondence was sent in, there was a management study made of Death Valley which cut down the number of personnel, which was a factor in choosing this particular area here because it was assumed that there was more room for large expansion.

Mr. Moss. On January 3, 1957, Mr. Vint addressed a letter (D–36)—was the evaluation or reevaluation of personnel requirements completed prior to January 3, 1957?

Mr. MERRIAM. Well, I am guessing a little bit, Mr. Chairman, but I think it was a little after that. I think it was around the 1st of February as I remember it. We had a system at that time of making, at fairly regular intervals, area management studies of the areas in the national park system. I think February 5 is the day that I happened to see it.

Mr. Moss. Well, following that reevaluation you had responsibility in this area. Did you send forward a recommendation that the approved plans be abandoned?

Mr. MERRIAM. No; I did not because I didn't feel that that was necessary. When we started to discuss the thing at Death Valley, that entered into it as one of the elements.

Mr. Moss. As regional director, didn't you have responsibility for the overall planning and management operation of the parks in region 4?

Mr. MERRIAM. I had the overall responsibility for planning and operation; I mean, for operation and administration. I didn't have it for planning.

Mr. Moss. Well, from the day of the transmittal of your memorandum of May 21, 1956, up to and including the month of March 1957, did you ever change your position?

Mr. MERRIAM. The thing was not considered until we knew that Mr. Wirth was coming out here and indicated that he wanted to bring the thing up.

Mr. Moss. That isn't what I asked you. Between those dates did you ever change your position?

Mr. MERRIAM. I initiated nothing.

Mr. Moss. You initiated nothing. So we can assume from that that your recommendation of May 21 continued to stand as your best judgment?

Mr. MERRIAM. Could I make a comment on this, Mr. Chairman? This report, this management study, I don't want to be contentious, but as I remember it it was dated something like February 5, so there was only a matter of a few weeks between the time of that study and the trip Mr. Wirth made out here.

Mr. Moss. Have we the management study?

Mr. ROMNEY. No, sir.

Mr. Moss. The subcommittee will secure from the National Park Service, the Department of the Interior, the management study in question which we will review.

(The material referred to follows:)

MARCH 12, 1957.

MEMORANDUM

To: Superintendent, Death Valley.
From: Regional director, region 4.
Subject: Area management survey report, Death Valley, N. Mex.

There is attached a copy of the report of the region 4 management survey team covering their study of Death Valley National Monument January 25 through January 29.

Before taking action on the recommendations contained in this report I would appreciate knowing as soon as possible whether you are in agreement with them.

LAWRENCE C. MERRIAM, *Regional Director.*

FEBRUARY 5, 1957.

To: Regional director, region 4.
From: Area management survey team.
Subject: Management survey, Death Valley National Monument.

There follows the area management survey team's subject report:

INTRODUCTION

The region 4 area management survey team consisting of the undersigned spent January 28 through January 31 in Death Valley National Monument studying and evaluating the operations and problems of the area.

The shops, office, and warehouse operations were examined. One and a half days were spent in the field driving over the principal roads and looking at proposed development sites.

A general meeting of all division heads and other key monument personnel was held as an initial step to familiarize all with the purpose and method of the survey.

Representatives of protection, interpretation, administration, engineering, and maintenance divisions were interviewed. The superintendent attended such interviews at time permitted. In addition many individuals were contacted to get their views of their work, conditions, etc.

SPECIAL PROBLEMS

Climate and site of area.—Climate and great distances combine to give Death Valley National Monument problems of a special nature which affect area management to a major degree.

The monument contains nearly 2 million acres of which about 352,000 acres are below sea level. Situated as it is between two ranges of mountains, summer temperatures are excessive. Maximum temperatures of 134° have been recorded while during the 3 summer months of June, July, and August maximum average temperatures of 115° are the rule which drop but slightly even at night.

Death Valley is a large area and long distances must be traversed between major points of interest and visitor concentration. For example, approximately 40 miles must be traversed from the boundary at Town's Pass which is the most popular entrance to the main center of concentration at Furnace Creek. Likewise to reach the southern boundary of the monument on patrol necessitates a round trip of 150 miles, while to reach the north boundary a round trip of about 100 miles is required.

Concessions.—No Government regulated concessions exist in the area except a small operation near the Wildrose entrance. Visitor accommodations in the valley are supplied by the Pacific Coast Borax Co.'s facilities (subleased to Fred Harvey) consisting of Furnace Creek Ranch and Inn. Remaining facilities are Stovepipe Wells Hotel and Scotty's Castle. The National Park Service has no authority or regulatory power over these operations.

OBSERVATIONS

Year-around headquarters.—With substandard housing and the severe summer heat which is characteristic of Death Valley it has always been felt that living conditions at headquarters on the floor of the valley would be extremely

uncomfortable for employees and their families during June, July, August, and part of September. As a result, a practice of moving all employees from the valley to Wildrose, 4,000 feet higher elevation, during the summer has been the custom for many years. This annual move has been quite costly and inconvenient for the employees. Consequently, a test made during the summer of 1956, with coolers installed in all residences, and the majority of the employees remained in the valley all summer. From these questioned at random, it appears the majority of employees would prefer to stay in the valley year around given suitable quarters equipped with modern air-conditioning units. Some of the factors bearing upon this expression are that the majority of employees arranged their vacation during summer months, work hours are so arranged, i.e., 5 a.m. to 2 p.m., as to preclude being out in the sun during the hottest period of the day, road crews are moved to perform maintenance work at higher elevations, by availability of facilities and equipment shop employees are able to accomplish more work at their permanent shop.

The committee feels that while the experiment was revealing, the Wildrose facilities should not be abandoned until further experiment with all year living on the floor of the valley confirms the principle of a single headquarters.

Information facilities.—It was the observation of the team that an outstanding need of the area is for facilities for dispensing information to the visitor at locations near monument entrances. At present no information is available at four of the six entrances. Ranger stations exist at two entrances but there is no sign indicating that information is available and no facilities are available to offer such information. Therefore, the majority of visitors receive no information whatever until they arrive at Furnace Creek and by then many have passed the majority of points of interest. This problem is taken into account under recommendations No. 3, of "Interpretation."

Signs.—One of the outstanding needs of the area is and always has been directional and interpretive signs. The team was glad to note that the sign program is gradually getting underway. The sign shop is operating to capacity and gradually new signs are appearing on the roads. As yet these are largely directional in nature, but we were advised that by the end of the present fiscal year many of the needed signs both interpretative and directional will be erected.

Air patrols.—In discussing the need of summer patrols for visitor safety the superintendent pointed out that the extensive road system could be covered daily in 3 or 4 hours if the monument had its own plane.

It was the team's feeling, however, that if air patrols are advisable it would be more economical to contract with a private pilot for the work rather than for the area to own, maintain, and operate its own plane.

The danger of thermals over the valley in summer, however, was pointed out as a deterrent to air patrols at this season.

Cooperation.—It was noted that cooperation between protective and interpretive divisions was excellent. Members of both divisions work well together and each recognizes the value and responsibilities of the other.

Delegation of authority and responsibility.—It was noted that in an attempt to lighten the load of certain divisions the superintendent was handling jobs in some cases which add to his workload and which should be handled by subordinates.

Cooler equipment.—An interesting observation by the committee was the experience of the area with the colored automotive vehicles. Such color in this excessively hot, dry climate is found to keep the cab about 10° cooler than equipment of other colors. Accordingly, there should be no objection to the area specifying such color in equipment purchase contracts.

Along the same line interesting experiments have been conducted by placing thermometers inside the regulation pith helmet alongside the old fashioned straw hat. It was found that the temperature in the former was 10° hotter than in the latter.

RECOMMENDATIONS

The recommendations and comments of the team, including a proposed organization table, follow:

Administration

Recommendation No. 1: That the organization table and priority as shown on the attached sheets be considered as the minimum needed to meet existing and foreseeable workloads.

Comment: The team recommends the listed organization be established as rapidly as funds can be appropriated. The additional staffing of the interpretative division will be needed to provide for services of the new visitor center. In addition, at least five seasonal positions of 0.5 man-year each will be required for visitor services at the center, Scotty's Castle, Stovepipe Wells, Furnace Creek Inn and Ranch, and contact points and scattered campgrounds. This constitutes an increase of three positions.

The two additional rangers will round out the program of a permanent district ranger and park ranger at Grapevine, Emigrant Pass, and headquarters. The proposed fourth district at Ashford Mill will be restudied at a later date and in the interim will be handled by the headquarters district staff. The 1958 budget allows two seasonal positions of 0.5 man-years. It appears that an additional two positions of 0.5 man-years are needed. As stated under other sections of this report, vast acreage and long distances are involved in the protection of the area. Mining, prospecting, water rights are protection problems not found in other areas and travel to undeveloped sections over rough, dangerous motor trails is required. Visitor protection during the summer months is a most difficult responsibility.

Both the interpretative division and the protection division are without clerical assistance. This recommendation proposes that the seasonal position included in the 1958 budget be made permanent at the earliest date.

The other requested permanent positions will round out the organization to a satisfactory level.

Recommendation No. 2: That staff meetings of division chiefs and certain other key personnel should be held at regular intervals, preferably not more than 2 weeks apart.

Comment: One of the needs for better information and coordination of the work, as expressed by several members of the staff, is for more frequent and regular meetings of division chiefs and other key personnel. The matter was discussed with the superintendent and he agreed that this was a need. In addition, he pointed out the need of larger meetings to include as many employees as possible two or three times each year.

Recommendation No. 3: That the superintendent make arrangements with seasonal parks such as Yellowstone, Glacier, Yosemite, for interchange of seasonal uniformed personnel as well as craftsmen.

Comment: Death Valley, being a winter use area, is in a position to offer seasonal employment, in several instances, to employees on temporary appointments at summer use areas. A program of interchange of needed seasonal employees would be advantageous both to Death Valley and the area with which such arrangements are made.

Recommendation No. 4: That the ratio of personal services to total expenses under the onsite management appropriation not exceed 75 percent and under the two maintenance appropriations not exceed 55 percent.

Comment: The cost of vehicle operation and maintenance because of the very nature of the area is considerably higher than in other areas. Due to extreme heat, wind, and sand, physical facilities such as buildings, signs, and other structures wear out much faster. This requires more frequent repair replacements involving supplies and materials in higher ratio to personal services than is encountered in other areas.

Recommendation No. 5: That the supervisory positions in the maintenance division be realined and the division be reorganized when either the positions of mixed gang foreman or the foreman, construction and maintenance, become vacant.

Comment: From discussions it appeared that the above two supervisors are not quite capable of heading up the maintenance program as desired. The establishment of road maintenance districts will require encumbents with more supervisory and programing skills than either of the present encumbents seem to possess. It is proposed to establish the maintenance supervisors, one handling buildings and utilities maintenance and one handling roads and trails maintenance. The B. & U. supervisor will have responsibilities for electronics, buildings, signs, water and sewer systems, sanitation, and electric generation and distribution. The R. & T. supervisor will be concerned with roads and trails maintenance only with a road crew at Ashford, Grapevine, and Wildrose composed of one permanent and several seasonals and a headquarters crew of one foreman, one operator, and one truckdriver. The headquarters crew will move to the districts during the hot summer months.

Interpretation

Recommendation No. 1: That the visitor center building proposed in the Mission 66 program be located on a site adjacent to the airport hanger north of Furnace Creek Ranch.

Comment: The State of California has appropriated $350,000 for a museum to be located on State-owned land within Death Valley National Monument. Under agreement with the State the museum would be turned over to the National Park Service for administration. The Pacific Coast Borax Co. has offered to donate sufficient land to the State at the above-mentioned site for a museum. This would meet the State's requirements for land. It is understood informally that the borax company would donate land to the National Park Service adjacent to the parcel to be donated to the State upon which the National Park Service administration building could be built. Under this arrangement the administration-museum (visitor center) building could be constructed as a unit with only the administration building portion being financed by the National Park Service. The State is anxious to expedite this project. On January 29 the survey team visited and inspected the proposed site with Messrs. Binnewies, Vint, Sanford Hill, Knowles, Ingham, and Spaulding for the purpose of reaching agreement as to its suitability. Such agreement occurred.

Recommendation No. 2: That the road from Ashford Hill to the south boundary remain unpaved and that proposed development at Saratoga Springs be held to a minimum.

Comment: Saratoga Springs was added to the monument primarily for wildlife. The springs contain a rare species of desert fish and constitute an important waterhole for wildlife. It is believed, therefore, that the primary purpose of this area would be defeated if overdevelopment occurred. It follows that there would be no need to surface the road to Saratoga Springs since this would only increase traffic and place more emphasis on the importance of this southern entrance to the monument.

Recommendation No. 3: That an information trailer be placed in the Emigrant and another in the Grapevine districts to dispense information and to ascertain the wise location for permanent information stations.

Comment: It is apparent that a paramount need of the area is to dispense information to the visitors as soon as possible after he enters the area. No accurate information is now available on which of the entrances carries the majority of bona fide monument visitors. It is believed, therefore, that experiments should be carried out by moving trailers from place to place within these two districts to ascertain the point where the most initial visitor contacts can be made. These information trailers can be manned by seasonal uniformed personnel during the winter months.

Operations

Recommendation No. 1: That employee housing be programed with employee staffing at outlying districts.

Comment: On the basis of earliest foreseeable additional staffing for outlying districts the committee suggests that positions and housing be programed by the area for 1960 or 1961 fiscal year as follows: Emigrant District—one additional permanent ranger (for Wildrose) and one seasonal uniformed man (for Emigrant). If suitably located the present ranger station to be converted to an information office and seasonal ranger quarters (see recommendation No. 3 under "Interpretation"). One additional set of permanent quarters for the district ranger at Emigrant and one set for the permanent ranger at Wildrose. In addition to the uniformed personnel staffing and housing, the road maintenance department will have one permanent equipment operator, one seasonal truckdriver and one seasonal laborer at Wildrose. Housing for these employees should be programed in the same package as the ranger housing. *Grapevine District*—one additional permanent ranger for Daylight Pass and one seasonal uniformed man at Grapevine Canyon near Scotty's Castle will require quarters. One set of permanent quarters for the district ranger at Grapevine Canyon will be required to replace the present substandard dwelling. In addition, quarters for one permanent road equipment operator, one seasonal truckdriver, and one seasonal laborer at Grapevine Canyon to be programed at same time as ranger quarters in this district. *Ashford District*—Staffing and housing similar to that proposed for the other two outlying districts is contemplated in later years.

Recommendation No. 2: That the future status of the airport be settled promptly.

Comment: The present airport, constructed by the CAA and operated by the NPS, is entirely too large for the needs of the area. At present less than half of the original strip is usable due to heaving and buckling of the surface. Maintenance of the strip and its approach road is and always will be high. The number of planes landing throughout the year would not average more than one or two a day, and scheduled commercial flights into the area have proven economically unsound. It is important that the superintendent ascertain at an early date whether the operation and maintenance of the airport will be assumed by (*a*) Inyo County or (*b*) the Fred Harvey Co. or (*c*) any other agency. In case of a negative answer to the above the superintendent should check with CAA to find out what treatment of the facility they would suggest. Upon the information secured a final determination as to whether or not the facility should be abandoned or reduced in size should be made without delay.

Recommendation No. 3: That programing of funds for the completion of the sign program be given priority and that this program be carried through as rapidly as possible.

Comment: With funds provided during the 1957 fiscal year a good start has been made on the sign program. The erection of interpretative and directional signs is a prime need of the area and until the roads and points of interests are fully signed an important service to the visitors will be lacking.

CONCLUSION

The team received full cooperation of the superintendent and all members of his staff. The staff presented a frank discussion of all the major management problems of the area.

This report was discussed in full with the superintendent prior to leaving the area, and all major points of conflict were resolved.

FRED T. JOHNSTON,
Engineer, Chief of Operations Chairman.
C. E. PERSONA,
Engineer, Administrative Officer.
DORR G. YEAGER,
Engineer, Chief of Interpretation.

PRESENT AND PROPOSED PERMANENT ORGANIZATION, DEATH VALLEY NATIONAL MONUMENT

Present	*Permanent*	
Superintendent	Superintendent	1
Clerk-stenographer	Clerk-stenographer	2
Landscape architect (stationed at Joshua Tree)	Landscape architect	3
ADMINISTRATION		
Administrative assistant	Administrative assistant	4
Supply clerk	Supply clerk	5
	Clerk	6
PROTECTION		
Chief ranger	Chief ranger	7
District rangers (3)	District rangers (3)	10
Park ranger (1)	Park ranger (3)	
	Clerk (shared with naturalist)	11
INTERPRETATION		
Farm naturalist	Farm naturalist	12
	Museum assistant	13
	Clerk (shared with protection)	14

MAINTENANCE

Present	*Permanent*	
Engineer	Engineer	15
	Mechanic, plant	16
	Supervisor, B. & U. maintenance	17
Operator (general) (3)	Operator, general (3)	20
Mixed gang foreman	Mixed gang foreman	21
Foreman, shop	Foreman, maintenance and construction	22
Foreman, maintenance and construction	Foreman, shop	23
Automotive mechanic	Automotive mechanic	24
Electronics mechanic	Electronics mechanic	25
Caretaker	Caretaker	26
Maintenance men	Maintenance men	27
	Caretaker-janitor	28
	Landscape architect	29
Total (21).[1]	Total (29).[1]	

PRIORITY OF INCREASES

Management and protection:
(1) Clerk (protection and interpretation)
(2) Park ranger
(3) Clerk
(4) Caretaker-janitor
(5) Museum assistant
(6) Park ranger

Maintenance and rehabilitation:
(1) Mechanic, plant
(2) Supervisor and maintenance

[1] Not including landscape architect, 29½.

Mr. Moss. But following that management study you initiated no recommendation for change?

Mr. MERRIAM. As I say, there was just a matter of weeks anyway between the——

Mr. Moss. Well, did you review the management study?

Mr. MERRIAM. Did I?

Mr. Moss. Yes.

Mr. MERRIAM. Yes, I had to clear it.

Mr. Moss. And after reviewing it, did you feel that you should initiate anything?

Mr. MERRIAM. I didn't at that time apparently, no.

Mr. Moss. Then you did not do so?

Mr. MERRIAM. I didn't start any, no.

Mr. Moss. Has anyone in your shop urged that there be initiated a change in plans at that point?

Mr. MERRIAM. I have no recollection of it.

Mr. Moss. Do you have any recollection, Mr. Hill?

Mr. HILL. No, because we did not receive a copy of the management report prior to the Director's visit. As a matter of fact, I didn't know about this management report until quite recently.

Mr. Moss. I didn't either until today.

Mr. MCCLORY. Mr. Merriam, these matters of the location of the headquarters housing as between Cow Creek and the Furnace Creek area are matters of opinion, are they not, or judgment as expressed by different people in the Park Service?

Mr. MERRIAM. Well, I think that is correct, yes.

Mr. MCCLORY. Now, referring back to the comment of the chairman that it is impossible for a person to serve more than one master, I

guess there's no question in the mind of any of us with regard to that general philosophy. You subscribe to that I am sure. I'd like to ask you this, though: I know that in the case of real estate brokers, in the case of lawyers frequently they have occasion to represent interests that are conflicting, but where full disclosure is made to both sides there is no inconsistency and there is no conflict of interest. Was there at any time any matter that was concealed from you, or anything that was not revealed, or anything that you were not aware of that entered into the ultimate decision with regard to location of the headquarters housing improvement at the Cow Creek area?

Mr. MERRIAM. I don't know of anything that was withheld.

Mr. MCCLORY. That's all I have.

Mr. Moss. Well, just so the record reflects the fact that we all agree, then, that any decision is a matter of judgment or opinion, we can conclude that you, as a conscientious employee of the Government, had given your Government your best judgment in the memorandum of May 21, 1956; is that correct?

Mr. MERRIAM. Yes, I would say that, but I'd have to qualify that and that is——

Mr. Moss. If you have to qualify your judgment, you must certainly do so at this point.

Mr. MERRIAM. It isn't that, Mr. Chairman. Over the years many things have been planned, many things in the National Park System. It took from 1927 until—Mr. Hill can correct me—about 1955 or 1956 to work out a plan that was reasonable, and, of course, financed and all that for the Government center in Yosemite.

Mr. Moss. Oh, I know that, Mr. Merriam. I have worked on projects during my more than 15 years in the legislature. As a legislator, there have been projects that have seemed to drag on interminably, and I don't question that that is part of the process that we are confronted with routinely in government. It's a very frustrating part of the job that we have to do. But this letter reflected two things: (1) A consensus, in your words; and (2) because you signed it, it reflected your best judgment.

Mr. MERRIAM. Yes, sir, but it didn't foreclose reconsidering it.

Mr. Moss. No. Because, as a matter of fact, you say a decision on the approval or disapproval——

Mr. MERRIAM. Yes.

Mr. Moss (continuing)—is so important that if there still remains a question as to its suitability after perusal of all of the attached information, then, we recommend an inspection. After that perusal of the attached information it was approved at higher levels, and, again, there is nothing in the documentation available to this subcommittee that shows where anyone changed his position until March of 1957.

Gentlemen, that concludes our requirement from your testimony. I do want to thank you for appearing here today. Just a moment. Apparently we have a few more questions for you, Mr. Merriam.

Mr. Hill, we will not again require your appearance during this series of hearings.

Mr. ROMNEY. Mr. Merriam, I would like now to turn to the subject of the visitor center and the location of the visitor center, the tract of donated land north of the Furnace Creek Ranch, and I would

like to have you refer to document D–37.1 which is a memorandum to the Director from the regional director, region 4, dated February 13, 1957, subject: Visitor Center, Death Valley National Monument.

Mr. MERRIAM. It's been a long time since I have seen this.

Mr. Moss. You may take the time to review it before you are requested to respond to any questions based on it.

Mr. MERRIAM. Is there a map that goes with this?

Mr. ROMNEY. I do not have it.

Mr. MERRIAM. It refers to one, and, as I said, I have read it rather rapidly. It refers to an interim master sheet showing location. I think I can make a stab at answering questions on it.

Mr. Moss. Did you find the map?

Mr. MCCLELLAN. No, I do not think we have the map to that.

Mr. Moss. All right. If you find that your response is difficult without the map, you inform us.

Mr. MERRIAM. I will.

Mr. ROMNEY. This memorandum refers, does it not, to the fact that the Pacific Coast Borax Co. was willing to donate to the Division of Beaches and Parks of the State of California a tract of 50.8 acres of land for the purpose of locating a museum north of the ranch; did it not?

Mr. MERRIAM. That seems to be in here. I noticed that, yes.

Mr. ROMNEY. Would it be fair to characterize this letter as your agreement to, and recommendation of, the proposal for the acceptance of such a donation for the purpose of constructing a museum at that site?

Mr. MERRIAM. The thing that is not clear in my mind, Mr. Romney, is just what site this refers to. That is where I am stumped without a map on the thing.

Mr. ROMNEY. Well, I think it does make reference to the site north of the ranch, does it not, on page 3, paragraph 3?

Mr. MERRIAM. That's the full paragraph 3?

Mr. ROMNEY. Yes, the full paragraph. The letter states:

D–37.1

This land is just north of the airport road and is considered by Mr. Vint and representatives of WODC and this office to be a suitable site.

So that is my question.

Mr. MERRIAM. That is what I mean. It seems to be a recommendation because it says the interim master plan sheet showing this location has gone to you for approval.

Mr. Moss. Maybe Mr. Binnewies can clarify this for us.

Mr. Binnewies, do you think you could determine which site is referred to in this letter?

Mr. BINNEWIES. That's right—that is the area immediately north of the ranch.

Mr. Moss. It's the one that——

Mr. BINNEWIES. Yes, this is the location.

Mr. Moss. No doubt on that?

Mr. BINNEWIES. No.

Mr. Moss. Thank you very much.

Mr. ROMNEY. It is true, is it not, that subsequently this area has become part of a larger tract which was donated to the United States

rather than to the State of California by the borax company in part for the purpose of locating a visitor center?

Mr. MERRIAM. As I remember, this is part of—I think it was 90 acres that were donated.

Mr. ROMNEY. And did there later come a time when the proposed donation for the purpose of establishing a visitor center was merged with a larger project which would involve the exchange of lands between the United States and the company?

Mr. MERRIAM. That is a little too rapid for me. You say did this become part of——

Mr. ROMNEY. Yes. Were the lands involved in the proposed donation, which we have just referred to, part of a group of tracts which were considered as a general exchange of land between the United States and the company?

Mr. MERRIAM. If I understand you correctly, the answer would be "No" because this 50.8 acres was part of the 90 acres which were donated.

Mr. ROMNEY. But the donation to which you referred to had not occurred as of this time, had it?

Mr. MERRIAM. No, it hadn't. I don't believe it had. It was after that.

Mr. ROMNEY. I would like you to refer to document D–84. This is a memorandum to you from the Superintendent, Death Valley National Monument, subject: Proposed Exchange of Land, Death Valley Hotel Co., Ltd. March 13, 1958. Can you refresh your recollection and state——

Mr. MERRIAM. This is to the Director you will notice, not to me.

Mr. ROMNEY. I am sorry.

Mr. MERRIAM. That is all right. I just wanted to clear that up.

Mr. ROMNEY. In the lower left-hand corner there is an indication of a copy going to your office.

Mr. MERRIAM. Yes, we have it, I am sure. Well, this apparently was a letter relating to some preliminary proposals of lands that the borax company wanted in exchange for some additional land beyond the 90 acres amounting to 440 acres. That would be my understanding of it. It says "in addition to."

Mr. ROMNEY. Are you familiar with the particular tracts which are described in the memorandum?

Mr. MERRIAM. In a general way, yes.

Mr. ROMNEY. I would like to refer you to document D–96. This is a document, a memorandum to you from the Superintendent, Death Valley, dated September 26, 1958, subject: Land To Be Acquired From the Death Valley Hotel Co. Have you had a chance to refresh your recollection, Mr. Merriam?

Mr. MERRIAM. Well, I assume that these lands that they're talking about are the same ones that are in this letter from Fred Binnewies to the Director.

Mr. ROMNEY. Now, using this map as a reference, do you recall whether or not appraisals were requested for the lands which are indicated on the map by parcels which are lettered and other parcels which are designated by area semantic numerals?

Mr. MERRIAM. It was my belief that they were. Now, I could make this comment. Mr. Manbey is here. You have subpenaed him. And he is the man that knows about these things.

Mr. Moss. Mr. Manbey, would you come forward and be sworn?

(Bernard F. Manbey, called as a witness before the Special Subcommittee on Death Valley National Monument, was duly sworn.)

TESTIMONY OF BERNARD F. MANBEY, FORMER REGIONAL CHIEF OF LANDS, NATIONAL PARK SERVICE, SAN FRANCISCO, CALIF.

Mr. MANBEY. My name is Bernard F. Manbey. I live at 800 Arlington Avenue, Berkeley. I am a retired employee of the National Park Service. I was retired on December 31, 1957, at the age of 70.

Mr. Moss. You may be seated, sir.

Mr. ROMNEY. Mr. Manbey, you have before you a document, D–95, a memorandum dated April 24, 1958, from you to the Director, subject: "Transmittal of Appraisals, Covering 90-Acre Tract and Other Lands Figuring in Possible Exchange, Furnace Creek Ranch Area, Death Valley"?

Mr. MANBEY. Yes, I see the letter. What is the question?

Mr. ROMNEY. I would like you to give us a very brief summary of the purpose and content of the letter.

Mr. MANBEY. Well, as I remember it—I, of course, haven't looked at these files for many years, but I know that this man, Hopper, was considered a very good appraiser and he made many appraisals for the National Park Service. As I remember it, these several tracts were appraised in relation to the property that the Death Valley Hotel Co. was endeavoring to secure, and the acreage of the tract as well, it says here, that Mr. Hopper shows that F, G, and H have a total value of $11,000 while parcels 1, 2, and 3 are shown with a total value of $11,105. The 90-acre donated tract is shown as having a value of $2,250. It was pointed out that Mr. Hopper has included in his parcel G the Harmony Borax Works which in later correspondence the hotel company wished to exclude from said parcel G. Their exclusion from parcel G covering the Harmony Borax Works would amount to 5 acres. As I remember it, while the company wanted to retain that land, from the point of value of money, it had very little value as far as the Park Service was concerned. Does that answer your question?

Mr. ROMNEY. Yes, sir. Now, would you refer to a map which we have designated as an attachment to Document D–96, and tell me if the map represents, with sufficient accuracy so that we can get the relationships of these parcels, the tracts which are referred to in your memorandum of April 24, 1958?

Mr. MANBEY. Well, I think this map is correct. Frankly, I have no way of judging the value because I have not ever examined the land. This was only presenting a letter to the Director showing what the appraiser had come up with. It was his opinion that the values of the two possible exchanges were almost equal in money value.

Mr. ROMNEY. Just for the record, I think the letter you refer to is your own letter rather than the letter to which this map is attached, is it not?

Mr. MANBEY. That's correct, yes.

Mr. ROMNEY. I should like to hand you the appraisal reports prepared by Mr. Hopper which you refer to in your memorandum. The first report is designated D–64 entitled "Appraisal Death Valley Hotel Co., Ltd., Parcels Nos. F, G, and H, and U.S. Government

Lands Parcels Nos. 1, 2, and 3, Death Valley National Monument," dated April 1, 1958. The second appraisal report you have been handed is D–95a entitled, "Appraisal Museum Site, Death Valley National Monument," dated April 1, 1958.

Mr. MANBEY. I have those in front of me. What is your question?

Mr. ROMNEY. Do you know, Mr. Manbey, whether these appraisals ever received any legal clearance or whether, putting it another way, they were approved by the field solicitor?

Mr. MANBEY. Well, I don't know that appraisal reports were normally approved by the solicitor.

Mr. ROMNEY. Prior to their submission to the Director of the Park Service?

Mr. MANBEY. I rather doubt it. I don't remember it. But these were appraisals of land made by appraisers and I don't know that other people not——

Mr. ROMNEY. Do you know whether or not the appraisals were made on the theory that none of the lands had any appurtenant water rights sufficient for their development?

Mr. MANBEY. I think the appraiser was aware of that.

Mr. ROMNEY. But my question was: Do you know whether they were made on the theory that they had no appurtenant water rights?

Mr. MANBEY. I don't remember, but I feel sure that he would have known it.

Mr. ROMNEY. Do you know whether he considered the possibility that the lands involved in his appraisal might have had riparian rights?

Mr. MCCLORY. Mr. Chairman, I don't think that these are fair questions. We are asking this witness as to what the appraiser may or may not have known or what he may or may not have considered, and I think except insofar as the documents themselves disclose what he considered, the witness can't be expected to know what was in the mind of the appraiser when he made this appraisal. He does make some reference to water rights, availability of water, nonavailability of water, ditches, and things like that. I think insofar as his reference to that is concerned, the appraisals speak for themselves. This witness couldn't possibly know things that were in the mind of the appraiser beyond what appears in the report itself.

Mr. Moss. Well, the Chair regrets that in this instance he must disagree with his colleague because I feel that the matter of water rights is most pertinent to valuation. This is not a field that I am unfamiliar with. I think that Mr. Manbey arranged for the appraisal, and I assume that it was referred back to him; is that correct?

Mr. MCCLORY. Mr. Chairman, you didn't understand my objection. I am not——

Mr. Moss. You are objecting to the question as to whether or not the appraiser at the time of the appraisals was alerted to the possible water rights involved. This is a matter material to an appraisal, and I would assume that those who employed him to undertake the appraisal would fully acquaint him with the nature of the water rights.

Mr. MCCLORY. No, Mr. Chairman. The question to the witness was did the appraiser know or did the appraiser consider water rights.

Mr. Moss. The appraisal should reflect that and Mr. Manbey——

Mr. MCCLORY. That's right.

Mr. Moss (continuing)—in studying the appraisal at the time should have knowledge as to whether or not those considerations were made. The Chair feels that the question is pertinent in every sense to the inquiry of this witness.

Mr. MANBEY. Well, Mr. Chairman, I am sure that the appraiser was made aware of the fact that we did not own the water. Now, he made several references here to water conditions, and he says an investigation was made in regard to the general area, the immediate neighborhood surrounding the subject properties, together with water conditions, soil conditions, topography. He also had considered whether there were water rights and what the water could provide. That was a matter that any normal appraiser, particularly one who had done a number of appraisals for the National Park Service, would have fully considered. But I don't remember in this report, unless I read it right through, how he expressed that in his appraisal report.

Mr. MCCLORY. If you look on page 15 with regard to parcel No. 1, I think you will see that he made reference to the subject of water ditches, two ditches.

Mr. ROMNEY. Are you waiting to prepare to respond to Mr. McClory?

Mr. MANBEY. Well, was there a question?

Mr. ROMNEY. That is what I was trying to ask.

Mr. MANBEY. I was looking to——

Mr. MCCLORY. I don't think that was a question. I just raised the objection to the question and I guess the chairman has ruled that he can answer that as to what this appraiser did or did not consider, but beyond what the report shows, I don't think the witness is capable, no matter what the question is, or what the ruling is, but on page 15 it does make reference to two ditches which presumably carry water to the Furnace Creek Ranch, and if that is significant I'd call the witness' attention to that.

Mr. MANBEY. Page 16 also mentions an investigation was made in regard to the general area, the immediate neighborhood surrounding the subject properties, together with water conditions, soil conditions, and topography. I don't see that he specifically uses the words that he was considering the water rigths, but he seems to have been fully familiar with it. He would have had the maps that would have indicated what the Death Valley Hotel Co. was using. But I don't remember the particular circumstances in regard to mentioning water rights.

Mr. ROMNEY. Did you, Mr. Manbey, specifically direct his attention to the matter of water rights when you arranged for the appraisal?

Mr. MANBEY. Well, that normally was not considered necessary, because that was the thing that he had to look into, all of the conditions, and it was obvious that there were water supplies being used by the Death Valley company and he would have had that information and should have been familiar with the circumstances. But I don't know that I specifically told him about it because my correspondence, at least my writing to him, was by correspondence and not by telephone, nor did he come to our office. But he went and met undoubtedly with the superintendent at that time who would undoubtedly have told him about the water rights issue.

Mr. ROMNEY. But you yourself knew that water rights should be a matter which an appraiser would take into consideration; is that not correct?

Mr. MANBEY. Yes.

Mr. ROMNEY. You have indicated from your brief perusal of the documents that the documents themselves do not specifically mention water rights. Would it not be indicated in normal circumstances that where water rights might be involved an opinion from the field solicitor should be obtained in order to cover that element necessary to a full and fair appraisal?

Mr. MANBEY. Well, we, as I say, sent him to meet with the superintendent, and nobody was more familiar than the superintendent with the water rights conditions, and so he would have had that information supplied to him then and there.

Mr. ROMNEY. But the superintendent——

Mr. MANBEY. But we did not put it specifically in our letter.

Mr. ROMNEY. The superintendent, of course, was not the expert on water rights?

Mr. MANBEY. No; but he was quite familiar with the fact that the Death Valley Hotel Co. was claiming all the water rights.

Mr. ROMNEY. But he is not himself a lawyer?

Mr. MANBEY. Oh, no.

Mr. MOSS. It is also true, is it not, that a claim does not constitute a right?

Mr. MANBEY. That's correct, sir.

Mr. ROMNEY. Referring to the map in front of you, the tracts which are numbered 1, 2, and 3 in faint pencil marking are lands of the United States, are they not?

Mr. MANBEY. That's correct; yes.

Mr. ROMNEY. And the parcels which are marked "F," "G," and "H" are lands belonging to the company, are they not?

Mr. MANBEY. As I remember it; yes.

Mr. ROMNEY. Your memorandum of April 24, 1958, shows that the parcels 1, 2, and 3 are approximately the same value as the parcels F, G, and H, are they not?

Mr. MANBEY. That's according to the appraiser.

Mr. ROMNEY. If the parcels owned by the United States were found to have water rights of a riparian character, their value would be considerably enhanced, would it not?

Mr. MANBEY. If they had water rights did you say?

Mr. ROMNEY. If it were determined that these tracts of the United States were found to have riparian water rights, their value would be considerably enhanced, would it not?

Mr. MCCLORY. Mr. Chairman, the objection I have to that question is that I think that he is asking a legal conclusion of a lay witness. Unless he knows what a riparian right is, and what it amounts to, he could not answer.

Mr. MOSS. Well, the Chair would say that the question is clearly within the competency of the witness. He has not been asked a legal question. He has been asked for an answer based on a hypothesis that there might be—and on that assumption only—riparian rights. The witness is qualified to respond to that and is, I think, ready to do so.

Mr. MANBEY. Mr. Chairman, I would answer it in this way—that a water right would have no value unless there was water. So if the water right——

Mr. Moss. Well, Mr. Manbey, then let the Chair state a question which should elicit the answer that is of interest to the subcommittee. We will go on the hypothesis that there is a water right and a riparian right and that it has water. Would it then add to the value for appraisal purposes?

Mr. MANBEY. Yes; that's correct, but may I add this that there are very few spots in Death Valley where there is water.

Mr. Moss. That isn't the Chair's question and the record only seeks to have your opinion as to whether or not value would be enhanced if there were appurtenant rights and water available to meet those rights.

Mr. MANBEY. I would agree there.

Mr. ROMNEY. Referring to the parcels F, G, and H, are you personally familiar with their character?

Mr. MANBEY. No; I am not. I have only been twice I think in my 33 years with the Park Service to Death Valley.

Mr. ROMNEY. Did you make an inspection of it?

Mr. MANBEY. No; I did not. I was not called upon to make an inspection. I was only sending on documents that had been prepared by others, people who had inspected the lands and so on.

Mr. Moss. Do you have any questions?

Mr. MCCLORY. No; no questions.

Mr. Moss. Well, Mr. Manbey, the subcommittee thanks you for your appearance and you are excused at this time.

Mr. MANBEY. Mr. Chairman, may I make one brief comment?

Mr. Moss. Certainly you may.

Mr. MANBEY. This had relation to something that came up yesterday. You will remember that Mr. Indritz was indicating that a place called the Breakfast Canyon which was developed more or less by the Death Valley Hotel Co., if not altogether, was actually on Federal land. Now, I seem to remember, and I am almost sure of it, that this did come to the attention of the regional office and that we then suggested that the proper thing to do was for the superintendent to issue a special use permit to cover the Breakfast Canyon, and I feel sure that this was done. Now, a special use permit was a document that could be issued by any superintendent and when he issued these permits the regional office got copies, but I feel almost sure that this was handled in that way.

Mr. Moss. Do we have a record indicating a special use permit was ever granted? We are informed that a special use permit was recently issued.

Thank you again, Mr. Manbey, and you are excused.

Mr. ROMNEY. Mr. Chairman, I'd like to request that the documents marked "D–95," "D–95a," and "D–64," which the witness has just referred, be received in the record.

Mr. Moss. Is there objection?

Mr. MCCLORY. No objection.

Mr. Moss. Hearing none, they will be so received.

(The documents referred to, D–95, D–95a, and D–64, follow:)

D–95

April 24, 1958.

Memorandum

To: Director.
From: Regional chief of lands, region 4.
Subject: Transmittal of appraisals covering 90-acre tract and other lands figuring in possible exchange, Furnace Creek ranch area, Death Valley.

By teletype of March 19 from Assistant Director Tolson we were requested to rush appraisal reports of parcels F, G, and H, the 90-acre donated tract, and those lands desired by Death Valley Hotel Co. in connection with the proposed exchange.

This office immediately got in touch with Appraiser James A. Hopper, of Fresno, and arranged for him to get down to Death Valley just as quickly as possible. He arrived in Death Valley on April 1 and this office has today received his reports. There are attached the original and one copy of both reports. It will be noted that a separate report was made for the 90-acre tract at our request.

It will be seen that the exchange lands report covers both parcels F, G, and H, and parcels 1, 2, and 3, desired by the Death Valley Hotel Co. in exchange for the three parcels first mentioned. The 90-acre tract while being adjacent to is not part of parcel F.

In the recapitulation of values of the respective lands Mr. Hopper shows that parcels F, G, and H have a total value of $11,000, while parcels 1, 2, and 3 are shown with a total value of $11,105. The 90-acre donated tract is shown as having a value of $2,250. It is pointed out that Mr. Hopper has included in his parcel G the Harmony Borax Works, which in later correspondence the hotel company wished to exclude from said parcel G. Their exclusion from parcel G covering the Harmony Borax Works would amount to 5 acres.

The cost of these appraisal reports will amount to $600, which we consider quite reasonable in the circumstances. Our understanding is that your office will allot that amount to region 4 so that we can make payment direct to Mr. Hopper.

B. F. Manbey,
Regional Chief of Lands.

D–95a

Appraisal, Museum Site, Death Valley National Monument, April 1, 1958

letter of transmittal

April 23, 1958.

Department of the Interior,
Division of National Parks,
Region 4, San Francisco, Calif.
(Attention of Mr. B. F. Manbey, regional chief of lands).

Gentlemen: Pursuant to your recent request, I have personally inspected and carefully appraised the property owned by the Death Valley Hotel Co., Ltd., and described hereafter as the museum site in Death Valley National Monument. A complete legal description of this property is contained in the attached report.

In accordance with your request, this property has been appraised to estimate the market value as of April 1, 1958.

After carefully considering all of the data and pertinent information in regard to this property, it is my opinion that the market value as of April 1, 1958, was $2,250.

Market value as used herein is defined as the highest price in terms of money, which the property would bring if exposed to the open market for a reasonable length of time to find a buyer, who buys with a full knowledge of all of its uses and all of the uses for which it is capable of being adapted.

A parcel map showing the location of this property is included within the appraisal report covering other properties under the same ownership and may be referred to in connection with this property.

I trust that this report will be found satisfactory and I wish to thank you for this assignment.

Sincerely yours,

James A. Hopper, M.A.I.

QUALIFICATIONS

James A. Hopper, M.A.I., has been in the real estate, insurance and appraisal business in the Fresno County since 1940. He is now the owner of the firm of Wakefield & Hopper, licensed real estate brokers, insurance agents, and appraisers.

He is a member of the Fresno Realty Board and the Fresno Real Estate Interchange, and is a past director of both organizations. He is a member of the California State Real Estate Association and the National Association of Real Estate Brokers. He is a member of the American Institute of Real Estate Appraisers, and also a senior member of the Society of Residential Appraisers.

He has attended appraisal course I and appraisal course II, given by the American Institute of Real Estate Appraisers at the University of Southern California in 1952 and Stanford University in 1953, and a rural appraisal course at the University of California, Davis Branch, sponsored by the American Institute of Real Estate Appraisers in 1955.

He has appraised on a fee basis for the county of Fresno, the city of Fresno, the State of California, the U.S. Department of the Interior and the Justice Department of the United States, California Nursery Corp., Stewart & Nuss Inc., Del-Kar Vineyards Inc., Einstein Investment Co., Equitable Life Assurance Society, American National Insurance Co., Veterans' Administration, Fresno City Unified School District, as well as various county school districts, various business firms, attorneys, and individuals. He has qualified as an expert in the superior court of the State of California, and the U.S. Federal court.

OWNERSHIP

Official records of the county of Inyo show title to be vested in the name of Death Valley Hotel Co., Ltd.

LEGAL DESCRIPTION

The subject property is legally described as that tract of land comprising 90 acres more or less, located at the northwest corner of the intersection of California State Highway No. 190 and the Death Valley Airport road in sec. 16, T. 27 N., R. 1 E., S.B.B. & M., in Inyo County, Calif., and more particularly described as follows:

Beginning at the southeast corner of said section 16 and running north 0° 14′ east 964.73 feet along the east line of said section 16, to point A.P. –17, as shown on Death Valley Monument map NM–DV 6967 recorded March 30, 1954 in volume 5 of Maps, page 35, Records of Inyo County, the point of beginning; thence continuing north 0°14′ east 1,674.91 feet along said east line to the east one-fourth corner of said section 16; thence continuing north 0°14′ east 625.09 feet along said east line to a point; thence north 89°46′ west 1,784.61 feet to a point; thence south 0°14′ west 1,930.25 feet to a point on the north side of the airport road; thence south 69°25′ east 1,063.26 feet to point A.P. –19 on the north side of said airport road and thence south 89°46′ east 787.71 feet to A.P. –17 the point of beginning; containing 90 acres more or less, subject to any right vested in the State of California for a highway over and across said tract of land.

PURPOSE OF THE APPRAISAL

The subject property has been appraised to estimate the market value as of April 1, 1958, in connection with the contemplated gift from the Death Valley Hotel Co., Ltd., to the United States of America, with the understanding that this property is to be used as a museum site.

Market value as used herein is defined as the highest price in terms of money, which the property would bring if exposed to the open market for a reasonable length of time to find a buyer, who buys with a full knowledge of all of its uses and all of the uses for which it is capable of being adapted.

HIGHEST AND BEST USE

In estimating the value of the subject properties, consideration has been given to the location of the properties and the uses to which properties in this area have been devoted.

This study indicates that properties in the general area have scenic value only due to the location thereof, and the limited amount of water which is available

in the area, with the exception of the Furnace Creek Ranch and Furnace Creek Inn, which are described elsewhere in this report.

There is no other commercial development in the immediate area.

Consideration has also been given to the extreme temperatures prevailing in the area during the summer months of the year and the limited travel to the area during these months, which makes the commercial season in this particular area, limited to approximately 6 months of the year.

After considering all of the factors in regard to this property, it is the opinion of this appraiser that the highest and best use of the subject property is limited to the scenic value in its natural state and that there is no justification for any other use for the property.

UNDERLYING CONDITIONS

1. No survey has been made of the property and the dimensions used are those taken from the map furnished by the Department of the Interior, National Park Service, designated as drawing No. NW–DV–2123A.
2. No report of title was secured and it is presumed to be marketable and that any liens or encumbrances could be removed.
3. It is assumed that the acreages as designated on the map which is attached to and made a part of this report are accurate.
4. No right to expert testimony is included in this report.
5. No responsibility is assumed for matters legal in nature.

DESCRIPTION OF THE PROPERTY

The property under appraisal is an irregular shaped parcel, situated at the intersection of Highway No. 190 and the airport road, immediately north of the Furnace Creek Ranch. The property generally is situated on the northwesterly corner of the intersection and has a frontage along the State highway of 1,674.91 feet.

The property generally is level, rolling, natural desert land, with a limited amount of shrubbery and some tamarisk and willow trees situated on the extreme southerly end of the property.

The soil is generally sandy, it being a portion of the desert floor area.

There is no water supply to this property, there being no springs or wells on the property.

The parcel contains 90 acres, more or less, and is suitable only as a scenic property, having no potential commercial or residential value.

DISCUSSION OF VALUE

In estimating the value of the subject property, consideration has been given to the many factors which have an effect upon the value of the property under appraisal.

An investigation was made in regard to the general area, the immediate neighborhood surrounding the subject properties, together with water conditions, soil conditions, and topography.

Consideration was also given to the possible use to which this property might be put. This study was based on an analysis of the area and the uses to which properties in the area are presently being used. Consideration was also given to the possibility of further commercial operation in this area.

After considering all of these factors, together with the past experience and judgment of this appraiser, the value of this property is as assigned elsewhere in this report. This value is further substantiated by the evidence of sales and transfers of ownership in the area. While it is recognized by this appraiser that sales involving Government purchase and exchange, normally considered to be under trade or condemnation, are not permitted as evidence of market value, it is the considered opinion of this appraiser that they tend to show trends and justify the opinions of the appraiser expressed in this report.

In considering trends and value in the area, an investigation was made of four transactions involving lands in the general area of the subject properties. These transactions all involved lands which were transferred from private individuals and corporations to the United States of America.

It is to be noted that there were two distinct classes of property involved; one of them being properties that had adequate water supplies, the other having

no water supply available. It is to be noted that those properties which had no water supply were transactions made in 1956; one of them being an 80-acre parcel which sold for a consideration of $18.75 per acre, the other involving adjacent lands to the subject property and being an exchange agreement between a private corporation and the United States of America. This transaction involved some 240 acres and the consideration was approximately $18 per acre.

The transactions involving properties which had water supplies sold for considerably more money. This is evidenced by a transaction involving a condemnation suit which was settled by judgment in 1952, involving a parcel containing 320 acres. This judgment was in the amount of $125 per acre. The lands were somewhat comparable to the subject property. However, there was a good water supply and miscellaneous small building improvements.

Another transaction involved a 160-acre parcel situated adjacent to the valley area but in the mountain area to the west. This property also had an adequate water supply and was a negotiated settlement at an indicated land value of $85 per acre.

In considering the values of the subject property, it is the opinion of this appraiser that this property has scenic value only and inasmuch as there is no water supply available, it would have a nominal value and little or no value in use to private parties.

In the opinion of this appraiser, this property has an indicated value of $25 per acre. This is in excess of the two transfers referred to herein, for properties having no water. However, this property is well located in the monument area, and for this reason has been given further consideration because of its location.

VALUATION

After carefully considering all of the data and pertinent information in regard to the subject property, it is the opinion of this appraiser that the market value of the fee title, as of April 1, 1958, was $2,250.

Market value as used herein is defined as the highest price, in terms of money, which the property would bring if exposed to the open market for a reasonable length of time to find a buyer, who buys with a full knowledge of all of its uses and all of the uses for which it is capable of being adapted.

CERTIFICATION

I, the undersigned appraiser, do hereby certify that I did personally inspect and carefully appraise the subject property on March 26 and 27, 1958; that I have no present or future intended interest in the same; and that my fee for this appraisal is not based on the value as reported herein.

I further certify that this appraisal has been made in accordance with the rules of ethics of the American Institute of Real Estate Appraisers of the National Association of Real Estate Boards.

JAMES A. HOPPER, M.A.I.

Dated at Fresno, Calif., this 23d day of April 1958.

D–64

APPRAISAL, DEATH VALLEY HOTEL CO., LTD., PARCELS NO. F, G, AND H, AND U. S. GOVERNMENT LANDS, PARCELS NO. 1, 2, AND 3, DEATH VALLEY NATIONAL MONUMENT, APRIL 1, 1958

LETTER OF TRANSMITTAL

APRIL 22, 1958.

DEPARTMENT OF THE INTERIOR,
DIVISION OF NATIONAL PARKS,
Region 4, San Francisco, Calif.
(Attention: Mr. B. F. Manbey, Regional Chief of Lands).

GENTLEMEN: Pursuant to our recent conversation, I have personally inspected and carefully appraised the properties owned by the Death Valley Hotel Co., Ltd., and described herein as parcels No. F, G, and H.

Also, I have personally inspected and carefully appraised the properties owned by the United States of America and described herein as parcels No. 1, 2, and 3.

These properties have been appraised to estimate the market value as of April 1, 1958, and subject to the underlying conditions described in the reports.

After carefully considering all of the data and information in regard to these properties, it is my opinion that the market value as of the above date, for parcels No. F, G, and H, was $11,000.

It is further my opinion that the market value, as of the same date, for parcels No. 1, 2, and 3, was $11,105.

Market value as used herein is defined as the highest price in terms of money, which the property would bring if exposed to the open market for a reasonable length of time to find a buyer, who buys with a full knowledge of all of its uses and all of the uses for which it is capable of being adapted.

I trust that these reports are found to be satisfactory and thank you for this assignment.

Sincerely yours,

JAMES A. HOPPER, M.A.I.

Recapitulation of values

Parcel No. F	$4,100
Parcel No. G	6,150
Parcel No. H	750
Total	11,000
Parcel No. 1	475
Do	8,500
Parcel No. 2	2,000
Parcel No. 3	130
Total	11,105

OWNERSHIP

Official records of the county of Inyo show title to be vested in the name of Death Valley Hotel Co., Ltd.

Parcel No. F

Legal description.—The subject property is legally described as the east half of section 16, township 27 north, range 1 east, San Bernardino base line and meridian, excepting therefrom that portion of Furnace Creek Ranch, lying south of the airport road and containing 164 acres more or less.

Parcel No. G

Legal description.—The subject property is legally described as the southwest quarter of section 9, township 27 north, range 1 east, San Bernardino base line and meridian, and also that portion of section 16 lying between the airport and parcel No. F, described herein, and containing 246 acres more or less.

Parcel No. H

Legal description.—The subject property is legally described as that portion of section 16, township 27 north, range 1 east, San Bernardino base line and meridian, situated south of parcel No. G and between the airport and parcel F, and containing 30 acres more or less.

Assessed valuation.—For the purposes of taxation, the county assessor of the county of Inyo has assessed all lands in this area on the basis of $3.25 per acre. Therefore, all of the lands described in parcels F, G, and H, would have an assessed value of $1,430.

The current tax rate in this area is approximately $4.50 per $100 of assessed valuation. Therefore, on this basis, the current taxes on the subject properties, would be $64.35.

Purpose of the appraisal.—Parcels Nos. F, G, and H included within this report, have been appraised to estimate the market value as of April 1, 1958, in connection with the contemplated exchange of lands by the United States of America, Department of Interior, and the Death Valley Hotel Co., Ltd.

Market value as used herein is defined as the highest price in terms of money, which the property would bring if exposed to the open market for a reasonable length of time to find a buyer, who buys with a full knowledge of all of its uses and all of the uses for which it is capable of being adapted.

Highest and best use.—In estimating the value of the subject properties, consideration has been given to the location of the properties and the uses to which properties in this area have been devoted.

This study indicates that properties in the general area have scenic value only due to the location thereof, and the limited amount of water which is available in the area, with the exception of the Furnace Creek Ranch and Furnace Creek Inn, which are described elsewhere in this report.

There is no other commercial development in the immediate area.

Consideration has also been given to the extreme temperatures prevailing in the area during the summer months of the year and the limited travel to the area during these months, which makes the commercial season in this particular area, limited to approximately 6 months of the year.

After considering all of the factors in regard to this property, it is the opinion of this appraiser that the highest and best use of the subject property is limited to the scenic value in its natural state and that there is no justification for any other use for the property.

Underlying conditions.—

1. No survey has been made of the property and the dimensions used and those taken from the map furnished by the Department of Interior, National Park Service, designated as drawing No. NM–DV 2123A.
2. No report of title was secured and it is presumed to be marketable and that any liens or encumbrances could be removed.
3. It is assumed that the acreages as designated on the map which is attached to and made a part of this report are accurate.
4. No attempt has been made to legally describe the parcels as it would be necessary to work out a metes and bounds description.
5. No right to expert testimony is included in this report.
6. No responsibility is assumed for matters legal in nature.

Description of properties.—Parcel No. F: This property is an L-shaped parcel as delineated on the map which is attached to and made a part of this report. It is generally rolling in contour, extending from the edge of the hills on the east into the flat desert floor. The land is generally sandy and there is a limited number of trees, bushes and shrubs.

This property is adjacent to the State Highway No. 190, which runs through Death Valley National Monument.

There is no water supply to this property, there being no springs or wells on the property. The parcel contains 164 acres more or less and is suitable only as a scenic property, having no potential commercial or residential value.

Parcel No. G: This parcel is an irregular shaped parcel as delineated on the map which is attached to and made a part of this report. The parcel contains 246 acres more or less and is generally rolling to level land, with the exception of the northerly portion thereof, which is a hill and U.S. Monument No. 34, which is situated approximately halfway up the hill and on the eastern boundary of this parcel.

Situated in the extreme northeasterly corner of this property, is the old Harmony Borax Works which was used many years ago, at a time when borax was mined commercially in this area. The former mill site is now surrounded and enclosed within a 6-foot woven wire fence to preserve the old mill site. This is the only improvement situated on this parcel.

The majority of the land contained within this parcel is situated in the flat desert floor area. The soils are generally sandy in nature with numerous rock outcroppings in the northern mountain area. This land adjoins the Furnace Creek Airport and is generally free from vegetation with the exception of the southerly border thereof, where there are a number of tamarisk and willow trees, together with miscellaneous bushes and shrubs. These trees are presumed to be voluntary and in a great measure are due to the fact that surplus water from the Furnace Creek Ranch has run onto the lower portion of this parcel.

The property has scenic value only as it is not suitable for any commercial or residential type of development. There is no water supply originating on this parcel.

Parcel No. H: This is an irregular shaped parcel as delineated on the map which is attached to and made a part of this report. The parcel contains 30 acres, more or less, and is adjacent and north of the airport road, which is a road leading from Highway No. 190 in the westerly direction to the airport. It is situated aproximately one-half miles west of Highway No. 190.

This land is generally level, it being rough desert floor land. The soil is sandy and the only growth is miscellaneous trees, shrubs, and bushes as described on the other parcels included within this appraisal.

There is no water originating on this parcel.

The property has little or no value for any purpose other than scenic use.

Discussion of value.—In estimating the value of the subject property, consideration has been given to many factors which have an effect upon the value of the property which is under appraisal and which is described herein as parcels Nos. F, G, and H.

An investigation was made in regard to the general area, the immediate neighborhood surrounding the subject properties, together with water conditions, soil conditions, and topography.

Consideration was also given to the possible uses to which these properties might be put. This study was based on an analysis of the area and the uses to which properties in the area are presently being used. Consideration was also given to the possibility of further commercial operation in this area.

After considering all of these factors, together with the past experience and judgment of this appraiser, the values of these properties are as assigned elsewhere in this report. These values are further substantiated by the evidence of sales and transfers of ownership in the area. While it is recognized by this appraiser that sales involving Government purchases and exchange, normally considered to be under trade or condemnation, are not permitted as evidence of market value, it is the considered opinion of this appraiser that they tend to show trends and justify the opinions of the appraiser expressed in this report.

In considering trends and value in the area, an investigation was made of four transactions involving lands in the general area of the subject properties. These transactions all involved lands which were transferred from private individuals and corporations to the United States of America.

It is to be noted that there were two district classes of property involved; one of them being properties that had adequate water supplies, the other having no water supply available. It is to be noted that those properties which had no water supply were transactions made in 1956; one of them being an 80-acre parcel which sold for a consideration of $18.75 per acre, the other involving adjacent lands to the subject property and being an exchange agreement between a private corporation and the United States of America. This transaction involved some 240 acres and the consideration was approximately $18 per acre.

The transactions involving properties which had water supplies sold for considerably more money. This is evidenced by a transaction involving a condemnation suit which was settled by judgment in 1952, involving a parcel containing 320 acres. This judgment was in the amount of $125 per acre. The lands were somewhat comparable to the subject property. However, there was a good water supply and miscellaneous small building improvements.

Another transaction involved a 160-acre parcel situated adjacent to the valley area but in the mountain area to the west. This property also had an adequate water supply and was a negotiated settlement at an indicated land value of $85 per acre.

In considering the values of the subject properties, it is the opinion of this appraiser that these properties have scenic value only and inasmuch as there is no water supply available, they would have a nominal value and little or no value in use to private parties.

In the opinion of this appraiser, these properties have an indicated value of $25 per acre. This is in excess of the two transfers referred to herein, for properties having no water. However, these properties are well located in the monument area, and for this reason have been given further consideration because of their location.

Valuation.—After carefully considering all of the data and pertinent information in regard to the subject properties, it is the opinion of this appraiser that the market value of the fee title, as of April 1, 1958, was as follows:

Parcel No. F: 164 acres, at $35 per acre	$4,100
Parcel No. G: 246 acres, at $25 per acre	6,150
Parcel No. H: 30 acres, at $25 per acre	750
Total	11,000

CERTIFICATION

I, the undersigned appraiser, do hereby certify that I did personally inspect and carefully appraise the subject property on March 26 and 27, 1958; that I have no present or future intended interest in the same; and that my fee for this appraisal is not based on the value as reported herein.

I further certify that this appraisal has been made in accordance with the rules of ethics of the American Institute of Real Estate Appraisers of the National Association of Real Estate Boards.

JAMES A. HOPPER, M.A.I.

Dated at Fresno, Calif., this 21st day of April 1958.

OWNERSHIP

Official records of the county of Inyo show title to be vested in the name of United States of America.

Parcel No. 1

Legal description.—The subject property is legally described as the west half of the northwest quarter of the northwest quarter of section 22, township 27 north, range 1 east, San Bernardino baseline and meridian, containing 20 acres more or less.

Parcel No. 2

Legal description.—The subject property is legally described as the south half of the northeast quarter of section 21, township 27 north, range 1 east, San Bernardino baseline and meridian, containing 80 acres more or less.

Parcel No. 3

Legal description.—The subject property is legally described as a portion of the northeast quarter of the northwest quarter of section 21, township 27 north, range 1 east, San Bernardino baseline and meridian, and more particularly described as:

Beginning at a point on the south line of the northeast quarter of the northwest quarter of section 21, township 27 north, range 1 east, San Bernardino baseline and meridian, said point being 220.49 feet west of the southeast corner of the northeast quarter of the northwest quarter of said section 21; thence south 89°32′ east 220.49 feet; thence north 1,320 feet to the northeast corner of the northeast quarter of the northwest quarter of said section 21; thence west 89°47′ 648.72 feet; thence south 17°45′ west 1,387.67 feet to the point of beginning and containing 13.037 acres more or less.

Assessed valuation.—For the purposes of taxation, the county assessor of the county of Inyo has assessed all lands in this area on the basis of $3.25 per acre. Therefore, all of the lands described in parcels 1, 2, ad 3 would have a assessed value of $367.25. The current tax rate in this area is approximately $4.50 per $100 of assessed valuation. Therefore, on this basis, the current taxes on the subject properties would be $16.50. However, inasmuch as these properties are owned by the United States of America, they are not carried on the current tax rolls and are not assessed by the county assessor of Inyo County.

Purpose of the appraisal.—Parcels No. 1, 2, and 3 included within this report, have been appraised to estimate the market value as of April 1, 1958, in connection with the contemplated exchange of lands by the United States of America, Department of Interior, and the Death Valley Hotel Co., Ltd.

Market value as used herein is defined as the highest price in terms of money, which the property would bring if exposed to the open market for a reasonable length of time to find a buyer, who buys with a full knowledge of all of its uses and all of the uses for which it is capable of being adapted.

Highest and best use.—In estimating the value of the subject property, consideration has been given to the location and uses of adjacent properties. All of the properties included within this appraisal, at the present time, are used for scenic purposes only and it would seem this represents the highest and best use of parcels No. 2 and 3.

However, these parcels are adjacent to the Furnace Creek Ranch and parcel No. 3 is presently being used by the owners of the ranch for storage purposes, woodyard, and pasture for livestock.

However, in considering the value of parcel No. 1, consideration has been given to the fact that this property is divided by Highway No. 190 and that the property on the westerly side of the highway is between the holdings of the Furnace Creek Ranch and the highway and it is necessary to cross over these lands to gain access to the Furnace Creek Ranch resort area.

Consideration has also been given to the fact that a portion of this land is suitable for service station use and this use would represent the highest and best use of a portion of this land.

Underlying conditions.—

1. No survey has been made of the property and the dimensions used are those taken from the map furnished by the Department of Interior, National Park Service, designated as Drawing No. NM–DV 2123A.
2. No report of title was secured and it is presumed to be marketable and that any liens or encumbrances could be removed.
3. It is assumed that the acreages as designated on the map which is attached to and made a part of this report are accurate.
4. No attempt has been made to legally describe the parcels as it would be necessary to work out a metes and bounds description.
5. No right to expert testimony is included in this report.
6. No responsibility is assumed for matters legal in nature.
7. It is assumed on parcel No. 1 that access to Furnace Creek Ranch from State Highway No. 190 could be terminated by the United States of America at any time.

Description of properties—Parcel No. 1: This parcel consists of a rectangular shaped piece of land containing 20 acres more or less, as shown on the map which is attached to and made a part of this report. This land is divided by the State Highway No. 190 which is the main highway extending through Death Valley. The highway right-of-way is situated approximately 120 feet east of the entrance to Death Valley Ranch, and it is over this area that guests to the ranch must cross. The road area is approximately 40 feet in width and the remaining part of the land is on the easterly side of the highway.

This land is unimproved desert land with a limited amount of brush and shrubs and numerous outcroppings. There are two ditches running across the property from a spring area situated east of the property and the ditches extend from the spring area to the Furnace Creek Ranch. There are no improvements on the property at the present time.

Parcel No. 2: This is a rectangular shaped parcel situated adjacent to the southerly boundary of the Furnace Creek Ranch. It is approximately 300 feet west of Highway No. 190 and is between the Furnace Creek Ranch and an Indian reservation.

The land is generally rough and rolling and the easterly 40 acres has rocky, gravelly type soil. The westerly 40 acres of the parcel has a sandy soil. There are no improvements on this property.

Parcel No. 3: This is an irregular shaped parcel containing 13 acres, more or less, and situated immediately west of the Furnace Creek Ranch between the ranch and the airport.

It is a pie-shaped parcel, naturally rough and rolling land. The soil is sandy and there is some growth of miscellaneous shrubs and bushes.

The entire area is fenced. However, it is assumed that the fence is the property of the adjacent owners.

This property presently is being used by the owners of Furnace Creek Ranch as a woodyard and storage area.

Discussion of value.—In estimating the value of the subject properties, consideration has been given to many factors which have an effect upon the value of the property which is under appraisal and which is described herein as parcels Nos. 1, 2, and 3.

An investigation was made in regard to the general area, the immediate neighborhood surrounding the subject properties, together with water conditions, soil conditions, and topography.

Consideration was also given to the possibility of further expansion of commercial facilities in this area. A study also involved an analysis of the possible uses to which these properties might be put. This study was based on an analysis of the area and the uses to which properties in the area are presently being used.

After carefully considering all of these factors, it is the considered judgment of this appraiser that the values of these properties are as assigned elsewhere in this report. These values are substantiated by the evidence of sales and transfers of ownership in the area, together with an analysis of the use of a portion of parcel No. 1 as a service station site. This use has been considered in view of the fact that the service station now situated adjacent to parcel No. 1, has been abandoned because of obsolescence and physical deterioration. In considering the service station site, consideration was given to the fact that the existing State highway divides parcel No. 1 and the service station could be located on either side of the road, immediately adjacent to the entrance of the Furnace Creek Ranch.

Consideration was also given to the fact that the season in this area is relatively short and because of this situation, the value for a commercial site or service station site would be influenced by this factor.

In estimating the value of this portion of the property, an analysis based on an estimated gross income has been made. This analysis is based on an estimated annual gross income of $900, which is based on an estimated 15,000 gallons of gasoline sales per month for a period of 6 months. Because of the lack of competition in the area, this income stream has been treated as an annuity for a period of 20 years, which is the estimated economic life of a facility to be constructed.

This process indicates the present worth of the income stream for a 20-year period to be $7,700. To this has been added the reversionary value of the land at the end of the 20-year period, indicating an additional value of $2,000 or a total indicated value for this site of $9,700.

In addition to this site, the balance of the land is comparable to other lands which have been transferred in this area.

In considering the values of the remaining lands, consideration was given to the trends and values in the area as indicated by four transactions involving lands in the general area of the subject properties. These transactions all involved lands which were transferred from private individuals and corporations to the United States of America.

It is to be noted that there were two distinct classes of property involved; one of them being properties that had adequate water supplies, the other having no water supply available. It is to be noted that those properties which had no water supply were transactions made in 1956; one of them being an 80-acre parcel which sold for a consideration of $18.75 per acre, the other involving adjacent lands to the subject property and being an exchange agreement between a private corporation and the United States of America. This transaction involved some 240 acres and the consideration was approximately $18 per acre.

The transactions involving properties which had water supplies sold for considerably more money. This is evidenced by a transaction involving a condemnation suit which was settled by judgment in 1952, involving a parcel containing 320 acres. This judgment was in the amount of $125 per acre. The lands were somewhat comparable to the subject property. However, there was a good water supply and miscellaneous small building improvements.

Another transaction involved a 160-acre parcel situated adjacent to the valley area but in the mountain area to the west. This property also had an adeqaute water supply and was a negotiated settlement at an indicated land value of $85 per acre.

In considering the value of the remainder of these properties, it is the opinion of this appraiser that these properties have scenic value only and inasmuch as there is no water supply available, they would have a nominal value and little or no value in use to private parties. However, inasmuch as parcels Nos. 1 and 2 have access to State highway, as compared to parcel No. 3 which has no access, it is the opinion of this appraiser that parcels Nos. 1 and 2 have a greater value than parcel No. 3.

After carefully considering all of the data in regard to these properties, the indicated value for the service station site, a 1-acre parcel within parcel No. 1, is $8,500 and the indicated value of the remaining 19 acres of parcel No. 1, is $25 per acre; $25 per acre is also the indicated value of parcel No. 2, and because of the location of parcel No. 3, the indicated value thereof is $10 per acre.

The indicated value of $25 per acre is in excess of the two transfers referred to herein for properties having no water. However, these properties are well located in the monument area and for this reason have been given further consideration because of their location.

Valuation.—After carefully considering all of the data and pertinent information in regard to the subject properties, it is the opinion of this appraiser that the market value of the fee title, as of April 1, 1958, was as follows:

Parcel No. 1: 19 acres, at $25 per acre, $475; 1 acre service station site, $8,500; parcel No. 2: 80 acres, at $25 per acre, $2,000; parcel No. 3: 13 acres, at $10 per acre, $130; or a total value of $11,105.

Market value as used herein is defined as the highest price in terms of money, which the property would bring if exposed to the open market for a reasonable length of time to find a buyer, who buys with a full knowledge of all of its uses and all of the uses for which it is capable of being adapted.

CERTIFICATION

I, the undersigned appraiser, do hereby certify that I did personally inspect and carefully appraise the subject property on March 26 and 27, 1958; that I have no present or future intended interest in the same; and that my fee for this appraisal is not based on the value as reported herein.

I further certify that this appraisal has been made in accordance with the rules of ethics of the American Institute of Real Estate Appraisers of the National Association of Real Estate Boards.

JAMES A. HOPPER, M.A.I.

Dated at Fresno, Calif., this 22d day of April 1958.

QUALIFICATIONS

James A. Hopper, M.A.I., has been in the real estate, insurance and appraisal business in the Fresno County since 1940. He is now the owner of the firm of Wakefield & Hopper, licensed real estate brokers, insurance agents and appraisers.

He is a member of the Fresno Realty Board and the Fresno Real Estate Interchange, and is a past director of both organizations. He is a member of the California State Real Estate Association and the National Association of Real Estate Brokers. He is a member of the American Institute of Real Estate Appraisers, and also a senior member of the Society of Residential Appraisers.

He has attended appraisal course I and appraisal course II, given by the American Institute of Real Estate Appraisers at the University of Southern California in 1952 and Stanford University in 1953, and a rural appraisal course at the University of California, Davis branch, sponsored by the American Institute of Real Estate Appraisers in 1955.

He has appraised on a fee basis for the county of Fresno, the city of Fresno, and the State of California, the U.S. Department of the Interior and the Justice Department of the United States, California Nursery Corp., Stewart & Nuss Inc., Del-Kar Vineyards, Inc., Einstein Investment Co., Equitable Life Assurance Society, American National Insurance Co., Veterans' Administration, Fresno City Unified School District, as well as various county school districts, various business firms, attorneys, and individuals.

He has qualified as an expert in the Superior Court of the State of California, and the U.S. Federal court.

GENERAL AREA DATA

The subject properties under appraisal are all situated within the Death Valley National Monument, approximately in the center thereof, and adjacent to the Furnace Creek Ranch, which is owned by the Death Valley Hotel Co., Ltd.

This area is situated approximately 125 miles from the town of Independence, the county seat of the county of Inyo and approximately 120 miles north of the town of Baker, which is on the highway leading from Los Angeles, Calif., to Las Vegas, Nev.

This entire area comprises a large area, having the characteristics of desert land with a mountain range on both sides of the valley. The floor of the valley is primarily a salt flat formation, and there are many geographical points of interest within the monument.

The Furnace Creek Ranch, previously referred to herein, is one of the larger and older commercial establishments on private lands within the national monument. This ranch has motel facilities and accommodations for 300 guests. In addition to the motel cabins, there is a cafeteria, a general store, curio shop, service station, and museum. In addition to these facilities, there is a swimming pool and a nine-hole golf course.

The properties under appraisal adjoin the ranch properties.

In addition to the Furnace Creek Ranch, there is the Furnace Creek Inn, which is approximately one-half mile from the ranch property. This is an inn having accommodations for 150 guests. These improvements are situated approximately 2 miles from the Government center which is the headquarters for Death Valley National Mounment. They are the only commercial establishments in this portion of the monument.

Death Valley National Monument is situated at or below sea level, it being the location of the lowest spot in the Western Hemisphere. The temperatures in

the area are extremely high in the summertime and for this reason the tourist season in the monument is relatively short. The commercial establishments are open from the first part of November to the latter part of April, a period of approximately 6 months. The rest of the year, there are no commercial facilities available in the area, with the exception of a gasoline service station which is kept open on a year-round basis.

Death Valley National Monument, like many other national parks, has become very popular in the past few years and the number of tourists attracted to this area, has increased steadily.

Water conditions in this area are extremely limited. However, adjacent to the Death Valley Hotel Co., Ltd., properties, there is a spring which provides an adequate amount of water for domestic purposes, to service both the ranch and the inn during the months of operation. After this period and during the summer months, the water supply diminishes and is extremely limited. Therefore, the possibility of further commercial development on the private lands in this area are extremely limited because of the water supply.

The soils in this general area range from a salty alkaline type, commonly referred to as salt flats, to a sandy, pebbly, loam type soil, with many large deposits of various sizes and aggregate. There is a very limited amount of vegetation throughout the general area.

However, on the premises of the Furnace Creek Ranch, there is a large date palm orchard which produces commercial quantities of dates. Other than this orchard, there is no other agricultural crop grown in the area and most of the trees in the area are limited to tamarisk with some small bush-type shrubs and grasses.

Rainfall in the area is extremely limited, the average rainfall being approximately 2 inches per year.

Income approach—Portion of parcel No. 1—Service station site

Estimated annual gross income: 15,000 gallons per month for 6-month period at 1 cent per gallon per month, $150×6 months or $900		$900.00
Fixed charges:		
Taxes	$125.00	
Management, 2½ percent	45.00	
		170.00
Net income to land		730.00
Present worth of income stream for a period of 20 years at 7 percent interest rate, factor 10.594, then $730×10.594 or present worth of the income stream		7,733.62
Plus value of reversion of land at end of 20-year period, factor 0.258418, then $7,500×0.258418 or		1,938.13
Total indicated land value		9,671.75
Round off		9,700.00

Mr. McCLORY. Mr. Chairman, I might say with regard to the documents, I assume that any documents which appear to be relevant to our hearing, whether they are properly received as part of the record now or at some later time, may be received and included and considered by the subcommittee.

Mr. Moss. Do you make that any form of a unanimous request?

Mr. McCLORY. I so move, yes.

Mr. Moss. Without objection, the request is ordered and the documents referred to in the course of the hearings will be included at the appropriate point in the hearing record.

Mr. ROMNEY. Mr. Merriam, we have been referring to a proposed exchange of lands between the United States and the hotel company, and I would like to ask, for the record, whether the exchange of lands ever took place?

Mr. MERRIAM. No, it never took place. Pardon me. It did not take place.

Mr. ROMNEY. Are you familiar with a memorandum from the staff historian of the National Park Service, part of which refers to the desirability or undesirability of the proposed site for the visitor center located north of Furnace Creek Ranch? The document is numbered D–78.

Mr. MERRIAM. I don't know whether I had seen it before, but I knew that Mr. Appleman had been out in Death Valley for a very short time and made a report.

Mr. ROMNEY. The document is a memorandum dated December 27, 1957, to the Chief, Division of Interpretation, National Park Service, from Staff Historian Appleman, subject: Comments on Recent Visit to Death Valley National Monument. The document expresses the opinion of the staff historian with respect to the acquirability of this site. You have not personally seen this before, I take it?

Mr. MERRIAM. Well, I don't remember it. I do remember that Mr. Appleman came out to this region and spent a short time in Death Valley, and several other places. I am not trying to be facetious, but it seems that every place he went he had some different way of solving the problem.

Mr. ROMNEY. Mr. Chairman, I would like to request that this document, D–78, which is an extract from an official memorandum from the Park Service staff historian, be received into the record at this point.

Mr. Moss. Well, under the general authority, it will not be necessary to specifically request it at this point.

(The document referred to, D–78, follows:)

D–78

DECEMBER 27, 1957.

MEMORANDUM

To: Chief, Division of Interpretation (NPS).
From: Staff Historian Appleman.
Subject: Comments on Recent Visit to Death Valley National Monument.

I am submitting this pursuant to your request for reports on visits to parks.

I arrived with Dr. John Hussey, regional historian, region 4, at Death Valley National Monument the evening of October 9. We entered the national monument from the east by way of Towne's Pass and Stovepipe Wells. We stayed at Furnace Creek Ranch. The next morning, Thursday, we met Superintendent Fred Binnewies and set out soon thereafter accompanied by Park Naturalist Meredith B. Ingham on a tour of the park with particular reference to places of historical association. Ingham proved to be a good guide and was well informed on many subjects of interest to us.

* * * * * * *

(P. 5) *Location of visitor center.*—In a discussion with Regional Historian Hussey on the way to Death Valley, I learned a great deal about the past history of the proposal to build a visitor center at Furnace Creek Ranch, and of negotiations with the State of California and the U.S. Potash Co. in that connection. In discussion with Mr. Binnewies on the morning of October 12, we learned that during the recent conference at Grand Teton National Park there were conversations with Mr. Horace Albright which indicated that the difficulties that had delayed proceeding with building the visitor center in cooperation with the State of California had been eliminated and that the visitor center would be built this next summer. In effect, the State is to build about one-half of the structure and the National Park Service is to build the other part. The site has been selected near Furnace Creek Ranch on the north side of the ranch development near the road to the airfield, and immediately adjacent to the main park road which is a State highway.

I must say that the site selected for this visitor center is, in my opinion, a very poor one. It is close to the Furnace Creek Ranch development and the concessioner. It is on flat ground almost surrounded by a mesquite thicket. I

think any number of sites might have been chosen that would be far superior to this one for visitor center purposes. In looking over the possible sites in the short time I was there in the monument area, I favored the hill or low butte adjacent to the Harmony Borax Works, about 2 miles south of Furnace Creek Ranch. This butte has sufficient elevation to afford a fine view of Death Valley to the north, south, east, and west. It also is immediately adjacent to the most important physical exhibit remaining in Death Valley of the borax works. The remains of the Harmony Borax Works, built in 1882, are now fenced in and protected, property of the U.S. Potash Co. This site close to and seen from the main park road is readily available to all people traveling through Death Valley.

Another suitable site is on the fan coming out of Furnace Creek Wash, just south of Furnace Creek Ranch. I understand this site was considered at one time and rejected because of the possibility of flooding from one of the infrequent mountain storms that may be experienced in this desert country. I should think the chances of this happening so remote as to be almost negligible. In any event, diverting channels could be constructed to take away any water that might threaten such a development. A visitor center there could be located pretty well down on the fan but still high enough to command a view of the valley north and south. Mr. Binnewies told us that Dr. Charles J. Hunt, who is associated with the U.S. Geological Survey in its Denver office, has been engaged in a geological survey at Death Valley. He has expressed the view that the danger from a flash flood on the Furnace Creek Wash fan is unlikely and remote.

If the question of location for the Death Valley visitor center can be reopened, I urge that it be done. There are so many sites available that would give good sweeping views of the valley and permit good orientation of the visitors for both natural history and human history subjects that this great advantage should not be neglected. There is no such advantage at the site now selected for the visitor center. There are no views available from the present site of the tremendous sweep and beauty of Death Valley. The site is hedged by a mesquite thicket and the palm trees of Furnace Creek Ranch. It appears to me that the present site will benefit the concessioner more than it will the visitor, and will not serve the best interest of the National Park Service in presenting Death Valley to the American people.

On the morning of October 12, we met with Mr. Binnewies in his office. At that time I mentioned briefly the major points of impressions that I have recorded in this memorandum so that he would know what my views were with respect to interpretation and development of the park, with particular reference to its historical values. I voiced my belief that the visitor center was wrongly located, and suggested one or two alternate sites. He seemed to agree that the visitor center was not well located. He reviewed briefly some of the background and gave the impression that there was nothing that could be done about it.

* * * * * * *

ROY E. APPLEMAN, *Staff Historian.*

Mr. ROMNEY. Mr. Merriam, are you familiar with the gasoline station which is now located at a site just north of the Furnace Creek Ranch?

Mr. MERRIAM. Yes, in a general way.

Mr. ROMNEY. Do you know the ownership of the land on which this gasoline station is situated?

Mr. MERRIAM. When it was built it was assumed to be land of the borax company, but this discussion yesterday would indicate that there is some question whether it is.

Mr. ROMNEY. Well, on the assumption that it is on land of the borax company, is there an access to the highway through the land of the borax company?

Mr. MERRIAM. The access to the highway is on a special use permit granted by the National Park Service as I remember it.

Mr. ROMNEY. Do you know whether the special use permit which was granted by the National Park Service is an irrevocable permit?

Mr. MERRIAM. I can't answer that offhand, but my understanding of all those permits is that they're revocable.

Mr. ROMNEY. Do you know whether the permit was issued for a fee or whether it was a no-fee permit?

Mr. MERRIAM. I can't answer that. I don't know.

Mr. ROMNEY. Mr. Chairman, I should like to offer a document numbered D–117 which is a copy of the special use permit referred to, dated April 27, 1959, and the attachment thereto which is a map showing the area involved in the special use permit.

Mr. MCCLORY. No objection.

(The document marked D–117 is in the subcommittee files.)

Mr. ROMNEY. The permit which I refer to covers an area of 7.2 acres and it involves the access to the filling station and also certain privileges for the landscaping of the tract itself. It is customary, Mr. Merriam, to issue a permit of this type on a no-fee basis?

Mr. MERRIAM. Well, I think they usually have a fee, but that is just my own impression.

Mr. ROMNEY. Do you know any reason why a fee was not provided in this instance?

Mr. MERRIAM. I don't know the reason why it wasn't in this particular instance, no.

Mr. ROMNEY. Is it not true that the Congress has established a policy that fair and equitable charges are to be made of things of value furnished to private industry by the Government and that the Park Service ordinarily makes a fee charge for such permits?

Mr. MERRIAM. I think that is a normal thing, yes, according to my recollection. There are some instances, however, which may apply in this case. You have private landowners in a number of national parks—I am not referring to Death Valley—and my recollection is that access to those private homes is permitted without a fee.

Mr. ROMNEY. Are you familiar with the fact that a subsequent permit was issued for a purpose of establishing a sewer system connection to the filling station at the Furnace Creek Ranch?

Mr. MERRIAM. I am familiar with that, yes.

Mr. ROMNEY. Do you know whether this was issue on a fee basis?

Mr. MERRIAM. It's my understanding that it was according to my recollection, but I——

Mr. MOSS. At this point the Chair is going to recess the subcommittee for 5 minutes.

(Whereupon a short recess was taken at 11:55 a.m.)

Mr. MOSS. The subcommittee will be in order. You may continue, Mr. Romney.

Mr. ROMNEY. Mr. Merriam, I show you a document marked D–109, a memorandum to you from the superintendent of Death Valley, dated November 25, 1958, subject: Proposed filling station at Furnace Creek Ranch.

Mr. MERRIAM. This has to do with that sewer system. Is that——

Mr. ROMNEY. Yes.

Mr. MERRIAM (continuing)—what you are concerned about, concerned with, I should say?

Mr. ROMNEY. Well, the question is: Does this letter indicate that there were a number of factors involved in the determination as to whether the filling station site was the most desirable site from the standpoint of the National Park Service?

Mr. MERRIAM. Well, I do remember that there was some discussion about the location of this site and that some sites were objected to by the Park Service.

Mr. ROMNEY. Does the letter which you hold indicate that there was some objection to the site just north of the ranch?

Mr. MERRIAM. The one on which it was actually constructed?

Mr. ROMNEY. Yes, sir.

Mr. MERRIAM. Well, there may have been to begin with. I do not remember the detail of it.

Mr. ROMNEY. Was the site which was actually used for the filling station the site the Death Valley Hotel Co. itself sought?

Mr. MERRIAM. Well, I assume it may have been. As I remember it, there was a provision that the Park Service insisted on that there be a screen which, as I remember, was planted between that and the site of the visitor center.

Mr. ROMNEY. But the site which was actually used is the site which the hotel company had always wanted?

Mr. MERRIAM. I couldn't say as to that, although I am sure that some of the landscape architects went over the matter from the standpoint of protecting the Park Service interest and advising them on it.

Mr. ROMNEY. Mr. Chairman, I request permission to include this document that I just referred to in the record. It is identified as D–109 for the record.

Mr. MCCLORY. No objection.

(The document referred to, D–109, follows:)

D–109

DEPARTMENT OF THE INTERIOR,
NATIONAL PARK SERVICE,
November 25, 1958.

MEMORANDUM

To: Regional director, region 4.
From: Superintendent, Death Valley.
Subject: Proposed filling station at Furnace Creek Ranch.

Attached is a copy of a letter received November 23 from the Death Valley Hotel Co. in which they request permission to connect a sewerline from their proposed filling station to our sewer system that will serve the visitor center. At the same time, they also request a special use permit to allow access from State Highway 190 across the very narrow strip of Government-owned land between the highway and Death Valley Hotel Co. property. This strip is a portion of the land that they will request in exchange for the 440 acres that we will receive from them.

The company seems fairly determined to place the filling station at the northeast corner of Furnace Creek Ranch and have had representatives of Richfield Oil Co. out to survey the site in order to prepare for specific plans. To date, those plans have not been received although we have repeatedly informed them that we are not in a position to formally comment on the location until such plans are received. During the visit of the Richfield Oil Co. representative we discussed the possibilities of improving the station at its present location as there seem to be a number of advantages which include the availability of utilities, accessibility to ranch guests, and convenience for summertime operation. As yet, there has been no clear-cut justification as to just why the company wants to move the location to the old airport hangar site. The representatives of the Death Valley Hotel Co. have repeatedly assured us that if the old hangar site is finally approved that it will be attractively landscaped so that it will not present an intrusion so far as the visitor center is concerned.

So far as the sewer connection is concerned we do not see any particular objection to connecting onto our system since it should have adequate capacity to handle the additional sewage from the filling station. However, we think that

there should be a fee connected with it to take care of a portion of the maintenance.

The company is very anxious to get construction underway as soon as possible and, therefore, we would appreciate your comments on this problem.

FRED W. BINNEWIES, *Superintendent.*

Mr. ROMNEY. I have no further questions.

Mr. MCCLORY. I just wanted to ask about the service station. The gasoline station there is definitely a public service, is it not?

Mr. MERRIAM. That's right.

Mr. MCCLORY. If it weren't there, the Government would have to provide some means of accommodating the people who wanted to go through Death Valley National Monument?

Mr. MERRIAM. It is the only gas station, as I remember, in that part of Death Valley. There is one at Stovepipe Wells.

Mr. MCCLORY. From its general appearance and location, do you feel that it adds to the appearance and the facilities at the Death Valley National Monument?

Mr. MERRIAM. Well, I think our general view was that we didn't have particular objection providing they plant that screen, which they did, between the visitor center and the station.

Mr. MCCLORY. The principal use of the gas station is during about 6 months of the year?

Mr. MERRIAM. I would say from the latter part of October until the latter part of April.

Mr. MCCLORY. And with regard to the sewage disposal system, you would insist on them having a sewage disposal system?

Mr. MERRIAM. Well, if I can add, they applied for permission to connect this connection with the Park Service sewer system.

Mr. MCCLORY. Yes.

Mr. MERRIAM. And it was deemed to be advantageous to the Park Service for them to do it because it put more liquid into the lagoon system there and made the bacteria system function better than with the amount of water that was going into it previously.

Mr. MCCLORY. Now, with regard to the gas service station, its present location is extremely convenient for the maximum number of people or for the principal population visiting at Death Valley National Monument in its present location?

Mr. MERRIAM. As far as I know, it is.

Mr. MCCLORY. All right. Thank you.

Mr. MOSS. Of course, the question of the gas station is that it would be in the park whether it was provided by the hotel company or whether the Park Service had to undertake and contract a concession there to take care of the needs of the motorists.

Mr. MERRIAM. Well, in other words, if there wasn't any gas station operated the way it is, I feel that there would have to be one provided.

Mr. MOSS. We have no further questions of you, Mr. Merriam. I want to thank you for your appearance here and you are now excused from further testimony.

When these hearings were definitely scheduled, the Chair directed a letter to Mr. Horace Albright, and the other interested parties, advising them of the hearing, and the possibility of their names being mentioned in connection therewith, and extended at that time an opportunity for them to offer testimony if they so desired. Are there

any now present who at this time would like to offer testimony to the subcommittee?

Mr. Horace Albright, would you come forward, please?

(Horace M. Albright, called as a witness before the Special Subcommittee on Death Valley National Monument, was duly sworn.)

Mr. Moss. Will you identify yourself for the record?

TESTIMONY OF HORACE M. ALBRIGHT, FORMER DIRECTOR, NATIONAL PARK SERVICE

Mr. ALBRIGHT. My name is Horace M. Albright, of Los Angeles. I am retired. No business connections.

Mr. Chairman, may I make a statement?

Mr. Moss. Certainly you may.

Mr. ALBRIGHT. First, I want to thank you for the letter you wrote me giving me the opportunity to come here and the possibility of presenting a statement, and the other thing I want to thank you for is the fine analysis you made of my position in all these discussions, my being on both sides of the fence, which I feel makes a statement by me necessary.

I'd like to bring up two or three points, maybe more.

First, let me emphasize that I think you already know that I had a great many years' experience in the National Park Service. I joined the Interior Department June 2, 1913, and I was in it until nearly the end of 1933. I was Director from January 1929 until I left the Service. During the time I was in the Interior Department, I worked for seven Secretaries of the Interior, and there have been five since then, every one of whom I have performed some service for without compensation—without any salary or any fee. I had known 3 other Secretaries prior to my coming there so I have had the interesting experience of knowing 15 Secretaries of the Interior and having been familiar with Interior Department affairs for some 51 years.

The Park Service was not created until 1916. The law was signed by President Wilson on August 25, 1916, and Congress appropriated the first money for the bureau in April 1917, just a few days after the First World War broke out or a few days after we entered that war. It so happened that the first Director of the Service who was appointed at the time was ill and for the first year, a little over the first year, I was the Acting Director while the Park Service was being organized; so I really have been in the Service as a Director twice, early and late, and in the meantime I put in 10 years as Superintendent of Yellowstone Park.

Now, I am only laying that as a foundation for the experience that they felt I had and why I was appointed to the Secretary's Advisory Board on National Parks. I was asked two or three times to accept a place on that Board after the Board was authorized by Congress in 1935. I declined in each case because I was a businessman, and I didn't feel that I should have any kind of a Government status. This Board does not pay anything but it does pay expenses, and members are called in twice a year—in the spring and in the fall—to go over rather elaborate agenda. Secretary Chapman became Secretary of the Interior in 1950, and in 1952 Mr. Wirth became Director of the National Park Service. They both asked me if I wouldn't accept a 6-year term

on the Advisory Board, and I, after a good deal of thought, decided to do that and did do it; so I was on the Advisory Board from June 30 or July 1, 1952, to June 30, 1958, and I was on the Advisory Board at the time this question of the Mission 66 program came up. Now, as Mission 66 program developed—I think it only started in 1955—it was a magnificent conception of Director Wirth, and Congress approved it and it has done wonders for the park system, not only in providing new headquarters, visitor centers, and museums, but also in building up the personnel. The promise of it was that these parks would be provided with facilities and personnel and management, and an operative setup, that would take care of 80 million visitors by 1966 which would be 50 years after the National Park Service was established. That is why it was called Mission 66: because in 1966 it will be 50 years since the creation of the Park Service by Congress.

When the Death Valley Mission 66 program came up, I didn't know anything about it, but it was the custom of Mr. Wirth to send the members of this Advisory Board data regarding the various Mission 66 programs. Usually it was just in outline form, and I received in that outline what was suggested in Death Valley, just a small amount of material, and I didn't have time to give any attention to it. I had laid it aside and hoped to get an opportunity to look at it. Later Mr. Wirth asked me when I would be in Death Valley again, and I told him probably in November, which is about the time of the year when we usually had a meeting in California. He asked me then if I wouldn't look over the details of the Mission 66 plan. I told him that I didn't think I ought to do that, but he said that I was on the Advisory Board and somebody would have to do it sooner or later and I might as well begin then; so he sent me all the plans, the maps, the charts, the graphs—all that they had at that time, which would be along about October 1956, I guess it was, and he asked me when I could look them over out in the field. First, he hoped I'd study them back there, which I did. I expected Superintendent Binnewies would have a full set in Death Valley, so I sent them all back. I had nothing in my files relating to these papers. So when I came to California for the fall board meeting of the United States Borax Co.—I was a director of the United States Borax Co. I never had any connection with the Death Valley Hotel Co., at no time, individually any connection whatever, officially or otherwise, but he, Mr. Gerstley, then the president of the United States Borax Co., and now president of the Death Valley Hotel Co.—in fact, he was president of both at the time—gave me permission. He asked Mr. Charles A. Scholl to take me to Death Valley a day or two ahead of any meeting we might have. Sometimes the Board was taken up to Death Valley after its meetings. Mr. Scholl and I drove up there and Mr. Binnewies, who had been advised of my coming, had all his plans ready, just the same thing that I had seen, or probably more even than I had seen in the East, and very courteously offered to take me over the ground. He did that. He had one or two of his associates, and Mr. Scholl was with me at least the first morning. We went up to look over the site of the new residential section, and I'd like here to call attention to the fact that I do not think it has been brought out here that we are really talking about three things instead of two things, three locations instead of two. I think there has been indiscriminate use of the term "head-

quarters." Now, the old headquarters setup in the days of the Civilian Conservation Corps was over on Cow Creek, and the village was over there, the residents were there, the CCC camps were there, and the offices were there. Now, the plan to move over to Furnace Creek back of the inn was to move the residences over there but not the headquarters. The headquarters is another thing, and the headquarters has been moved to Furnace Creek on land contributed by the company. That's where the museum and the visitor center and part of the campgrounds are. And the question was, Should the village be moved over there?

On our way up to this village site, and all the work that had been done—as I remember it, Mr. Binnewies could correct me on this—the only work that had been done was to scout a road out to this plateau, and as we were on our way up, we took a look at some water investigations that were being carried on by the National Park Service. We just took a look at them. There is nothing in my report of February 4, 1957, which, I think, is part of the record, about any study of water. I was not technically competent either from the standpoint of a water expert or from the standpoint of a lawyer to go into the water affairs. I just knew that there were discussions going on between the company and the Government in regard to the matter of water. So I didn't pay any attention to the water matter. But when we got up on the plateau where the new buildings were supposed to be, naturally the water question came up and I simply asked, "Where is the water coming from?" "Well," they said, "we will be able to develop some water here in Furnace Creek, perhaps enough and perhaps not. If we don't, we will move the water over from Cow Creek. That is in our plan to just elevate it to be pumped up into tanks or reservoirs where it will be available. So there is no question about our having plenty of water." Well, I raised another question I wasn't technically qualified to pass on. I simply raised the question, "Well, now, you are back of the inn and the water supply for the whole inn and the ranch and the campground and the facilities at the ranch are below here. Is there any possibility of contamination from this village?" And they pointed out that they had it solved so I didn't even refer to that at all in this report I made to Mr. Wirth. I accepted that.

I then looked at it from two other points of view: The one was the landscaping point of view and the other was the expense. I felt that the undertaking was a perfectly huge one and that probably its cost was considerably underestimated. I thought it would be a very expensive movement from Cow Creek.

Then later we went up the road in Furnace Creek Wash and coming down I could tell that this village would be in sight, I thought, for 3 miles. I heard other reports and I think it was said here today it was a mile and a half, but whether it was 3 miles or a mile, it would be in sight as you go down to Furnace Creek Inn or down to Death Valley from the east along the main entrance road. So naturally, feeling that the landscape is a terribly important thing to the National Park Service, I drew attention to the landscape features of the project and made quite a point of that—Director Wirth is a professional landscape man, and Tom Vint who was the head of the Division of Design and Construction for the whole Park Service, is a landscape man—

both of them are fellows of the American Society of Landscape Architects. I had in mind that this is really a landscape bureau, this National Park Service. On the other hand, I could see that it would take years, possibly as much as 10 years, to put any vegetation on that rocky plateau. I though that the soil would have to be carried in. I thought it would be a tremendous job to give it any appearance at all of a fairly comfortable landscaped place, whereas over in Cow Creek there were already many homes and there was a good deal of vegetation. Mr. Wirth had told me that both he and Mr. Vint were very apprehensive about the move, that they had very grave doubts about it. That I know positively was the governing thing. But in my report, gentlemen, I do not condemn that site. I simply call attention to the fact that it ought to be looked into further, and I urge the Director to go out and see it for himself. And I point out in the report that if they are going to go ahead, then, I would suggest that they do some public relations work, particularly they consult the very popular Senator Charles Brown of that district—he was the State senator there and was popular over California and well known—and get some other people to look into the public relations side of this so that they wouldn't be criticized. I was thinking then of the criticism that might come if a whole village was lifted up and moved into a new site.

Let's examine just a moment the two sites for the villages and I am still keeping out the headquarters which headquarters should go to the Furnace Creek Watershed and it has gone to the Furnace Creek Watershed. That is where it should be, down there north of the ranch and in the right place.

It has been said here in the testimony that there was room for perhaps 29 or 30 houses in the Cow Creek region. It has also been said that there would have been another campground if the village had been moved back of the inn into the Furnace Creek Watershed. Well now, if there was only room for 29 or 30 houses or homes over there in the Cow Creek region, there was mighty little room for a lot of campers, but the worst part of the argument is that the campers will not go that far away from the principal point of interest. Campers want to be where things are doing, they want to be near the store, near the gas station; they want to be near where there are dances and where there is a swimming pool; they want to be near where something is going on. And I think also that the Government employees want to be there too. I could see their point of view. They would prefer to be in that watershed also. I can't get away from that point and wouldn't try to, because I know how they feel, but the campers—Cow Creek is not a suitable camping region and on top of that there was a very good chance that the water would have to be moved out of Cow Creek and there wouldn't be any water over there for the campers. So that altogether it didn't look like a sound move from the standpoint of the Park Service, from the standpoint of landscape or from the standpoint of economy.

Now, there is only one other point that I raise in connection with what I regard as a very fine Mission 66 program, and that was the expense part of it from the angle of personnel. I thought they had planned on too big a permanent personnel. I thought that a park operating at full blast only for about 6 months could use more tem-

porary help which did not have to have houses, etc.—and houses cost at least $20,000 a piece there when you take into consideration air conditioning that has to go along with their construction.

I made those points and I did not emphasize them, but I wouldn't say, gentlemen, that my report didn't have some influence. Perhaps it did; perhaps it did. I can see where you feel that I was acting both as a company man and also as a Government man, but nowhere did the company come into this. The water requested was something aside. It had to be settled some other way. I didn't have anything to do with that. It either had to be settled by agreement and negotiation, negotiation and agreement, or it had to be settled by the court. So water was not in this little survey. The company didn't care where the village was. The company did not at any time ever say whether they thought it ought to be in Cow Creek or in the Furnace Creek. The company has never tried to tell the Park Service, or suggested to the Park Service, where it should put anything and when the Park Service officials finally decided that they wanted the museum and the visitor center down there north of the ranch, the company gave 90 acres—not only for the village, not only for the visitor center and for the museum, but also for the campground. There's a great deal of space there for a campground.

Now, the Government—the Park Service wants—a lot more land there in the valley, and I think they should have it, and I'd like to say this—and I do not know whether Mr. Gertsley will agree or not, but I think he will—that I have recommended that the company give the Government a lot more land there. They haven't acted on my recommendation. I'd give them the surface of any land they need for campgrounds down there in that region. That is where campgrounds ought to be and not up in the hills and back of the valley in the arroyos.

The company did make a grant to the State of Oregon for a park, one of Oregon's finest State parks, the Boardman State Parks on the coast of Oregon, and it was a very large part of the land given by this company, not the Death Valley Hotel Co., but the borax company. They had a great old big ranch up there which was underlain with borax ore and they conveyed the surface of that to the State free of charge for a park and it is one of the prides of the Oregon park system. That grant illustrates the attitude of the company all along, and I have been familiar with their attitude since the monument was created. When it was created, I was Director of the Park Service. I think the staff has my account of the history of the creation of the monument—when it was created, and the circumstances under which it was created. That was written up, and if the staff does not have that, I'd be very glod to try to find a copy of the report. It has been printed by the Death Valley '49ers.

So I'd just like to maintain the point that while I was a director of the United States Borax Co., and was advising the Death Valley Hotel Co. now and then, when I was asked for advice, I did only advise the Park Service to the extent of writing this report, and I had no feelings that I was doing anything beyond what I was expected to do and probably would have had to do the next time the Board met; otherwise, I would have had to resign from the National Park Service Advisory Board or else withdraw while any Death Valley matters

were being brought up, but so far as I know, while I was on the Board, there were no Death Valley matters ever brought before the Advisory Board. This might have been brought up if I had not made this preliminary report.

So I'd like to emphasize again, if I may, that we are talking about three areas: Cow Creek, and Furnace Creek, and the headquarters; that the headquarters are in Furnace Creek; the village is over in Cow Creek, and if you saw it the other day, I think you will realize that a very good job was done there and there's room for more structures at headquarters; and at Cow Creek, buildings could be built down on the flat where the old CCC buildings were. I think there is still a good deal of room in Cow Creek, and as homes are being air-cooled now, and the very finest, the very latest air cooling devices are being used there so there isn't any question of moving to get a little altitude. Of course, you can't get any altitude near Death Valley anyway. You are practically at sea level. So that it is possible to operate all year around at Cow Creek. And it seems to me from what I have heard people say, from the Director down, that they have a very satisfactory situation there. Things are working out all right. And if I may go still further—I say this with a great deal of pride—I think these National Park Service men are extraordinary fellows; they're dedicated; they're hard working, and professionally they're topnotch men. And I think Death Valley has had the benefit of extraordinarily fine professional services.

On the other hand, in this relocation of the village, moving it to one place from the other, there was undoutedly a good deal of uncertainty and Mr. Merriam, I think, proved that this morning himself when he said that there were uncertainties about it. There certainly were. And I think with good reason.

Now, there is one other point and then I will be through, and that is the question about the location of the museum. In the Chief Historian's or Mr. Appleman's report there was an idea of locating this museum on the fan, the alluvial fan. As you come down from the inn, you are on an alluvial fan that reaches down to the ranch, and the thought was to locate the museum on that fan because you could see from it in all directions, you could look way off toward the south where the Manley party camped, you could look off to the north and see almost up to the Sand Dune. One could get a much better view up there and you might be able to identify certain historical sites from there. Perhaps you could. I think I'd be willing just offhand to say that that probably was, from the standpoint of scenery and from the standpoint of possible historical interest—I do not know so much about the historical site of it—a better place, but it was a highly dangerous place to put it. Furthermore, it would have had to be put closer to the inn and it would have been an uphill walk for the campers and for the people who stayed at the ranch. It would be a short downhill walk from the inn to this place. Also, there would have been a job of making a parking space in an extremely rocky, uneven area, and the Park Service would have been criticized for putting it there from the landscape standpoint because it would have stood out like a sore thumb. Coming north or going south you would have seen that place with all its cars.

Now, while you can't get up high and look around from the present museum unless you get on top of it, you have the museum where it's calm and quiet, and plenty of parking space. Also, it is protected somewhat from the wind by the date grove.

I'd like to say just one thing about the standing of Death Valley. I am a book collector and I pay a great deal of attention to the books of the West, and I think that I am right in saying that if you examine the resource section of any library you will find out that in the books and periodicals on parks that Yellowstone Park, Yosemite, and Grand Canyon will be the ones that have most written about them but Death Valley will be the next. In other words, it has a national and international importance, and yet today, with the exception of Grand Teton, where Mr. Rockefeller has spent a great deal of money on the hotel and inn, and Yosemite Park, Death Valley has the best hotel accommodations in the National Park System and they were put in by the Death Valley Hotel Co. If Mr. Gerstley has anything to say, I think he will tell you that up to the present time there has never been any profit made on them. Furthermore, the hotel company built a museum long before the Park Service had a museum. I don't know whether you had an opportunity to see that museum or not. It's at the ranch and it is a very interesting and very comprehensive one and one that has had the praise of many experts.

Gentlemen, I suppose I could talk a great deal more but I am very grateful for your giving me a chance. I'd be glad to try to answer any questions you might have.

Mr. Moss. Mr. McClory?

Mr. McCLORY. Now, you mentioned, Mr. Albright, that you were a a director of the borax company but you had no connection with the Death Valley Hotel Co. Now, as a matter of fact, the hotel company is owned, isn't it, by the borax company?

Mr. ALBRIGHT. No, sir. The two companies are controlled—Death Valley Hotel Co. is owned and the other is controlled; that is, there is a major ownership of stock by a company called Borax Holdings, Ltd. They're two different companies entirely.

Mr. McCLORY. You don't disclaim an interest as an officer, a director of the company that holds or owns or controls the Death Valley Hotel Co.?

Mr. ALBRIGHT. Oh, no, sir; indeed not.

Mr. McCLORY. It's just kind of a technical distinction you are making?

Mr. ALBRIGHT. Yes; that's right. I am glad you brought that point out, sir.

Mr. McCLORY. Now, during this time that you served on the Advisory Board from 1952 to 1958, were you also a director, officer—did you have some connection with the borax company?

Mr. ALBRIGHT. Well, the last 2 years of my service on the Advisory Board I was a director of the borax company.

Mr. McCLORY. Between 1952 and 1956 you were not?

Mr. ALBRIGHT. No.

Mr. McCLORY. You had no connection with them whatever?

Mr. ALBRIGHT. No, sir: only this: That the old borax company that preceded the merger had an interest in the company that I was president of. I was president of the United States Potash Co., and in 1956

that company merged with the old borax company and formed the United States Borax & Chemical Co.

Mr. McCLORY. You had a less direct interest or a more remote interest——

Mr. ALBRIGHT. Very remote interest.

Mr. McCLORY. Between 1952 and 1956?

Mr. ALBRIGHT. A very remote interest in it.

Mr. McCLORY. You wouldn't question, would you, that if the headquarters were placed on the alluvial fan that you mentioned that it would be in full view of the Furnace Creek Inn, would it not?

Mr. ALBRIGHT. It would be in the full view of Furnace Creek Inn, the full view of the ranch, the full view of every area around there. It would be more for the benefit of the inn than for any other area.

Mr. McCLORY. Well, at the present time the view is unobstructed; in other words, it's just the barren desert valley that you view at the present time, isn't it?

Mr. ALBRIGHT. That's right.

Mr. McCLORY. And the headquarters-visitor center at that location would interfere with that unobstructed view?

Mr. ALBRIGHT. Yes; it would have if it would have been put there, but it also would have been very acceptable to the hotel. I'd like to make that point again. Although, as I say, I never heard the hotel company at any time ever offer any suggestions as to where the visitor center should be.

Mr. McCLORY. Are you suggesting to the subcommittee that in the report and recommendations that you made you gave no consideration to the hotel interests?

Mr. ALBRIGHT. That's right, as far as this report is concerned because it didn't come into it other than what I mentioned; the two questions I raised about the water and sewage. I did raise those two questions but they were answered to my satisfaction right off the bat so I didn't say anything more about them. I just asked where the water was coming from and I asked where the sewage was going because those seemed to affect the inn.

Mr. McCLORY. Now, you mentioned that Mr. Vint and Mr. Wirth had grave doubts about the Furnace Creek location before the time that you made your report and recommendation?

Mr. ALBRIGHT. That is why they asked me to look into it.

Mr. McCLORY. Do you have any letters or any documents or any records of any kind?

Mr. ALBRIGHT. I can't find that we had any correspondence. I think it was a telephone conversation or else I saw them in Washington. I can't find any correspondence on the subject. I don't think we had any. Director Wirth just asked me, well, in a more or less offhand way as a member of the Board, would I go out, and then he said he'd send me the Mission 66 program.

Mr. McCLORY. Now, Mr. Wirth's information up to the time that he came out and made the inspection was based on reports that he had received from the region, were they not?

Mr. ALBRIGHT. That's right, as far as I know; yes. I do not know where he got his——

Mr. McCLORY. You do not know upon what evidence he would have been basing any grave doubts at that time, do you?

Mr. ALBRIGHT. No, but he had been in the valley a good many times, and as an eminent landscape man he would naturally be worried about that point. Also as a man who had to appear before the Appropriations Committee he was worried about the money side.

Mr. MCCLORY. And Mr. Vint's grave doubts, do you know how those came about?

Mr. ALBRIGHT. I would say they were due to the landscape standpoint. He was a professional landscape architect, a very eminent one.

Mr. MCCLORY. Now, did the Board, the Advisory Board as such, consider the recommendations that were made with regard to the location of the headquarter's housing?

Mr. ALBRIGHT. No, sir, Mr. McClory, only unless the subject was on the agenda. The Advisory Board only considered the proposals made to it on the agenda submitted by the Secretary and the Director. This might or might not have been on it.

Mr. MCCLORY. So that when you considered these plans and reported, you were reporting individually?

Mr. ALBRIGHT. That's right, sir, and informally.

Mr. MCCLORY. Did you ever report to the Advisory Board——

Mr. ALBRIGHT. No, sir.

Mr. MCCLORY (continuing)—as to what you reported to Mr. Wirth?

Mr. ALBRIGHT. I wouldn't do that unless I was asked because presumably if they wanted it discussed they would have presented all the necessary papers to the Board at the next meeting which would have been in June, and so I dont' recall if it was ever brought up. It might have been, though. I just don't recall.

Mr. MCCLORY. Is there anything further in connection with your relationship with Mr. Wirth or Mr. Vint or anybody else in the Park Service about which the subcommittee hasn't received any knowledge that you feel we should have knowledge of?

Mr. ALBRIGHT. No, sir; I think that the hearing has been very comprehensive. I have been here all the time. I have listened to everything that has been said and it seems to me that it has covered a lot of ground. In asking to make the statement I just wanted to clarify my own position and also to emphasize those points about the location of the village, my feelings about why I looked into it, and also emphasize the fact that the headquarters which was used so much throughout the testimony here, that headquarters has been and is in the Furnace Creek Wash.

Mr. MCCLORY. I think that is all I have, Mr. Chairman.

Mr. MOSS. Mr. Albright, at the opening of your statement you paid me two compliments. As a basis of one of them, I wonder if you feel that I have unfairly characterized your roles and the potential for conflict inherent in such roles?

Mr. ALBRIGHT. I don't understand you, sir.

Mr. MOSS. You were serving as a member of the Advisory Board on National Parks, Historical Sites, Buildings, and Monuments, advisory to the Secretary of the Interior?

Mr. ALBRIGHT. Yes, sir.

Mr. MOSS. You were also serving on the board of the company affiliated with the Death Valley Hotel Co.?

Mr. ALBRIGHT. Yes, sir.

Mr. Moss. Is that correct?

Mr. ALBRIGHT. Yes, sir.

Mr. Moss. Can you conceive of any condition where such circumstances could create a conflict?

Mr. ALBRIGHT. Yes, sir; it could have, but it didn't in this case.

Mr. Moss. Well, in my characterization of your role I want to be certain that I have not unfairly characterized the potential for conflict inherent in that role.

Mr. ALBRIGHT. I see.

Mr. Moss. Do you think I have?

Mr. ALBRIGHT. Well, I thought your statement was very fine the way you made it. I think potentially it could have been, but, as a matter of fact, the hotel affairs didn't come into this review. It is not even mentioned in my report here. I just mentioned the water and that is all.

Mr. Moss. I think it might be well now to place the language of the section of the act creating the Advisory Board into the record—69 Statute 666. It is the act which was approved August 21, 1935 It is 16 U.S.C. 463:

A general Advisory Board to be known as the Advisory Board on National Parks, Historic Sites, Buildings, and Monuments is established, to be composed of not to exceed 11 persons, citizens of the United States, to include representatives competent in the fields of history, archeology, architecture, and human geography, who shall be appointed by the Secretary and serve at his pleasure. The members of such Board shall receive no salary but may be paid expenses incidental to travel when engaged in discharging their duties as such members.

It shall be the duty of such Board to advise on any matters relating to national parks and to the administration of sections 461–467 of this title submitted to it for consideration by the Secretary. It may also recommend policies to the Secretary from time to time pertaining to national parks and to the restoration, reconstruction, conservation, and general administration of historic and archeologic sites, buildings, and properties.

Now, that is the act that created the Advisory Board. As I recall, a study by another subcommittee on which I served determined that we had about 2,200 advisory boards and commissions in the National Government. Over the years a pattern has developed in those bodies that where matters normally affect a member of the board where he might be representing another principal or another interest, there is a disqualification from consideration of matters directly relating to those other activities. No such disqualification was made here by you in this matter?

Mr. ALBRIGHT. No, sir; Mr. Chairman, for the reason that there wasn't anything going to come up here that related to the——

Mr. Moss. The law contemplates not only conflict but the appearance of conflict.

Mr. ALBRIGHT. Well——

Mr. Moss. Now, Mr. Wirth addressed a letter, D–31, to you dated November 6, 1956, and I quote from it:

D–31

I hasten to answer your letter of November 1, which for some reason or other did not arrive here until November 5 and reached my desk today. It has to do with your trip to Death Valley.

The next paragraph has no particular relevance to the matter. It then continues:

Enclosed is a copy of my memorandum to Fred Binnewies which I think will serve as an introduction and open the way, if that is at all necessary. I say

that because I know all of our people will always be glad to see you, and to discuss the proposed development of the area under their jurisdiction with you, at any time. They welcome your visits and your suggestions and ideas—as I do.

As to the new monument headquarters; that has all been settled. I will not try to describe it to you in this letter, but Fred will show you the maps and show you exactly what we are planning to do. We plan to put it up the road from Furnace Creek Inn, on the slope about a mile back from the road. We propose to build year-round houses there, with air conditioning, rather than to move from winter headquarters to summer headquarters and back again each year.

Horace, I am also enclosing the prospectus sent in by the superintendent, together with the copy of the memorandum we have sent to the field concerning it. This is the first time I have done this, and this is not general public information; therefore, I am sure I can depend on you to keep our confidence in this report. We are constantly trying to improve it and you know that when you let information out and then try to change it, you run into difficulties because people try to pin you down to what you have said previously before you had all the facts or had fully analyzed the conditions.

In any event, this constituted, on the part of the Director, making available to you the fullest possible information of the Government plans, but he uses interesting language. He says, "As to the new monument headquarters, that has all been settled." He doesn't indicate any grave doubts or doubts which are nowhere documented in the record which I think has been most exhaustively explored by this subcommittee. Now, you expressed the——

Mr. ALBRIGHT. May I say something?

Mr. MOSS. Yes, you may.

Mr. ALBRIGHT. That is the very point I was trying to make a few minutes ago. He is speaking about headquarters as different from the residences. He said the headquarters have all been settled. Now, that is the museum and the visitor center.

Mr. MOSS. No, sir; I would disagree, because he goes on:

We propose to build year-round houses there——

Mr. ALBRIGHT. Well, that is on top.

Mr. MOSS (reading):

with air conditioning rather than to move from winter headquarters to summer headquarters and back again each year.

He is talking about the headquarters of the Park Service operation there, including the housing of its people because for no other reason would he mention the character of the houses to be built there.

Mr. ALBRIGHT. I think he should have used two sentences there because whenever we had our conversations what was worrying him was the houses; it wasn't the headquarters. That was the main object in asking for an opportunity to speak here—to differentiate between the housing and the headquarters.

Mr. MOSS. You have two types of headquarters: you have an administrative headquarters and you have an operational headquarters—the maintenance and equipment and things of that type. And so we can't just say there is only one headquarters. We want to distinguish here between the administrative offices and the physical headquarters for concentration of equipment, and the housing of personnel. We are going into a broader concept of a headquarters, and I would submit on the face of this latter that it is in that context that Director Wirth then referred to the headquarters location.

Mr. ALBRIGHT. Possibly so. I didn't interpret it that way because in all my experience in national parks the headquarters is the office of the superintendent and where his staff is.

Mr. Moss. I don't know how you characterize the rest of it——

Mr. ALBRIGHT. That's always been the characterization.

Mr. Moss (continuing)—because I can only say that Mr. Aubuchon, on his tour with us on Saturday of last week, also characterized Cow Creek as headquarters, not withstanding the fact that he has his offices at the Visitor Center. So it's a distinction perhaps without a difference as it has been loosely used by many who have referred to it, both in correspondence brought to the attention of the subcommittee, and to the subcommittee itself.

Mr. ALBRIGHT. Yes, sir.

Mr. Moss. Now then, these plans and all the facts were made available to you so that you had the fullest information as to the plans of the Government. You indicated in your testimony that you have the highest regard for the professional competency of the Park Service people; is that correct?

Mr. ALBRIGHT. Yes, sir; absolutely.

Mr. Moss. But do you feel that there was a breakdown here in the planning which they had approved up to this point for the relocation from Cow Creek to Furnace Creek and the proposed expansion of campsites, the creation of campsites at Cow Creek; was this a breakdown in their usual competent planning and programing?

Mr. ALBRIGHT. No, sir; I wouldn't pit my confidence against theirs. They just asked me for my opinion and that was my opinion based upon all my experience in park work where landscape took precedence over everything else, and I didn't think Director Wirth—and what I urged him to do, and I think that should be clear from the statement I made, that it was to come and see for himself, and he didn't make any decision until he came and saw for himself.

Mr. Moss. You mean that he had made no decision prior to March 18, 1957?

Mr. ALBRIGHT. Apparently no final decision because why would he have spoken to me about it at all?

Mr. Moss. I do not know; I only know that the record this subcommittee has indicates a final approval, and I have here the plans for the residential area signed by Conrad L. Wirth, November 5, 1956, as being approved. Then in addition to this, we have considerable correspondence which you have listened to during the course of the 2 previous days of hearings which would form no basis whatsoever for any conclusion other than that at that time we were dealing with an approved project.

Mr. ALBRIGHT. He didn't tell me that, sir. I didn't know it had been approved. He told me that he was very apprehensive about the plan, wanted to know if I would look at it, give a report. Otherwise, I wouldn't have paid any attention. I didn't meddle into park affairs.

Mr. Moss. Did he initiate the request for you to go to Death Valley?

Mr. ALBRIGHT. Yes, sir.

Mr. Moss. Or did you inform him that you were going to Death Valley?

Mr. ALBRIGHT. I may have told him that I was going but he would know anyway.

Mr. Moss. You were going to Death Valley?

Mr. ALBRIGHT. I go every year anyway. I might have told him.

Mr. Moss. Do you go for a meeting, or is it just a visit for relaxation?

Mr. ALBRIGHT. The Board of Directors usually went up there.

Mr. Moss. In other words, you were going there on business for the company with which the Death Valley Hotel Co. was affiliated?

Mr. ALBRIGHT. I might have been. I can't remember just why we were going at that time, but usually when out here I went to Death Valley.

Mr. Moss. Contemporary with this Board meeting?

Mr. ALBRIGHT. I will concede that could be.

Mr. Moss. Did you undertake an assignment for the company in connection with their activities and plans in Death Valley?

Mr. ALBRIGHT. No, sir.

Mr. Moss. During none of this period?

Mr. ALBRIGHT. The only thing I ever did for the company in connection with Death Valley was representing them or helping out on this exchange legislation. I did that. I didn't do anything in Death Valley on that but I did discuss legislation in Washington both with the Interior Department and with Senator Engle, then Congressman Engle.

Mr. Moss. You have corresponded with Mr. Wirth on this matter of the exchanges of land and the working out of water rights and the suggestion that the legislation contain provision which would estop the Government from any further claims on water, have you not?

Mr. ALBRIGHT. I do not understand that last sentence. I estopped the Government on——

Mr. Moss. Well, on July 9, 1957, you directed a letter to Director Conrad L. Wirth, on the letterhead of the United States Potash Co., which reads:

D–72

DEAR MR. WIRTH: We have had some correspondence in regard to Death Valley land matters with particular reference to certain lands that you would like to see our company deed to the United States of America in order that you may build a museum-visitor center and campground which is in your Mission 66 program.

I have pointed out, and you and your associates agree, that there should be some legislation that would enable us to work out these Death Valley proposals. We should get a draft of the bill into Congress as soon as possible. For your use in considering the tentative legislation, I am quoting the following letter just received from Mr. R. J. Coleman of Coleman & McDonald, 650 South Grand Avenue, Los Angeles, Calif., attorneys for our company——

Mr. ALBRIGHT. Oh, I know about that letter, Mr. Chairman.

Mr. Moss (reading): These paragraphs are quoted for your information and guidance in working on the tentative legislation, copies of which I hope you can place in my hands in the early future.

"Although we have no fixed notions as yet, our present thinking is that the proposed bill should authorize the Secretary of the Interior to enter into an agreement with the Death Valley Hotel Co., Ltd., pursuant to which the Government, as between itself and the hotel company, agrees that the hotel company has prior rights to the use of specified quantities of water produced at the various springs or sources of supply involved (all of which possibly can be adequately described by reference to the right-of-way map that was recorded at the time of prior exchange of lands) and further grants to the hotel company, its successors and assigns all of the right, title, and interest which it now has

or may hereafter acquire, whether by virtue of riparian rights, appropriations, or otherwise in and to the described waters and the use thereof.

"Since the hotel company already claims ownership of all water rights that will be involved in the exchange, our objective, as we now see it, should be merely to get an agreement from the Government that will estop it from claiming any of our water rights in the future. The Government cannot convey riparian rights apart from the land itself nor do we think that it can convey its future rights to appropriate water, but we do think that by appropriate legislation it can effectively estop itself from asserting rights in the future contrary of those of the hotel company."

Sincerely yours,

HORACE M. ALBRIGHT.

This certainly was a contact with the Director——

Mr. ALBRIGHT. Yes, sir.

Mr. Moss. Fully on behalf of the company.

Mr. ALBRIGHT. I was acting as a channel in that legislation. I know nothing about the technical side of it but I did act as channel in helping get that legislation underway.

Mr. Moss. Now, regarding this matter where Mr. Wirth sent you all the plans, that was in respect to a letter from you, wasn't it?

Mr. ALBRIGHT. I didn't ask them for them.

Mr. Moss. Well, let's go to the letter dated November 1, 1956. This is again on the United States Potash Co. letterhead. To Mr. Conrad L. Wirth, Director, National Park Service, Department of the Interior, Washington, D.C.:

D–30

DEAR CONNIE: I think I have written to you within the past few months about my contemplated visit to Death Valley National Monument in November. Mr. J. M. Gerstley, who is president of our enlarged company and who was formerly president of Pacific Coast Borax Co., has asked me to familiarize myself with affairs in Death Valley—

Now, that would appear that you were being asked to become familiar with the company's involvement in Death Valley—

of course with especial reference to the interests of the company out there, but also in any other respect where my background of experience might be useful to either our company or the National Park Service. I am leaving here on November 11 and will be at Winthrop Rockefeller's ranch Winrock for meetings of Colonial Williamsburg, Inc., November 12 and 13. On the night of the 13th I will fly to Los Angeles for a board meeting of our company. About the 16th or 17th I should be in Death Valley for a 3- or 4-day stay.

Unless you have some objections to doing so, I would appreciate it if you would write me a memorandum regarding any matters you would like to have me familiarize myself with while in the valley, and would appreciate also your writing to the superintendent, Fred Binnewies, about my contemplated trip and suggesting that he try to spend some time with me.

Of course, I would like to have any material you have available regarding the application of the Mission 66 program to Death Valley National Monument.

Now you did ask for material, didn't you?

Mr. ALBRIGHT. Yes, I did, sir. I do not remember that letter.

Mr. Moss (reading):

I understand there are some problems relating to the location of the new headquarters of the monument that are under discussion.

At this point, there weren't any under discussion because they had been finally approved.

There is also the matter of the proposed museum to be built with State funds. There is also a movement to change the monument status to that of a national park, and I am informed there is a good deal of opposition to this proposal.

Summarizing, I will be grateful for a memorandum on any matters relating to the Death Valley National Monument that you would like to have me consider while I am out on the forthcoming trip.

Now, this is from a member of an advisory committee created by law and advisory to the Secretary. It is addressed to the Director and he responded to it by then sending you all the material requested. Again, let me point out the potential for conflict. You were out there to acquaint yourself with the problems and the affairs of the company, and to represent it. At that same time, concurrent in every sense, you chose to represent the U.S. Park Service, and, as I pointed out, the interests of the two may not always be parallel or complementary. Isn't there a very real potential for conflict, wittingly or unwittingly?

Mr. ALBRIGHT. I'd like to just say this, Mr. Chairman, Mr. Wirth asked me to undertake this. Now, that must have preceded the letter. I do not know how long back it was. Before I went out there he told me what he wanted me to do, to look things over there, and that he was going to send me this material, and it is possible that I wrote that letter just to bring him up date that I was coming and to remind him that he was to send something. I don't remember the letter at all, but I concede that it was possible for me to be doing something—on the ground that it would be possible for me to be representing the company and the Government at the same time but I didn't do it because there was nothing that came up there in that discussion where we were discussing the same thing. We were talking about something entirely different. The company was not involved in anything I did while I was dealing with Mr. Binnewies, and I think Mr. Binnewies will say that, other than the comments I made about the sewage and the water. I think my report indicates that.

Mr. Moss. Now, you stated that there had been no discussion of Death Valley matters in this Advisory Board in which you participated?

Mr. ALBRIGHT. I don't recall it.

Mr. Moss. Here's a telegram (D–34) to the regional director of region 4 of the National Park Service from the National Park Service, Washington, D.C.

A98–C.

D–34

Defer starting any water, road, or other projects new headquarters and residence area Death Valley until further word from me. Possible land exchanges with company will be discussed with Albright at Advisory Board meeting.

WIRTH, *Director.*

Mr. ALBRIGHT. What date was that, sir?

Mr. Moss. That was November 26, 1956, following your visit to Death Valley.

Mr. ALBRIGHT. I don't recall that it was ever brought up. I would have to see if I could find the minutes of the Board meeting to see whether it was ever brought up, but I don't think it ever was. What I think he was doing, I think that the telegram was sent to just hold things until he could get a report back from what I thought about these things that he had wanted me to look into. I think the Board had already met. The Board always met in October. I do not think the Board was meeting again until the following March.

Mr. Moss. The Board met December 1–7, 1956, on the Virgin Islands.

Mr. ALBRIGHT. Virgin Islands, San Juan, P.R., that's right. It met in the Virgin Islands, that's right. That year the meeting was late. The Secretary dedicated the new Virgin Island Park, and the Board met there.

Mr. Moss. And that is reflected in a memorandum (D–29) of November 6, 1956, to the superintendent of Death Valley from the Director, subject: Proposed Visit to Mr. Horace M. Albright, in which he then instructs the Death Valley superintendent to be available.

D–29

I have had a letter from Horace Albright to the effect that he will be in Death Valley around the 16th or 17th of November. He would like to talk with you concerning the development of Death Valley, and the relationship of their operations there with the National Park Service.

I assume that we have here an acceptance by Mr. Wirth that you would also be there considering the company's business and the National Park Service's, because he said:

He would like to talk with you concerning the development of Death Valley, and the relationship of their operations there with the National Park Service.

I told Horace that you would be very glad to see him and would discuss in detail your plans for the development and management of Death Valley National Monument. He raised several questions such as the possibility of transferring highways to the State, new headquarters, museum, etc. I have sent him a copy of the prospectus which you sent in to us, together with our memorandum pertaining to same. Attached are a copy of Horace's letter and my reply. I feel that with these two documents you will be able to sit down with him and you will be able to discuss your problem and get a lot out of his suggestions. I should like very much to have a brief summary of your discussions with Horace as soon as possible after his visit because I will be seeing him in the Virgin Islands and know he will want to discuss the matter with me at that time.

(Signed) CONRAD L. WIRTH, *Director.*

Mr. ALBRIGHT. I don't think he ever did, sir. I do not think——

Mr. Moss. I have no way of knowing that.

We will now request from the National Park Service a copy of the minutes of the meeting of December 1 to 7, 1956.

Mr. ALBRIGHT. I hope you will. I think that should be done.

(Copy of minutes of 35th meeting of Advisory Board on National Parks, Historic Sites, Buildings and Monuments, at Everglades, Virgin Islands, and San Juan, P.R., December 1–7, 1956, is in the subcommittee files.)

Mr. Moss. Now, you continued for some period of time to represent the interests of the company. You served on the Advisory Board up until when?

Mr. ALBRIGHT. Until June 30, 1958.

Mr. Moss. Well, I have a letter here that you wrote on February 6, 1958, which I will hand to you if you want, on the U.S. Potash Co. letterhead to the Honorable Thomas H. Kuchel, U.S. Senate, Washington, D.C. It is D–83, and it contains a paragraph which reads:

D–83

One of my assignments is to work out some land and water problems affecting the work of the National Park Service in Death Valley National Monument as well as our own operations there. The Death Valley Hotel Co., associated with our company, owns the Furnace Creek Inn, Furnace Creek Ranch, and several thousand acres of land in the monument and several more thousand acres bordering the monument on the east.

So that there is a continuing action on your part on behalf of both parties, the Advisory Board and the Park Service and the U.S. Potash Co., a division of the U.S. Borax & Chemical Co., which is owned by Consolidated Borax, Ltd., which owns Death Valley Hotel Co.; is that right?

Mr. ALBRIGHT. Borax Holdings, Ltd.

Mr. Moss. Borax Holdings, Ltd. Well, I think there have been a number of changes in the appropriate name.

Mr. ALBRIGHT. There have been some changes.

Mr. Moss. Like some Government agencies, it becomes somewhat confusing to bring them to immediate recall.

Mr. ALBRIGHT. Mr. Chairman, I'd like to make the point that there were problems affecting the relationship between the Park Service and the company like the granting of the 90 acres and the questions that might relate to the public, like the museum, the company's museum, things that wouldn't have anything to do with the Board. The advisory board activities were entirely governed by the agenda, the agenda that was passed to us. That is the only place where we ever acted was on the agenda as given us. If there were a Death Valley item on the agenda at the Virgin Island meeting, then, it would be interesting to see what came up there but I can't imagine that there was.

Mr. Moss. The statute envisions a function beyond the scope of the agenda because it says:

> It may also recommend policies to the Secretary from time to time pertaining to national parks and to the restoration, reconstruction, conservation, and general administration of historic and archaeological sites, buildings, and properties.

It is not confined to acting on a formalized agenda.

Mr. ALBRIGHT. I mean to say that a member wouldn't come into a Board meeting with any problem unless it was brought up on the agenda. We would have to be asked to pass on a problem. We couldn't raise any questions ourselves, and we never did. They had to be brought to our attention.

Mr. Moss. During the entire period under discussion your relationship with the Department was as a member of the Advisory Board?

Mr. ALBRIGHT. Yes, sir; I was a member of the Advisory Board.

Mr. Moss. I think that is all.

I do want to thank you for coming here and sitting through the hearings, which, I have not the slightest doubt in the world, at times have been extremely dry and uninteresting and now you are excused.

Mr. ALBRIGHT. Thank you very much, Mr. Chairman and Mr. McClory, for hearing me, but I felt that there was more to be brought out and I think it just as well that everything has been said, both by you and myself, as brought out here, because if there's anything I feel it's that at no time did I ever represent both sides. That is my feeling, particularly in this particular question, and that I wouldn't have been in it at all if I hadn't been asked to be because it certainly didn't make any difference to me personnally, nor to the company, where those buildings were built, nor where the museum was built. For that matter, none of those things that related to the Mission 66 mattered to us.

Mr. Moss. I am pleased that we were able to hear from you.

Mr. ALBRIGHT. I tried to be helpful.

Mr. MOSS. And thank you.

Mr. MCCLORY. Mr. Chairman, if Mr. Albright has any other correspondence or anything else which is relevant here, I'd like him to perhaps supply it to the subcommittee.

(Subsequently, the subcommittee received the following letter (D–47.3) from Mr. Albright:)

D–47.3

LOS ANGELES, CALIF., *March 3, 1964.*

Re testimony given at Sacramento, January 29, 1964.

Hon. JOHN E. MOSS,

Chairman, Special Subcommittee on the Death Valley National Monument, House of Representatives, Washington, D.C.

MY DEAR MR. CHAIRMAN: I return herewith the transcript of my testimony before your committee on January 29 in Sacramento, with some pencil corrections which I believe to be in line with your suggestions. My thanks go to you for permitting me to review the transcript.

In accordance with Mr. McClory's permission, granted at the end of my testimony in which you concurred by an affirmative gesture, I hereby submit a summary of my testimony which I feel is necessary in the record in the interest of clarity and emphasis on several important points. I was the next to the last witness permitted to testify as the hearings closed, well after the arrival of the noon hour, and with everybody's eyes on the clock, including my own. Had I not felt the pressure of time, I could have made a more complete statement.

I respectfully submit the following:

1. In 1956 I was 1 of 11 members of the Advisory Board on National Parks, Historic Sites, Buildings, and Monuments. I was appointed by Hon. Oscar L. Chapman in 1952. My term of 6 years expired June 30, 1958. From July 1956 to February 1962, I was a director of the United States Borax & Chemical Corp.

The Advisory Board had no executive authority, received no compensation, and acted only on prepared agenda containing specific subjects on which the Secretary of the Interior or the Director of the National Park Service wanted advice. I am quite sure Death Valley problems were never submitted to the Board while I was a member. I think the committee can fully verify this statement by recourse to the minutes of the Board.

2. The United States Borax & Chemical Corp. is controlled by Borax Holdings, Ltd., an English company which owns the Death Valley Hotel Co., proprietor of Furnace Creek Inn, Furnace Creek Ranch, certain other lands and water rights, which private ownership long antedates the national monument.

3. I have never been connected with the Death Valley Hotel Co., but have on a few occasions, when requested, given its officers suggestions and advice, but never when there was a possibility of a conflict of interest due to my membership on the Advisory Board.

4. In 1956 the National Park Service was advancing its planning of Mission 66, a comprehensive development plan for its parks, monuments, and other areas. Such a plan had been made for Death Valley National Monument.

5. Director Conrad L. Wirth, in 1956, asked me as an old friend, and perhaps also as an Advisory Board member, to look over the Mission 66 plans for Death Valley National Monument. He asked me to consider the plans on the ground the next time I would be in Death Valley. I told him I would probably visit Death Valley in November, and I wrote him the definite date when I knew what it would be. He, in turn, advised Superintendent Fred Binnewies of the Death Valley National Monument to take me over the areas affected by the plans.

6. I was born and reared in Inyo County, Calif., in which Death Valley lies. I had been in Death Valley many times. I was Director of the National Park Service when the monument was created in 1933. It was natural for Director Wirth to ask me to comment on his Mission 66 program. He said there were some features of it about which he and Tom Vint, then Chief of Design and Construction of the bureau, were apprehensive. I cannot believe that your committee feels that for 6 years from 1952 to 1958 when I was a member of the Advisory Board, Director Wirth and I were precluded from discussing public

questions and expressing views thereon even if they had some relation to Death Valley. After all, the Advisory Board acted only on a limited agenda and only met twice a year.

7. The Death Valley Hotel Co. had no interest in the Mission 66 program, and its officers never advised me of any views they had on any national park program during the Advisory Board years so far as I can recall. There always had been a problem of water division, but that was a legal and highly technical matter about which I knew nothing except in a most general context. In fact, I had no competence to make any judgment on the water situation.

8. In November 1956, I visited Death Valley and was escorted over the monument by Superintendent Binnewies, and the Mission 66 program was explained to me by him with maps, charts, drawings, and other papers relating to it. The Advisory Board met in the Virgin Islands National Park in December, and there was no Death Valley item on the agenda, and the minutes do not indicate that there was any mention of Death Valley matters. The same is true of the 1957 meetings and the one in the spring of 1958 in Washington and at Gettysburg, this latter being my last meeting as a member of the Board.

9. I thought the Death Valley Mission 66 program a very good one, except that I felt the proposal to move the residential village from Cow Creek where the Park Service employees lived to a site overlooking the main entrance road in the Furnace Creek Valley was not in the public interest. I advised the Director that I thought he should not proceed with the village removal until he studied the plan on a personal visit, and I outlined my reasons, the two most important being; first, the new village would be a conspicuous intrusion in the landscape visible to all visitors using the Furnace Creek highway, and, second, the excessive cost that seemed to be involved. I also commented on the size of the proposed all-year Service force of employees which seemed excessive, and hence very costly.

10. Director Wirth went out to Death Valley in March 1957, and decided not to move the village. From this, the inference is drawn that I influenced Director Wirth to make a decision favorable to the Death Valley Hotel Co., whereas the hotel company officials were not interested in it, then or later. Of course, Director Wirth was not a man who could be easily influenced in landscape matters. He was and is a highly competent landscape engineer, and a man of independent thought, courage, and determination.

11. Subsequently, Director Wirth and his staff sought a tract of 90 acres of land north of the ranch and bordering the main road through Death Valley for its headquarters building, visitor center, the museum to be built with appropriations by the Legislature of California, and for an extension of the public campgrounds.

12. My aid was sought by the Director and his superintendent, Mr. Binnewies, and I persuaded the officers of Borax Holdings, Ltd., and the officers of Death Valley Hotel Co. to make a gift of the tract of 90 acres to the U.S. Government. The grant was made and the Government headquarters buildings were built and dedicated with appropriate ceremonies November 12, 1960.

13. I had nothing to do with the selection of this site for the Government headquarters and the State museum. I knew of another site between the inn and the ranch on the alluvial fan or playa of Furnace Creek had been under consideration and rejected because of its inadequacy in size and topography, and because of the danger of floods out of Furnace Creek Wash. The rejection of this site was certainly correct, but it was based on sound engineering advice. My advice on this site was not sought and I gave none. The site had many advantages and I like it, but the hazards of the alluvial fan were fatal.

14. The rejection of the proposed site for the Government residential village in the Furnace Creek watershed I insist was also correct, but I did not recommend rejection. I stated my views on the site and recommended that the Director delay action until he, an eminent landscape engineer, could give it his administrative and professional attention on the ground. I also suggested that if he decided to carry out the village removal plan that he consult certain influential local individuals, including the late Senator Charles R. Brown, who represented that region in the State senate. I had in mind his probable need for protection from adverse criticism.

15. Director Wirth's decision I still think saved several hundreds of thousands of dollars.

16. There was no "conflict of interest" on my part; first, because I spoke only for myself as a former director of the National Park Service and as a friend of the then Director, Mr. Wirth; second, because Director Wirth made his own decision out of his own professional capabilities and executive experience, and out of his own judgments; and third, because the Death Valley Hotel Co. was not interested in the issue.

17. If, in spite of my testimony in Sacramento and by presentation in this summary, the committee concludes that there was a technical "conflict," I can only say that I appear to be helpless to overcome such a view. However, I can insist that whatever I did was in the public interest and it was beneficial to taxpayers and to all tourists who visit Death Valley now or in the future.

I also wish to present for the committee's consideration the following facts:

1. For 31 years, since 1933, the National Park Service and the Death Valley Hotel Co. have worked together harmoniously in Death Valley National Monument, and since June 1956, the lessee, Fred Harvey, has also operated in fullest harmony with the National Park Service.

2. All water developed in the Furnace Creek watershed is used for the benefit of the touring public, except that used for irrigation of the date grove at the ranch which in itself is a tourist attraction. There is no industrial use of Furnace Creek water.

3. The National Park Service, in this 31-year period, has not been handicapped for lack of water.

4. There is plenty of water for both the Park Service and the Death Valley Hotel Co. Care of the date grove and the golf course requires more irrigation in summer when there are few or no tourists, and so use of water in summer is greatest.

5. There is a water division question to be settled by either an agreement between the National Park Service and the Death Valley Hotel Co. under the 1958 act of Congress, or by recourse to the appropriate court in the event of final inability to reach an agreement.

6. The Death Valley Hotel Co. operations are not profitable; in fact, the inn and ranch facilities have not earned profits when appropriate depreciation charges are made. They are now leased and the rental returns are largely invested in additional housing facilities at the ranch and other property improvements beneficial to the public.

7. From expressions of officers of the hotel company, I think they would be pleased to find a buyer for their properties.

8. The National Park Service is most fortunate to have Furnace Creek Inn & Ranch lodge or motel properties for tourist accommodation. Costs of building in Death Valley are now so great that today the exceptionally good facilities for tourists there could not and would not be built.

9. The Death Valley Hotel Co., long before the State of California built the museum at the new park headquarters, built a museum of Death Valley natural resources and historical objects, including a large exhibit of pioneer transportation and mining equipment which it has maintained, free of charge, for public enjoyment. It has also maintained the old Harmony borax works as a historical structure of interest to travelers.

10. Operations in the Death Valley National Monument are running smoothly; the public is being well served; the headquarters plant of museum, visitor center, etc., has been completed; campgrounds are being extended; the village in Cow Creek has been expanded by erection of many new homes and utility structures; roads and trails are in good order; and the area is well protected. If there is any better national park or monument operation than the Death Valley National Monument, or better cooperation and understanding between private and Government personnel in serving the public, I do not know where it is.

HORACE M. ALBRIGHT.

P.S.—Please excuse the errors. The typing is my own.

Mr. Moss. Mr. Gerstley, I understand you desire to make a statement. Mr. Gerstley, will you be sworn?

(James Gerstley, called as a witness before the Special Subcommittee on Death Valley National Monument, was duly sworn.)

Mr. Moss. Would you identify yourself for the record?

TESTIMONY OF JAMES M. GERSTLEY, PRESIDENT, DEATH VALLEY HOTEL CO., AND VICE CHAIRMAN, U.S. BORAX AND CHEMICAL CORP.

Mr. GERSTLEY. My name is James Gerstley. I am president of the Death Valley Hotel Co., vice chairman of the U.S. Borax & Chemical Corp., and was president of that company from 1950 during the time when some of these events happened.

Mr. Moss. You may be seated.

Mr. GERSTLEY. Thank you, sir.

Let me say, first, I also appreciate the opportunity of appearing before you. I will try to be very brief and I only want to address myself to two or three matters that came up this morning on which I believe I have special knowledge which may not have been made available to you.

The first matter relates to our relation with Fred Harvey. It is not for me to discuss the propriety, or otherwise, of Park Service officials accepting special rates or free accommodations at the inn or the ranch, but I do want to make it clear that the company had nothing whatsoever to do with the granting of these privileges to the Park Service people except insofar as the contract between the company and Fred Harvey permitted this practice. Now, the clause that Congressman McClory read to us this morning was inserted in this contract at the request of the Fred Harvey people because under the basic terms of our agreement we were paid a fixed minimum fee by Fred Harvey or 6 percent of the gross, whichever was greater. And so that we wouldn't say that Fred Harvey was doing something unfairly by giving away accommodations at special rates on which they should have paid us 6 percent of the full charge, this provision was made in the contract. That is all I have to say on this particular point.

I don't know whether you'd like me to continue or whether you want to question me on this point?

Mr. Moss. I have no question on that. I haven't the slightest doubt that the Harvey Co. insisted on this provision in the contract.

Mr. GERSTLEY. Thank you very much.

Mr. Moss. Any questions?

Mr. MCCLORY. No.

Mr. Moss. You may continue.

Mr. GERSTLEY. I will go to the second point. I believe that in the questioning of Mr. Manbey this morning a map was used which purported to represent the land which the company wished to get from the Park Service under the 1958 exchange legislation. I say this because I asked Mr. Indritz whether this was the exhibit that was under discussion. Now, I think perhaps there is some misunderstanding on this matter, because I believe that some people genuinely believe that the company has officially designated the lands that it would like to get in the enabling legislation. This is not the case. What happened according to my study, and this a very recent study, as far as I can make out was this: Mr. Gower who was the head of our land department was in Death Valley and Mr. Granville Liles was a new superintendent in Death Valley about the time or shortly after the time of the passage of this legislation, and Mr. Liles said that the

Government had designated the lands which it wanted, I think it was 450 acres or so, and he thought it was appropriate to have some idea as to what lands the company might want. Mr. Gower without reference to me produced a map for Mr. Liles and at the same time he wrote a memorandum to Mr. E. D. Smith, who was general manager of the Death Valley Hotel Co.

The memorandum said that Mr. Liles had raised this issue and it went on to say that while there had been no specific decision in the company as to what lands we might want, it had been the feeling at the local level, meaning Mr. Gower, and, I suppose, Mr. Scholl, who was the manager at the inn at that time, that since we had given up land north of the ranch for the museum-visitor center and the Government wanted more land north of the ranch for future trailer camp, and so forth, that so that we wouldn't be hemmed in at the ranch we should have some land to the east, and he advised us that he had given Mr. Liles this map.

Mr. Smith, who was the successor to Mr. Stern, whose name has come into the picture, and who was new at the game, wrote me a note and asked me what views I had on the subject, and I wrote him a memorandum and I said in effect that in my view we should not designate any lands unless we had to do so, that this might well be the last land exchange that we would effect with the Government, that I was not bright enough to peer far enough into the future to tell what rights-of-way or places of expansion we might need, and, I felt, we should not designate any areas as those that the company particularly wished, particularly as the legislation provided that we could, from time to time, with the approval, of course, of the Secretary of the Interior, designate these areas. We didn't have to make a selection all at once. We didn't have to make a selection by a certain date. And this memorandum of mine I found in our files the other day, so if there is any thought that the company ever officially, and, after all, I was president of the company, designated the lands it wanted, I want to say that to my knowledge it never did so. I never did so in any conversations with Mr. Wirth. I never did so with any superintendents in the field. And I thought I would like to clear this point up.

Mr. Moss. Well, I am pleased to have your testimony. However, it is extremely difficult for me to grant that you have clarified it for me in view of the fact that, again, we have some rather interesting documentation. The push for this legislation didn't just suddenly rise. It had to reflect some discussions between the Government on the one hand and the owners of the land proposed for exchange on the other.

Now, again, Mr. Albright in D–83, a letter of February 6, 1958, to Senator Kuchel discusses this. He says in part:

D–83

The National Park Service needs considerable land that is owned by the company for its campgrounds visitor center, museum, etc. The company is now ready to donate 90 acres for a part of these developments. This 90-acre tract is a valuable one, located on the main highway, and certainly a gift to the Federal Government of importance as well as value from several standpoints. Several hundred acres more are desired by the Park Service for various purposes. On the other hand, the company needs a few acres to round out some of its holdings in the neighborhood of the inn and ranch.

In the Furnace Creek watershed, the company over a period of many years, going back to the days when it was in the business of mining borax, developed a supply of water. The Park Service has also developed some water in this

region. There is a very great need for an understanding or compact as between the company and the Government as to just what the water is, how it shall be further explored, developed, etc. We need legislation to accomplish two purposes: (1) To effect an exchange of land whereby the Government will get from the company some 500 or 600 acres of land in return for perhaps of a maximum of 200 acres to round out our holdings, and (2) authority for an agreement regarding the water rights and whatever else is necessary to meet the water situation where both the company and the Government are operating in the same region.

The letter goes on in more detail firming up this company interest. This is on U.S. Potash Co., stationery and is signed by Mr. Albright.

Mr. GERSTLEY. Could I comment on that, sir?

Mr. Moss. Certainly.

Mr. GERSTLEY. I don't disagree with that letter at all, but maybe I can clarify that a little bit.

The idea of legislation first arose because of the interest in having some land on which to establish a museum which originally was to go to the State and then I believe Senator Brown and the Park Service worked it out to go on Park Service land. Anyway, the Park Service wanted some additional land and the first thought was there should be the basis for a further exchange for which a precedent had been set, well, a precedent in Park Service history. It subsequently happened that as far as the 90 acres was concerned that the Park Service wanted to move ahead faster than it could have if they had waited for the legislation, that the money was there for the museum and visitor center, and the Park Service had the authority with their plans, and so forth, to go ahead. And so we were asked would we donate the land instead, and after some persuasive activity by my friend, Mr. Horace Albright, we consented.

Now, at the time, this still left, however, the fact that Mr. Wirth had indicated to me that beyond 90 acres the Government still wanted some 450 acres, I believe, for future campgrounds, and so forth, and therefore, this came in to the question of land exchange. The only lands that I sincerely know about which we thought we wanted, if an exchange bill went through, definitely, to effect, related to some testimony which was given yesterday, and that was to the effect I think that one of our dormitories intrudes on public lands. It does. We have a wood lot which is supposedly on Government land, and it is. And I think to the best of my recollection that these were the only specific areas that we had in mind to exchange; that as far as the balance of this land is concerned, I can only say that I was asked what was my view on 200 acres that Mr. Gower proposes in this map, and I have a memorandum which I wrote, I think it was in 1960 or 1961, as recent as that, saying in effect that I thought we ought to leave the question open.

Mr. Moss. Well, of course, again the House Report No. 1714, 85th Congress, 2d session of the House, and the Senate Report No. 1645, 85th Congress, 2d session of the Senate, became rather definitive in the type of exchange which is authorized—approximately 440 acres from the hotel company or not more than 200 acres from the Government—and then concurrent with this we had a very specific, highly definitive proposal. An appraisal was ordered of parcels F, G, and H—those are the company tracts—and parcels 1, 2, and 3 of the Government land desired by the hotel company in exchange. Appraisal

was then ordered by the Government, Mr. Hopper, of Fresno, making it at a cost of approximately $600 to the Government.

Now, you mean to say that up to this point nobody officially representing the company had indicated (1) a desire of the company to exchange lands and (2) designated the lands that were to be considered for exchange purposes?

Mr. GERSTLEY. No. sir. Let me say, first, I had said that I thought we ought to have land exchange legislation. If the Government wanted a lot of land for use we would give it to them if we got something in return, but as to the specific acreage that we wanted, I certainly say that to the best of my knowledge and recollection that I, as president of the company, was never asked to give my blessing to certain specific lands other than I recall a discussion about this dormitory and the wood lot, and I certainly do not recollect as having given my blessing to certain specific lands.

I do not deny that Mr. Gower was head of our land department, and I must confess that in those days I had more than my hands full with borax and potash matters and maybe I did not devote all the time and attention to the hotel company matters that normally I would have done.

Mr. Moss. What was the extent of Mr. Gower's authority to speak on behalf of the company?

Mr. GERSTLEY. He could not specifically designate any lands that he wanted without the approval, not only of myself, but of my board of directors. As I recall, under our organization I am not authorized to buy or sell lands beyond nominal amounts without the authority of my board of directors.

Mr. MCCLORY. Mr. Chairman, I wonder if Mr. Gerstley would be willing to furnish the subcommittee with the memorandum that he said he prepared at an earlier time which would confirm the testimony which he has now given the subcommittee?

Mr. GERSTLEY. I would be very happy to furnish the subcommittee both with Mr. Gower's memorandum in which, in effect, he is asking for some instructions, and also with my memorandum.

Mr. Moss. Well, I would also be interested in the correspondence. We may have this. In this memorandum to the Director from the regional chief of lands, region 4—D–95, April 24, 1958—it is pointed out that Mr. Hopper has included in his parcel G the Harmony Borax Works. In later correspondence the hotel company noted that it wished to exclude the Harmony Borax Works from parcel G—so this even becomes more definitive. Apparently here someone was going a long way to commit the company without any authority to do so.

(Subsequently, Mr. Gerstley submitted the following:)

DEATH VALLEY HOTEL CO., LTD.,
Los Angeles, Calif., February 5, 1964.

Hon. JOHN E. MOSS,
Chairman, Special Subcommittee on Assigned Power and Land Problems, House of Representatives, Washington, D.C.

MY DEAR MR. MOSS: At the hearing held in Sacramento last week relating to Death Valley, I advised your committee that I did not believe the top management of our company had ever made a final determination as to which 200 acres of land it wanted in exchange for the 450-odd acres the National Park Service desired from us under the 1958 legislation. I explained to you that I based this

observation on my recent review of our files. In accordance with the request of your committee, I attach hereto copies of the correspondence to which I made reference,* which I assume will be entered in the record. For ready reference, I will explain again that Mr. Gower handled land matters for the company and Mr. Smith was the new general manager of this company at the time of the correspondence in question.

I did not, and do not, deny that the National Park Service had previously been given a map by Mr. Stern and Mr. Gower reflecting their view of lands we might want but it is my sincere belief that such indications were preliminary in nature and submitted because Mr. Binnewies, then superintendent, requested same.

While this matter is probably not of great moment. I would again like to thank you for the opportunity you kindly accorded to me of appearing before your committee with reference to this subject and to our contractual relations with the Fred Harvey Co.

Very truly yours,

J. M. GERSTLEY, *President.*

INTEROFFICE CORRESPONDENCE

LOS ANGELES

To: Land department. Date: September 8, 1961.
Attention: E. D. Smith. L.A. File: 11–G–U.S.
From: H. P. Gower. Your file:
Subject: Exchange of lands in Death Valley Copies to:

During the negotiations climaxed by the transfer of 90 acres in section 16 from Death Valley Hotel Co. to the United States of America by deed dated March 24, 1954, a further request for additional hotel company lands amounting to approximately 440 acres was made by Park Service officials.

Death Valley Hotel Co. advised them that no further outright gifts would be considered but that an exchange of lands might be considered. Eventually such an exchange was submitted to Congress as specified in Public Law 85–495, 85th Congress, H.R. 10349 and passed July 2, 1958. By the terms of this bill the 440 acres requested by the Park Service was exchanged for an unspecified 200 acres with the further mutual agreement to arbitrate the use and distribution of waters available from Furnace Creek Wash and its tributaries and Furnace Creek Springs.

No definite selection of the 200 acres coming to hotel company under the terms of the bill have ever been made though it was understood on the local level at least that the company was giving up land north of the airport road for lands south of that line, and on a visit to the ranch (March 14–17, 1960) I first met the new Superintendent Grainville B. Liles, and upon his request gave him a sketch of some of the lands in which we might be interested. Upon this sketch, copy of which is attached, six tracts bordering our F.C. Ranch were noted as follows:

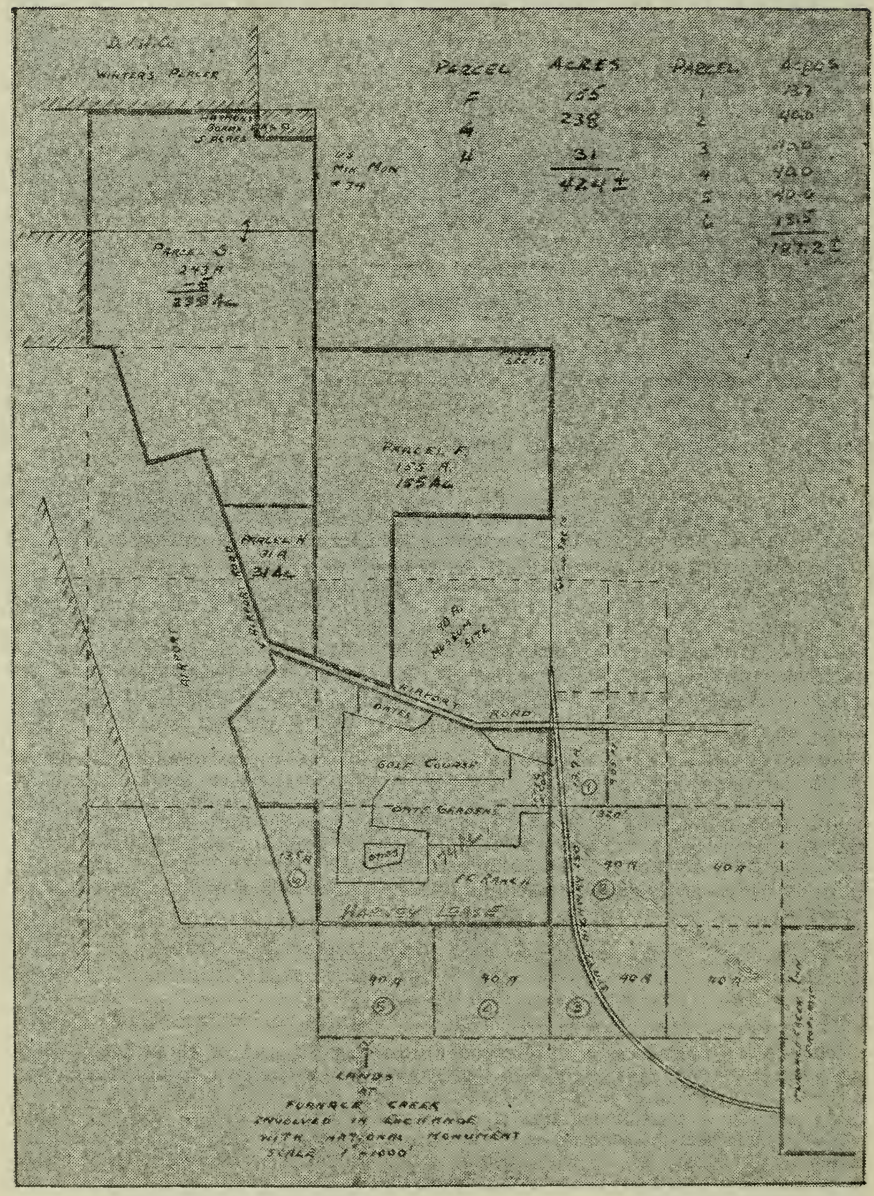
	Acres		*Acres*
(1)	13.7	(5)	40.0
(2)	40.0	(6)	13.5
(3)	40.0		
(4)	40.0	Total	187.2

Though we may have no present definite need for any of these lands, they would give us room for expansion and protect us on the east from future close competition. Actually all we started out to get in the first place were tracts 4 and 5 and those portions of tracts 1, 2, and 3, lying west of the State highway.

Some consideration was given to including the 140-acre tract east of tract 3 in order to physically tie up the inn and ranch properties. However, we already have a 40-foot easement connecting these properties which should serve any need for a connecting link.

H. P. GOWER.

*Copies of Interoffice correspondence attached:
Letter from H. P. Gower to E. D. Smith, dated Sept. 8, 1961, map attached.
Letter from E. D. Smith to J. M. Gerstley, dated Sept. 13, 1961.
Letter from J. M. Gerstley to E. D. Smith, dated Sept. 14, 1961.


PARCEL ACRES
F 155
4 238
4 31
424±
PARCEL A-ACS
1 157
2 160
3 160
4 160
5 40.6
6 13.5
727.2±
WINTERS PLACER
PARCEL 3
243 A
239 Ac
PARCEL F
155 A
155 Ac
PARCEL H
31 A
31 Ac
10 A. MUSEUM SITE
HARPER ROAD
AIRPORT ROAD
DATES
GOLF COURSE
"DATE GARDENS"
OFFICE
PG RANCH
HARVEY LEASE
40 A
40 A
40 A
40 A
40 A
40 A
LANDS AT FURNACE CREEK INVOLVED IN EXCHANGE WITH NATIONAL MONUMENT
SCALE 1" = 1000'

INTEROFFICE CORRESPONDENCE

LOS ANGELES

To: Mr. J. M. Gerstley.
Attention:
From: E. D. Smith.
Subject: Exchange of lands in Death Valley.

Date: September 13, 1961.
L.A. File: 10–C–24.
Your file:
Copies to: Mr. R. J. Coleman.
Mr. W. M. Childs.
Mr. H. P. Gower.

Enclosed herewith is Mr. Gower's review of negotiations to date with the National Park Service in regard to the gift of 90 acres for a museum and visitors' center, and the subsequent act of Congress which authorized the Secretary of the Interior to grant and convey to Death Valley Hotel Co., Ltd., perpetual easements for rights-of-way and/or title to lands aggregating not more than 200 acres. (A copy of Public Law 85–495, 85th Cong., H.R. 10349, is attached.)

The land desired by the National Park Service has been established. The determination of lands and/or perpetual easements we desire and which the National Park Service is willing to grant to us is pending. I note that the act authorizes the Secretary the right to grant lands subject to such terms and conditions as he may deem desirable.

The act also authorizes the Secretary of the Interior to enter into an agreement with Death Valley Hotel Co., Ltd., defining, fixing, and establishing the respective rights of each to the use of waters available from Texas Springs, Furnace Creek Wash and its tributaries, including Travertine Springs, and other waters in the vicinity thereof. I assume the land exchange could be consummated prior to a settlement of the water question; however, I doubt that this would be desirable as it would weaken our bargaining position and would also make available to the national monument the land upon which they intend to use the water they are negotiating for.

I assume from Mr. J. D. Stern's letter to Mr. Conrad L. Wirth, dated March 19, 1958, copy of which is attached, that once the land negotiations are consummated we are committed to turn Harmony borax works over to the national monument contingent upon certain assurances of safeguarding the old borax works.

Mr. Gower has designated on the drawing attached to his report the parcels he recommends we try to acquire. I believe the parcels designated are the best selection of the acreage available to us. You will note that parcels F, G, and H comprise 424 acres of land north of airport road. The granting of this land to the national monument will reduce our land holdings at the ranch to the 174 acres or that area presently leased to Fred Harvey. We have property to the west and north but the ranch itself will be isolated. This in effect limits our future expansion of this property to said 174 acres unless we select and are granted parcels designated by Mr. Gower. My only suggestion is that we should probably also request a minimum of 0.19 acres to cover the monument land upon which one of our inn dormitories is situated. A sketch of this area is also attached.

Mr. Gower mentions in his letter that we had once considered the selection of the 40-acre tract east of tract No. 3 in order to physically connect inn and ranch, but stated he felt there should be no need for a connecting link. I would like to support Mr. Gower's recommendation on not attempting to acquire a connecting property link between the inn and the ranch by pointing out a possible reaction by the national monument and/or their solicitors should such a selection be made. The selection of land that would allow us to acquire a connecting link of property might be interpreted by the monument people or their solicitors as an attempt on our part to acquire or extend riparian water rights. I know that McClellan made an issue of this point in the granting of the easements of 1955. In talking to Mr. Coleman about this he stated that there are no grounds for such an interpretation as a connecting property link could not accomplish this; however, he stated that the solicitors for the national monument had taken this position in the past and also on the parcels adjoining the ranch which we have expressed a desire to acquire, and he agreed that their solicitors may take exception to such selection on this basis. They might accuse us of ulterior motives and of acting in bad faith.

I submit Mr. Gower's recommendations and my comments tentative to the establishment of a policy which could set up our desired objectives and what compromises we are willing to grant.

If you so desire, this can be discussed at our meeting on Friday, September 15.

E. D. SMITH.

INTEROFFICE CORRESPONDENCE

LOS ANGELES

To: Mr. E. D. Smith.
Attention:
From: Mr. J. M. Gerstley.
Subject: Exchange of lands in Death Valley

Date: September 14, 1961.
L.A. file: 10–C–24.
Your file:
Copies to: Mr. R. J. Coleman.
Mr. W. M. Childs.
Mr. H. P. Gower.

Thank you for your helpful memorandum of September 13 and Mr. Gower's review and suggestions of September 8 re the above. Mr. Gower has used the word "arbitrate" somewhat loosely as of course the legislation referred to made no provision for arbitration of water rights by anybody. I only mention this to set the record straight. We and the Secretary can try to reach agreement on the matter but this is quite different from arbitration.

The land exchange presumably could be agreed at anytime but I think the matter should be taken up when we discuss water. However, I am not sure that we should try to pinpoint at the outset all of the land we may be entitled to; i.e., the 200 acres. Unless we can get further legislation through Congress at some future date, this land exchange could possibly be the last and if so we should be very careful in making selections which may have to satisfy us for years in the future. I certainly think we should reserve in our own mind at least part of the acreage for future adjustments in rights-of-way, easements, etc., the precise need for which is hard to predict but I think will unquestionably arise. Beyond this, it would be my thought that we might ask for some portion of the acreage suggested by Mr. Gower and leave some reserve unspecified for possible future designation. The bill only provides that the exchange shall be in accordance with a schedule mutually satisfactory to the parties.

Anyway, you might give this some thought and we can discuss more fully at some convenient time—and in any event in advance of any negotiations.

J. M. GERSTLEY.

Mr. GERSTLEY. We owned the Harmony Borax Works. We weren't trying to acquire it. The Government was trying to acquire the Harmony Borax Works.

Mr. MOSS. It was excluded—approximately 5 acres.

Mr. GERSTLEY. This was part of the land the Government was trying to acquire.

Mr. MCCLORY. Is it your contention that these are all preliminary conversations and they do not give any definite indication as to the exact parcels to be exchanged by the company or which the company desires to acquire except those two that you mentioned?

Mr. GERSTLEY. That's correct, sir, and if you would ask me today what my view on the subject is, I would say it is still a very open one.

Mr. MOSS. We have here a telegram dated March 28, 1958, and addressed to J. D. Stern, Death Valley Hotel Co., Ltd., 630 Shatto Place, Los Angeles, Calif. It is D–92:

D–92

Regarding your letter of the 19th. We discussed the Furnace Creek area land transfer and proposed legislation with Horace Albright this office today. Copy bill H.R. 10349 being airmailed you. Our suggested amendments shown in red thereon. Bill not yet introduced in Senate but expect this soon. Satisfactory handle Harmony Borax Works 5-acre tract separately from other lands to be

exchanged under proposed legislation. Consider unnecessary amend bill further allow this procedure. Revised map mentioned in bill by our recommended amendment will simply inform congressional committees generally nature of exchange. Any map recorded in support conveyance of exchanged lands need not be mentioned in legislation and can be different map.

Your deed March 24 for 90-acre donation satisfactory in present form but is subject final views of Attorney General. Our regional office being requested furnish us data necessary secure Attorney General's title opinion needed before deed may be accepted.

(Signed) TOLSON, *Acting Director.*

So again we appear to be proceeding on the theory that the Park Service had a fairly definitive understanding.

Mr. GERSTLEY. Sir, I can only say that those must have been preliminary and I would be happy to furnish this subcommittee with the correspondence which seems to be pertinent.

Mr. Moss. What was the scope of authority of Mr. J. D. Stern on March 19?

Mr. GERSTLEY. He had authority, let us say, in those days—because he is no longer vice president and general manager. He was succeeded by Mr. E. D. Smith whom I mentioned. He had the authority to run Death Valley on a day-to-day operation, set the rates, take care of the furnishings, establish wage policy, and so forth, and he was used extensively, let me say, on all matters here relating to Death Valley, including relations with the Park Service or relations with anybody else that came up, and he was also used in connection with land exchange matters. He had corresponded, as I recall, with Mr. Albright, and usually on questions on major policy where the president's decision was required, the president's decision was obtained.

Mr. Moss. Well, Mr. Stern on March 19, 1958, addressed a letter to L. C. Merriam, Regional Director, National Park Service, Western Regional Office, 180 New Montgomery Street, San Francisco, Calif.

D–88a

DEAR MR. MERRIAM: We have prepared the attached map which shows the various parcels of land to be transferred to the Park Service under the legislation now pending in Congress. You will note that we have eliminated the 90 acres in parcel F which is to be used for the museum, visitors' center, and campground, and which as you know, is covered by a separate deed—

That reduced that from 550 down to approximately 400—

We have also taken the liberty of eliminating approximately 5 acres including the Harmony Borax Works, and have today written to Director Wirth asking his approval to have this parcel handled as a separate transaction.

We would like to have the attached map recorded, but prior to doing so would like to have the approval of yourself and any other interested parties in San Francisco. We have sent Director Wirth a copy and asked for his approval.

Very truly yours,

J. D. STERN,
Vice President and General Manager.

This is D–88a.

Mr. GERSTLEY. Well, I honestly do not recall that letter but he obviously wrote it.

Mr. Moss. You must admit that that creates a rather interesting picture.

Mr. GERSTLEY. Well, it does indeed create an interesting picture.

Mr. Moss. And one which became somewhat confused and irritating.

Mr. GERSTLEY. I quite agree.

Mr. Moss. However, this subcommittee is not going to determine the facts of whether or not the company wanted an exchange.

Mr. GERSTLEY. It did want an exchange.

Mr. Moss. It wanted an exchange but not a definitive exchange?

Mr. GERSTLEY. That's right.

Mr. Moss. We had a definitive exchange proposal but it was not wanted?

Mr. GERSTLEY. That's right.

Mr. Moss. So we are confused.

Mr. GERSTLEY. Yes, sir; and I don't like it.

Mr. Moss. Mr. McClory?

Mr. MCCLORY. Mr. Chairman, I don't have any questions, but as you know, I did contemplate that the hearings would end at the end of this morning session and I have made arrangements to leave for other parts.

Mr. Moss. The Chair is prepared to adjourn.

Mr. MCCLORY. Before adjourning, I would like to compliment you, Mr. Chairman, for the very fine, very objective way you have conducted these hearings here. I certainly want to express my appreciation for the very fine reception we have received here in the State capitol building and for all those who have assisted us in making this hearing a very productive one, and I look forward to resuming our hearings in Washington and trying to bring this very difficult problem to a speedy and acceptable conclusion so that the Park Service can move forward in whatever plans it may have. And I want to express further my genuine appreciation for the opportunity to serve as a member of this subcommittee with you, Mr. Chairman, and to express my gratitude for the very fine treatment and reception that we have received in your illustrious State capitol and your congressional district, and to compliment the people of the district for their good judgment in having selected you in years past to represent them in the Congress of the United States where you obtained an excellent reputation for public service.

Mr. Moss. Well, Mr. McClory, I want to return the compliment and state that rarely have I had hearings during my service where we have had to sit as consistently as we have, where another member has stayed and has been as interested and thorough in pursuing the subject matter of the hearing. It has been a pleasure for me to serve with you and I look forward to a continuation of that relationship.

Mr. Gerstley, I want to thank you for coming forward and giving the subcommittee the benefit of your testimony. You are now excused.

The subcommittee at this point will adjourn.

(Whereupon an adjournment was taken at 2:50 p.m., January 29, 1964.)

DEATH VALLEY NATIONAL MONUMENT

(Furnace Creek Area—Water Rights and Related Matters)

MONDAY, MARCH 23, 1964

HOUSE OF REPRESENTATIVES,
SPECIAL SUBCOMMITTEE ON
DEATH VALLEY NATIONAL MONUMENT
OF THE COMMITTEE ON GOVERNMENT OPERATIONS,
Washington, D.C.

The special subcommittee met, pursuant to notice, at 10:50 a.m., in room 1501–B, Longworth Office Building, Hon. John E. Moss (chairman of the subcommittee) presiding.

Present: Representatives John E. Moss and Robert McClory.

Staff members present: Phineas Indritz, chief counsel; Sidney McClellan, assistant counsel; James A. Lanigan, general counsel, Government Operations Committee; Miles Q. Romney, associate general counsel, Government Operations Committee; and J. P. Carlson, minority counsel, Government Operations Committee.

Mr. Moss. The subcommittee will be in order. This is the Special Subcommittee on Death Valley National Monument of the Committee on Government Operations of the House of Representatives. The chairman of the full committee, Hon. William L. Dawson, in a letter dated August 23, 1963, has defined the subcommittee's jurisdiction as follows:

> The subcommittee is authorized and empowered to study and investigate, on behalf of the committee, all matters concerning the Death Valley National Monument within the jurisdiction of the committee and to prepare and recommend a report thereon.

Today's session is a continuation of hearings held in Sacramento, Calif., on January 27, 28, and 29, 1964. We shall examine further into the administration of the Death Valley National Monument by the National Park Service of the U.S. Department of the Interior. We seek to ascertain whether the Service has been fulfilling its responsibilities for the management of the monument in conformity with law, whether the Department is safeguarding the Federal Government's reserved and dedicated land and water resources, and whether the management of the monument has always been in the public interest.

The Chair wishes to take this opportunity to comment on part of the testimony received at its initial hearing on January 27, 1963. Mr. Martin McDonough, an attorney who is a recognized authority in water-right law, appeared as an expert witness for the subcommittee to testify concerning the rights to the use of waters in the Furnace Creek drainage area in Death Valley National Monument.

At present, the Death Valley Hotel Co. is diverting 4.4 cubic feet per second of these waters. It maintains that it has a valid legal right to do so. The company's diversions amount to 97.78 percent of the area's estimated total usable water resources. The National Park Service is receiving the remainder. It was the expert witness's conclusion, however, that the hotel company cannot make a valid claim of right to use this entire amount of water. He found that a reasonable maximum for the company's water rights in the area would be 2.60 cubic feet per second in one set of legal circumstances and 3 cubic feet per second in another set of legal circumstances.

Because the federally-owned lands in the Furnace Creek drainage area have long been in a special reserved status, waters in the area which the hotel company cannot validly claim are reserved to the United States and hence could become available to the National Park Service for development purposes.

As to Mr. McDonough's specific findings and conclusions, we express neither agreement nor disagreement. However, from the witness's own qualifications and from his carefully researched and reasoned analysis, it is clear that great weight may be attached to his opinion.

In the light of Mr. McDonough's findings and conclusions, many of the questions into which the subcommittee is now looking take on further substance, particularly whether the Department has been sufficiently diligent in its efforts to safeguard and utilize the Government's invaluable water resources in the area.

A principal reason for the subcommittee's retaining Mr. McDonough to make a legal analysis of the water rights in the Furnace Creek area was that the Department of the Interior never completed such an analysis itself. So far as I know, the Department has not done so to this day, although we have been told that one is in preparation. Sound long-range planning for Federal development of the monument depends on a determination of the amount of water available to the Government. Any responsible effort by the Department to achieve such a determination would have to be preceded by its own findings and conclusions on the Government's legal position, and the Department now agrees. At one time, however, it apparently did not agree.

The act of July 2, 1958 (72 Stat. 295), authorized, among other things, an agreement between the Secretary of the Interior and the hotel company for "finding, fixing, and establishing the respective rights" of the company and the Government in the waters of Death Valley. Initially, officials of the Department seem to have regarded this authority as carte blanche to work out a division of the waters without consideration of the company's and the Government's entitlement to these waters under applicable law.

In 1959, committee investigators discovered in the Department's files a memorandum from the regional solicitor in Sacramento to the field solicitor in San Francisco, dated August 13, 1958. After reciting part of the act of July 2, 1958, the regional solicitor stated:

> The scope of the agreement thus defined is limited to the quantitative factor of the respective rights of the hotel company and of the United States to the use of the waters from the named sources. The qualitative factor of such rights as the same might exist or ultimately be adjudicated under the laws of California as to the company is not involved presently.

He then requested the field solicitor to assist the regional director of the National Park Service in conducting negotiations with the company.

Concerned about such an approach to the agreement contemplated by the 1958 act, Chairman Dawson wrote the Secretary of the Interior on July 17, 1959, that any negotiated agreement in which either party concedes a water right to the other would be a binding agreement pursuant to an act of Congress, regardless of what a State court might decide was the law absent such an agreement. Chairman Dawson declared, therefore, that it was highly important that the Government find out the actual water-right situation in the area before embarking on negotiations. Otherwise, the public interest would be irreparably damaged.

The subcommittee continued to press the Department for a review of the water-rights problem. Yet it was not until March 23, 1962, that the Department appeared to recognize that—

> in the negotiations of any contract with the company we must have as much information as it is possible to obtain regarding the legal rights to the use of water of both the United States and the company.

Then on January 23, 1963, the Assistant Secretary of the Interior advised us that since he was convinced no intelligent decisions could be made without firm legal advice on the validity of the various claims to water in the area, the Solicitor of the Department had been requested to initiate a comprehensive review of the subject. It is certainly my hope that this long overdue review will soon be completed.

During today's hearing, we shall examine certain activities at the Washington level of the National Park Service which relate to the administration of Death Valley National Monument. Our witness will be Mr. Conrad L. Wirth, former Director of the National Park Service.

Mr. McClory, do you have any comment at this time?

Mr. McCLORY. Mr. Chairman, I don't have any prepared statement. I just would like to offer this: That insofar as this member of the subcommittee is concerned, I wouldn't want to indicate by my silence or in anything that I might say any opinion at this stage with regard to the correctness of the action taken by the Department or any officers of the Government. I wouldn't want to indicate that I am in any way passing judgment on the Department's compliance with the 1958 legislation or its interpretation of what that legislation signifies, nor do I want to indicate any absence of appropriate action by the Department.

I am hopeful that at the conclusion of all the hearings judgments on all of these aspects of conduct or alleged misconduct can result in a unanimous expression by the subcommittee.

Mr. Moss. Thank you.

Mr. Wirth, would you stand and be sworn.

(Conrad L. Wirth, called as a witness before the Special Subcommittee on Death Valley National Monument, was duly sworn.)

Mr. Moss. Will you identify yourself for the record?

TESTIMONY OF CONRAD L. WIRTH, FORMER DIRECTOR, NATIONAL PARK SERVICE

Mr. WIRTH. I am Conrad L. Wirth, W-i-r-t-h, self-employed. I would like to give you a little of my background, Mr. Chairman, if I may, because in reading the minutes of the previous hearings I think a lot of the things are based on judgment, and I think my background would be important.

I am a landscape architect and planner by profession. That was my college education and training. I joined the Government in 1928 with the Planning Commission here in Washington. I transferred to the National Park Service in 1931 to take charge of their land planning activities. That should not be confused with the design and construction part of the Service. It is the planning of the national park system, as such, new areas and things of that sort. I was responsible for CCC programs in State and National parks in the 1930's, and became Secretary Ickes' representative on the CCC advisory council for the whole Department of the Interior. I served as adviser to the military government in Vienna in 1945 and 1946, and returned to Washington, resumed my own old job, and I was selected to be Associate Director in April 1951, and became Director on December 8, 1951, appointed by Secretary Chapman, retained by Secretaries McKay and Seaton and Udall, and I retired of my own free will and volition at the ripe old age of 64, on January 8, 1964.

I do want to say this to you, Mr. Chairman, and to the subcommittee, that I am a willing witness and glad to be here. I hope that I can give the answers you seek.

Mr. Moss. Thank you. Do you have any statement?

Mr. WIRTH. No, I have no statement. I have tried to brief myself as much as I could, and I am ready to try to answer questions to the extent that I am able to.

Mr. Moss. Fine. All right, Mr. Romney.

Mr. ROMNEY. Mr. Wirth, have you read the transcript of the subcommittee's earlier hearings in Sacramento?

Mr. WIRTH. I have read parts of them. May I ask a question, Mr. Chairman? Could I have that blind lowered because I am looking right into the light and I can't see Mr. Romney.

Mr. Moss. Certainly you could.

Mr. WIRTH. Thank you. Yes, I have read parts. I have not read them in their entirety but I think I am fairly familiar with what is in them.

Mr. Moss. Mr. Wirth, you indicated you had others with you here. You might want to refer to them from time to time. Would you like to introduce them and if you want have them join you at the witness table?

Mr. WIRTH. Mr. Donald Lee, who is head of our Division of—what is it called now, Don?

Mr. LEE. Chief, Division of Land and Water Rights.

Mr. WIRTH. Suppose each one of you give your name and title.

Mr. SANDERS. Harry Sanders, Assistant Chief.

Mr. RESHOFT. John Reshoft, Chief of Master Plan Coordination.

Mr. BERTE. Victor Berte, Water Resources.

Mr. WIRTH. I lost track of your question, Mr. Romney.

Mr. ROMNEY. I had asked if you had read the transcript of the subcommittee's earlier hearings?

Mr. WIRTH. Yes, I did. I think I replied to that.

Mr. ROMNEY. I would like to discuss with you, Mr. Wirth, first the matter of the proposed relocation in 1956 of the permanent headquarters at the Death Valley National Monument to a new location in the Furnace Creek area, a suggestion which was originated in the field and forwarded to Washington.

The proposal also contemplated the change of use of the then headquarters location or residence and utility site at Cow Creek to a visitor use area. Did you, as Director, on receiving and reviewing the proposals from region 4 approve the so-called supplement to the Mission 66 prospectus with respect to the permanent headquarters location in Death Valley?

Mr. WIRTH. Yes. I think you already have in the record definite statements to that effect, in fact correspondence indicating it.

Mr. ROMNEY. And did you also approve the plans and maps which accompanied this proposal?

Mr. WIRTH. As I recall, there were rough sketches which conveyed an idea and a principle, and we approved the general concept and were seeking further information as to details of those plans. That is my recollection.

Mr. MCCLORY. Mr. Chairman, could I inquire as to the date? What time are we talking about now?

Mr. MOSS. Yes.

Mr. ROMNEY. The date of approval on the record is June 18, 1956, item D–21.

Mr. WIRTH. To the region it states the Director approved proposal but requests further detail. Submit prospectus and program changes.

Mr. ROMNEY. The maps and plans which accompanied this were approved by you on November 6, 1956.

Mr. MCCLORY. As I understand this June 1956 approval, to which you referred, Mr. Romney, it was subject to further investigation or certain further work. It wasn't an approval. It was a qualified approval or tentative approval.

Mr. WIRTH. That is correct. The principle was approved.

Mr. MCCLORY. What is the later date we are referring to.

Mr. ROMNEY. The later date is the 6th of November 1956.

Mr. MCCLORY. May I just make one more inquiry? Is that before or after Mr. Wirth went out to Death Valley?

Mr. ROMNEY. That is before.

Mr. WIRTH. May I ask you a question, sir. Have you got a copy of that plan?

Mr. ROMNEY. Yes.

Mr. WIRTH. I would like to see it if I may. Pardon me if I refer back. This is going to be difficult to explain, I am sure. This plan on your right shows approved. The plan that I have here is marked "interim master plan." The approval was marked on this apparently in the field. This is where you most likely got this map, out in the regional office or out in the western office of design and construction. This is getting down to details, but the plan actually in the Washington office was never signed, nor does it have, the one we have a copy of, the superintendent's signature or anybody else. But we did approve

the concept of the plan. I am not belittling the plan. The plan was approved from the standpoint of going ahead, but actually that is why we couldn't find the signed plan that you referred to—because you apparently had this marked copy.

When they got our wire in the field they marked the plan approved. They don't send the negative in, and therefore if I was Mr. Hill I would have done the same thing, I would have indicated it was approved. But we were still seeking additional information.

Mr. ROMNEY. Can you explain the reason for dating the approval by the Director as November 6, 1956?

Mr. WIRTH. Mr. Vint sent a memorandum which you have a copy of, I am sure, November 6, 1956, addressed to the Chief of the Western Division Office, and it refers to the drawing and gives the number, name, and so forth which was submitted with Mr. Hall's memorandum of September 6, was recommended by Mr. Vint on October 9, and approved by Mr. Wirth on November 5.

Mr. Moss. Will you identify the document?

Mr. WIRTH. The document is NM–DV–2084–A. The name of it is "Furnace Creek Residential and Utility Area." Mr. Vint then went on:

> The label "swimming reservoir" should be changed to read, "reservoir." This change does not imply that swimming will be prohibited; we merely want to prescribe a name that will describe the primary purpose of the water storage tank. We presume that the water will be used for essential irrigation purposes.
>
> The Director desires to have residences constructed in a compact unit somewhat on the order prescribed in Mr. Merriam's memorandum of September 18. This method contributes to orderly development and reduces maintenance and operations costs.

You will notice this plan here calls for individual houses and they were on a scale which indicates lots that range anywhere from a half to an acre and a half in size, and in my opinion that was too much land for a house. I don't have that much myself here in Washington.

Mr. Moss. Before we proceed further, the staff is instructed that an appropriate request be made to the National Park Service of the Department of the Interior, to supply this subcommittee with all copies of memorandums and plans.

Mr. INDRITZ. Yes, sir.

Mr. Moss. This memorandum was not presented to the subcommittee, was not supplied. Now if we are going to be confronted here today with the presentation of documentation not previously available to the subcommittee, I would like to have from some appropriate official now in the Department an indication of the extent to which that type of material might be offered here today.

Mr. WIRTH. Mr. Chairman, I would like to answer that if I may. We have tried wholeheartedly to cooperate with the subcommittee and furnish them everything they want. In fact we have made our files available to them and they had an opportunity to go through everything that we have got, and if they still want to come down and look for more, believe me, sir, they will be welcome.

And the only other way we can do it is just bring the truck and just take everything we have and move it up here.

If that is what you prefer, I mean the staff would like, we will do it, but they have had access since Secretary Seaton released the file back

on April 22, 1960. He wrote and told you that you could have anything we had in the files. I honestly believe, and I most sincerely hope we have been cooperative in giving the staff everything that we have.

Mr. Moss. That has been my impression, that there has been full cooperation.

Mr. WIRTH. We are not trying to hold out anything, sir. I can assure you.

Mr. MCCLORY. I want to get something clear here if I may at this point, Mr. Chairman.

As I understand it, the plan, Mr. Wirth, to which you make reference and which was in the office, was not signed by you; is that correct?

Mr. WIRTH. No, it was not.

Mr. MCCLORY. And was the approval to this interim plan, as it is called, conveyed by telegram?

Mr. WIRTH. It was conveyed by memorandum, and I think Mr. Romney referred to November 6, didn't you, sir?

Mr. ROMNEY. Yes.

Mr. WIRTH. That is the memorandum that contains the approval. I think you have that information.

Mr. MCCLORY. Do you have that memorandum? Is there some missing memorandum?

Mr. ROMNEY. The memorandum of November 6 from Mr. Vint transmitting this which you have just referred to is one we have not seen.

Mr. WIRTH. I am sorry. There was no intent.

Mr. MCCLORY. Can the witness produce that memorandum now?

Mr. WIRTH. Yes.

Mr. MCCLORY. Are there any other papers there that are missing from our file, Mr. Wirth?

Mr. WIRTH. I am at a loss to know. I think there is a lot in the file. I don't know just what. They are all marked with "D's," numbers and so forth. I don't know just what you have got, but anything you have not got you are welcome to.

Mr. MCCLORY. Where did that memorandum that you are referring to now come from?

Mr. WIRTH. This is a part of our Death Valley Monument Region 4 master plan correspondence.

Mr. MCCLORY. Does that have a "D" mark on it?

Mr. WIRTH. No, no, this is our own file. "D's" are put on by the subcommittee here.

Mr. MCCLORY. Was that part of the file submitted?

Mr. WIRTH. This is a carbon copy of the letter.

Mr. MCCLORY. Was that available for examination by the subcommittee's staff?

Mr. WIRTH. It should have been in the main file. This is the design and construction office file, but they only have a copy of what is in the main file, and I think what perhaps happened in going through the files, this was overlooked. They took the date of the approval, they have got that correct, and that is the date of this letter.

Mr. MCCLORY. Can we have this missing document now, then?

Mr. MOSS. Yes, we will receive a copy of the document.

Mr. MCCLORY. I want to get the full significance of it now.

Mr. WIRTH. I have this. I can take it out of the file here. It is a file copy.

Mr. MOSS. We will have it copied.

Mr. WIRTH. If there is anything else I refer to here that you haven't got I will be glad to give it to you.

Mr. MCCLORY. Mr. Chairman, as long as this is a file which the staff apparently hasn't seen before, why don't we examine the whole file and then if there are any other parts of it——

Mr. MOSS. I think as we go along if there appears to be other documentation that the subcommittee has not received, then we will pursue it further. But I think now we can go ahead with our line of inquiry and this may be just an isolated instance.

(Discussion off the record.)

Mr. MOSS. The file will be available to us for the determination of whether there is further documentation missing from that which the subcommittee has. I think that will very quickly develop on the record. The file, however, in its entirety, will be available to Mr. Carlson and the staff of the subcommittee.

Mr. WIRTH. That is correct, at any time. Do you want to look at it now?

Mr. MOSS. Do you require it now for reference?

Mr. WIRTH. If there is another question that comes up that is in here I would like to refer to it. I would hate to lose my tabs.

Mr. MOSS. I think we should now proceed.

Mr. McClory?

Mr. MCCLORY. Just tell me what is the date of that memorandum.

Mr. WIRTH. November 6, 1956.

Mr. ROMNEY. Mr. Wirth, the proposal to change the headquarters location and change the use of the Cow Creek area was carefully prepared and thoroughly considered in the field, was it not?

Mr. WIRTH. I don't agree with that.

Mr. ROMNEY. Would you state why you don't agreed with it?

Mr. WIRTH. Well, maybe the main reason is because I don't think they took into consideration all the factors of administration and protection, and so forth, and when the plan did come in and I did approve it even though I had some question of my own staff; but the preponderance of opinion of the staff was in favor of going ahead, so I gave my approval at that time. But I would be glad, at the proper time, whenever you wish, to explain my reasons for making the final decision that I did in 1957.

Mr. ROMNEY. However, after your approval in June 1956, until a date in 1957, you did not change your approval; did you?

Mr. WIRTH. No, sir; I did not.

Mr. ROMNEY. And at one point you had instructed the field to carry on with construction of works; hadn't you?

Mr. WIRTH. I told them to proceed; yes.

Mr. ROMNEY. And isn't it true that Associate Director Scoyen, in conveying to the field on June 18, 1956, your approval of the proposal, characterized the presentation to Mr. Binnewies as "excellent."

Mr. WIRTH. Have you got his letter of June 18? I have a copy, too. I just want to be sure.

Mr. ROMNEY. That is document D–21?

Mr. WIRTH. I was just wondering whether I had another letter here that you should have.

Yes, I am familiar with Mr. Scoyen's letter, and I do think that Mr. Binnewies did an excellent job of thinking and did the best he could under the circumstances and made his honest and straightforward recommendation as he saw the picture. I read his report over in detail. I would like to point out Mr. Scoyen complimented him on a good job. I think a pat on the back is better than a thousand punches in the stomach, reversing that procedure. But you will notice in reading the memorandum it states:

D–21

The memorandums, drawings, estimates, and photographs submitted as a supplement to the final Mission 66 prospectus, were studied prior to a general review of the entire Death Valley prospectus because of your request for early advice on this matter. We expect to undertake the study of the final Mission 66 prospectus soon. Pertinent comments on the supplement and the main prospectus will be forthcoming at that time.

Now if you will recall, this plan refers to just this one location. It doesn't refer to the tie-in of this with the other objectives, and at that time it looked as if it might fit into the picture all right.

I might read the last paragraph in the letter too, if I may. It is a short one.

The 1957 buildings and utilities construction program contains items of work at Cow Creek. If the decision to move headquarters to different location necessitates a change in the allocation of these funds, we should be so notified as soon as possible.

In other words, if they needed the money that year we should be notified of the change in work order.

Mr. ROMNEY. I would like to move now, Mr. Wirth, to the entry of Mr. Horace Albright into the picture. On November 1, 1956, Mr. Albright addressed a letter to you. Do you have a copy of that letter?

Mr. WIRTH. I don't think I have it here. I may have it here but I am familiar with it. I think you have it already incorporated in the record.

Mr. ROMNEY. That is correct.

Mr. WIRTH. I think I read it at that time. In this letter he told me he was going out there for the borax company and if there was anything he could do for us he would be glad to do so and he would also like to look over the plans there at Death Valley.

Mr. ROMNEY. That is correct.

Mr. WIRTH. That is the general gist of the letter.

Mr. ROMNEY. In this letter (D–30), Mr. Albright states:

D–30

Mr. J. M. Gerstley, who is president of our enlarged company and who was formerly president of Pacific Coast Borax Co., has asked me to familiarize myself with affairs in Death Valley, of course with especial reference to the interests of the company out there, but also in any other respect where my background of experience might be useful to either our company or the National Park Service.

In our hearing in Sacramento, Mr. Wirth, Mr. Albright stated that he had gone to Death Valley as a result of your requesting him to go out and take a look at the area, and give you his comments. Do you recall that portion of the testimony in the hearing?

Mr. WIRTH. No, I don't. As a matter of fact 2 o'clock this morning I got a little sleepy and I couldn't read much more so I went to bed.

Mr. ROMNEY. May I read this?

Mr. WIRTH. I wish you would.

Mr. ROMNEY. I am reading now from page 422 of the reporter's transcript of the hearing on January 29, 1963 (printed hearings, p. 286).

Mr. Moss. Do you have a copy of the transcript before you, Mr. Wirth?

Mr. WIRTH. We have a copy here. Will you please give me the page again?

Mr. ROMNEY. Yes, sir; page 422.

Mr. WIRTH. Thank you. I have got it.

Mr. ROMNEY. I am reading now from the first full paragraph on that page, quoting from Mr. Albright's testimony:

> When the Death Valley Mission 66 program came up, I didn't know anything about it, but it was the custom of Mr. Wirth to send the members of this Advisory Board data regarding the various Mission 66 programs. Usually it was just in outline form, and I received in that outline what was suggested in Death Valley, just a small amount of material, and I didn't have time to give any attention to it. I had laid it aside and hoped to get an opportunity to look at it. Later Mr. Wirth asked me when I would be in Death Valley again, and I told him probably in November, which is about the time of year when we usually had a meeting in California. He asked me then if I wouldn't look over the details of the Mission 66 plan.
>
> I told him that I didn't think I ought to do that, but he said that I was on the Advisory Board and somebody would have to do it sooner or later and I might as well begin then; so he sent me all the plans, the maps, the charts, the graphs—all that they had at that time, which would be along about October 1956, I guess it was, and he asked me when I could look them over out in the field. First, he hoped I'd study them back there, which I did. I expected Superintendent Binnewies would have a full set in Death Valley, so I sent them all back.

Is it an accurate statement of Mr. Albright's that you asked him if he would go out and look over the details of the Mission 66 plan in Death Valley?

Mr. WIRTH. I don't recall my asking Horace to do that, Mr. Albright to do that; Horace has a better memory than I have. He can remember every ranger and the children born to him and almost all their grandchildren. All I could find and recollect is this letter from Horace, which you have put into the record, and I am sure you have my reply of November 6 in the record in which I did transmit the prospectus to him and told him I would gladly get his reaction to it; and in that letter I also asked him to not spread it around too much for the simple reason we had not finished all our studies yet and we didn't want to get it out in public, until we had had an opportunity to consider all the facts, and with that thought in mind, I sent it down to him.

That I did do, and I did it of my own free will and accord.

Mr. ROMNEY. On page 443 (printed hearing, p. 296), Mr. Albright says again beginning in the middle of the page:

> He didn't tell me that, sir. I didn't know it had been approved. He told me that he was very apprehensive about the plan, wanted to know if I would look at it, give a report. Otherwise, I wouldn't have paid any attention. I didn't meddle into Park affairs.

Do you have any recollection of telling Mr. Albright that you were apprehensive about the report and wanted him to——

Mr. WIRTH. I do know that we went down to the Advisory Board meeting, and by the way this is not an Advisory Board to me. It is an Advisory Board to the Secretary of the Interior.

I think the record should show that. It is under the 1935 Historic Sites Act, which makes it an Advisory Board to the Secretary appointed by the Secretary of the Interior. We do take things before the Board.

Mr. ROMNEY. When was the Advisory Board meeting to which you refer?

Mr. WIRTH. About the 1st of December of that year.

Mr. ROMNEY. Yes.

Mr. WIRTH. Now there was one in the springtime, and I don't recall whether I spoke to them in the spring about it or not.

Mr. ROMNEY. However, the proposal had not been submitted to you in the spring?

Mr. WIRTH. That is right. I could not have spoken.

Mr. ROMNEY. And he addressed his letter to you on November 1 prior to the Advisory Board meeting to which you referred?

Mr. WIRTH. That is right.

But as I repeated, as I said earlier, that when I did indicate they should go ahead with this layout for the residential utility area, and that is all this is, residential utility area, general preliminary layout, as I told you, I had some misgivings in signing it, but the preponderance of recommendations were in favor of it so I told the staff to go ahead and let's see what it looks like, and I no doubt told Horace that same thing, but if I—well, I will leave it that way.

I don't recall whether I did or did not but it is entirely possible that I did, because that was certainly in my mind.

Mr. ROMNEY. In his letter to you of November 1, 1956 (D–30), Mr. Albright asked you if you would send him any material you had available regarding the application of the Mission 66 program to Death Valley National Monument. In your reply to Mr. Albright, November 6, 1956 (D–31), you state:

D–31

As to the new monument headquarters; that has all been settled. I will not try to describe it to you in this letter, but Fred will show you the maps and show you exactly what we are planning to do. We plan to put it up the road from Furnace Creek Inn, on the slope about a mile back from the road. We propose to build year-round houses there, with air conditioning, rather than to move from winter headquarters to summer headquarters and back again each year.

Does this indicate that you in any way had any doubts or apprehensions about the plans?

Mr. WIRTH. No it does not. I made the definite statement there the matter was settled.

Mr. ROMNEY. In the next paragraph I read:

Horace, I am also sending the prospectus sent in by the superintendent, together with a copy of the memorandum we have sent to the field concerning it. This is the first time I have done this, and it is not general public information; therefore I am sure I can depend on you to keep our confidence in this report. We are constantly trying to improve it and you know that when you let information out and then try to change it, you run into difficulties because people try to pin you down to what you have said previously before you had all the facts or had fully analyzed the conditions. However, Horace, in this case I am sending it to you in order that you might look it over before you get to the field, and, Fred

will be glad to go over everything with you. I shall be very glad to have your reactions, and I know Fred will also. Please return the prospectus to me as soon as you have finished with it.

What prompted you to turn over the Mission 66 materials to Mr. Albright in an action which you state in your own words was a new precedent for you?

Mr. WIRTH. I didn't say exactly it was a new precedent. I said I very seldom do this, but in this case I am doing it to Horace Albright for the simple reason that Horace is on the Advisory Board. He is a sworn employee of the Federal Government, and he works with National Park material, and I had confidence in him, and he is a former Director of the National Park Service.

Mr. ROMNEY. I believe your letter says "This is the first time I have done this."

Mr. WIRTH. That is right.

Mr. ROMNEY. So that would be a precedent, would it not?

Mr. WIRTH. Well, the first time I have done it in this particular case I say in Death Valley. I don't know whether I have done it anywhere else, but generally speaking I wanted to emphasize to him I didn't want the information out and put in the newspapers so everybody would know what it is. And I think that is good sound business.

Mr. ROMNEY. Mr. Albright had advised you in his letter, had he not, that Mr. Gerstley had asked him to familiarize himself with the affairs in Death Valley with special reference to the interests of the company?

Mr. WIRTH. Yes. May I speak to that subject.

Mr. MOSS. Certainly.

Mr. WIRTH. The National Park Service, since the early days of its establishment, depended on private enterprise to furnish the commercial aspects of the park; namely, food, clothing, and overnight accommodations. In practically all the other national parks, all the improvements had been put in by private capital. Here in Death Valley there are no concession contracts because the improvements were there before we got there, and they are on private land. Our object in the National Park Service is to serve the public and provide it with the necessary accommodations of all kinds, both lodging in cabins and hotels, food, and supplies. We do not furnish any of these ourselves.

I think it is a good practice. In fact it has been ratified by Congress down through the years by resolution in the Committee on Interior and Insular Affairs. Here is a case where we have a very cooperative private organization there that has worked with us very closely in providing accommodations. True, there is a dispute over the water rights, as to who has what, and I hope you don't ask me any questions about water rights because I think that is a very complicated legal subject which I know very little about.

I am relying entirely on the Geological Survey, and our water experts and the Solicitor's Office to try to solve that problem. But it behooves us to provide or to work with them in order to give the best service to the public, and I am just as sure as the day is long that Horace Albright is just as fond and just as strong if not stronger for the National Park Service than he is for the company that he was no longer working for but purely on the board of directors. He had, as I recall, retired from active duty in the several years before that and he was on the board just like he was on the Secretary's Board.

I had confidence in Horace and I think his reply, in February, which you also have in the record, is a sound, direct approach of what he thinks without any pressures whatsoever, at least I can read no pressures in his statements. So it behooves us, the company and the Service, if we are to operate in the same area. Otherwise we are in constant conflict.

And I think we must know what the concessions do and they must know what we are going to do if we both are going to operate properly.

Now that doesn't mean we give them anything that belongs to the Government. I don't propose to give them anything. But if we own all the water rights and they don't own any, I would propose definitely we sell them some water so they can keep on operating.

Otherwise we will be in bad shape.

Mr. ROMNEY. Mr. Wirth, you referred in Mr. Albright's letter of February 4, 1957, which is D–39—let me read at this point two excerpts:

D–39

As you know, at the request of my associates in United States Borax & Chemical Corp., I made a trip to Death Valley in November 1956. You very kindly made available to me the prospectus of the Death Valley Monument projects in the Mission 66 program. This I studied very carefully before going to the valley and after I left there. I returned the prospectus to you personally late in November.

Therefore, while I was in Death Valley I had before me the interests of our company and the plans of the Service.

In a report to you from the superintendent of Death Valley National Monument, dated November 23, 1956, which is marked D–33, Mr. Binnewies, the Superintendent, wrote:

D–33

In the afternoon Mr. Albright, Scholl, Spaulding, and I went over the proposed water diversion in Furnace Creek Wash. Mr. Albright is interested in this as a representative of the U.S. Borax & Chemical Corp. (formerly Pacific Coast Borax Co.), and Mr. Scholl was helpful in pointing out the locations of the company diversions that supply Furnace Creek Ranch and Inn.

Do not these passages which I have just read indicate that Mr. Albright was clearly there to protect at least the interests of the company for which he was a consultant or an adviser and as we know, a member of the board of directors?

Mr. WIRTH. No; I wouldn't draw that conclusion.

Mr. MCCLORY. Can I inquire what we mean by consultant? Do we have any evidence that he received any compensation for services in connection with this?

Mr. ROMNEY. May I respond to that? In the transcript of the hearing at Sacramento——

Mr. MCCLORY. I assume he was paid expenses by the company. He was on the board of directors, but I just wondered if he was serving in any professional capacity—engineer, architect, or consultant—in addition to respresentation as a director.

Mr. ROMNEY. In his testimony Mr. Albright refers to himself as a member of the board of directors and also states that he acted as a consultant.

Mr. MOSS. I think it very reasonable to assume that Mr. Albright, having been asked by Mr. Gerstley to undertake the task of familiarizing himself with the plans of the Government, was not acting solely out of altruism but was undoubtedly being compensated for his efforts.

Mr. McCLORY. I don't think we should draw any conclusions unless there is something in the record.

Mr. Moss. I was going to say, however, in order that there be no question, the staff will now contact Mr. Albright for the compensation received by him and the reimbursement for expenses received by him from Consolidated Borax or any of its affiliates during the period of interest to this subcommittee.

(Correspondence relating to the above matter appears on p. 381 of the hearings.)

Mr. McCLORY. Consultant, as I interpret it, is being in a professional capacity. That is why I want to know if he was paid as a professional consultant—either consulting engineer or whatever it was. We should know about that, certainly.

Mr. ROMNEY. The passage to which I referred in the transcript is located on page 429. I will read the pertinent sentence:

So I'd just like to maintain the point that while I was a director of the United States Borax Co. and was advising the Death Valley Hotel Co. now and then, when I was asked for advice I did always advise the Park Service to the extent of writing this report, and I had no feelings that I was doing anything beyond what I was expected to do and probably would have had to do the next time the board met.

Mr. WIRTH. May I as long as you are reading from that letter read some other things in there because I think if you take a sentence out there you don't get the full meaning of the letter and what he was trying to convey; it might give the wrong impression.

Mr. ROMNEY. I am not reading from the letter, Mr. Wirth. I am reading from page 429 of the transcript (printed hearings, p. 289).

Mr. WIRTH. Didn't you read something before that from the letter? I think you did.

Mr. ROMNEY. I read from D–39, Mr. Albright's letter of February 4.

Mr. WIRTH. You haven't read anything from the letter of February 4?

Mr. ROMNEY. February 4; yes, I read parts of that.

Mr. WIRTH. That is what I thought. I think this letter of Mr. Albright's, if I may address myself to that, Mr. Chairman, is a very straightforward statement of his position, and who he represented and why he thought certain things, and I took that into consideration in reading his letter, and I think I did what was right.

It says here on one page, it starts:

"Our company's interest," capital letters underscored, it certainly was a title that I saw and paid attention to that he was talking for his company.

Let's read what he says:

D–39

Our United States Borax & Chemical Corp.'s interest in Death Valley is confined to water, lands and easements. The company owns 7,325 acres of land in the monument, and 6,377 acres outside, principally along the eastern border of the reserved area in the Ryan and Monte Blanco region. It owns ancient water rights growing out of its pioneer developments long before the Park Service had any interest in Death Valley. Its associate, the Death Valley Hotel Co., owns the inn and Furnace Creek Ranch. * * *

and then it goes on through. I think that is just descriptive.

Then it goes on:

Personally, I can see no reason why the water problem cannot be worked out to the satisfaction of everyone concerned and with full protection of every

interest. However, I strongly advise complete understanding between all interests before the "go ahead" signal is given on the new road to the new residences and utility site or any building on the site.

I am taking things out of context too because I think some of it is fill in. He was concerned more about the road apparently. Then the other thing is, he says here that the company is holding the land, and they might even give it to the Government if we wanted it, providing it would not be prospected by some other competing company.

You see, Death Valley is open for prospecting, and any land that is converted back to the Federal Government, our understanding is that it would normally be open for somebody else to prospect; our main concern is that somebody is liable to mine right there.

Furthermore our concern is that somebody is liable to buy land from this company some day, and subdivide it into houses with water rights and so forth. It is a complex situation. And this company has been cooperative and is cooperative. Now we may disagree on water rights and so forth, but there is nothing in Horace Albright's letter but frankness of his opinion and what he would recommend to his company or employed what he would recommend to his company.

The main objection is the road, and you will find as we go along that the one thing I moved was the headquarters residential area and utility area for good substantial reasons in my planning mind, but I left the road where it is because in my planning mind that is a proper location. I did it based on the experience I have had.

Mr. Albright is not the only one that I sought advice and suggestions from.

Mr. ROMNEY. On the point which was discussed briefly, as to whether Mr. Albright was a consultant, I should like to read from a portion of a letter which is already in the record, a letter from Mr. Albright to Senator Thomas H. Kuchel, dated February 6, 1958. In the second paragraph of this letter (D–83), Mr. Albright states:

D–83

While retired from business, I am a director of our company and am also acting in a consulting capacity.

Mr. WIRTH. That may be true. I don't doubt it at all.

Mr. ROMNEY. I had asked you earlier, Mr. Wirth——

Mr. WIRTH. By the way, I said I was self-employed. I am a consultant, too, and I work for the Park Service for free as an adviser to the Director. I may have a conflict of interest here, and I am subpenaed by this subcommittee. I am your witness.

And I did it so I could get my travel paid down here because I have no other way of paying for it. In fact it was an arrangement between Mr. Lanigan and myself.

Mr. Moss. I hope that the relationship that you are maintaining with the Park Service is a different relationship from the one I interpret Mr. Albright enjoys. I hope that you are not advising the Park Service on matters respecting clients you have for your consulting service.

Mr. WIRTH. I don't think I have, I can assure you, and I perhaps was a little facetious in my remark. As a matter of fact I was successful in getting a commitment of a donation of some $200,000 the other day from one of my clients for the Park Service, so I think my

heart is still in the Park Service and my client is also protected, and I am sure Mr. Albright's motives are the same as mine.

Mr. Moss. Because I would point out, Mr. Wirth, that the principle that you can't serve two masters is one that was not first enunciated by this subcommittee, by its chairman, or by the Congress presently sitting here in Washington; it is one that has existed for probably as long as civilization itself.

Mr. McCLORY. Mr. Chairman, I would like to just suggest this at this point of the discussion. In the first place, I don't know whether Mr. Albright was serving a client as a consultant.

If he was I think that may put this subject in a little different light. That is why I inquire as to this description of him as a consultant. And of course even though he was a consultant in 1958, it wouldn't bear much on this subject if he were not a consultant in November 1956.

But I would suggest that in the real estate business with which you are familiar, and in the law business with which I am familiar, that frequently brokers and lawyers represent clients who are on opposite sides of the case, opposite sides of a real estate transaction, and providing they make their position known to both sides, there is nothing illegal or even unethical in that representation. The only corollary I would suggest here is that insofar as a full disclosure of the interests which Mr. Albright had, I can't conceive of it being spread more fully on the record than he has undertaken to do; and as the witness here indicated, there has been no effort to conceal any other interest that he might have in addition to his interest as a former Director of the National Park Service and on the Advisory Committee of the Department of the Interior.

Mr. Moss. I would say, however, Mr. McClory, that there is a very interesting decision called the *Dixon-Yates* case, in which the Supreme Court spoke very clearly on this point.

Mr. McCLORY. I am not suggesting that if there is a financial interest, and if a person is undertaking to represent an interest for compensation or for financial benefit, that the principle wouldn't apply. But I am suggesting that with regard to a great many areas, and I referred specifically to the lawyer and the real estate broker, that the person can represent more than one interest without any suggestion of illegality, or even unethical conduct.

Mr. WIRTH. Mr. Chairman, may I add one other thing to the sequence of events on this, because I think it helps prove the point I am trying to make, that Mr. Albright did lay his information squarely on the table as to who he represented, and the decision was mine and I made it based on my own thinking.

You will recall, I am sure Mr. Romney has the dates, that there was a meeting of the Advisory Board at which Mr. Albright said he would speak to me about this subject. There is some correspondence to this effect. I came back after that, and I then reviewed all the material with Mr. Vint (who shared my misgiving; he is head of our design and construction division and a very able man, has been the head of it for some 35 or 40 years, since the early twenties) and after this review we still decided to stick with the recommendation we got from the field, because we were not too familiar with the exact conditions.

So I wrote Mr. Albright toward the end of December, after the Advisory Board meeting, before I even got any communication from Horace Albright as to his opinion, telling him that we were sticking by our original decision.

Now he did speak to me at this Advisory Board meeting, not in any great detail, but he did speak to me and he brought up many of these same things covered in his February letter which were different from our field advice. It was more a mental exercise than anything else, and he suggested I look into it along the lines he outlined later in his letter, which I did. And I did write him in December that we were sticking by the previous approval. At that time Mr. Vint was also in on the discussion. Mr. Vint was going out to the west coast. "Red" Hill and he went by Death Valley in January. It was then when he saw it on the ground, and he got more concerned about it than ever, and there is one thing that I did while I was Director.

My professional background has been in the planning and landscape and development field, and I perhaps have exerted more of my time on these kinds of things such as Mission 66, and so forth, than a normal Director would, because, well, I guess I can just say I like it. So he knew of my feelings on it, and his feelings were stronger, and he said "Connie, you ought to go out and take a look at that. I think we are making a mistake."

I said, "Well, we have approved it all along. Your boys have approved it and it has come in on through here." I said, "We have discussed this before." He said, "I still think you ought to take a look at it." Of course, in those days with the beginning of Mission 66 and so forth, everybody was working night and day and there are a lot of things you do under work pressure that on further and more careful thought you change.

And I have never been a person, and I don't believe that I ever will be a person, who will not be willing to listen to people's recommendations and require people working with me to think out loud and give me the benefit of their thoughts.

On the other hand, I did reserve the right to make my own decisions as Director, and I also reserve the right to make a change when I think I am wrong.

But if I don't think I am wrong, I never will be budged. I am just that much of a stubborn Dutchman I guess.

And so I did go by there and it was perfectly obvious to me that we were making a mistake, and I have many reasons of my own that have not appeared in the record which I would be glad to expound upon at the proper time.

Mr. Moss. We will get to that, Mr. Wirth.

Mr. Wirth. And then Mr. Albright's letter, this long one, came in in February after my talk with Mr. Vint, and that did not change my decision and I don't think I even answered Albright's letter. I don't know. But that is purely recollection. If I did, why I did. I think Albright's letter or memorandum was the 5th or somewhere in there. That is my recollection, and I have gone way beyond your particular question.

Mr. Moss. We will I think proceed more rapidly if we hold to the area that counsel brings up.

Mr. Wirth. I will do that, sir.

Mr. ROMNEY. Mr. Wirth, you were referring just a bit ago to conversations with Mr. Albright during the period when the Advisory Board was meeting. Where were these conversations taking place?

Mr. WIRTH. I think the Advisory Board that fall was the first 3 or 4 days in December, and it was down in the Virgin Islands National Park. I can give you the exact dates. Do you know the exact dates?

Mr. ROMNEY. Mr. Wirth, we have those dates I believe already in the record. I wanted to make certain of which advisory meeting you were speaking.

Mr. WIRTH. Is that the correct date?

Mr. ROMNEY. Yes, sir. Mr. Wirth, I would like to refer to a telegram dated November 26, 1956, to the regional director in region 4, which is Document D–34. It is a short telegram. If you don't happen to have it I can read it to you.

Mr. WIRTH. I most likely have it. If you read it to me I think it would be just as well.

Mr. ROMNEY. All right.

D–34

Defer starting any water, road, or other projects new headquarters and residence area Death Valley until further word from me.

Mr. WIRTH. That is right.

Mr. ROMNEY (continuing).

Possible land exchanges with company will be discussed with Albright at Advisory Board meeting.

Mr. WIRTH. That is right.

Mr. ROMNEY. Signed "Wirth, Director."

Mr. WIRTH. That is right.

Mr. ROMNEY. What prompted this telegram?

Mr. WIRTH. The consideration of just where we would build our campgrounds, where our visitor center might be. We were interested in getting more land down next to the ranch which was all owned by the Borax Co. And that was the basis of the 1958 act, and that would have made a complete change in the whole setup as to what our plan would be. And also I did, no doubt, in conversation somewhere along the line indicate to Mr. Albright that I would hold it up until I had an opportunity to talk to them down in the Virgin Islands at the Advisory Board meeting.

That may be true. That may have happened. I don't recall exactly, but that could be a point.

Mr. ROMNEY. On December 28, 1956, Mr. Wirth, you wrote to Mr. Albright—this is Document D–35. Why did you write this letter to Mr. Albright?

Have you had a chance to review this letter?

Mr. WIRTH. Yes. That is the letter which I thought was a pretty good letter telling him no, that I wasn't going to change. That is the purpose of it. I thought I owed him that as long as he went to the trouble of speaking to me down there, and go over it. And when I came back I did look it over, and I did definitely tell him, I tried to do it in as nice a way as I could.

Mr. ROMNEY. On January 3, 1957, Mr. Vint transmitted a memorandum to the regional director, region 4, which is Document D–36. I should simply like to read the second paragraph, which states:

D–36

You will note that the Director's reconsideration of the master plan and Mission 66 proposal to relocate headquarters has resulted in a reaffirmation of his original approval of the Furnace Creek site.

Mr. WIRTH. That is correct.

Mr. ROMNEY. On February 4, as we have discussed, Mr. Albright sent you a letter in detail commenting on his position with respect to Death Valley affairs.

I should like merely to go over certain of the highlights of this letter with you, and if you have any comments on the points, of course, I hope you will make them. In the first paragraph there is an indication that you had had conversations with Mr. Albright in Washington, New York, and the Virgin Islands. Can you give us more accurately when the New York and Washington conversations might have been?

Mr. WIRTH. I can't read into that paragraph I met him in the Virgin Islands, New York, and Washington. I read it twice. I don't know whether I did or not. But I can't read into that paragraph that conclusion. Furthermore I don't think it makes much difference where I met him.

Mr. ROMNEY. I asked when.

Mr. WIRTH. When? I met him in the Virgin Islands I know.

Mr. ROMNEY. But I was asking when the conversations in Washington and New York took place.

Mr. WIRTH. I don't recall ever meeting him in Washington and New York on these matters. Am I reading the same one that you are reading, the February 4, 1957?

Mr. ROMNEY. Yes.

Mr. MOSS. The last sentence of the first paragraph (D–39).

Mr. WIRTH (reading):

D–39

Putting down in writing things that I have mentioned briefly in notes to you and which in more detail I have discussed in conversation with you in Washington, New York, and the Virgin Islands.

I guess I am getting blind. I don't recall any of those conversations. I do say this. That we were working quite diligently at that time in establishing the Virgin Islands National Park, and of course you know that land was all purchased and given to the Federal Government, and I made quite a few trips up to New York, not to see Horace so much as to see the Jackson Hole Preserve people. They were buying the land to give for the park. And I may have met Horace at that time and he may have been down to Washington. He was living in New York at that time. But I don't recall those conversations.

Mr. ROMNEY. On page 5 of this letter at the top, I should like to read:

Some such cooperation arrangement, this time fully protecting the company's water supply from Furnace Creek Wash, might be made.

This refers to a past instance where, for the Texas Spring campgrounds, some other arrangements had to be made with the Park Service when the trench was dug and the spring which the Park Service was using was depleted. What is your concept of a cooperative arrangement in the context in which Mr. Albright is speaking?

Mr. WIRTH. Well, I think they feel legally from their lawyers' advice that they have a definite right to their water. I imagine that is what he had reference to, that something could be worked out, but that they would have to fully protect the company's water.

Certainly their land is no good without water, and I am sure that was what it meant.

Mr. ROMNEY. So Mr. Albright's interest was in an arrangement which would fully protect the company's water supply?

Mr. WIRTH. Yes, I think he was. He should be.

Mr. Moss. Why should he be?

Mr. WIRTH. Because——

Mr. Moss. He was adviser to the Secretary of the Interior?

Mr. WIRTH. And he was adviser to them. I think he was trying to hit a compromise.

Mr. Moss. Between the two there could be no conflict.

Mr. WIRTH. Sir?

Mr. Moss. Between the two there was no conflict?

Mr. WIRTH. Yes. He was trying to work out something where there would be no conflict between the two. We need water there for people.

Mr. Moss. I realize that.

Mr. WIRTH. And whether running the shop, the overnight accommodations or not, they need water.

Mr. Moss. I know, Mr. Wirth. You know also that I am talking now of the fact that this tends to very clearly cast Horace Albright in the role of a man who is seeking to protect the company he represents. He uses the term "our company," to protect the company's right, some such cooperation.

Mr. WIRTH. Yes, and I think in his next paragraph, he says "Of course I have the USGS study"——

Mr. Moss. Yes, we are conversant with the next paragraph.

Mr. MCCLORY. Mr. Chairman, I want to observe this. I don't think there can be any point of testing the witness on the subject of whether or not he knew that Horace Albright was representing the hotel company.

He has said all along that he was. That was the purpose of his making the contact and coming out there. But the question as to the settlement of the water rights is something between the parties, and they would have to either cooperate and work out an arrangement for the division of the water rights or they would have to litigate.

Mr. Moss. That is correct.

Mr. MCCLORY. And that is still the question. But also there hasn't been any secrecy about that as far as I can see.

Mr. Moss. I might point out, Mr. McClory, that when this subcommittee was first established—and let me say that it was established and I was selected as chairman not at my request——

Mr. MCCLORY. You, Mr. Chairman, had a hard time getting these files.

Mr. Moss. This was my assignment. And while this is now open to the public, and while the Congress is now conversant with what was going on, the Congress had great difficulty in gaining access to this material.

Mr. McCLORY. May I inquire, Mr. Chairman, did we have difficulty getting this particular letter, letter D–39?

Mr. Moss. As I recall, I had great difficulty getting anything. In fact things reached a rather warm point before I succeeded in getting anything.

Mr. McCLORY. Yes, I have read the press release, Mr. Chairman, and I agree with the chairman that when the Congress is conducting an investigation, it is incumbent on the executive department to supply all of the information which the Congress needs to come to a proper judgment with regard to an inquiry.

So I agree with that. But now we have the material before us, and I would like to get this hearing in perspective, because as I understand it we are investigating the propriety of Government action, and I am a little reluctant to get into this area of investigating and trying Mr. Albright, who isn't here, and I don't want to be in a position of representing his interests; but I think that the individuals whose conduct we are concerned with are individuals in the Government; specifically, in this case, in the Department of Interior.

Mr. Moss. I agree with you. I want to make it very clear that at the conclusion of these hearings if Mr. Albright should desire to put in another appearance, feeling it is necessary to make the record very clear as to his role, he most certainly would not be denied that opportunity.

We are dealing now with Government action in making materials available and working cooperatively with the person who at that time wore two hats, where he appeared to be advising two parties. While they may each have sought to work cooperatively with each other, there was inherently the opportunity for conflict of the interests of one vis-a-vis the other.

Mr. McCLORY. I understand the other body is debating today a situation which involves wearing two hats and having an alleged conflict.

Mr. Moss. They could well be.

Mr. WIRTH. Mr. Chairman, may I without being too facetious make a remark about the files. All I can say is I am thankful that I was in the high echelon that had to make the decision.

Mr. Moss. I had hoped that had you been; my difficulty would have been far less.

Mr. WIRTH. I think it would have been.

Mr. Moss. As we touch upon this subject, I note again the same matter of attempting to determine who initiated a request for Mr. Albright's participation in the study at Death Valley.

The documentation available to this subcommittee would indicate very clearly that Mr. Albright contacted you and requested the information relative to Mission 66 proposals for Death Valley. That is the documentation. You have indicated that you have great confidence in the memory of Mr. Albright. In the first letter to you, he said Mr. Gerstley had told him to go out there, or requested him to go out, and he was to familiarize himself with the proposals. He asked you to supply them to him.

Mr. WIRTH. He did it in a way, Mr. Chairman, that was not demanding. He just said he was going and "Whether there is anything I can do for you."

Mr. MOSS. I think it might be helpful if you will hold until I conclude. And I refer to that letter, the first letter of Mr. Albright to Mr. Wirth requesting, and then Mr. Wirth's letter responding.

D–30

I think I have written to you within the past few months about my contemplated visit to Death Valley National Monument in November. Mr. J. M. Gerstley who is president of our enlarged company and who was formerly president of Pacific Coast Borax Co., has asked me to familiarize myself with affairs in Death Valley, of course with especial reference to the interests of the company out there, but also in any other respect where my background of experience might be useful to either our company or the National Park Service.

That is the request. And you replied to him:

D–31

I hasten to answer your letter of November 1, which for some reason or other did not arrive here until November 5 and reached my desk today.

This letter dated November 6, 1956, is addressed to Mr. Albright at 30 Rockefeller Plaza, New York, N.Y.

D–31

Enclosed is a copy of my memorandum to Fred Binnewies which I think will serve as an introduction and open the way, if that is at all necessary. I say that because I know all of our people will always be glad to see you, and to discuss the proposed development of the area under our jurisdiction with you, at any time. They welcome your visits and your suggestions and ideas—as do I.

As to the new monument headquarters; that has all been settled—

and that we have gone over before.

Horace, I am also enclosing the prospectus sent in by the Superintendent, together with a copy of the memorandum we have sent to the field concerning it. This is the first time I have done this since it is not general public information.

In other words, the sense of your letter seems to be a response to a request from him.

Mr. WIRTH. That is right.

Mr. MOSS. Then we have this testimony from Mr. Albright before the subcommittee in Sacramento (printed hearings, p. 286):

When the Death Valley Mission 66 program came up, I didn't know anything about it, but it was the custom of Mr. Wirth to send the members of this Advisory Board data regarding the various Mission 66 programs. Usually it was just in outline form, and I received in that outline what was suggested in Death Valley, just a small amount of material, and I didn't have time to give any attention to it. I had laid it aside and hoped to get an opportunity to look at it. Later Mr. Wirth asked me when I would be in Death Valley again, and I told him probably in November, which is about the time of the year when we usually had a meeting in California. He asked me then if I wouldn't look over the details. * * *

That would appear that you initiated it. But in the letter we have been discussing here, the February 4, 1957, letter, we have this:

D–39

As you know, at the request of my associates in U.S. Borax & Chemical Co., I made a trip to Death Valley in November 1956. You very kindly made available to me the prospectus of the Death Valley Monument projects in the Mission 66 program.

This again would seem to me that he had initiated it. Haven't you a better recollection as to who initiated this interest of Mr. Albright's, you or Mr. Albright?

Mr. WIRTH. Well, Mr. Chairman, and this is again—and I will try to be as brief as possible—Horace is a longtime friend of the Park Service. He was with Steve Mather when the Service was established back in 1916 and 1917. We often refer to him as the cofounder of the National Park Service because Albright was assigned to help Mather when Mather came to Washington and got legislation from Congress and Steve Mather remained on until he died in 1929. He was also with the potash company before he came to Washington and he gave a great deal of his wealth to the National Park Service to buy land and build buildings and everything else where he couldn't get the Government to do it. There is a long association there. Furthermore, the Secretary's Advisory Committee advises the Secretary directly on national park matters.

Mr. Moss. Mr. Wirth, I suggest that the subcommittee has all of this detail in its hearing.

Mr. WIRTH. I would like to put another sentence in if I may. It behooves the National Park Service to keep the Secretary's Advisory Committee fully informed on its projects if it is going to get favorable consideration and recommendations to the Secretary.

I think that is only good business. I recommend directly to the Secretary and so does the Advisory Board. So we do have a close contact with the Board. They all serve without salary.

Mr. MCCLORY. Mr. Chairman, could I make this inquiry. Isn't it a fact, maybe our counsel can help us, but it is my recollection that Mr. Albright testified without the benefit of the correspondence before him, and was relying on his memory, and then was confronted later with the correspondence.

Mr. Moss. Mr. Albright's appearance was a voluntary appearance. He requested that he be permitted an opportunity to appear. He had before him notes. The Chair, after all, cannot act as counsel to witnesses who request the opportunity of appearing before the subcommittee. The extent to which he might have refreshed his memory I would say was a determination which he should have made. I assume that he had access to his own files, which should reflect the correspondence that he had issued.

Mr. MCCLORY. I think it is not unusual that there would be a discrepancy in testimony relating to a period as far removed as this, and I think Mr. Wirth has given us the benefit of his best recollection and Mr. Albright has given us his recollection; and then we are going to have to weigh what the facts are, in addition to the questions as to the materiality or the significance of who initiated it. At this moment I am not certain that that is a tremendously significant aspect.

Mr. Moss. Mr. McClory, the Chair observed that Mr. Wirth had not given us the benefit of his best recollection. Mr. Wirth had merely observed that Mr. Albright had a very good memory.

And the Chair is now asking Mr. Wirth if he has an equally good memory and could give us a more definite statement as to who initiated it. Mr. Wirth seems to have an excellent memory.

Mr. WIRTH. Mr. Chairman, I don't have that good a memory. I do know that I got the letter from Horace. I do know we talked about it in the Virgin Islands. I do know that he was familiar with the Park Service operation and Mission 66 was then getting underway, and in fact 1956 was the first year of Mission 66. Consequently, I don't remember who spoke to whom first.

Mr. Moss. The letter, of course, predates the Virgin Islands meeting.

Mr. WIRTH. Yes. I don't know whether I should say this, but I would like to say something off the record if I may.

Mr. Moss. All right, we will take it off the record for a moment.

(Discussion off the record.)

Mr. Moss. Back on the record.

The Chair would observe that there was no compulsion for Mr. Albright to either appear or to make the statement he made. It was one voluntarily made when he sought the opportunity which the subcommittee made available to him to appear, and I have already indicated that if he desires a further appearance, the Chair would not deny him that opportunity. But the Chair is not desirous of having the record reflect anything but fact.

Mr. WIRTH. Mr. Chairman, that is the reason I can't give it because I know you want nothing but facts and I just can't give it to you. I don't know.

Mr. Moss. I just wanted to point out that the documentation certainly would imply at least the contact by Mr. Albright rather than one initiated by you.

Mr. WIRTH. Yes.

Mr. Moss. In the Chair's opinion.

Mr. MCCLORY. I join that opinion, too. It certainly seems clear that the visit and the meeting at Death Valley were initiated by Mr. Albright. I notice that he has confirmed his recollection in a letter, the original of which went to you I guess, Mr. Chairman, after the hearing out in Sacramento, and while this may be a detail, I think, as you say, the document or the exchange of correspondence certainly indicates that Mr. Albright initiated the meeting and it was subsequently held.

Mr. Moss. Now you may proceed.

Mr. ROMNEY. Summing up with respect to the February 4, 1957, letter to you from Mr. Albright, this was a lengthy and carefully prepared document, was it not?

Mr. WIRTH. I think he certainly put a lot of time and thought in it.

Mr. ROMNEY. And it covered other subjects in Death Valley besides the water, did it not?

Mr. WIRTH. Yes, sir.

Mr. ROMNEY. Did he not make suggestions with respect to future land exchanges between the United States and the borax company?

Mr. WIRTH. That is right.

Mr. ROMNEY. And did he not have suggestions with respect to roads and trails?

Mr. WIRTH. Yes.

Mr. ROMNEY. And with respect to the new residence and utility area?

Mr. WIRTH. Yes.

Mr. ROMNEY. And he did oppose the proposal here again, did he not, for relocating the residence and utility area?

Mr. WIRTH. I will have to read it in detail. I think he commented on it but I don't think he came right out and said "I am opposed to it," if that is what you mean.

Mr. MOSS. At this point the Chair is interested in how the Advisory Board works.

It is advisory to the Secretary.

Mr. WIRTH. That is right.

Mr. MOSS. The Death Valley plans were available to the Advisory Board for consideration, is that correct?

Mr. WIRTH. Most of the things submitted to the Advisory Board are in accordance with the schedules approved by the Secretary of the Interior, and they deal primarily with proposed new areas, general overall policies. The very seldom go into detail of development below the various advisory boards. One man is a museum expert from the southwest. When he goes into a park and sees an interpretation exhibit we will get a flood of letters from him telling us how we ought to change this and so forth, and we reply to him very nicely.

We have a conservationist, architect, and so forth. They all take a particular interest in a particular thing, and we think it is sound to consider their advice and keep them happy and give them the information they want.

Mr. MOSS. How do they transmit their advice?

Mr. WIRTH. Most of the time they just discuss it or write me a letter on what they think, and sometimes they write directly to the Secretary and the Secretary refers it down for my opinion.

Mr. MOSS. Was there any communication to the Secretary?

Mr. WIRTH. They work for the Secretary.

Mr. MOSS. From Mr. Albright.

Mr. WIRTH. Not that I know of.

Mr. MOSS. On this subject.

Mr. WIRTH. I don't think we have any record of such a thing in the files. We can look, but I don't think we had any. We have never found anything that he ever wrote to the Secretary on these matters.

Mr. MOSS. And in these meetings of the Advisory Board, does it have formal agenda, or is any member free to bring up any matter of concern to him?

Mr. WIRTH. Yes, we do have an agenda, and we looked up the record of the minutes and the agenda for the meeting held down in the Virgin Islands this December, and there was nothing in the minutes or in the agenda that indicated Death Valley Mission 66 for development plans were brought up before the Advisory Board as a Board matter. The conversation as I recall it, and I think I am correct, that we sat on the terrace there for about three-quarters of an hour or an hour and just talked.

Mr. MCCLORY. Could I ask at this point, do you have any recollection of any conversation with any other member of the Advisory Board with regard to the Death Valley National Monument, either at that time or any other time?

Mr. WIRTH. No, I do not recall any conversation with anybody else.

Mr. ROMNEY. Mr. Wirth, you are correct. I should have phrased my last question differently. Mr. Albright did express serious doubts

concerning the choice of the Furnace Creek area for the new residence and utility area, did he not?

Mr. WIRTH. Yes.

Mr. ROMNEY. And he expressed reasons for those doubts?

Mr. WIRTH. And then he also added:

D–39

On the other hand, I recognize the natural desire for a new and adequate headquarters plant—residences, utilities, and I know too that the old site is probably the only other one available for tourist accommodation development.

That is after he gets through two paragraphs of saying why he is disturbed in one place and also he fears in another place and then he comes in with this sentence which sort of winds that subject up.

Mr. ROMNEY. Not quite. Could you read the paragraph, the second paragraph beyond?

Mr. WIRTH (reading):

The point I want to make is that if I were in your place now I would have this part of your program discussed during the spring with men like Senator Charles Brown, I think now dean of the State senate—

Yes, he did say he thinks we ought to talk it over.

Mr. MCCLORY. And to continue:

D–39

who has lived in the Death Valley country all of his life; by Todd Watkins, editor of the county's papers, and get public support for the building program. Or, I would try to use the old site for the new residence and utility units and abandon any further idea of using that new higher and completely barren site, so clearly visible from the main entrance road.

In the next paragraph he also has a recommendation concerning the location of the Headquarters and Visitors Center north of the ranch, irrespective of where the contemplated museum should be built. Further on in the letter he also makes recommendations or suggestions concerning the appropriate size of the staff, does he not?

Mr. WIRTH. Yes, I guess he does, if it is in here. I don't recall that, but if it is, and he shares the same feeling I had that in the interests of getting the program underway——

Mr. ROMNEY. Would you say that the letter shows great concern on Mr. Albright's part with respect to these Death Valley matters?

Mr. WIRTH. I would say it shows a very deep interest.

Mr. ROMNEY. Mr. Wirth, on February 15, 1957, Mr. Thomas C. Vint, Chief of the Division of Design and Construction, sent a memorandum to the regional director of region 4. This is D–43.1. Do you have the memorandum, sir?

Mr. WIRTH. No, I do not.

Mr. ROMNEY. Let me read it. It is very brief.

Mr. WIRTH. All right.

Mr. ROMNEY. The subject of this memorandum is "Letter from Horace M. Albright in regard to Death Valley." It reads:

D–43.1

I am attaching a copy of a letter dated February 4 from Mr. Horace M. Albright concerning Death Valley National Monument.

The Director would like to have your comments regarding this letter in this office before February 25. I am sending a copy directly to the superintendent so that he may also let us have his comments by the above date.

Mr. Wirth, what conversations did you have with Mr. Vint concerning the Albright letter?

Mr. WIRTH. Mr. Vint had come back from Death Valley. He had been in there in January as I recall it, and he had come in to talk to me, and then we got this letter from Horace Albright and we had another talk, and we talked of several different changes that perhaps might be made in the plan as a result of his trip. And then the decision was, as I recall it, to send Horace Albright's letter to the field and get their reaction to it, and that is what we did.

Mr. ROMNEY. So is there any significance to the February 25 deadline which was imposed?

Mr. WIRTH. No. I don't recall why I said the 25th. I guess maybe to get them on the ball, to get something in before I went to the field.

It also helps to put a deadline.

Mr. ROMNEY. The replies from the field are both dated February 21, 1957. These are the documents D–47 and D–43. There is a memorandum first from the acting regional director to the Director, dated February 21, 1957, signed by Mr. Herbert Maier, and then there is also a memorandum from the Superintendent of Death Valley National Monument to the Director, dated February 21, 1957.

Mr. WIRTH. As I recall, without reading it all over now, when I did read it over yesterday, it pretty much falls back on the original recommendations in answer to Albright's letter somewhat along the same line as their original field recommendations. If you wish to take it part by part I will be glad to.

Mr. ROMNEY. You are summarizing the import of both memorandums, aren't you, Mr. Wirth?

Mr. WIRTH. Yes. That is what I think it does.

Mr. ROMNEY. On February 20, 1957, you sent a telegram to the Superintendent of Death Valley National Monument. This is document D–42. I will read the telegram:

D–42

Stop any construction work on new headquarters projects. Questions have arisen as to advisability of moving to new site. Believe we should take another look before proceeding further.

The next day was February 21, 1957, and you sent a memorandum to the regional director, dated February 21, 1957, subject: "Headquarters Location, Death Valley." This is Document D–48. Do you have a copy of that, Mr. Wirth?

Mr. WIRTH. No, I don't.

Mr. ROMNEY. Have you had a chance to look the memorandum over?

Mr. WIRTH. This is the one explaining why I sent the wire, saying that on my trip to San Francisco and on Mr. Vint's recommendation, I would stop at Death Valley and take a look at it myself and to hold up until I got there.

Mr. Moss. Mr. Wirth, during the luncheon hour I would suggest that you refresh yourself on the memorandums which have been mentioned here in the last few minutes.

The subcommittee will now recess until 2 p.m.

(Whereupon, at 12 noon, the subcommittee was recessed, to reconvene at 2 p.m. of the same day.)

AFTERNOON SESSION

Mr. Moss. The subcommittee will be in order.

Mr. Romney?

Mr. ROMNEY. Mr. Wirth, toward the close of the morning session you were speaking about Mr. Vint's having gone out to Death Valley and having taken a look around in January of 1957. I would like to read your testimony to refresh your recollection.

You said in part:

> Mr. Vint had come back from Death Valley. He had been there in January as I recall it, and he had come in to talk to me, and then he got this letter from Horace Albright and we had another talk, and we talked of several different changes that perhaps might be made in the plan as a result of his trip, and then the decision was, as I recall it, to send Horace Albright's letter out to the field and get their reaction to it, and that is what we did.

FURTHER TESTIMONY OF CONRAD L. WIRTH, FORMER DIRECTOR, NATIONAL PARK SERVICE

Mr. WIRTH. The letter actually was to me, if I said it was to him. I think there is a little editorial there which I think we should correct. The letter was addressed to me, not to Mr. Vint. Mr. Vint and I discussed it, and discussed his opinion and decided to get reaction from the field.

Mr. ROMNEY. We have referred to a telegram of February 20, 1957, in which you ordered construction work stopped on the new headquarters project. And on the 21st of February you confirmed that telegram in a memorandum to the regional director. In the second paragraph of that memorandum dated February 21, 1957, referred to as D–48, you state:

D–48

> Air mail confirmation copies were sent to you and WODC. The reason for this wire was that I had asked Tom Vint on his recent trip to take a close look at the new headquarters location at Death Valley and he had an opportunity to discuss this question with me late afternoon of February 19 before we sent the wire. He questioned the advisability of moving to the new site and recommended the situation be given consideration by others before proceeding further.

In this memorandum you mentioned one meeting with Mr. Vint on the 19th. On the other hand, in your testimony this morning you referred to apparently three meetings with Mr. Vint, and I was wondering if you could explain the apparent discrepancy.

Mr. WIRTH. I don't think this is any discrepancy. I said I met with him on the afternoon of February 19. That doesn't mean I didn't meet with him other times. At least I don't recall saying three times. I said several times, but you may have it there, I don't know.

Mr. ROMNEY. It appears that there may have been three meetings with you. But the language you used was in the context of your February 21 memorandum suggestion after you met with him the first time on February 19. Now, is that correct?

Mr. WIRTH. No, that doesn't say that, "He had an opportunity to discuss this question with me late in the afternoon of February 19" before I sent the wire. That doesn't say that was the first time. At least I don't read it that way.

Mr. ROMNEY. If this is so, can you explain to me why on the 15th of February Mr. Vint sent out a memorandum to the regional director and the superintendent requesting comments on Mr. Albright's letter by the 25th of February?

Mr. WIRTH. No, I can't, except we most likely had discussions before and he figured that is what I wanted and went ahead and sent it out.

Mr. ROMNEY. Why did you not wait until you had received the comments of the regional director and the superintendent before you sent the telegram ordering the work to be stopped?

Mr. WIRTH. Well, there is some doubt as to whether we wanted to proceed, and it would be far better to stop before we spent too much money on it, so we could consider it. At least that would be the prudent thing to do I would think, and that is what I attempted to do.

Mr. ROMNEY. You had decided to order the work to proceed again in January of that same year, had you not?

Mr. WIRTH. No. I think I ordered it—I forget when it was. If you have got the date——

Mr. ROMNEY. January.

Mr. WIRTH. It was early January. And then these other questions came up after Mr. Vint's visit, and after several discussions apparently we decided to hold it up until we did have an opportunity to look at it, because Mr. Vint definitely recommended that I take a look at it in the field myself, and if this is the case, and I am pretty sure it is the case, I thought that if there was any question in my mind, if I want to change my mind, due to Mr. Vint's opinions on it, and what I might think about it, after I see it on the ground, that the prudent thing to do was to halt until we did make a definite decision on whether we are going to proceed or not.

I think a person that has some question in his mind ought to hold things up and not expend funds that could be saved.

Mr. ROMNEY. Did the questions raised by Mr. Albright in his February 4 letter to you contribute to your decision?

Mr. WIRTH. No, I don't think so.

Mr. ROMNEY. To order the work stopped?

Mr. WIRTH. Mr. Vint had already spoken to me before then when he came back from the field trip, and it was on my mind, and it may be that Mr. Albright's letter most likely substantiated some of the things Mr. Vint raised questions on, and so the natural thing to do after the second talk with Mr. Vint was to say let's hold it up and take a look at it.

Mr. ROMNEY. You state Mr. Vint came back before Mr. Albright's letter?

Mr. WIRTH. I think he came back toward the end of January.

Mr. ROMNEY. Mr. Albright's letter is dated February 4, and Mr. Vint's travel voucher shows his return to Washington on the 8th of February.

Mr. WIRTH. That may be true. I don't know the date.

Mr. ROMNEY. So that he could not have spoken to you prior to the receipt of Mr. Albright's letter.

Mr. WIRTH. He spoke to me prior to my seeing the letter. You well know how correspondence comes in and how it is routed, and

before it gets to my desk or my attention, most likely Mr. Vint came back and talked to me, but I can't vouch for that. I don't know. But I know Mr. Vint did talk to me, and he raised considerable doubt as to whether we should go ahead with that headquarters at that location.

Mr. ROMNEY. Your decision then was to go out to Death Valley and take a look yourself, notwithstanding the reaffirmation of the regional plans, by both the superintendent and the regional director, is that correct?

Mr. WIRTH. That is right. As a matter of fact, I was due in San Francisco as I recall for a meeting, and I included that on my trip coming back.

Mr. ROMNEY. On March 6, Mr. Wirth, a memorandum was written to you by Mr. Horace Albright—that is Document D–47.1.

Mr. WIRTH. What date, March what?

Mr. ROMNEY. March 6, 1957. Do you have that document, Mr. Wirth?

Mr. WIRTH. Yes, I have now.

Mr. ROMNEY. This memorandum appears to have been written during the time when Mr. Albright was present at the meeting of the Advisory Board which took place from March 5 through 7 of 1957. In this memorandum he indicates that you had shown him Mr. Maier's memorandum regarding Death Valley, specifically responding to your request for comments on Mr. Albright's February 4 letter. He then comments the memorandum is a good one, and says:

D–47.1

It is very satisfying, except that I am still very uneasy about the new residential and utility site.

He then states that:

I am glad that you are going to take a look at it. It is hard for me to believe that either you, Tom Vint, or "Red" Hill would be other than reluctant to make a move so radical and expensive. And so much in evidence so far as the traveling public is concerned.

Here again Mr. Albright expresses his considerable interest in the residence area, is that not correct?

Mr. WIRTH. Yes, but he also says he is satisfied with the reply.

Mr. ROMNEY. Except——

Mr. WIRTH. That is right.

Mr. ROMNEY (continuing)—for the position taken.

Mr. WIRTH. I think you have got to take the letter and interpret it the way you wish, the way he has written it there. I think your interpretation can be——

Mr. MOSS. Give us your interpretation.

Mr. WIRTH. My interpretation is that he accepts the reply of Mr. Maier, but he still has doubt in his mind whether it should be done or whether it would be too expensive.

Mr. MOSS. Isn't that the statement of counsel as he read it?

Mr. WIRTH. Yes, but I think if it is his statement——

Mr. MOSS. I don't think it does us any good to get into a semantic discussion. Let's continue.

Mr. MCCLORY. I would like to point out he read part of the letter and there is more of the letter. Legalistically the letter speaks for itself, and what some individual's interpretation of the letter might be would be purely subjective.

Mr. Moss. We are going to deal with the rest of it.

Mr. ROMNEY. Mr. Albright then goes on to state that in the future he does not think he will have any more to say on the subject, and then offers a series of suggestions:

D–47.1

1. See Charlie Scholl and Dave Stern of our company who will be in Death Valley when you are there. They will not be there to do other than try to answer questions. They will say nothing about the site other than its relation to water and sanitation.

2. Make sure that the sanitation problem is completely solved, including sewerage disposal, and drainage adequate of the treated effluents.

3. Hold everything until the water tests are made and there is assurance that the National Park Service can get 1½ second feet of water (or less if that will meet the need) without *in any way* impairing the water supply developed through the years by the company for its operations.

Mr. ROMNEY. May I interrupt here to ask you, Mr. Wirth, do you happen to have a copy of the original?

Mr. WIRTH. Of this letter?

Mr. ROMNEY. Yes.

Mr. WIRTH. I don't have it with me, but I am sure we have it on the files.

Mr. ROMNEY. The reason I ask is that the copy with which we are working here has the words "in any way" underscored. Does your copy have that underscored?

Mr. WIRTH. I didn't get your point. I am not sure whether it has or not. I haven't got a copy here. In either case, if it is or isn't, I am not going to question it.

Mr. MCCLELLAN. Here is a Thermofax.

Mr. WIRTH. Mr. McClellan has a Thermofax, so I assume he is correct, and I don't see why I should be asked that question, because if it is in the Thermofax, the copy of our letter, I couldn't deny it or substantiate it, could I?

Mr. ROMNEY. I am sorry, I asked the question for my own information and not in any way to try to trap you, as it were, Mr. Wirth.

Mr. WIRTH. OK, I'm sorry.

Mr. INDRITZ. Mr. Chairman, the Thermofax does show that the words "in any way" are underscored in the document referred to.

Mr. ROMNEY. Then to continue with these suggestions made by Mr. Albright, he says:

D–47.1

4. Discuss a public relations program with Superintendent Fred Binnewies, but do not expect him to do everything in these fields. See if the staffs of the superintendents of Yosemite and Sequoia and Kings Canyon National Parks and the superintendents themselves cannot give substantial assistance in 1957.

He closed by saying:

Good public relations in Inyo and Minarets Counties very soon will help enormously in getting the Minarets and other features returned to Yosemite National Park.

Which is not germane to our inquiry at this point.

Mr. WIRTH. We would like to have them.

Mr. ROMNEY. This letter from Mr. Albright makes it clear, does it not, that he is continuing to express a position with respect to the water available at Death Valley which is highly favorable to the company's position?

Mr. WIRTH. I would answer your question this way instead of making two questions out of it. I would say that he is certainly interested in the water angle of it, but I think he also is interested in protecting the Park Service and the company, from what he says here.

Mr. ROMNEY. But in your opinion could such an arrangement exist without in any way impairing the water supply developed through the years by the company for its operations?

Mr. WIRTH. I can understand his interest in that; yes.

Mr. ROMNEY. My question was could such an arrangement be possible.

Mr. WIRTH. I don't know. I don't know how much water is there.

Mr. ROMNEY. The water supply developed through the years was not impaired in any way?

Mr. WIRTH. I don't know how much water supply there is there, and I don't think anybody knows. We are still waiting to find out what the water conditions are there, and we still, with the money that we have spent through the various agencies to make analyses and studies and the money we have put into it, we still don't know what the water is there. I don't think honestly they will ever find out.

Mr. MCCLORY. I just wanted to make this comment, Mr. Chairman. I will want to go into this subject in some detail, and it is just a question of whether you want me to do it at this point or at a later time. Really what I have been doing is reserving my questions to propound them all at the same time.

Mr. Moss. Yes.

Mr. MCCLORY. I think that would be proper.

Mr. Moss. That would be preferable.

Mr. ROMNEY. It was shortly after this time, was it not, that you went to the West and on March 18, 1957, visited Death Valley in accordance with your plan?

Mr. WIRTH. March 18 and 19. I was there the afternoon of the 18th and left on the morning of the 20th.

Mr. ROMNEY. You said you left on the 20th. You left Death Valley on the 20th?

Mr. WIRTH. That is right.

Mr. ROMNEY. Does this mean you stayed at Death Valley 2 nights?

Mr. WIRTH. That is right.

Mr. ROMNEY. Where did you stay at Death Valley, Mr. Wirth?

Mr. WIRTH. There is only one place to stay. That was Furnace Creek Inn.

Mr. ROMNEY. Did you stay there 2 nights?

Mr. WIRTH. Yes, sir; that same thing baffles me, how the report came out that I got complimentary. As I recall I went up to offer to pay and did pay, and I don't know whose record is right, but I keep pretty accurate records of my traveling, and take discounts and give credit for it.

I am essentially an honest man, and I, as far as my record is concerned, I paid my reduced rate, and I notice that the subcommittee's copy of the Comptroller General letter says I was there 1 night and got it complimentary, but my travel voucher, of which you have a copy, I will be glad to give you a copy if you wish——

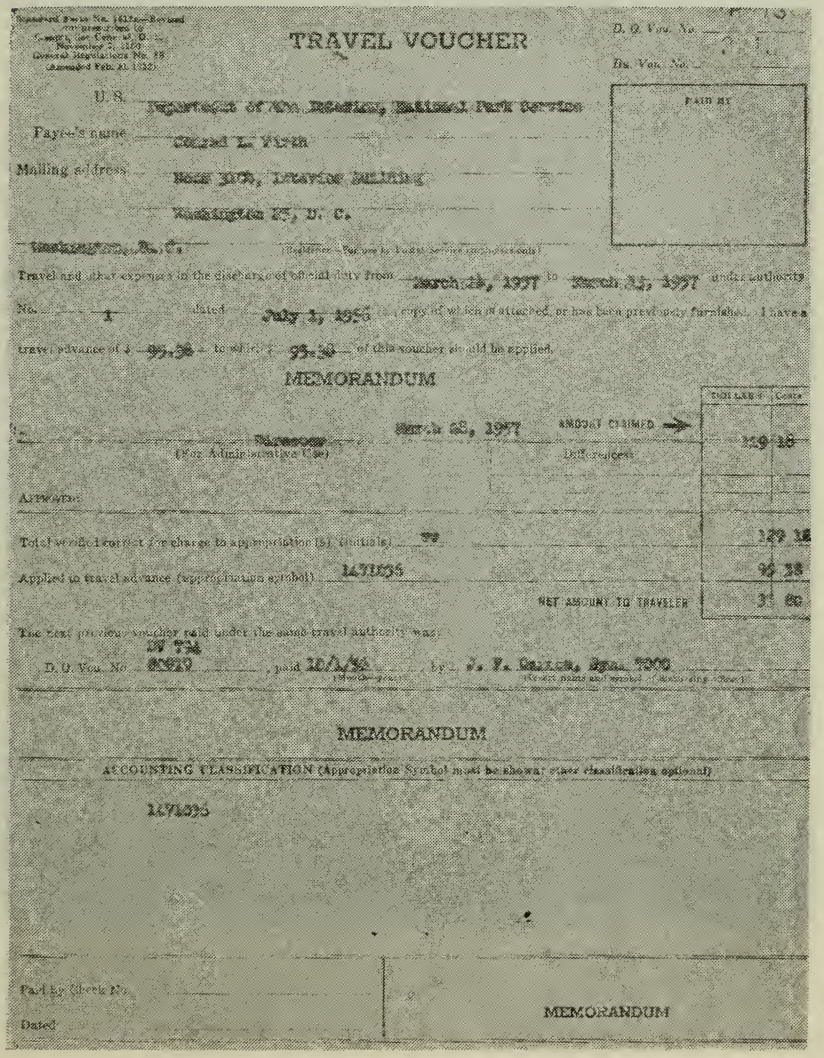
Mr. ROMNEY. We have a copy.

Mr. WIRTH. And it refers to 2 nights, doesn't it? You have a copy there. It says 2 nights, if I can find my copy. It says:

Leave San Francisco, Calif., via TWA, 8:30 a.m.; taxi from hotel to bus terminal (fare 60 cents, tip 10 cents, 70 cents); bus to airport $1.25; arrived Las Vegas, 10:30 a.m. Government car to Death Valley, arriving 2 p.m. March 19 at Death Valley National Monument, long-distance telephone call (official) to Lake Mead $1.95. March 20, leave Death Valley National Monument via Government car at 8:30 a.m.

Mr. ROMNEY. You refer to records.

(The travel records are as follows:)



TRAVEL VOUCHER

D. O. Voc. No. —

Da. Voc. No. —

U.S. Department of the Interior, National Park Service

Payee's name Colord L. Wirth

Mailing address Room 3017, Interior Building

Washington 25, D. C.

(Residence or place to which settlement is to be sent)

Travel and other expenses in the discharge of official duty from March 18, 1957 to March 22, 1957 under authority

No. 1 dated July 1, 1956 a copy of which is attached, or has been previously furnished. I have a travel advance of $ 95.38 to which $ 95.38 of this voucher should be applied.

MEMORANDUM

(For Administrative Use)

March 22, 1957

DOLLARS | Cents

AMOUNT CLAIMED → 129 18

Differences

Approved:

Total verified correct for charge to appropriation(s) (initials) TT 129 18

Applied to travel advance (appropriation symbol) 1471035 95 38

NET AMOUNT TO TRAVELER 33 80

The travel previously paid under the same travel authority was:

D. O. Voc. No. 57 734 80819, paid 12/4/56, by U. S. Treas. Warr. 7302

(Give name and number of disbursing check)

MEMORANDUM

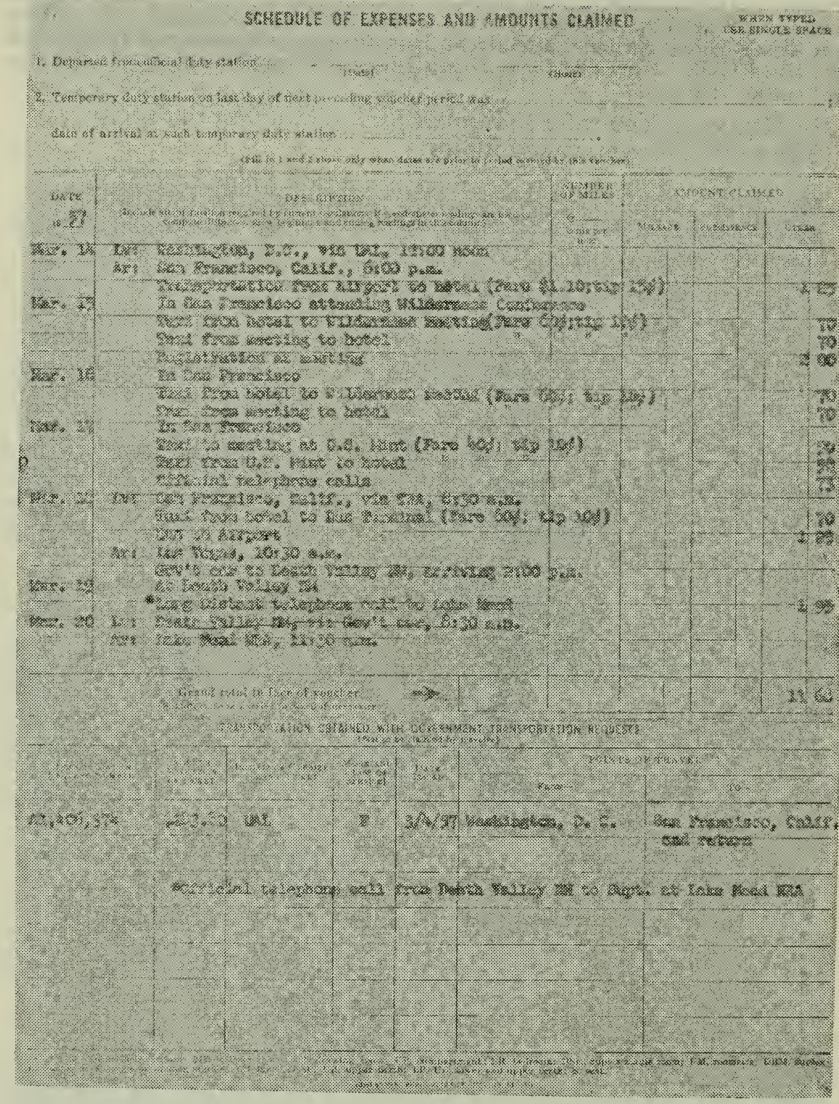
ACCOUNTING CLASSIFICATION (Appropriation Symbol must be shown; other classification optional)

1471035

Paid by (Check #)

Dated

MEMORANDUM



SCHEDULE OF EXPENSES AND AMOUNTS CLAIMED

WHEN TYPED USE SINGLE SPACE

1. Departed from official duty station ... (Date) ... (Hour)

2. Temporary duty station on last day of next preceding voucher period was ...

date of arrival at such temporary duty station ...

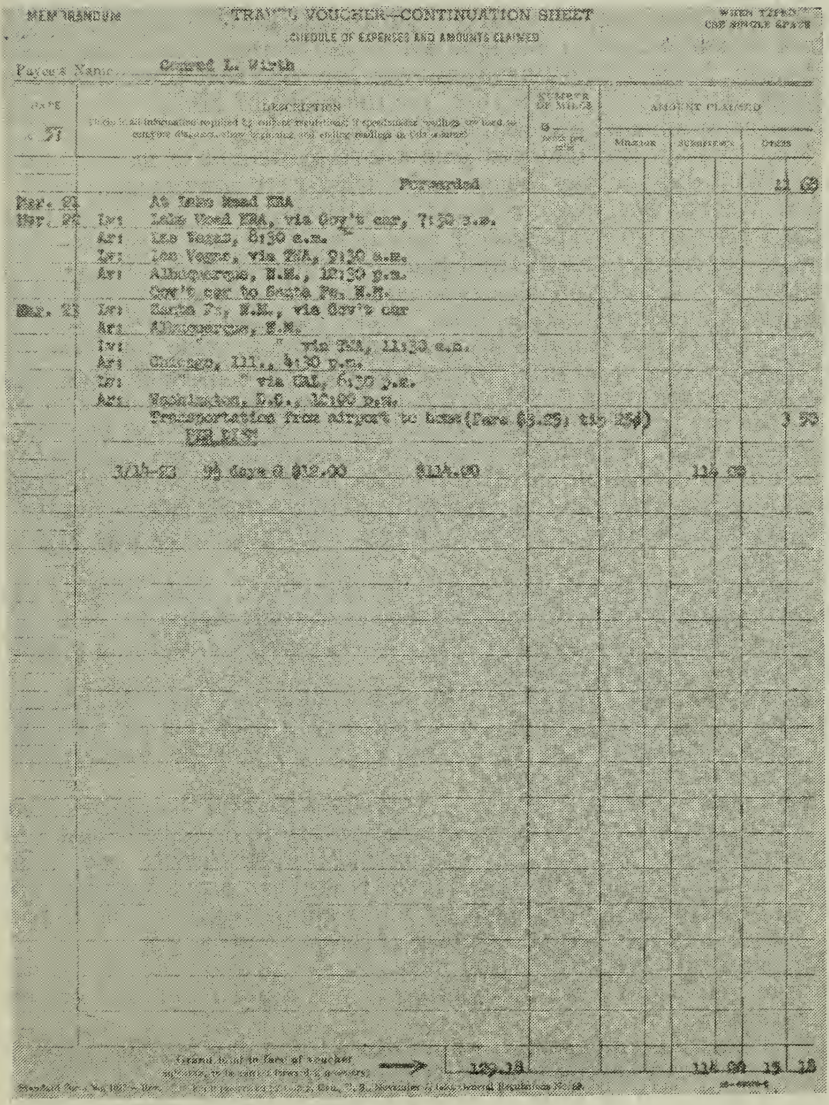
(Fill in 1 and 2 above only when dates are prior to period covered by this voucher)

DATE 1937	DESCRIPTION (Include name of each person furnished by common carrier. If conveyance furnished by Government, so state. Explain any unusual circumstances affecting the allowance.)	NUMBER OF MILES	AMOUNT CLAIMED			
		Rate per mile	Mileage	Subsistence	Other	
Mar. 14	Lv: Washington, D.C., via UAL, 12:00 Noon					
	Ar: San Francisco, Calif., 6:00 p.m.					
	Transportation from Airport to Hotel (Fare $1.10; tip 15¢)					1 25
Mar. 17	In San Francisco attending Wilderness Conference					
	Taxi from hotel to Wilderness meeting (Fare 50¢; tip 10¢)					60
	Taxi from meeting to hotel					60
	Registration at meeting					2 00
Mar. 18	In San Francisco					
	Taxi from hotel to Wilderness meeting (Fare 50¢; tip 10¢)					60
	Taxi from meeting to hotel					60
Mar. 19	In San Francisco					
	Taxi to meeting at U.S. Mint (Fare 40¢; tip 10¢)					50
	Taxi from U.S. Mint to hotel					50
	Official telephone calls					1 35
Mar. 21	Lv: San Francisco, Calif., via UAL, 8:30 a.m.					
	Taxi from hotel to San Francisco (Fare 50¢; tip 10¢)					60
	Lv: Airport					1 25
	Ar: Las Vegas, 10:30 a.m.					
	Gov't car to Death Valley NM, arriving 2:00 p.m.					
Mar. 19	At Death Valley NM					
	*Long distance telephone call to Lake Mead					1 95
Mar. 20	Lv: Death Valley NM, via Gov't car, 8:30 a.m.					
	Ar: Lake Mead NRA, 11:30 a.m.					
	Grand total to face of voucher ==>					11 60

TRANSPORTATION OBTAINED WITH GOVERNMENT TRANSPORTATION REQUESTS

Transportation Request No.	Amount	Name of Issuing Office	Class of Service	Date Issued	POINTS OF TRAVEL	
					From	To
AT,405,374	$80.00	UAL	F	3/4/37	Washington, D. C.	San Francisco, Calif. and return

*Official telephone call from Death Valley NM to Supt. at Lake Mead NRA



MEMORANDUM — TRAVEL VOUCHER—CONTINUATION SHEET — WHEN TYPED USE SINGLE SPACE

SCHEDULE OF EXPENSES AND AMOUNTS CLAIMED

Payee's Name: Conrad L. Wirth

DATE 1951	DESCRIPTION (Show in all instances required by collect or prepaid, if prepaid, voucher number and date of payment. Show origin and ending points in this column)	Symbol or Mile's @ cents per mile	AMOUNT CLAIMED Mileage	Subsistence	Other
	Forwarded				11 63
Mar. 21	At Lake Mead KBA				
Mar. 22	Lv: Lake Mead KBA, via Gov't car, 7:30 a.m.				
	Ar: Las Vegas, 8:30 a.m.				
	Lv: Las Vegas, via TWA, 2:30 p.m.				
	Ar: Albuquerque, N.M., 12:30 p.m.				
	Gov't car to Santa Fe, N.M.				
Mar. 23	Lv: Santa Fe, N.M., via Gov't car				
	Ar: Albuquerque, N.M.				
	Lv: " via TWA, 11:30 a.m.				
	Ar: Chicago, Ill., 4:30 p.m.				
	Lv: " via UAL, 6:30 p.m.				
	Ar: Washington, D.C., 12:30 a.m.				
	Transportation from airport to home (Fare $3.25; tip 25¢)				3 50
	DUPLICATE				
3/14-23	9½ days @ $12.00 $114.00			114 00	
	(Grand total on face of voucher equals, or is carried forward to, next sheet) →	129.18		114 00	15 13

Standard Form No. 1012a — Rev. — Form prescribed by G.S.A., Bur. of the Budget, November 6, 1950, General Regulations No. 48 — 26-40076-4

Mr. Moss. We will recess subject to call of the Chair.

(At this point a short recess was taken.)

Mr. Moss. The subcommittee will resume.

Mr. ROMNEY. Mr. Wirth, the information the subcommittee has with respect to complimentary accommodations for you at Furnace Creek Inn March 18, 1957, is taken from the registration cards and statement folios of the Furnace Creek Inn. So that presumably the records of the inn do show that, for the night of March 18, you did receive complimentary accommodations.

You have testified that you paid a certain amount of money to the inn. What did you pay them and for what were you paying them?

Mr. WIRTH. My expense account indicates, and that is the only thing I have to go by, because I have never gone into any park, even though the regulations of the Department permit free frank for my position as a director or at a reduced rate. I have always offered to pay. I had never done otherwise. And when they refused to take it, and that is one of the reasons the regulations provide for franking privileges—because so often when you go in you have an argument whether you are going to pay or not, they like to frank you on through. All I can say is that if I had been franked, that is below my per diem, or given a rate less than my per diem, I would have done the customary thing of deducting one-fifth for each meal and one-fifth for overnight lodging. That is the general procedure, which means you have left one-fifth of your per diem for tips, and that is the way it generally goes.

I might have missed, but generally speaking I don't miss. I am pretty careful on that. I usually make a note every night.

Mr. ROMNEY. Did you pay the Furnace Creek Inn for 2 nights' lodging at the standard daily rate?

Mr. WIRTH. No. I most likely paid it at a reduced rate, but my voucher shows that I did pay, and that is all I know. I have no records, and I would like to know what their records show for the 19th.

Mr. Moss. You didn't exist.

Mr. WIRTH. I guess I didn't. I must have slept in the gutter. But be that as it may, may I say that what we try to do is be honest and pay our bills as we go, and I think most Park Service people do that. And if I did slip up there, if the record can prove I slipped up, why, I owe Uncle Sam some money, and I am perfectly willing to pay up, but I don't think I do at this stage of the game anyway.

Mr. ROMNEY. Mr. Wirth, you have stated that the voucher showed that you paid, and I was wondering if you could point that out on your copy.

Mr. WIRTH. I would not have put down $12 a day for those 2 days or that period if I had received some free accommodations.

Mr. ROMNEY. You were of course aware of the Secretary's policy statement with respect to acceptance of gifts and bestowals, were you not? Assistant Secretary, Administrative Secretary Beasley in 1956, on May 10 issued a memorandum to departmental employees, and this memorandum was incorporated in a Park Service memorandum signed

by Assistant Director Tolson on May 24, 1956. The memorandum within the memorandum reads:

D–59.5

Employees should be consistently aware of the Department's policy in regard to gifts. The subject is covered in general form in chapter ID–C2 of the Department supplement to the Federal Personnel Manual. It is also treated in varying language and with varying degrees of emphasis in Bureau handbooks and manuals. The Department policy is concisely restated as follows:

"It is considered unethical to accept from or bestow upon any person or organization involved in an official relationship anything of economic value such as a gift, loan, or gratuitous service. Failure to obey this rule will make the employee liable to disciplinary action in such degree as the facts may warrant."

Mr. WIRTH. Yes. I don't consider this in that category. Furthermore, may I say when this matter came up on April 12, 1960, Secretary Seaton sent to the Comptroller General or to the Justice Department for an analysis to find out whether we had violated any of the regulations, and I am not too conversant on reading all the whereases and so forth, but on April 21, 1960, Justice said nothing to justify any investigation, and the Comptroller General also said that the Secretary had the right to make such regulations as he wanted, and these kinds of things are in our contract, and they apply not only to the Park Service but to other Federal people.

Mr. Moss. What contract did you have with the Death Valley Hotel Co.?

Mr. WIRTH. We had no contract with Death Valley, but the same concessionaire that runs Grand Canyon runs the Death Valley for them, and therefore they extend the same privilege to us at Death Valley. We have no contract with Death Valley. But I must say that there are several hotels in New York and other cities that give Government employee rates. I get a rate on these trips if I can but they don't get me within the per diem, but it gets me by with a smaller loss. They give the Government employees a rate because they know what the per diem is, but it costs employees more than the per diem to travel for Uncle Sam. But that is neither here nor there, I grant you that.

The fact remains I did accept a rate, and I know what the rates were out there. They were $22.50 and $25 a day, and that makes a big hole in a $12 per diem. And so I have taken rates when they were available, and all Government employees do going into a park on Government business, and that is available to the Secretary and to other Government officials and State officials on official business.

Mr. MCCLORY. Mr. Chairman, may I ask this for the purposes of clarification. It is my recollection that we did have a contract between the hotel company and the Harvey organization, and that that contract did contain specific provision that the Fred Harvey Co. should provide services at reduced rates and some sort of special treatment to governmental officials. Am I mistaken on that?

Mr. ROMNEY. That is correct.

Mr. MCCLORY. So that in effect what the contract means is, the Park Service is a third party beneficiary of the contract between two other people under that contract.

I was just trying to recall the situation when the question was asked as to whether or not they had a contract. They did not have a contract, but there was a contract which contained——

Mr. Moss. I will tell you, Mr. McClory, why the chairman is going into this. I think the record might well reflect it.

In the course of attempting to get from the Park Service in the Department of the Interior the information which we were seeking, and which we thought as a committee of the Congress we have every right to expect to receive, we were denied that information repeatedly.

Finally, in an effort to force the issue, I addressed a letter, which I released to the press, asking if it was this type of information which the Service desired to cover up, to withhold from the Congress.

Now if we want to look at this from a strictly legal standpoint, any relationship between Death Valley Hotel Co. and its lessee, the Fred Harvey Co., has no pertinency to the relationship of the Government and its employees who are governed by regulations issued by the Government.

The then-current instructions, for whatever they are worth, laid down the policy of nonacceptance of any thing from this company, which was not in this park a concessionaire.

Mr. McClory. As I understand the regulation, its applies primarily to concessionaires.

Mr. Moss. It says the employees shall not accept.

Mr. McClory. Yes.

Mr. Moss. And in this particular situation there was no concessionaire. Now a concessionaire operates not in private property but in Government property, and there was no concessionaire in Death Valley. The pursuing of the minority here is to complete the record.

I was faced with some rather strong charges, coming from Departmental officials; and I think this record supports at least the fact that in raising the issue, I was not raising any phony issue at all, and that there was substance to it to the extent that the practice was clearly frowned upon by the regulations then current in the Park Service.

Mr. McClory. Mr. Chairman, I want to defend you and I want to defend and support you in your right to know and the right of the Congress to know, and I don't want to be misunderstood on that at all.

On the other hand, I don't want any past history between you and the Department of the Interior to interfere in any way with our regarding this investigation or the personalities involved in this investigation in any way except with a complete air of equanimity, and without reference to this unhappy situation in which you were involved, and in which I support you.

Mr. Moss. I think, though, we can say that this study started in this Congress. This study started at the time the subcommittee was created and instructed to make the study by the chairman of the Committee on Government Operations. It has been a continuing study since that time, and in the course of it I think that it has been narrowed considerably.

The fact is clear, however, that the reduced rate was given; I think that it is perfectly possible in view of the fact that the Comptroller General, in checking the original records of the hotel company, could find but the 1 night listed, and in view of the letter to me from the Fred Harvey Co., where it had made a check of its own records.

The Harvey Co., was not, I believe, the lessee at the time in one of the instances. It was the lessee at the time of the one we are concerned with. They indicated that the records agreed with the abstract made of those records by the Comptroller General. Now what happened to the other night I don't know. Maybe they charged you for one and gave you two. I don't know what the situation was.

Mr. WIRTH. Mr. Chairman, that is what puzzled me. As I said when I began my testimony, that I want to be honest and frank and help the subcommittee in every way I possibly can. I have absolutely nothing to hide.

And when I read the hearings and knew that both Mr. Merriam and others were there with me, and I think the record, at least the letter I saw, which I think the subcommittee sent to the Secretary, indicated they were there just 1 night too on the 19th, the night of the 18th, I am not certain——

Mr. Moss. That is correct.

Mr. WIRTH. That was never questioned, and I went to my file because I was there 2 nights, and I knew I went up there to pay my bill, and I am just as sure as can be, and they took some money from me.

Now just how much, I don't know, but it was sufficient that I didn't take any reduction because I paid what they asked me to pay, and it was either within my per diem or over my per diem, I don't know.

Mr. Moss. The puzzle is further accentuated by the fact that the records indicate that on the 1 day that is listed in their records no charges were paid in either your instance or the instance of Mr. Merriam.

Mr. WIRTH. Well, it is entirely possible that we did not sign for our meals, that we bought. In fact, I do know that half the time I buy my meals without signing the check on it, and sometimes I take people out to lunch with me and I pay for the bill. Sometimes they take me to lunch. And those things—I know that trips cost but——

Mr. Moss. Meals were included in the room rate, were they not?

Mr. WIRTH. Yes.

Mr. Moss. The room rate is $27 a day.

Mr. WIRTH. There is only one place to eat when you are there except in the summertime, I mean the wintertime.

Mr. Moss. If it is American plan you would have been paying for your meals with your room.

Mr. WIRTH. That is right.

Mr. MCCLORY. Could I inquire further with regard to this contract. Would there be any reason why the hotel company might want to make a note of a concession or allowance that was made with respect to 1 day, whereas if on the other day the payment was made in cash or there was no allowance made, they would ignore it? I mean if there is some——

Mr. Moss. The law of California requires an innkeeper to keep an accurate record.

Mr. MCCLORY. Is this the record between the hotel company and the Fred Harvey Co.?

Mr. Moss. This is the record of the hotel which is operated by the Fred Harvey Co.

Mr. McCLORY. There is no record with regard to the hotel filed with the State of California involved here, is there?

Mr. Moss. No. California has laws governing innkeepers, and it requires that guests be registered in, that the records maintained be accurate records.

Mr. McCLORY. Is there a percentage contract or anything like that with Fred Harvey? That would be a reason for giving attention to an allowance for concession.

Mr. WIRTH. And there is with the Federal Government, too. I mean we take a percentage of the gross, and if they don't collect the full amount from us, why that reduces their gross, we know that.

Mr. Moss. Of course, that would not be applicable in this case.

Mr. WIRTH. That wouldn't be applicable in this case.

Mr. Moss. Because they are not a concession.

Mr. ROMNEY. Did you pay your bill by check?

Mr. WIRTH. No, no. I don't pay by check. I usually get a check cashed and keep about $100 with me. When that runs low, I get another one.

Mr. McCLORY. Did you get a receipt?

Mr. WIRTH. If I did, I certainly haven't got it. I don't keep those things beyond 3 years. I understand the Bureau of Internal Revenue, 3 years is about all you have to go back on, so I am not much of a bookkeeper anyway other than my notes that I make as I go along.

Mr. McCLORY. And do you have a note that you made at that time with regard to the payment that you made?

Mr. WIRTH. I did have for 3 years, but I haven't got it now.

Mr. McCLORY. What is this that you are referring to?

Mr. WIRTH. My voucher that I prepared from my notes at the time indicated that I collected per diem for 2 days there, and I made no deductions.

Mr. McCLORY. Does it show that you paid for 1 day?

Mr. WIRTH. I collected, and I assume I paid because I collected.

Mr. McCLORY. It is your recollection that you did pay?

Mr. WIRTH. Yes, but I was told—you ask if it is my recollection. I am answering as honestly as I can. If I had to swear on a stack of Bibles that I gave them so much money, I couldn't do it. I will be perfectly frank. I can't remember such details back that far.

Mr. McCLORY. Let me ask you how much is involved there in the payment that he says he did make, and that the hotel company says he didn't make?

Mr. ROMNEY. The daily rate for the room with meals is $27. His per diem was $12.

Mr. WIRTH. $12.

Mr. McCLORY. That would be $27 plus the $12.

Mr. WIRTH. No. I get $12 from Uncle Sam.

Mr. McCLORY. You collected the $12 from Uncle Sam.

Mr. WIRTH. That is right.

Mr. McCLORY. And if they gave you $27 benefit, you have to add them together, don't you? Are we talking about the difference between $27 and $12?

Mr. Moss. No.

Mr. WIRTH. No.

Mr. Moss. Actually the hotel company records show a registration and a charge for 1 night at $27, which was listed on their records as complimentary. It shows no record of any kind for the second night, the 19th of March 1957.

Mr. McCLORY. And he submitted a voucher for 2 days, is that right?

Mr. ROMNEY. He included those 2 days.

Mr. Moss. He included those 2 days. He knows he was in Death Valley.

Mr. McCLORY. And you got $24?

Mr. WIRTH. Yes; I got $24. That is close enough.

Mr. McCLORY. Now, in addition to the $24 that you got, according to the hotel record they gave you $27 of hotel service.

Mr. WIRTH. I maintain I gave that $24 to the hotel company.

Mr. McCLORY. I see.

Mr. WIRTH. Actually, to get to the figure you are after——

Mr. McCLORY. It is $3 involved according to——

Mr. WIRTH. According to the way you are getting at it, actually the bill of the hotel would have been $54 for the 2 days, and I got $24 from Uncle Sam and gave them $24. So I owe them $30, the hotel company, but I don't owe Uncle Sam anything. If they want to collect, why I will be glad to pay them.

But if they gave us the rate, which is what they usually do, 80 percent of the per diem, then I paid them for 2 days at reduced rates, $20 or whatever it was.

And I know, if I may say, I know why this is brought up, and I understand fully why the chairman did. But I do know he caused the Department much concern. I gave you some wrong dates before which had to do with your getting the files from the Department on the dates that I gave you. But actually Secretary Seaton did submit to the Comptroller General a request for a review of this policy of reduced rates and free rates.

Mr. Moss. Regretfully we are going to have to leave again.

Mr. WIRTH. May I just finish this one sentence, that the Secretary did get a report from the Comptroller General on October 24, 1960, saying that he was within his rights to grant those things, and if you haven't got a copy of that, I think you ought to have it.

Mr. Moss. I think that refers to concessions.

Mr. WIRTH. That is right.

Mr. Moss. The point is here that we are not concerned with concessions.

Mr. WIRTH. That is right.

Mr. Moss. The subcommittee will stand in recess to the call of the Chair.

(At this point a short recess was taken.)

Mr. Moss. The subcommittee will resume its hearing.

Mr. ROMNEY. Mr. Wirth, when you made your visit to Death Valley National Monument, March 18 and 19 of 1957, you reviewed the proposals for the Mission 66 program and you made some decisions.

Would you please tell us what those decisions were and why you made them?

Mr. WIRTH. Yes, sir. There is in our files, and I hope in yours, a memorandum called the WODC Field Report, dated March 29, 1957.

And if I can speak to that, because that records the decisions, and give you the reasons why each one was made, because the whole thing fits into an overall pattern and design and one depends on the other, to a great extent.

Now, I refer——

Mr. ROMNEY. Mr. Wirth, with respect to the March 29 document, we have another document dated May 2, 1960, from the Chief of WODC to the Director, and the second paragraph says:

D–51.1

The following is an excerpt from the Western Design Office's Weekly Report for the week ending March 29, 1959, file—

Mr. WIRTH. 1959?

Mr. ROMNEY. 1957. I am sorry—file D–2623.

Is the document which you are going to refer to the same as the excerpt which is quoted in the May 2 document from the Chief of WODC to you?

Mr. WIRTH. I am sure it is. I have no file number on it like you have, but it is the WODC Weekly Report of March 1957.

I will read it as I go along on each point.

Mr. ROMNEY. Did you mean March 29, 1957? We have an excerpt from that report in a memorandum to the Director from the Chief, WODC, dated May 2, 1960, item D–51.1.

Mr. WIRTH. March 29. The title of this is "Summary of Decisions made by Director on development during the visit to Death Valley National Monument, March 1957."

One. Move the Texas Spring campground to the area north and west of the proposed museum site at Furnace Creek Ranch.

I think the subcommittee made some comments about the Texas Spring campground in the hearings out there, and I concur in their feeling that the Texas Spring campground is not the proper location.

The same conclusion I came to when I was out there.

We moved it down north of the ranch on the basis that it was a better location.

It had growth down there and we had experience as to what could be done down in that part of the fan with a little water, and the example of the development already on the ranch which has trees, it has water, the date palms, and so forth.

We figured that an extension of that type of development would give the necessary proper setting for a campground.

The Texas Spring campground, why, we have worked on it and while we could do more work on it and improve it, it is in bad condition. It has little room for expansion and the bentonite there is to such an extent that I think it would be very difficult to really develop it properly.

Furthermore, to irrigate it is difficult because it has quite a slant to it, whereas down below we have a place where water can soak down to the roots of the plants and trees without big ditches and dikes in order to keep the water there.

So that was one determination that we made and that was tied into another determination which will appear down in No. 5 when I get to it.

Two. The construction of the administration wing and four residents plus necessary utilities in conjunction with the development of Furnace Creek Ranch.

Well, that means just north of Furnace Creek Ranch next to the campground.

Three. The construction of the necessary utilities with particular emphasis on the establishment of irrigation ditches and planting similiar to that undertaken at the Rio Grande development at Big Bend in connection with the museum and campground development referred to above.

Well, at Big Bend we took an area along the Rio Grande, which is a desert-type country on the lower reaches of the Chisos Mountains, and we irrigated it and we grew cottonwood trees and we got an excellent campground there that will take care of six or seven hundred campsites now, and we propose to do the same type of thing down here.

I think perhaps a better parallel would be the extension of the type of growth that is at the ranch north into this area, adjacent to the ranch, between that and west of the road and surrounding the visitor center.

Four. Development of campground facilities as rapidly as funds are made available: In other words, we wanted to move in there as fast as we could. We had indications or hopes of getting considerably more land than we have at the present time.

Five. Road relocation of the main approach to Death Valley from Death Valley Junction, which traverses Furnace Creek Wash to a new location on higher ground from Zabriskie Point through the area previously proposed for a new headquarters through Texas Spring campground with an intersection of the main Death Valley road near the proposed museum.

This will permit realinement of the very bad junction near Furnace Creek Inn, and would call for abandonment of the section from the Furnace Creek Inn up the wash to Zabriskie Point. The section to be abandoned would probably be retained as a service road to the water systems and could be of a reduced standard.

I would like to show you the result of what we have here, and then I will show you the master plan.

And this would be a little hard to do without an easel, but this is the existing road that comes down now. It goes down the wash here and it goes in between the old filling station and the inn and comes out here and then joins.

This is the ranch land. We proposed putting the—by the way, this map was signed and approved by me on April 22, 1957. That is just shortly after or within a month or so that I was there.

This indicates where we would put the campground. This is the ranch, which is pretty well irrigated, and has a lot of growth on it.

We propose to extend that growth across into here. We feel certain we can do that in this area here.

This is the location of the visitor center. We propose to take this off of here and get out of the wash, come on up into here and come down through the Texas Spring campground, and right at this junction where the visitor center is.

This becomes the center focal point of a park visitor's first contact outside of the ranger station at the entrance, where he learns about the park, where he has his campgrounds, where he has his cabins and if he wants to go to the inn he can turn left here and go on up to the end of the road.

This road then becomes the road going south and north, and this comes into the junction. This road, from here to here, will be abandoned in the wash or used as a service road, but not as a public road.

Now, in my visit there we spent a good part of the afternoon of the 18th on the ground—I got there at 2 o'clock and we put on our old clothes immediately and went out into the field.

The next day we got up bright and early and we walked a good part of this country and didn't get back to the inn until about 4 o'clock in the afternoon.

We laid our plans out and talked the whole thing over. And this fell into a very logical pattern in our thinking at that time; namely, here is our center.

People coming this way and this way—everybody has to pass that point. They don't have to go through the backyard of the inn.

We climbed up on the ridge, we walked up in through here and then walked this proposed location. There are several other studies that have been made of just how we are going to get through there, but this road gives you some fine views all the way across the valley.

You recall that some criticism was made about the possibility of this affecting the water. Our information is that it will not affect it if we stay on the surface. If we dig down deep it will. But, generally speaking, it will be a paved road and will not affect the subsurface water.

Most of this water comes from further up rather than down at this location. That would eliminate the ranch—I mean, the campgrounds here, move it down here where we think we have plenty of room. This is land belonging to the potash company and is outside the 90 acres we got.

It would acquire the additional land there which we are hopeful of getting. This whole thing, I don't mean to be criticizing anybody, but the whole thing is status quo until we get these things ironed out, but that is our scheme.

Here you have heard about this being used as a campground up there (Cow Creek), and some criticism of it as a residential area.

The criticism has been that it is on a finger of land between a couple of canyons. It hasn't got much room, and so forth and so on.

Our decision was that we would leave our residence there and use it for residential. I think our own people can better take care of themselves in that location than the public can when you realize that they would have to haul their camping equipment up that road and camp on that narrow finger of land and there isn't any more room there or maybe less room there than there is at the Texas Spring campground.

So we felt we would leave this here as our maintenance area and our general administrative area, and that our men that are serving this area would have houses down here (Cow Creek) and because we have our water, our lights, and our sewer, and everything down here for these developments, and at our entrance, our various entrances of the

park, they would live right there in those locations but this (Cow Creek) would be the hub of our main operation.

And there is plenty of room on this finger here even if we expand to the 46, if we don't set aside an acre to a couple of acres per house. They don't need it.

We have now built our houses there and I have plans I can show you.

But the pattern is this: I don't want to be repetitious, but I want to emphasize, this is the hub: Visitor and administrative building. This is the center.

This is where people come, where they spend the night, where they get their meals, whether they stay in a cabin or camp or go to the plush inn.

And that is the basis on which I made my decision and if you will look, and I assume that when you went out to the meeting in January you walked up here and saw how barren this is.

I don't say you can't grow trees up there if you get plenty of water, but I don't see any need of going up there when you have this location, and where this is the logical place for a campground, and that the road is far better in this location, than coming down the wash and coming through the backyard of the inn to get to the main visitor center of the park.

It is just so logical that I don't see why anybody really wanted to do this any other way if they had all the facts.

Now, perhaps, I am critical of our technical people and in coming up with this or for their coming up with this, but if you take the whole picture, and some of these things that I am referring to did not materialize at the time that they made their first study in 1956 or when Binnewies came in. The Mission 66 was just getting started.

He had the problem. They went through the period of living there all summer even without air conditioning, and they felt that it could be made a living place, so that is where we decided to stay.

Now, there is some talk about elevation. This is 400 feet—proposed Furnace Creek headquarters—above sea level. This is 200 feet above sea level—Cow Creek—and this area (visitor center) is 191 feet below sea level.

We are anxious to also get the $350,000 from the State provided we would build it on our land, and that we would have the buildings to operate and administrate. At one time they were going to build it on land that was given to them, and they were going to administrate it, and we would rather recommend to the Congress that we build it ourselves and operate it, so they won't have two agencies, two government agencies, in the same area trying to administer a project.

So, finally, Senator Brown of your State, Mr. Chairman, got the legislation amended or altered—I don't know just the process there—so that they could do it nationally providing we do certain things which we have done.

So we put in money for our administrative unit, and their money went into the visitor center type of thing.

I don't know whether I——

Mr. McCLORY. Mr. Chairman, I think that the map that the witness is discussing should be marked and made a part of the record.

I think it is a very significant bit of evidence and one that clarifies this entire position on this.

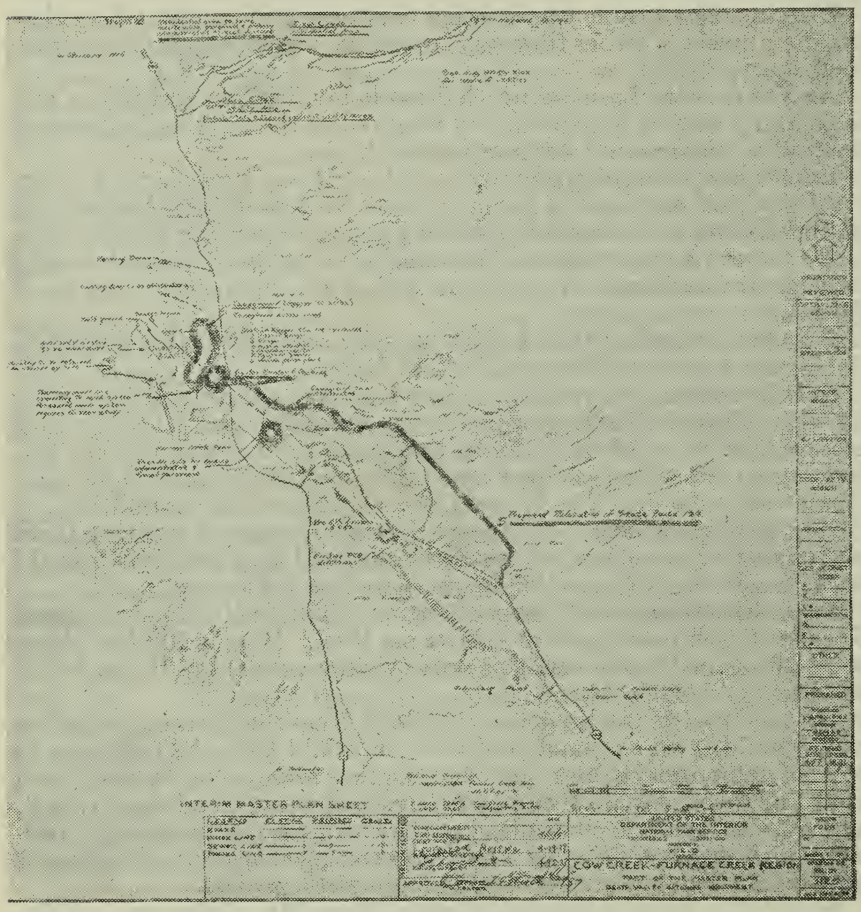
Mr. WIRTH. Well, sir, this was signed on April 22, 1957, and it has the recommendation of the chief, WODC, and the regional director and Tom Vint, chief of design and construction.

It hasn't all of the details, but it has the diagrammatic approach to it.

Mr. Moss. The map will be received for the record.

Mr. WIRTH. The number is NM–DV 3125.

(The map referred to follows:)



Mr. WIRTH. Now, we have fancier maps here, but I thought I would use the original that was drawn shortly after my visit there, which outlines why we did certain things.

Mr. MCCLORY. Has that been available at all times in your Department?

Mr. WIRTH. It has been in our master plan file here. I assume it has been available. I am sure it has been.

It is not a very well decorated map, so maybe it was an oversight.

Mr. Moss. You had this No. 4 and it carries on it the new proposed road and it is November of 1957?

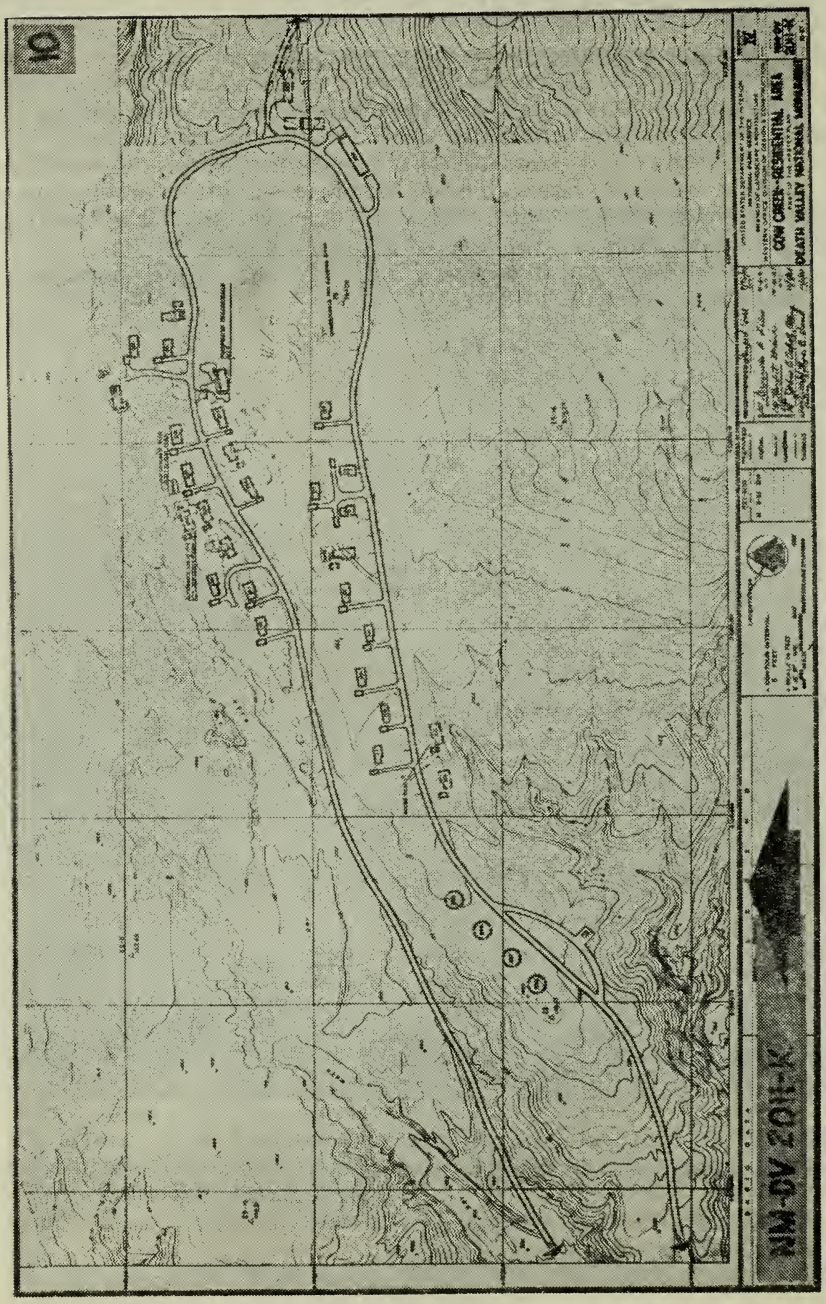
Mr. McCLORY. Yes.

Mr. WIRTH. Now here is another map. This is Cow Creek, and this is the plan, as is, the day it was approved by Mr. Vint, as Acting Director, on November 1, 1961.

The buildings and roads that have been completed and are there are shown with solid lines. Those that are scheduled to be constructed when we get funds are shown with heavy broken lines. The buildings and road to be obliterated are shown with dotted lines.

These are other sites in here. There are other sites in here.

(The map referred to follows:)


NM-DV 20N-K
COW CREEK-RESIDENTIAL AREA
DEATH VALLEY NATIONAL MONUMENT

Mr. WIRTH. In other words, we have now with—I think there are six or eight in that apartment unit here—six. We have just—for this plan, without further development—we have 10 houses plus 12 more apartments we can build there without further expansion.

We have plenty of room there if we don't get extravagant and put our houses too far apart, and that is an important plan, and I can understand honestly why, in drawing up these things, they want to make them a bit too large but with the funds that we get and our limitations on construction I think we get pretty good houses and our families are well taken care of in our new homes which are standard types of houses.

Mr. MCCLORY. How large are those building sites?

Mr. WIRTH. These are not large building sites, these are spaced about 100 feet apart, maybe 125 feet apart.

This is about 100 feet in here. Now, they have to skip certain locations because they run into the bentonite all through this country, and they have to test it and decide whether it is a good building site, and this section in here is marked "undesirable for building sites" because there is quite a bed of bentonite in this section.

But this part is still open for building and the water line comes right down here. This section here can be built on and this section can be built on, and our utility area down on the bottom—this is plan NM–DV–2102–C.

And the reason for showing you this plan is because I want you to know what we had at the time the decision was made.

This is the plan approved on September 1, 1955. The yellow building was the administration building. The road was built in here. These buildings in yellow were already constructed. They were constructed by the CCC and they are good buildings.

They are made of adobe brick, and the thing that hurt my feelings very much, and perhaps you saw it if you went up Cow Creek, on the right-hand side in 1957, the adobe brick that had been piled up there since the CCC days has pretty much eroded away.

They stacked them up for further development there, and the lapse of time was too great. They didn't stand the wear of time.

At that time, in 1955, this was our master plan for the layout of the visitor center, which we moved on up to near the ranch, and in my opinion this is altogether too far from the road. It is close to the shops.

It is close to where our own people live, but that isn't the purpose of a visitor center. The purpose of a visitor center is to be where the people are and where they come into the park so you can tell them how to get around and answer their questions. And that is why we moved it.

But that doesn't say that this area and the residential area which is just up here—here is a road going up to it—isn't in the right location.

They don't have to be right in the heart of the park where the people are. In fact they should be separated from the heavy visitation because they have work to do and they shouldn't be bothered by people. They should be ready to go ahead and do their work.

Further, this is only about a mile and a half away from the center.

Gentlemen, that is my analysis, and I made no analysis on whether we are interfering with the hotel companies or the United States Potash Co.'s water system or anything else.

It just seemed to me that this was the logical thing to do when I got there, and I made my determination on that basis and that basis alone.

I think that pretty well covers it.

Mr. Moss. Mr. Wirth, how many of the Mission 66 proposals for national parks have been approved in regional offices and sent on through to the Director but were subsequently changed completely by the Director going to the site and making personal inspection and ordering the changes?

Mr. WIRTH. Mr. Chairman, I don't say this with a great deal of pride or anything else, but the design offices have got so they never let me go in the field without going with me, because I do make changes as I see them, and that is the prerogative that I think I have a right to have because, if it turns out bad I will get blamed for it, and I am perfectly willing to rely on my own judgment.

Mr. Moss. That isn't what I asked you.

Mr. WIRTH. I was stating my reason because there are quite a few changes I have made, not major changes, all of them, but quite a few——

Mr. Moss. This is a very major change.

Mr. WIRTH. Yes, sir.

Mr. Moss. This is the complete abandonment of one plan and the substitution of another.

Mr. WIRTH. Well, it is reverting to the original plan.

Mr. Moss. It is done in the field on inspection by the Director. I asked how many other instances of comparable occurrences took place?

Mr. WIRTH. Well, I made changes in Teton, in the road system.

Mr. Moss. The major system?

Mr. WIRTH. Yes, sir. I made a major change in Teton. I made changes in Yellowstone, in the location of the campground now called Grant Village, named after President Grant who signed the act establishing the first——

Mr. Moss. Were those made after studies ordered in the field or were they made summarily by you on the spot?

Mr. WIRTH. It was made with basic material and review on the spot with people that are in our design and administrative field.

When you get them all together at the same time and discuss things, you get better results than you do by correspondence.

Mr. Moss. I would like to have the record of those changes available for study.

Mr. WIRTH. Well, I would have to go back to the records because I certainly don't remember them all, but I would say that there are quite a few of them.

I doubt whether there is a part in the Mission 66 which hasn't received some changes due to inspection and visitation.

Mr. Moss. Well, it seems to me rather futile to have regional and field staff who supposedly should, after careful study, make proposals and recommendations, and then have the studies completely rejected on the basis of a brief field inspection, without ordering further studies

in an effort to determine whether the changes would be appropriate or not.

Mr. WIRTH. Well, I can assure you that those studies were completed and studied and the changes were based on fact, just like this one was.

Mr. MCCLORY. Mr. Chairman, I am wondering about the scope of this review.

How many parks do we have that are involved in the Mission 66 project?

Mr. WIRTH. Well, there are 201 areas in the national park system at the present time.

Mr. MCCLORY. And I am wondering, too, what is the purpose of having the review in Washington if there isn't any authority to review and change——

Mr. MOSS. The Chair does not challenge the authority of the Director to change the plans.

The Chair is merely interested in the extent to which the Director relies on his staff for advice and for basic studies which lead to planning in each of these instances, and when major changes, rather sweeping changes, are made, the type of study that goes into the preparation for ordering such change.

Mr. MCCLORY. Well, may I inquire into this: We are not questioning the right of the Director or his staff in Washington to review and change——

Mr. MOSS. Not a bit.

Mr. MCCLORY. Well then, it would seem to me that we would have to study the 201 areas that are involved.

Mr. MOSS. I would doubt very much that there are 201 areas where there were substantive changes of a major nature which were made in the plans.

Mr. WIRTH. If I gave you that impression, Mr. Chairman, I wish to correct it. I thought the question was how many areas there are in the national park system. I said there were 201.

Mr. MCCLORY. Well, I know, but would you know which ones were changed as a result of review in your office without reviewing all of the——

Mr. WIRTH. No, I would not. I would have to go back over the records.

Mr. MOSS. This was changed in the field by the orders of the Director——

Mr. WIRTH. That is right.

Mr. MOSS. After a personal inspection?

Mr. WIRTH. That is right.

Mr. MOSS. This is a different process from that of a review in an office where you might order further studies.

This plan was changed after having been approved by all of the officials of the Park Service, including the Director. That approval was affirmed and reaffirmed. And there is in this, Mr. McClory, the question of the extent to which the influence of a man who wore two hats might have affected the changes which were in accord far more with his urgings than that of the professional staff of the Park Service.

Mr. MCCLORY. Well, Mr. Chairman, I do not question our prerogative here to investigate completely the question of influence, if any,

upon the Park Service or the Department; but I am wondering whether, under any stretch of the imagination, this subcommittee has the competence to determine the validity of the change that was made or to second-guess, in any way, on the basis of what talents we possess, the ultimate decision that was made.

We can investigate the reasons for the change, and the witness has testified as to the reasons for it, and then we can determine to what extent there may have been some influence on the Department or on the Service; but the ultimate question as to its wisdom is, if not impossible, extremely difficult to answer. At least I would judge it to be that way.

Mr. Moss. I do not propose to undertake the role of a park planner, but I cannot avoid the conviction that the question of whether this was a normal procedure or an unusual procedure becomes most pertinent to the inquiry of this subcommittee.

(Material concerning major planning changes in the national parks follows:)

DEPARTMENT OF THE INTERIOR,
OFFICE OF THE SECRETARY,
Washington, D.C., April 8, 1964.

Hon. JOHN E. MOSS,
Chairman, Special Subcommittee on Death Valley National Monument, House of Representatives, Washington, D.C.

DEAR MR. MOSS: In response to your inquiry of March 25, a summary is enclosed of the instances where Mr. Conrad L. Wirth, as Director of the National Park Service, made major planning changes in circumstances having similarity to those at Death Valley National Monument.

We have been informed that, at your next hearing on April 10, Mr. Wirth will be glad to amplify the information given in this letter if desired.

We hope the information provided will be of assistance to your subcommittee.

Sincerely yours,

STEWART L. UDALL,
Secretary of the Interior.

SUMMARY, MAJOR PLANNING CHANGES, CONRAD L. WIRTH

CABRILLO NATIONAL MONUMENT

In June 1962 Mr. Wirth approved the master plan for Cabrillo, but did not approve the location of the utility area which was recommended by the field offices. In August, upon receipt of a request for reconsideration, Mr. Wirth reaffirmed his previous decision. Subsequently, during a visit to the monument in February 1963, Mr. Wirth reversed his decision and approved the location recommended by the field offices. He also made adjustments in the proposed 400-car parking area and visitor center site.

HAWAII VOLCANOES NATIONAL PARK

During Mr. Wirth's visits to the park on December 28, 1959, and January 12, 1960, he made revisions to a main road proposal previously approved by him in May 1954.

In addition he made several planning and construction decisions relating to parking areas, overlooks, trails, a picnic area, and roads. These decisions were considered necessary because of the 1959 eruption of Kilauea Iki.

TIMPANOGOS CAVE NATIONAL MONUMENT

The master plan was approved in April 1959 by Mr. Wirth. During his visit to the monument in July 1960, he changed the utility area location and also changed the designation of a picnic area to a campground. In March 1961 the camping proposal was deleted by Mr. Wirth and the area was designated for the utility area.

YELLOWSTONE NATIONAL PARK

Mr. Wirth approved a master plan drawing for Grant Village on April 10, 1961. This approval was reconfirmed by Acting Director Scoyen's approval in August 1961. During a visit to the park in June 1963 Mr. Wirth revised the locations of building sites for a store, photoshop, and the eating and visitor service facilities.

YOSEMITE NATIONAL PARK

A revision in project plans for the Tioga Road was made by Mr. Wirth during his visit to the park in August 1958 after approval of plans in Washington by Acting Director Scoyen in April 1958.

HOUSE OF REPRESENTATIVES,
COMMITTEE ON GOVERNMENT OPERATIONS,
Washington, D.C., April 16, 1964.

MEMORANDUM FOR THE FILES

From: Miles Q. Romney.
Subject: Death Valley National Monument—Secretary Udall's letter of April 8, 1964, re major changes in planning by Director Wirth.

The subject letter, replying to the subcommittee chairman's letter of March 25, listed five instances in which Mr. Wirth as Director had changed plans with respect to national parks and monuments, after these plans had been approved earlier by himself. On April 13, 1963, Mr. McClellan and I visited the National Park Service offices and with the assistance of Mr. Harry Sanders and Mr. John Reshoft, Chief, Division of Master Plan Coordination, we obtained additional information about the five instances which are summarized in the attachment to Secretary Udall's letter of April 8.

The following notes will supplement and amplify the material provided in the aforementioned summary:

1. *Cabrillo National Monument.*—In June 1962, Mr. Wirth approved the master plan for Cabrillo but did not approve the location of the utility area which was recommended by the field offices. In August, upon receipt of a request for reconsideration, Mr. Wirth reaffirmed his previous decision. Subsequently, during a visit to the monument in February 1963, Mr. Wirth reversed his decision and approved the location recommended by the field offices. He also made adjustments in the proposed 400-car parking area and visitor center site.

The above is a fairly complete summary of the situation. It might be added, however, that the representations from the field urging reconsideration of the Director's original acceptance with respect to the maintenance area were very outspoken. Notwithstanding this, the Director adhered to his original position until the visit in February 1963. There are indications that this particular monument has an extraordinarily high rate of visitor use. The figure may run as much as a million visits per year. It has been described as a particularly spectacular visit into San Diego Harbor and the Pacific Ocean.

2. *Hawaii Volcanoes National Park.*—During Mr. Wirth's visits to the park on December 28, 1959, and January 12, 1960, he made revisions to a main road proposal previously approved by him in May 1954.

In addition he made several planning and construction decisions relating to parking areas, overlooks, trails, a picnic area, and roads. These decisions were considered necessary because of the 1959 eruption of Kilauea Iki.

The details on this are extremely complex and the material that we had does not indicate the basis which the Director had or may have had for realining a part of the main road. The main road realinement does not appear to have been necessitated by the 1959 eruption of the volcano. Nevertheless, it may be that the changes required by the eruption had repercussions which had a bearing on the need for the main road as originally planned. The realinement would have cut off several miles through a bypass road which would avoid some of the park area. The decision was to make use of the existing main highway and use only a small bypass stretch which would run in a somewhat concentric arc beyond the main road passing through the park areas and facilities. It is quite possible that the realinement was made in order to save funds since a road of several miles in

length was obviated. It appears to be necessary to examine additional file material in National Park Service office.

3. *Timpanogos Cave National Monument.*—The master plan was approved in April 1959 by Mr. Wirth. During his visit to the monument in July 1960, he changed the utility area location and also changed the designation of a picnic area to a campground. In March 1961 the camping proposal was deleted by Mr. Wirth, and the area was designated for the utility area.

This was a rather complicated revision of original plans. A number of factors were at work. One was the extremely confined building area within the American Fort Canyon which establishes the general monument line. As with canyons of this type there is very little bottom land for construction of any kind of facilities. In addition, it seems that there had been some hope at the time or shortly after Mr. Wirth changed his plans that Forest Service lands which are adjacent to the monument might be made available for the construction of some of the buildings and facilities encompassed by the plan. Actually the Forest Service did not cooperate in this proposal. As a result, the buildings and facilities had to be planned within the limits of the monument. However, the Forest Service indicated that it was moving away from the use of its lands by campers. Instead the policy of the Forest Service was to encourage group picnicking. It appears that this policy of the Forest Service was joined in by the Park Service to the extent that a proposed camping ground, which the Director had ordered built in one of his changes, was abandoned. A picnic area already in existence nearby was to be used. The record from the Secretary does not indicate that the change which Mr. Wirth ordered included the building of two residences in the so-called utility area. Actually these residences were not built in the utility area because further study and survey indicated that they could not feasibly be built there. As a result, the construction of the residences took place at the point where they had been originally recommended in the region's plan for development of the monument. It is also significant that one of the changes ordered by the Director in his reversal was that the utility area proposed by the region should be relocated elsewhere. No alternate site was designated by the Director, however. The region had to survey additional alternate sites. Finding no suitable alternate site, the Park Service had to build the utility facility in the place originally planned.

4. *Yellowstone National Park.*—Mr. Wirth approved a master plan drawing for Grant Village on April 10, 1961. This approval was reconfirmed by Acting Director Scoyen's approval in August 1961. During a visit to the park in June 1963, Mr. Wirth revised the locations of building sites for a store, photoshop, and the eating and visitor service facilities.

The above summary is not completely accurate in that it omits a description of the exact nature of Mr. Wirth's revision of the plan which he had originally okayed. Mr. Wirth's decision was actually contingent on preliminary studies concerning the possibility of locating the concessioner properties within a semicircle by the parking area. The decision was forced on the Park Service because the concessioners could not make up their own minds as to the locations they wanted relative to each other in the area as originally designated. The dispute, therefore, made some kind of revision necessary.

5. *Yosemite National Park.*—A revision in project plans for the Tioga Road was made by Mr. Wirth during his visit to the park in August 1958 after approval of plans in Washington by Acting Director Scoyen in April 1958.

It should be noted that Mr. Wirth's decision to change the plans for the Tioga Road followed a meeting on August 22, 1958, at the office of the superintendent of the park. There were 18 persons present. Among them were Mr. Wirth, Mr. Merriam, Mr. Hill, Mr. Stratton, Mr. Kruger, Mr. Carpenter, and others of the National Park Service. In addition, there were a number of officials and ex-officials of the Sierra Club, among whom were Mr. David Brower, the executive director; Mr. Alex Hildebrand, the ex-president, and others. Also Mr. Pashayen, of the California Chamber of Commerce, and Mr. Taylor of the Sacramento Bee were there. The precise nature of the objections to the road plan as Mr. Wirth had originally approved it is not clear from the documents we examined. Apparently the grade drop of the road was not satisfactory and perhaps the alinement or precise route. However, as a result of the conference some slight changes were made in the grade drop of the road and perhaps this would be regarded as a major change in plans. However, the importance of such a change is not apparent from the documents we analyzed.

Mr. Reshoft was requested to supply copies of all the correspondence which was furnished to Mr. McClellan and me, plus certain additional documents to fill out the story should be collected. Mr. Reshoft was also asked to supply a copy of a drawing of the proposed campsite on the 90-acre tract at Death Valley National Monument near Furnace Creek. A statement from him as to the acreage covered by the proposed campsite within the 90-acre tract was also requested.

Mr. WIRTH. Mr. Chairman, may I make this statement at this time?

Mr. Moss. You certainly may.

Mr. WIRTH. This whole thing was reviewed in the field with the superintendent, the head of the Western Design & Construction, and with the Regional Director and the technical people of the park there.

We all agreed. We discussed the things very thoroughly on the whole, and we all agreed on these changes and that was, in my opinion, unanimous opinion of the whole group.

At least none of them objected. They said, "I go along with you, I think you are right if you can do all of these things and not just one."

We would have had the residential area upon a plateau with a special road to it. We would have had the main road still coming down the wash. We would have had the visitor center stand by the campground, a mile and a half away from the general center of population if the original plan in 1955 wasn't changed to meet——

Mr. Moss. Yes, I made an on-the-site inspection.

Mr. WIRTH. Yes, and if you will recall, I think you will find that Mr. Binnewies' statement or proposal dealt almost entirely with the residential and utility area.

And I don't think you can take one unit of the park plan—I mean, that was his main emphasis. He may mention other things, but that was his main emphasis.

You have got to tie those things together, and that is why we said in our letter, "Subject to the overall master plan and prospectus."

And that is where this comes in and we did that planning together. I am not——

Mr. Moss. You approved it, Mr. Wirth, and I always felt that you proceeded with caution and prudence in arriving at a position and giving your approval to it.

Mr. WIRTH. Well, I think we saved—it is my opinion that we saved considerable money for the Government. I think we got a better layout for the people, and I think our own personal——

Mr. Moss. What is the water situation down there at the new campground?

Mr. WIRTH. That is the thing that we are still working on. I didn't——

Mr. Moss. Well, that is what worries me. The planning went ahead on the basis that it would be there, and when I was there the test showed that it still would not give them water of a good quality.

On the other hand, as to the test well for the proposed residential area, the tests did indicate adequate water.

Mr. WIRTH. Mr. Chariman, I am just as concerned in getting water and getting the proper answer for water, and the determinations on it, I believe, as you are.

In my opinion we are entitled to a great deal more water than we have. In order to reach some kind of conclusion we have tried to pro-

ject our plans to the future and asked the company to project their plans—and let's find out how much you need.

Mr. Moss. Yes, but the fact of ownership of water in that area is very critical.

Mr. WIRTH. It certainly is.

Mr. Moss. And the extent to which you could develop on your own and the extent to which you could develop someone else's are entirely different matters.

Mr. WIRTH. Well, that is true, but let me recall, I think it was in the superintendent's suggestion or one of the reports where it said that if we couldn't get any more water from Furnace Creek we could pipe water over from Nevares Springs.

Mr. Moss. You had a half second footing in Nevares Springs?

Mr. WIRTH. Wait a minute. Is that what it was?

Mr. Moss. Yes, that is right.

Mr. WIRTH. Well, that isn't much, but if you could pipe it over for the proposed Furnace Creek residential area at the top—and to have a campground down there at Texas Springs, you could pipe the water for the campground down there, near the present visitor center if you have the water. We need more water, that is exactly right.

I don't question that at all, and I would like to get the thing settled even if we have to go to litigation, but let's get it done.

Mr. Moss. Well, I can say that people who traveled with me on my inspection of it there continued to express a conviction that the proposed new site was greatly preferable to the Cow Creek site, for the headquarters area.

Mr. MCCLORY. Well, Mr. Chairman, I was with you and I do not recall my expressing myself one way or the other——

Mr. Moss. I was talking of the Park Service people who were with me.

Mr. MCCLORY. I do not know that I have an opinion. Could I——

Mr. WIRTH. Well——

Mr. MCCLORY. As long as you are talking about these, the locations of the headquarters site and the headquarters residential location, let me ask this, first of all:

Did the plans develop to the extent of providing a sewage disposal system for the Furnace Creek headquarters site?

Mr. WIRTH. You mean the residential utility area?

Mr. MCCLORY. Yes.

Mr. WIRTH. No; they had not completed that plan.

Mr. MCCLORY. It seemed to me that it would be almost futile to put a residential area in a place where the principal source of water is located, with the extreme danger of polluting this water that we are regarding as invaluable. I mean putting your sewage disposal up at the top of the development so that it could not help but endanger the entire water supply of the Death Valley development.

Mr. WIRTH. Well——

Mr. Moss. Of course, I think that the testimony in Sacramento will show that the Public Health Service was supposed to have approved this matter and found that it could be handled without any danger of contamination.

If not, Mr. Wirth, I would only observe that it would be great incompetence on the part of your staff to have gone to the point of

submitting a proposal for approval, and an omission on your part to have given an approval, without this very important question being determined. I somehow cannot believe that you have done that.

Mr. WIRTH. First, Mr. Chairman, I would like to make a statement and then I will answer the question, if I may.

The regional—I mean, the Bureau of Public Health, handles our sanitation, reviews all of our plans and makes recommendations on how to handle the sanitation requirements.

They not only do that, but we employ five of their men to make inspections of our kitchens and so forth where we have concessioners.

They do it for us. They are better qualified than we are, so we pay them for the service.

They have come up with these open ponds for sewer disposal. They don't go into this tile or filtration business any more. They have these ponds out, and in Teton—I don't know whether you noticed it, Mr. Chairman, when you came through Teton, but as you come in from the Southland east and not far from the lodge down in the willows, there is a tremendous big pond, and that is just a plain open septic tank which they use for sewage disposal, and there is no odor, there's nothing to it.

The bacteria just handles the whole situation, and there is very little soil penetration. All I can go on is their word as to what is best.

Now, this plan that I have showed you on the development of the Furnace Creek residential area is a schematic approach to where they thought the thing could go. It would be foolish for us to make all the detailed plans until the schematic plans have been checked out.

Then after you get that, just like you are going to build a house, you get an architect and you find out about the changes. And it is the same here. You get your schematic approach on a general master plan, as this is, and as you get into it you may find that you may want to make some changes——

Mr. MOSS. Those changes would be routine and usual. The changes we are discussing here are not in that category.

Mr. WIRTH. Well, I wouldn't say that.

You were talking about the sewer disposal plant and you went on up there in the Furnace Creek area and it was a schematic approach and it looked good to me.

And that is why we said we needed additional facts and information, and that is why I said in my letter to Mr. Albright, "This is just between us girls, so to speak, but we don't want it spread out."

Mr. MCCLORY. It is my recollection of the testimony out in California, Mr. Chairman, that the parties recognized that they would have to go to the State of California Sanitary Water Board to get approval of a sewage disposal system, but as the witness said, they didn't get to that point of development, so it is just hypothetical, I suppose——

Mr. MOSS. Well, Mr. Wirth, are you saying that there was a material question as to the ability adequately to dispose of sewage from the proposed new headquarters site which entered into your disapproving it after having first approved it?

Mr. WIRTH. No, I didn't say that, sir. The question was asked me: I would be shirking my responsibilities or words to that effect if I didn't look into the matter and before I approved it, and I was ex-

plaining this was a schematic thing and the question of the details of that would come up if the scheme idea is approved, and then to get into the details, and at that time these details would come up.

Mr. Moss. As a matter of fact, there was a study made by Curtis Richey, with the U.S. Public Health Service, and on page 313 of the testimony of Mr. Binnewies, in response to questions raised by you, Mr. McClory, Mr. Binnewies answered:

> Mr. BINNEWIES. No. You see, the sewage lagoon type of disposal was rather new to that area and new to many of us, but Curtis Richey, who was with the U.S. Public Health Service, was out there and made an inspection of this area, and he thought that this type of sewage disposal would lend itself very well to that particular situation. It was on the basis of his recommendations that we considered that for the new headquarters site. It was after that the county raised the question about it, but I always felt they did so without really understanding the type of structure that is used by the lagoon or the method by which the sewage is disposed of there.

Mr. WIRTH. Well, that is entirely proper and right, but I still would not go ahead with it until I finally got the written approval of what it would look like and get the design of what could be done.

Mr. Moss. I would assume that.

Mr. MCCLORY. Well, having some knowledge of water pollution and water disposal, I certainly question the advisability of a lagoon disposal system up on the top of this water supply. I can recognize the validity of it down in the valley, where it is right now, but I would certainly question the advisability of putting it on top.

It would certainly endanger the entire water system——

Mr. Moss. However, that was not raised as a plan on which Mr. Wirth based his proposal.

Mr. MCCLORY. Well, I notice this letter of March 6, 1957, from Mr. Albright to Mr. Wirth does raise that question in two paragraphs.

Mr. Moss. Yes, and that is what he was queried about—the letter of Mr. Albright.

Mr. ROMNEY. Mr. Wirth, is the highway still in the current Park Service program——

Mr. WIRTH. Yes, sir.

Mr. ROMNEY. For the rerouting?

Mr. WIRTH. As a matter of fact, I ran into this just yesterday. This is a plan that I didn't sign, but my successor just signed on the 19th of March.

I didn't know it until I ran into it yesterday, and this shows the proposed road here. Here is the old road coming down here, and here is the proposed.

This shows all that they are studying as to the new road location coming down to headquarters. And this is signed, and I just ran into it yesterday when I came down here to try to brush up on my homework—signed on March 9, 1963. Oh, well, that was a year ago, but he was Acting Director at the time. I didn't even realize that it was signed.

But this was the proposed road location and the three studies and the reason that is in there is because there is a powerline coming through there, and we wanted to be sure that nothing would touch any possible four alternate locations.

Mr. ROMNEY. What is the estimated cost of this relocation?

Mr. WIRTH. We haven't gotten it yet and we won't know until we make a decision of just where it is going, and we will not make a decision until we get the water question solved.

Mr. ROMNEY. Is it not true that in 1959 you instructed that there be a National Park Service road project in the amount of $462,500 to be included in this fiscal 1961 program for the revised routing of State Highway 190?

Mr. WIRTH. I would have to check the record, but if you have the record there, and it is written down, why, that is correct, but I don't know.

Mr. ROMNEY. This is a letter to you from the regional director of region 4, dated September 15, 1959.

Mr. WIRTH. Region 4 to me?

Mr. ROMNEY. Yes, sir; to you, dated December 15, 1959.

Mr. WIRTH. Well, I don't know the letter.

Mr. ROMNEY. It is Document D–54.

Mr. WIRTH. Well, we would have to have more information than this before I could say that this refers to that particular section of the road because Route 190 goes all the way across the park and whether this applies, I would have to look it up.

Mr. ROMNEY. The subject is: "Project for revised routing for State Highway 190 to Death Valley visitors' center via Texas Spring campground."

Mr. WIRTH. That is right, "pursuant to your instructions" that is.

Mr. ROMNEY. And on December 31, 1959——

Mr. WIRTH. I can't tell from this. It may have been in the 1961 appropriation and cut out. I can't tell.

This is an earlier appropriation for the fiscal year 1961. This is in 1959. We hadn't even got our 1960 appropriation yet; this is advanced planning, and by the time it got in there—I don't know.

I can't tell from just this letter. You can draw all kinds of conclusions from a letter like this.

Mr. ROMNEY. Mr. Wirth, with respect to the decision to establish a campsite north of the ranch this would have required, would it not, the conveying of land belonging to the borax company?

Mr. WIRTH. That is right.

Mr. ROMNEY. To the United States?

Mr. WIRTH. That is right.

Mr. ROMNEY. What assured in your mind that such a conveyance would take place so that campgrounds could be established on this?

Mr. WIRTH. Well, in my opinion, we will get the land sooner or later.

Mr. ROMNEY. Well, is it not true that the land already has been conveyed——

Mr. WIRTH. No.

Mr. ROMNEY. In part?

Mr. WIRTH. Oh, 90 acres, yes.

Mr. ROMNEY. Yes, but at the time you made this decision that land had not been conveyed, and my question was, without having the land available why did you assume that a plan could be prepared and executed which involved that land still not in Government ownership?

Mr. WIRTH. I would have to look back on the record there unless you have some letters there that you want to show me.

As I recall, we were negotiating for the land at the time. They were mentioned in the 1958 act and, as I recall, Congressman Clair Engle, then chairman of the Interior and Insular Affairs Committee introduced this and Senator Kuchel, of California, introduced this 1958 act, which was in progress, and general agreement was reached even before I went out there to inspect the land.

(The document referred to is D–81a.)

Mr. Moss. Are you aware that Mr. Gerstley told the subcommittee that his company had never indicated that they would approve such a change?

Mr. Wirth. No, I am not aware of that.

Mr. Moss. It is in the record of the hearing—and that he had never authorized Mr. Albright to indicate any such approval?

Mr. Wirth. Well——

Mr. Moss. And that, in fact——

Mr. Wirth. I would have to look back on the records, Mr. Chairman, but my recollection is that they helped draft and work on the legislation, and we reached agreement before it was introduced——

Mr. Moss. Well, that was my understanding. I was amazed to get the testimony from Mr. Gerstley but, nevertheless, we do have the testimony.

Mr. Wirth. Well, I was not aware of that, but I do—I think we have correspondence and I think you have, which we could find in our files, where there was correspondence between our people and them on the legislation.

Mr. McClory. Well, if the witness is right on that, do we not have the documents?

It seems to me that the staff could provide us with documents to ferret this out.

Mr. Romney. Yes.

Mr. Wirth. Mr. Lee tells me that later on in his testimony or some place Mr. Gerstley admitted that he was wrong in that statement. Am I correct in that? Somebody in the subcommittee brought it out on him and he admitted that he was wrong.

Mr. Moss. Well, he questions the authority, but I do not see where he disavowed the fact that he claimed the company had never agreed, nor had it designated areas where it would exchange lands.

And he even challenged that Mr. Stern had the authority—he said he had the authority to run Death Valley on a day-to-day operation, set the rates, take care of the earnings, establish policy, and so forth, and he was used extensively, let me say, on all matters relating to Death Valley, including relations with Park Service.

Mr. Wirth. Well, it is coming back to me. I think it actually went into the United States Potash Co.'s attorneys. They looked the bill over.

It went beyond the operation——

Mr. McClory. Mr. Chairman, I think this witness is exactly right. This exhibit which I have been handed, D–74.1, is a letter from the United States Potash Co., dated August 19, 1957, to Mr. Wirth from Mr. Horace M. Albright, and it refers specifically to this legislation and it suggests that a copy be sent to Mr. Coleman, attorney for the United States Potash Co. It gives the address. And it was for the

purpose of making certain comments on this purported legislation, particularly section 2.

Mr. WIRTH. There is another thing, too, Mr. Chairman, that Mr. Lee reminded me of.

Of course, I appeared before the House Committee on Interior and Insular Affairs at the time, but they wanted the properties appraised before they would consider the legislation, as to their equal values. I think that came up in there.

And we actually got the properties appraised. I think it ran about $11,000, and it came within a couple of hundred dollars. That is my recollection as to the money.

Mr. Moss. Well, I can refer here, for the purposes of relating the testimony of Mr. Gerstley to the subject now under discussion, to the exchanges taking place from page 445 on through to page 466.

Mr. MCCLORY. I do not wish to comment on the evidence, but I think the witnesses from the Department have better memories and better records than the witnesses from the hotel company.

Mr. Moss. Well, Mr. McClory, I would point out that Mr. Gerstley said that there had been no authority, that his directors would have had to approve it; that they had not done so; that they had never made a definite proposal, and that no one had been authorized to make one on their behalf.

I admitted that there was some confusion because the record indicated to me that they had been in it right up to their necks.

And then we got down to this and I said:

It wanted an exchange but not a definite exchange?
Mr. GERSTLEY. That's right.
Mr. Moss. We had a definitive exchange proposal but it was not wanted?
Mr. GERSTLEY. That's right.
Mr. Moss. So we are confused.
Mr. GERSTLEY. Yes, sir; and I don't like it.

(See printed hearings, p. 314.)

Then you asked a question there and that was the windup after this interesting exchange where Mr. Gerstley stated very positively that his company had never approved nor had they identified lands they were willing to make exchanges on. This seemed to be a contradiction of every bit of testimony in the hearings before the Interior Committee and, as it was reflected in the correspondence between Mr. Albright and between another official of the hotel company, Mr. Stern. He said, of course, Mr. Stern did not have that kind of authority. And he refers to a letter from Mr. R. J. Coleman, of Coleman & McDonald.

A number of other items were referred to here but clearly Mr. Gerstley, the president, denied the role of the company.

Mr. WIRTH. May I make this suggestion?

We would be glad to look at our files and see if we can find the correspondence, but I recollect even suggested word changes and so forth, and I think that in the hearings before the Interior and Insular Affairs Committee, I think that there was testimony——

Mr. Moss. There was, and we read, to Mr. Gerstley from the official report of that committee, but he still would not change his position that there was no agreement.

Mr. WIRTH. Didn't they have a witness at the hearing?

Mr. Moss. Mr. Gerstley was at the hearing.

Mr. WIRTH. I mean at the House Interior and Insular Affairs Committee hearings when they considered the 1958 legislation.

I think the United States Potash Co.——

Mr. MOSS. I do not think they had a witness at those hearings.

Mr. INDRITZ. It is not shown in the record.

Mr. WIRTH. It is not shown in the record?

Mr. INDRITZ. No, it is not.

Mr. MOSS. I was always of the opinion that they had designated specific parcels they were willing to exchange for parcels of Government land. But that has been denied by Mr. Gerstley.

Mr. MCCLORY. Well, Mr. Chairman, I think there is no question but that we are going to have a conflict of testimony here and we are just going to have to weigh the testimony to see where the proof lies.

Mr. MOSS. Well, Mr. McClory, if I look at the documentation I would say Mr. Gerstley is dead wrong.

Mr. MCCLORY. Well, sometimes the president of a company just does not know what the company is doing.

Mr. ROMNEY. Mr. Wirth, you talked about conditions in the Cow Creek area as limiting its utility for the purpose of a visitor-use area. Is it not true that the 90-acre tract, which was donated to the United States, is itself very heavily overcrusted with bentonite and suffers from a similar disadvantage?

Mr. WIRTH. You find bentonite, as far as I can find out, all through that country. You find it up in the Texas Spring campground.

You will find it up on the location of the proposed—the early Furnace Creek location residential area. You have to work around it, but if you try to crowd everything in one location and don't allow a large enough area so you can miss the main deposits you are in trouble with it. The Federal Aviation people had a lot of trouble in building the airport. The whole north end of it had to be abandoned because you couldn't maintain it because of the bentonite.

But we know that our present campground section is very similar to the area where the ranch is located and can be developed like the ranch. That is what we will do.

Mr. ROMNEY. Is it true that the northern half of the 90-acre tract has more bentonite in it than the southern half?

Mr. WIRTH. I wouldn't know about that.

Mr. ROMNEY. You spoke about the irrigating of this new visitor-use area. What would the source of water be specifically for such irrigation?

Mr. WIRTH. Well, the same source you would have for the other area.

Mr. ROMNEY. Are you speaking about 35 gallons per minute from Texas Spring or are you speaking about some other area?

Mr. WIRTH. No, we fully expect to get more water.

Mr. ROMNEY. But you have not specifically indicated where the sources might be?

Mr. WIRTH. Well, we feel, as I think the subcommittee feels or at least you have expressed it, what the Government is entitled to more water in the Furnace Creek area, and we most sincerely think so, too, and I hope that if it goes to litigation our attorneys will prove that fact.

We are now living within our water rights there. It is very tight and we use our water very gingerly but, nevertheless, we expect to get

more water and we also know or feel quite certain, from our observations, that there is wasted water from the irrigation on the ranch which nobody uses.

At least, that is my observation from seeing it. That is why we have the plantlife that we do have even though it is pretty sparse. It is there due to the overflow water that is just wasted and if it is properly distributed for irrigation purposes, we would have a great deal more plant growth.

But how much water we will be entitled to, I can't tell now because I just don't know.

Mr. ROMNEY. At the time when you made your decision you, of course, did not know either?

Mr. WIRTH. No. I made the decision, however, on the same basis as the previous decision and at the time we were studying water supply. We had allotted water for developing the Furnace Creek headquarters area, and we can move this water from the Furnace Creek headquarters to the ranch site and use the same water for the campground.

Mr. ROMNEY. At this time was there not a test well being drilled?

Mr. WIRTH. That's right.

Mr. ROMNEY. In the proposed area for the headquarters site?

Mr. WIRTH. Yes.

Mr. ROMNEY. Would this not have been a factor to have——

Mr. WIRTH. That well was dug in the wash, as I recall, or at least the well I saw was dug in the wash.

Mr. Moss. Now, we have a picture of that on a broad sweep of plain.

Mr. WIRTH. Up on the plateau? Did not see that.

There was an old well up on the hill that was there for years, and it was boarded over.

Mr. Moss. No, this was one that had a steel casing and was capped with a steel cover welded to it, and it was shown to us specificially as the test well, and we took photographs of it.

Mr. WIRTH. Well, I am not questioning that, but I also know when I was out there they were doing some trenching along there and well digging down on the wash.

Mr. Moss. And they have kept the wells down at the campground area where they had gotten bad water.

Mr. WIRTH. That is right.

Mr. Moss. This is a better picture because it gives the view of the broad sweep there.

Mr. WIRTH. Mr. Lee tells me that Mr. Kunkel—they tested this on Thanksgiving Day—of what year?

Mr. LEE. I am not sure of the year. The Geological Survey cooperated with the Park Service by drilling a well there up on the higher plateau there.

I am sure that is the one you are referring to, and they ran those tests for about 2 days. We did find some water in there.

Why the test was not carried on longer, I do not know, but at least they did find some water there and they didn't know what rate of drawndown there was.

They did know there was some water that they could find there, but the test, in my opinion, was never conclusive.

Mr. Moss. Mr. Aubuchon, who was with me on the tour, indicated that the test had shown adequate water.

Mr. McCLORY. Yes, as I recall there was a generous supply of water available from this well, but when this well was pumped strongly it did diminish the amount of water coming or flowing into Furnace Creek and the supply of water which the hotel company receives from the Furnace Creek area. Those springs that come out of the sides of the hill out there—the flow was diminished when the well was pumping.

I think the hotel company has always made representation that pumping water from this well would impair their claimed water rights from the springs.

Mr. Moss. Well, of course, that is why there would have to be some finding or some determination of water rights.

Mr. McCLORY. Surely.

Mr. Moss. However, on March 11, 1957, a memorandum to the Director from the Chief of Water Resources on the subject of the proposed well at new headquarters in Death Valley, states:

It has just come to my attention that your plan to reconsider the site for the new headquarters has resulted in stopping some development work, and may result in a disastrous stoppage of a water resources study.

Cow Creek is considered to supply too little water for the enlarged headquarters if located in that drainage. The United States has rights to such a small amount of the water from the borax company tunnel (Texas Springs) that no practical irrigation is possible, and it is doubtful how long it would serve domestic needs of Texas Spring Campground and the Indian village. The United States also has a claim (or conditional right) to 1.5 section feet of the waters of Furnace Creek, which it will be extremely difficult to perfect or exercise with increasing use from the same sources by the borax company, over the easements granted a few years ago.

By memorandum of July 16, 1956, the Park Service obligated $5,500 and engaged the services of the Geological Survey to make a water resources study of the entire Furnace Creek, Texas Springs-Travertine-Cow Creek area, to determine where this Service might exercise its conditional rights to Furnace Creek with the minimum conflict with borax company interests, and where also additional water might be obtained.

In January the Geological Survey recommended that a 200-foot test well be drilled in, or near, the new headquarters area. It recommended 14-inch bore instead of the normal 4- or 6-inch bore for test wells, pointing out that the difference in cost would be negligible and the total cost was estimated at $5,500 plus Geological Survey cost of supervision. Everglades and Dinosaur released enough funds under the investigation account to provide somewhat more than $6,000 for the test well.

By memorandum of February 7 from Mr. Price, region 4 was authorized to drill the well, for which we have been advised that bids were invited on February 20. It was also instructed to consider reimbursement of investigation funds for the casing and difference in bores if it was adopted as water source in time to use the money elsewhere this year.

As long as there are any plans for increased water demand between Furnace Creek and Cow Creek this project should be completed.

Mr. McCLORY. What is that you are reading from, Mr. Chairman?

Mr. Moss. A memorandum of March 11, 1957, to the Director of the National Park Service from Chief, Water Resources Section—Through: Chief of Lands; Subject: Proposed Well, New Headquarters, Death Valley.

In reply up here it says "refer to L54–L."

I imagine that that is the well that we are talking about that is right before you there.

Mr. LEE. Yes.

Mr. WIRTH. It could be, only I don't remember seeing that.

I saw a lot of things, but I don't remember seeing that.

Mr. Moss. I would like to now, regretfully, leave this and get on to the matter of future arrangements for concluding these hearings.

Mr. McClory is faced with the difficult problems of scheduling that will not permit him to be with us tomorrow and, in fact, will not permit him to be with us again until after the Easter break here in Congress.

And it is my understanding, Mr. Wirth, that your proposed assignment overseas is deferred at the moment.

I would hope that in the next few days the staff will do some checking on schedules and they will contact you and try to arrange a date in April that will be convenient to you in order that you can return, and we hope that we can conclude the hearings.

Mr. WIRTH. May I suggest a date for the sake of economy?

I expect to be in Washington for a board meeting of the National Geographic Society on April 9 at 4 p.m.

Mr. Moss. Regrettably, I have the chairmanship of another subcommittee which has sent out notices of hearings on April 7, 8, and 9.

Mr. WIRTH. Well, I could stay over on the 10th. That is a Friday.

Mr. Moss. It is possible that Friday might be convenient. We have to check with the members on the schedules.

Mr. WIRTH. See, I will be down anyway and I just thought if we could do it all in 1 day, that would be fine.

If I could say this off the record——

Mr. Moss. Off the record.

(Discussion off the record.)

Mr. Moss. Back on the record.

Well, Mr. Wirth, the staff will be in touch with you within the next few days, and we will try to arrange a mutually satisfactory date.

The hearings will now stand in adjournment subject to further notice.

Mr. WIRTH. May I thank the chairman, the subcommittee, and the subcommittee staff for their help while I have been on the witness stand.

(Whereupon, at 5:19 p.m., the subcommittee was adjourned, subject to call of the Chair.)

DEATH VALLEY NATIONAL MONUMENT

(Furnace Creek Area—Water Rights and Related Matters)

TUESDAY, APRIL 21, 1964

HOUSE OF REPRESENTATIVES,
SPECIAL SUBCOMMITTEE ON
DEATH VALLEY NATIONAL MONUMENT
OF THE COMMITTEE ON GOVERNMENT OPERATIONS,
Washington, D.C.

The special subcommittee met, pursuant to notice, at 9:55 a.m., in room 1501–B, Longworth Office Building, Hon. John E. Moss (chairman of the subcommittee), presiding.

Present: Representatives John E. Moss, William S. Moorhead, and Robert McClory.

Staff members present: Phineas Indritz, chief counsel; Sidney McClellan, assistant counsel; James A. Lanigan, general counsel, Government Operations Committee; Miles Q. Romney, associate general counsel, Government Operations Committee; and J. P. Carlson, minority counsel, Government Operations Committee.

Mr. Moss. The subcommittee will be in order.

Mr. Wirth, will you return to the stand?

FURTHER TESTIMONY OF CONRAD L. WIRTH, FORMER DIRECTOR, NATIONAL PARK SERVICE

Mr. Moss. You have been previously sworn and identified for the record.

Mr. Lanigan?

Mr. LANIGAN. Well, first, Mr. Chairman, at the close of the last meeting, Mr. McClory asked the staff to obtain information on any payments that Mr. Albright may have received from the United States Borax Co. during the time involved—that is, 1956 and 1957. I therefore wrote to Mr. Albright on March 24 requesting this data.

(Mr. Lanigan's letter to Mr. Albright follows:)

HOUSE OF REPRESENTATIVES,
COMMITTEE ON GOVERNMENT OPERATIONS,
Washington, D.C., March 24, 1964.

HORACE M. ALBRIGHT,
Los Angeles, Calif.

DEAR MR. ALBRIGHT: Chairman John E. Moss of the Special Subcommittee on Death Valley National Monument of the Committee on Government Operations, U.S. House of Representatives, has asked me to request from you certain information relating to the subcommittee's inquiry into Death Valley National Monument matters.

In the attachment to your letter to Mr. Moss dated May 6, 1960, at page 7, you referred to the formation of a new company on July 2, 1956; namely the

United States Borax & Chemical Corp. You then wrote: "I was made a director of the new company and asked to take consulting assignments for a period of 5 years." In your testimony before the subcommittee on January 29, 1964, you remarked at page 429 of the transcript as follows:

"So I'd just like to maintain the point that while I was a director of the United States Borax Co., and was advising the Death Valley Hotel Co., now and then when I was asked for advice I did always advise the Park Service to the extent of writing this report that I did. * * *."

In your letter to Senator Kuchel dated February 6, 1958, you also wrote: "While retired from business, I am a director of our company and am also acting in a consulting capacity."

Mr. Moss is interested to learn what compensation and reimbursement for expenses you have received from the Borax Co. or its related companies, including the Death Valley Hotel Co., during the period from July 2, 1956, through December 31, 1959, and specifically to what extent such compensation and reimbursement were for (*a*) your service as a director, (*b*) your service as a consultant or adviser on Death Valley matters, (*c*) your service as a consultant or adviser in other matters, and (*d*) your service in other capacities.

We would appreciate it very much if you could provide this information to the subcommittee by April 10, 1964.

Sincerely yours,

JAMES A. LANIGAN, *General Counsel.*

We have an answer from Mr. Albright dated April 2, 1964, which I will read into the record, if it is all right. It is quite short.

Mr. Moss. Go right ahead.

Mr. LANIGAN. It is addressed to me—since I sent him the letter.

I have your letter of March 24. I have no record of expenses for which I was reimbursed by United States Borax & Chemical Co. between July 2, 1956, and December 31, 1959, but I am informed by the company that my expense reimbursements were as follows:

Fiscal year ending September 30, 1957, $908.86.
Fiscal year ending September 30, 1958, $1,762.23.
Fiscal year ending September 30, 1959, $1,328.63.
Three months' period ending December 31, 1959, $431.13.

During the years in question, I am sure I received no compensation or reimbursement of any kind from Death Valley Hotel Co., Ltd., and my recollection in this respect has been confirmed by the company itself.

I have no recollection of expense reimbursements for trips to Death Valley aside from expense incurred in coming to Los Angeles twice a year—once in November and once in February—for meetings on the Board of Directors of United States Borax. In 1956 and 1957, and possibly also in 1959, I visited Death Valley in November at the time of my trip to Los Angeles. My expenses for these directors' meetings were reimbursed to me by United States Borax Co I received no payments from Death Valley Hotel Co., Ltd.

As to salary, I was paid a consultant fee of $13,000 per year by United States Borax for the period August 1, 1956, to April 30, 1961, a period of a little less than 5 years. I also received $1,000 per year as a director of that company.

During this period, my office was in the Associated Press Building of the Rockefeller Center at 50 Rockefeller Plaza, New York, and my duties were to advise on matters relating to the potash side of the corporation's business, the mine and refinery being in New Mexico and the sales and financial offices in New York. I was also available for discussing financial affairs of the company in New York with investment and banking establishments, and in Washington with the trade association, the National Plant Food Institute, and the research body, the American Potash Institute. As you know, I also discussed certain legislation which was enacted by the Congress in 1958 relating to Death Valley affairs, a possible agreement on water and a possible land exchange.

I was never employed by the Death Valley Hotel Co., never drew any compensation from it, nor did I have any official connection with it, although as I have explained before, I did on a few occasions, when requested, give my opinion and views on Death Valley problems. However, I never did this, when a member of the Park Service Advisory Board, when there was a matter in conflict between the company and the Park Service. I did advise the Death Valley Hotel Co. to give the U.S. Government 90 acres of prime valley land for its visitor center

and the State museum, and also the old borax works, now in ruins, but of historical value.

Very truly yours,

HORACE M. ALBRIGHT.

I might explain for Mr. Moorhead that the Death Valley Hotel Co. is a hundred percent owned by the United States Borax Chemical Co.

Then we also obtained a statement of Mr. Albright's holdings in the United States Borax & Chemical Co., and the report is that he held 700 shares of common stock, and 140 shares of 4½ cumulative preferred stock. The stock was acquired in exchange for U.S. Potash Co.'s stock on July 2, 1956, pursuant to the terms of the merger of that company into United States Borax & Chemical Co.

And then, before that, he held U.S. Potash Co. stock.

Mr. MCCLORY. Could I inquire as to what percentage of the United States Borax business the hotel operation amounts to? According to Mr. Albright's letter, he was advising with regard to potash operations.

Isn't that the big business of the company, in contrast to the hotel operation?

Mr. LANIGAN. Well, it is a very large company, of course. I don't know what percentage of the business the hotel is.

Mr. Moss. We can establish that, and place it in the record at this point.

(Subsequently the subcommittee received the following information from W. A. Ackerman, Secretary, U.S. Borax & Chemical Corp.:)

APRIL 29, 1964.

Mr. PHINEAS INDRITZ,
Chief Counsel, Special Subcommittee on Death Valley National Monument, Washington, D.C.

DEAR MR. INDRITZ: **The following information is set forth in response to your letter of April 22.**

	4 months ended Sept. 30, 1956 [1]	Fiscal years ended Sept. 30—		
		1957	1958	1963
United States Borax & Chemical Corp.:				
Net sales	$14,230,284	$50,987,907	$53,057,764	$81,645,496
Net income	1,372,177	5,470,931	2,370,314	7,355,973
Death Valley Hotel Co., Ltd.:				
Total income:				
Total	[2]	78,455	88,963	[3] 160,914
From Death Valley facilities	----------	67,290	72,991	74,750
Net income or (loss):				
Total	----------	(22,634)	(15,676)	[3] 38,472
From Death Valley facilities (before income tax)	----------	(32,300)	(22,533)	(17,195)

[1] Prior to June 1, 1956, United States Borax & Chemical Corp. had only nominal operations. On that date it acquired its borax operations and on July 2, 1956, merged with United States Potash Co.
[2] Nominal as facilities were closed during this period.
[3] Includes gain on disposition of non D. V. capital assets of $38,441.

Death Valley Hotel Co., Ltd. is and has been 100 percent directly owned by Borax (Holdings) Ltd. United States Borax & Chemical Corp. has held no ownership in Death Valley Hotel Co., Ltd.

Yours very truly,

By W. A. ACKERMAN, *Secretary.*

Mr. MCCLORY. Well, I think I am the one who raised this question, because if he was receiving a fee for services rendered to the Death Valley Hotel Co., that would be a significant thing here.

Now, if the business of the United States Borax Co. is principally mining and refining potash, and he was advising with regard to that, and the hotel operation is an incidental part of the operation, or is not related except in a subsidiary way, the significance diminishes quite a bit.

Mr. Moss. I feel that we must read this in context with correspondence from Mr. Albright. I recall—I don't know whether I have the letter here, but it is in the record—one instance where he referred to the fact, "I had before me then the interests of the company and the interests of the Park Service."

Mr. McCLELLAN. Plans of the Park Service, I think it is.

Mr. Moss. Do you recall that letter?

Mr. LANIGAN. That is the letter of February 4, 1957, I think. It is D–39.

Mr. Moss. Here it is. This is addressed to Mr. Wirth—February 4, 1957.

Under the heading "Death Valley Inspection, November 1956"—

D–39

As you know, at the request of my associates in United States Borax & Chemical Corp., I made a trip to Death Valley in November 1956. You very kindly made available to me the prospectus of the Death Valley Monument projects in the Mission 66 program. This I studied very carefully before going to the valley and after I left there. I returned the prospectus to you personally in November.

Therefore, while I was in Death Valley I had before me the interests of our company and the plans of the Service.

I don't know what in the background of Mr. Albright necessarily qualified him as an adviser on potash. He had a very extensive background in the development of parks and recreational areas.

Mr. McCLORY. I think on the contrary. Unless we have something to dispute his statement that he was advising on potash, I think we would have to assume that that is what he was being paid this salary for. We certainly could not assume if the hotel operation is a subsidiary and a fractional part of the total operation, that he is getting paid this money because he is helping them locate Park Service buildings in Death Valley.

Mr. Moss. Well, I don't think he was paid for helping locate a Park Service building. I think he was paid as a consultant to advise in a number of areas.

However, I think that the request you make that we determine the portion of the business is certainly valid, and the staff will be instructed to develop that information and place it in the record at the point previously indicated.

Mr. LANIGAN. I just wanted to clear up one or two points in the record on this conflict-of-interest matter.

In his letter of November 1, 1956, addressed to you, Mr. Wirth, Mr. Albright said that—

D–30

Mr. J. M. Gerstley, who is president of our enlarged company and who was formerly president of Pacific Coast Borax Co., has asked me to familiarize myself with affairs in Death Valley, of course with especial reference to the interests of the company out there, but also in any other respect where my background of experience might be useful to either our company or the National Park Service.

Now, in your testimony on March 23, when you were asked about having turned over the Mission 66 plans to Mr. Albright in response to this memorandum, you say (printed hearings, p. 326):

I didn't say exactly it was a new precedent. I said I very seldom do this, but in this case I am doing it to Horace Albright for the simple reason that Horace is on the Advisory Board. He is a sworn employee of the Federal Government, and he works with national park material, and I had confidence in him and he is a former Director of the National Park Service.

Now, did you have any realization at that time that he might be going out there wearing two separate hats, one for—as an adviser to the borax company, and the hotel company, and one as a sworn employee of the Federal Government?

Mr. WIRTH. I certainly knew he was connected with the potash company. I knew this because Horace Albright is a trained mining engineer, a lawyer. He was general manager of the potash company from 1933, the time he left the Government to go with them, until he retired from the company some 10 years ago. He was a wonderful administrator and organizer and did a very good job. So there is no question about his ability there.

Nor is there any question about his ability in national parks, because he was Director from 1928 to 1933, and he was superintendent of Yellowstone and Assistant Director from 1916 to 1928. I still have a great deal of confidence in Horace Albright.

He is an honest, sincere man. I, for one, am now a consultant similar to Mr. Albright, and I am trying to settle a problem between a friend of mine and a person that hired me as a consultant. I cannot for the life of me see why—unless you have got some proof that I gave something away or stole something from the Government or gave him something for helping us, or that I was bought out by him to do something for the company—why I cannot consult with the former Director of the Park Service.

The present Director of the Park Service consults with me all the time. I am an adviser to him, without salary.

And, goodness me, I think unless you have got some proof I think you have got to have some trust in human nature.

Mr. LANIGAN. I am not saying whether or not——

Mr. WIRTH. Well, this whole thing is trying to pin a collusion between Horace and myself. At least that is the only conclusion I can draw, Mr. Chairman.

Mr. MOSS. Mr. Wirth, let the subcommittee determine what it is attempting to do here.

What we are attempting to do at the moment is develop facts. The subcommittee will draw the conclusions as to what those facts indicate.

Mr. WIRTH. I am sure they will, sir.

Mr. MOSS. It will be the committee's judgment that will be reported to the Congress. The subcommittee is attempting to be objective and be fair. If you have any instance where we have not been fair, you can cite that. But let's not get into this other matter.

Mr. LANIGAN. I take it, then, you felt that at that time there wasn't any, as far as you realized—there wasn't any conflict between the possibility of the interests of the company and the interests of the Park Service.

Mr. WIRTH. There was not.

Mr. LANIGAN. Then on February 4, Mr. Albright wrote you this letter (D–39) from which Mr. Moss has quoted briefly, and in the letter he pointed out that the water problem—

D–39

is the only interest of immediate concern to the companies and the Service. It is important that the Service take no action that will diminish the present water supplies which our company has made available. Our Mr. Charles A. Scholl and I have discussed the water problem on the ground with Superintendent Binnewies; his engineer and ours have reviewed all available data and I have discussed the situation with Mr. van Dunn in Washington. Personally, I can see no reason why the water problem cannot be worked out to the satisfaction of everyone concerned and with full protection of every interest. However, I strongly advise complete understanding between all interests before the 'Go Ahead' signal is given on the new road to the residence and utility site or any building on the site.

Now, would that raise any thought in your mind that there might be some negotiations and necessity of doing business between the company and the Park Service to solve this water problem?

Mr. WIRTH. I think we would have to work with them. If there is a conflict between what our solicitor's office felt our water rights were and what the company felt their water rights were, it would have to be settled. There is no question. But I am not a water rights expert. I know we need water and I know they need water. And who owns what, I could not tell.

Mr. LANIGAN. After this date of February 4, do you recall whether you gave Mr. Albright any other internal memorandums of the Park Service relating to the Death Valley planning and water situation?

Mr. WIRTH. No, I don't recall.

If I did it would be in the file. I never kept any personal files.

Mr. LANIGAN. Well, rather than go through a lot of questioning here—after the February 4 letter, you sent that to the field, and there was a memorandum from the region signed by the acting regional administrator, on February 21.

Mr. WIRTH. That is right.

Mr. LANIGAN. Do you recall giving that particular memorandum to Mr. Albright?

Mr. WIRTH. I don't recall. As I recall, that memorandum would pretty much substantiate what the superintendent previously recommended. But I don't recall the details of who got copies of that.

Mr. LANIGAN. Well, the memorandum of March 6, 1957, on matters affecting Death Valley National Monument is addressed to you from Mr. Albright. This is our document D–47.1.

Mr. Albright starts out:

D–47.1

Thanks for letting me see Mr. Maier's memorandum of February 21 regarding the Death Valley.

Mr. Maier was the acting regional administrator at that time.

Mr. WIRTH. Yes.

Now that you bring it up, I think in that letter Mr. Albright writes thanking me, he said he thought it was a very excellent memorandum.

Mr. LANIGAN. That is right.

The memorandum is a good one and is very satisfactory except that I am still very uneasy about the new residential utilities there.

Mr. WIRTH. That is right.

Mr. LANIGAN. Now, from your testimony I wasn't clear about your visit to Death Valley. You said:

> Now, in my visit there we spent a good part of the afternoon. I got there at 2 o'clock. We put on our old clothes immediately and went into the field. The next day we got up bright and early and we walked a good part of this country, and didn't get back to the inn until about 4 o'clock in the afternoon.

Now, while you were out there on March 18 and 19, 1957, did you meet with any other people besides the Park Service people?

Mr. WIRTH. I may have met with some of them in the inn after our field trip. You cannot be there without meeting people that are in the hotel there, in the inn. But we did not discuss, or I did not discuss with them anything about our plans until our field work was done and our decision was made.

At that time, I may have said something to them what it was. But we made our decisions very carefully, and all agreed on it, before we made any announcement.

Mr. LANIGAN. Do you recall whether you discussed the matter of water and sanitation with the people at the inn?

Mr. WIRTH. No; I didn't discuss water or sanitation with the people. The question of water is something that is a water right, a legal matter that I am not qualified to handle.

But I know what we need in development, and I had assurance that there was enough water if it was properly apportioned between those that needed it. And we had to determine what was the most important thing, and that is what we were dealing with.

Mr. LANIGAN. Do you recall whether Mr. Scholl and Mr. Stern of the borax company were in the inn at that time?

Mr. WIRTH. No; but I think the record shows they were. So I assume they were.

Mr. LANIGAN. Now, in making the decision, I had the impression that you felt that this was a consensus type decision that was made as to where the various changes should be made in planning for Death Valley. Was this a decision that you made yourself, or do you think it was a consensus?

Mr. WIRTH. After we discussed everything in detail, the pros and cons, the possibilities of this and that, and so forth, and the size of the staff that would be needed in Death Valley, the condition of campgrounds, and additional campgrounds needed, camping was on the increase—we were getting more and more campers—and also the question of the proper approach to the park—all these things came into the discussion.

We tossed them back and forth, and finally came up with a solution which we all agreed upon, right there in the field, and then I made the decision.

Now, when I say they all agreed upon, I realize that some people do try to follow the thinking of the head of an organization and perhaps are not as outspoken as they should be, but I have always given people on the staff an opportunity and encourage them to at least speak their mind. And when we got through, I don't recall any person on there that didn't say that he would agree, because I asked each one, and I said, "Do you agree on this now, is this satisfactory to you"—that kind of approach.

And I got no negative response—they were all favorable.

Mr. LANIGAN. Of course, it could have been your decision anyway.

The reason I ask that was a memorandum from Mr. Hill and Mr. Knowles, directed to you, dated August 9, 1960, reports an interview I had with them. One of the questions asked was why a decision was made to move the permanent residential area from Furnace Creek back to Cow Creek. And they say, "The decision was made by the Director, and the specific reasons for this decision were not made known to us."

Mr. WIRTH. Well, I don't understand that, because we certainly discussed it, and my reasons were perfectly obvious.

I will be glad to recite them again.

We had improvements at Cow Creek. This is the area they wanted for the campground and it was not sufficiently adequate—it was much better suited for headquarters and a residential area. And, furthermore, we felt the road going on up to the present residential area would be hard to get trailers and camping equipment up to, whereas it would be better to have the campground nearer the visitor center.

Mr. LANIGAN. Then in his testimony at page 309, Mr. Binnewies speaks of this trip, and says, "That is when Director Wirth made the decision."

So I suppose the decision was made by you.

Mr. WIRTH. Somebody has to make the final decision. I made it. I don't deny it.

Mr. LANIGAN. At that time, did you have anyone present who was familiar with the relationship of the various plans and the various sites to the water situation in the area?

You have said you were not a water expert. Did you have any legal or geological water expert with you?

Mr. WIRTH. No. I had had memorandums from, I think, perhaps the best qualified man on water in the country—well, the best one I know, a Park Service man, and from the Geological Survey that there was water there. They had to find out how much. And then the question of legal, who owned what, in water rights is something that was being handled or would have to be handled through the Solicitor's Office.

But at the time I was there, the studies were going on for an amount of water, and I was told, also, that it made little difference as far as the water was concerned where the headquarters area would be, because the water would be the same amount, and you would pipe it from one place to the other.

The difference would be in the cost. They even stated that if necessary the water could come from Nevares Springs which isn't much water, but it could be piped on over. In fact, they showed me how it could be done.

So we had the possibility of locating the residential area on the plateau, down below, or over to the present headquarters. And I took the present headquarters.

Mr. LANIGAN. Who told you that?

Mr. WIRTH. Well, it was in some of the plans and correspondence. We got an estimate of what it would cost to bring water over there.

Mr. LANIGAN. Was any consideration given to the legal status of the situation where water is used immediately upon the site where it is taken, or where water is piped some distance away and used upon another site?

Mr. WIRTH. We are still looking for legal advice on the water problem, and we would like very much to get it settled and find out how much we got.

Mr. LANIGAN. But you didn't get the legal advice prior to the time of——

Mr. WIRTH. We haven't gotten it yet.

Mr. LANIGAN. Did you ask for legal advice in connection with the switching of the plans?

Mr. WIRTH. Everything went through the Solicitor's Office, and we got an OK on the Solicitor's Office on whatever we have done and committed ourselves to water.

We can't handle that.

As you well know—several years ago the legal counsel of the National Park Service was transferred to the Solicitor's Office, and so we get our legal advice from the Solicitor's Office.

Mr. LANIGAN. Well, then, what you are saying is, this change that you made on March 19 was made in consultation with the Park Service people who were with you—Mr. Hill, Mr. Knowles, Mr. Binnewies, Mr. Spaulding, and yourself?

Mr. WIRTH. That is right.

Mr. LANIGAN. And at that time you didn't have any—you didn't take into account any differences that might result legally from the location of the various units at various sites?

Mr. WIRTH. We had our headquarters—I mean our residential area, where it is now; it had been there for years. And we had sufficient water to take care of our visitor center, where we are. We had the water that we have from Texas Spring, which is in operation, which we have not enlarged. And we are status quo pending the solution of water problems.

Mr. LANIGAN. I would like to read a document at this point, Mr. Chairman. It is the memorandum of March 11, 1957, to the Director, from the Chief of the Water Resources Section.

It is fairly short.

Mr. Moss. What is the date?

Mr. LANIGAN. March 11, 1957.

This was a few days before Mr. Wirth made the trip out there.

This is to the Director, from the Chief, Water Resources Section, through their chief of lands.

Subject: Proposed Well, "New Headquarters," Death Valley.

It has just come to my attention that your plan to reconsider the site for the new headquarters has resulted in stopping some development work, and may result in a disastrous stoppage of a water resources study.

Cow Creek is considered to supply too little water for the enlarged headquarters if located in that drainage. The United States has rights to such a small amount of the water from the borax company tunnel (Texas Spring) that no practical irrigation is possible, and it is doubtful how long it would serve domestic needs of Texas Spring campground and the Indian village. The United States also has a claim (or conditional right) to 1.5 second-feet of the waters of Furnace Creek, which will be extremely difficult to perfect or exercise with increasing use from the same sources by the borax company, over the easements granted a few years ago.

By memorandum of July 16, 1956, the Park Service obligated $5,500 and engaged the services of the Geological Survey to make a water resources study of the entire Furnace Creek-Texas Spring-Travertine-Cow Creek area, to determine where this Service might exercise its conditional rights to Furnace Creek with the minimum conflict with the borax company interests, and where else additional water might be obtained.

In January the Geological Survey recommended that a 200-foot test well be drilled in or near the "new" headquarters area. It recommended 14-inch bore instead of the normal 4- or 6-inch bore for test wells, pointing out that the difference in cost would be negligible and the total cost was estimated at $5,500 plus Geological Survey cost of supervision. Everglades and Dinosaur released enough funds under the investigation account to provide somewhat more than $6,000 for the test well.

By memorandum of February 7 from Mr. Price, region 4 was authorized to drill the well, for which we have been advised that bids were invited on February 20. It was also instructed to consider reimbursement of investigation funds for the casing and difference in bores if it was adopted as water source in time to use the money elsewhere this year.

As long as there are any plans for increased water demand between Furnace Creek and Cow Creek this project should be completed.

A. VAN V. DUNN,
Chief, Water Resources Section.

Mr. LANIGAN (continuing). Now, did it occur to you that it might be wise to complete the water study, both physically—that is, geologically—and with respect to the water rights, before making these changes in the plans that had been made?

Mr. WIRTH. Well, these changes in the plan, whether you put it one place or the other, had nothing to do with water. The water is there or not there in either case. So whether you put the headquarters up on the other place, or put it down where we put the visitors center, or whether you put it at Cow Creek, the problem is the same. So the change in plan had nothing to do with that. And I was told so by Mr. van Dunn, who is the water expert I was referring to a while ago, who I think most of you know as a very capable person. And nothing was done until we—and he says there is water there but it is a question of getting it and the Geological Survey says there is water there.

So it is a question of getting it, and the Government getting what its share should be.

Now, the only thing that we have done there since Mission 66 started is straighten out our residential area where it was, and build the visitor center for which we had water. And we have not gone ahead with the plans until we do know how much water we can get.

Now, that is the A, B, C of it, and the change in plan had nothing to do with it.

Mr. LANIGAN. Well, have you ever heard of the doctrine of riparian rights?

Mr. WIRTH. Yes; I have heard the term used. Don't ask me to explain it.

Mr. LANIGAN. I am just raising a question, because this is a very complicated question here.

But under that doctrine, it is possible to use water on land next to the site of the water, but not pipe it away. So there is a possible legal difference in there.

How far is Cow Creek from the well site?

Mr. WIRTH. I think Cow Creek, I would guess, about a mile and a half, 2 miles. About 3 miles.

Here is Cow Creek up here. This is directly above Texas Spring. About 4 miles across Government land.

Mr. LANIGAN. Now, according to Mr. Dunn, Cow Creek won't supply enough water for that headquarters site, expanding the headquarters site.

Mr. WIRTH. It has been expanded and is supplying water now.

Mr. LANIGAN. Have you completed your expansion?

Mr. WIRTH. Two more houses, that is all—three houses.

Mr. LANIGAN. Are you piping any water from the well site at the present time?

Mr. WIRTH. From what site?

Mr. LANIGAN. From the well site.

Mr. WIRTH. It is all piped from the well site down. Has been for years.

Before this came in, back in the CCC case, we piped water down here to headquarters. We did have to make some changes, enlarging the pipe. We bought the Nevares tract in the early forties, and we had water piped down from here to headquarters, which is right down in here.

Mr. LANIGAN. I mean from the well site that the Geological Survey——

Mr. WIRTH. That was brought up last time, you recall, and I said I didn't recall seeing even the capped well when I was out there.

But—that was put down in 1957 or 1958—just about the time when this thing began to break. And I don't know why we stopped after it was dug, but I think with all this coming up, it was held up. I don't recall the details of why they didn't finish up the testing. They did test for a couple of days as I recall.

But they should have tested longer than that, I agree with you.

Mr. ROMNEY. Mr. Chairman, we have received from the Director of the Geological Survey, under date of March 30, 1964, a report dealing with the quality of water from various sites and test wells in the Furnace Creek area. The letter makes specific reference to the test well concerning which we have just spoken, and states:

> In addition to the problems of chemical quality, a well drilled higher on the alluvial fan probably would encounter large cobbles and boulders, a circumstance that would increase drilling costs considerably. Also, the depth to water probably would be greater than at well 16R1. In the absence of a legal reason to the contrary, my opinion is that the best site for the Park Service to develop its potable water supply would be from the existing well (27N/1E–24E1) in the syncline.

And in a table attached to this letter, the chemical analysis of this particular well is set forth.

It gives the total dissolved solids per million as 569, and this compares with other test sites given in the table quite favorably.

It appears to be the best quality of water that has been discovered in the area.

Mr. WIRTH. May I say, I think that is fine—by the well up there, and the visitor center down below, and the campground below, we have a gravity proposition, rather than a pumpup above the old headquarters site, or proposed headquarters site, and then have to feed it back down through gravity. We can put in our water supply, our tanks there, and take care of the whole development by gravity.

I had not seen that memorandum. What is the date of it?

Mr. ROMNEY. March 30, 1964.

Mr. WIRTH. Is that addressed to the chairman?

Mr. ROMNEY. Addressed to the chairman.

Mr. WIRTH. I am glad to have that analysis. I thought we should have had it in our files. But I haven't seen it.

But you know where that well is. You pointed it out to me, as a matter of fact.

That is at a spot up in here, as I recall. And our visitor center and campground are all down here.

So you have quite a difference in elevation—about 200 or 300 feet. So anything you put up here is all gravity. And if we put our headquarters up here, we would have to take the water from this well and pump it up above, and then bring it on down again by gravity.

Mr. McCLORY. Well, Mr. Chairman, I don't know what the purport of the letter is. I assume we are not going to question some judgment made in 1957 or 1958 on the basis of a letter that we got since the last hearing. And, also, I don't know whether the letter affects in any way the question of the legal right to water. I was of the opinion that there was some question as to the water rights here, including the right to pump water from the test well because of its being the same source as these springs that we inspected out there in the Furnace Creek area. And if there is some legal question involved, we cannot just overlook that and take a Geological Survey letter of the last 2 or 3 weeks and assume that legal rights to the water are all settled, and there is a large supply of water there available now that we should have known about all the time.

Mr. Moss. I think the pertinency of the letter goes to the quality of the water taken from the test well which was authorized for drilling in connection with the proposed location or relocation of the headquarters site.

Mr. McCLORY. Well, we knew the quality of the water—at least you and I did, I know—from the fact that it was tested and it was found good quality at that time, as I recall. But the question in my mind was always whether or not that was from the same water source as that which was supplying the Furnace Creek Inn; and that by pumping this water you were really impairing or impinging upon the existing water rights, whatever they are, to the springs that were flowing naturally from the ground.

Mr. Moss. Well, of course, this is a test well made in a water reserve area that I believe was withdrawn in 1913, was it not?

Mr. McCLELLAN. That is correct.

Mr. McCLORY. Well, Mr. Chairman, are we going to undertake to resolve the water rights in our subcommittee?

Mr. Moss. No, we are not. And this does not relate to rights.

This is quality of water as determined in a test well which was commenced in early 1957. The test well collection data here is for November 24, 1958. It was authorized in 1957. If there was, then I am mistaken.

Mr. McCLORY. I didn't know there was any question about that.

I understood that was fine quality water, but the only question in my mind was whether or not we had the right to draw the almost unlimited supply of water there when it was being taken from the same source as the Furnace Creek water coming out of the ground.

Mr. Moss. This letter is in response to the series of requests made by you or by me in the course of the hearings in Sacramento starting on January 27. And in order to place on the record the information

then requested, this letter was sent me under date of March 30, 1964, from the Geological Survey.

Mr. McCLORY. Does this letter indicate whether or not the water quality is identical with the water qualtiy that is coming out of the spring?

Mr. ROMNEY. None of the tables show identical qualities, but this may be a result of the different dates which the tests were taken. Some are roughly comparable.

Mr. LANIGAN. Could I just make a remark?

Mr. MOSS. Yes.

Mr. LANIGAN. California has a rather peculiar and complicated basic water law system. I am not expert enough to give you the details, but I do realize some of the problems.

They have tried in California to combine the doctrine of riparian rights and the doctrine of appropriation. They also have problems concerning underground water, where there is something to riparian rights or not, depending on the geologic and legal situation. I cannot tell you what the answers are. There are very complicated legal questions relating to water, depending on where you use it, where the land is, where it is taken from, and the relationship of riparian and appropriative rights.

In this case, too, you also have question as to the extent of the appropriative rights, and the validity of the appropriated rights claimed by the company.

So there is—I just want to point out—a very complicated water situation. And don't ask me to answer it.

Mr. McCLORY. I am convinced there is a complicated water situation, and there are complicated water rights that are involved here.

Mr. Wirth, at the time of making any of these decisions, was there any discussion of the relative riparian rights of the Park Service or the hotel company?

Mr. WIRTH. There had been discussion for some time on it. I was advised at the time the decision was made, not only at the time that we made this change, but when we made our first decision of putting the headquarters which was going to take more water than the rest, that we have—ample water was a question of working out the rights.

Now, that was given to us by van Dunn, our man. Also, by the Geological Survey.

Mr. McCLORY. Was there any suggestion when you moved the proposed headquarters housing location back from up above Furnace Creek to Cow Creek that certain riparian rights that were involved were being surrendered?

Mr. WIRTH. No; I never heard of surrendering any. As I understand it from the testimony here, this is in a reserve now. So I don't see how it would be surrendered.

Mr. McCLORY. What I am trying to find out is whether or not the subject of riparian rights was considered by you at the time that you were making the decision as to the location of the headquarters, residence area, or the headquarters building, the visitor center, or any of the other decisions that were being made there.

Mr. WIRTH. I don't know whether I used the word "riparian rights," but I asked whether this would in any way affect our water rights, and I was told no.

I don't know whether I used the word "riparian" but when I said water rights, I meant the Government's interest in water, and whether we were losing anything by doing this.

Mr. LANIGAN. Who gave you this advice?

Mr. WIRTH. By talking with van Dunn, and also in talking with Geological Survey people. I don't know the individual name on Geological Survey, because it was informal discussions. This is before I went out in the field.

Mr. MCCLORY. In other words, the location of the buildings and the change in the locations neither enhanced nor diminished the Government's water rights insofar as you were concerned, or you knew?

Mr. WIRTH. That is right; that is correct, sir.

Mr. LANIGAN. Was van Dunn a water attorney, or an attorney at all?

Mr. WIRTH. van Dunn is not an attorney, but he is perhaps the best authority on water rights in the country. At least he was consulted by many judges on decisions. And I will be honest with you—it is a complicated subject. I have signed letters on water rights, and I have signed them on the basis of the technical knowledge of Mr. van Dunn and on the basis I didn't understand, except he said it was all right—but when he got into the details it was complicated as far as I am concerned.

Now, that is a confession of relying on the technical ability of a professional man.

Mr. MCCLORY. May I ask one more question along that line?

Did you receive any advice from the Solicitor's Office, or were you aware of any opinion of the Solicitor's Office, or any other legal opinion, that the Government's water rights might be adversely affected, or might be affected in any way by reason of decisions made as to location or change of location of buildings or developments of the Park Service in Death Valley?

Mr. WIRTH. I have a very foggy recollection that this plan and layout was in both cases, the original and the second one, where it was cleared in our western office, and perhaps in the Washington office, as to our legal rights. And I would have to look, perhaps not in our files, but to somebody else's, to verify that. In either case there is a solicitor in the west and there is a solicitor in the Washington office.

And I would have to check in the files and find out before I made a definite commitment that that was the case. But I am pretty certain it was. I have a recollection of their saying they felt they could go ahead on this plan under these circumstances.

Mr. MCCLORY. And that the Federal Government's water rights were not affected one way or the other?

Mr. WIRTH. That is right.

Well, I don't recall them saying that—but, anyway, OK'ing the plan to proceed, the legal factors would be the only ones they would be qualified to check into. But I am here under oath, and I don't want to make a statement I cannot verify.

I say it is a foggy recollection.

Mr. LANIGAN. Well, it is a little hard to understand how Mr. van Dunn could have advised you that the water made no difference when

on March 11, 8 days before your decision, he points out that there might be a disastrous stoppage of a water resources study. Then in his letter he stated:

> By memorandum of July 16, 1956, the Park Service obligated $5,500 and engaged the services of the Geological Survey to make a water resources study of the entire Furnace Creek, Texas Spring-Travertine-Cow Creek area, to determine where the Service might exercise its conditional rights to Furnace Creek with the minimum conflict with borax company interests and where else additional water might be obtained.

Now, just 8 days before he indicates that this study is actually going on.

Mr. WIRTH. That is right.

Mr. LANIGAN. That study hadn't been completed, certainly.

Mr. WIRTH. The first regional plan was reviewed by van Dunn when we had it up—we are talking about the same number of people, the same development. All we are talking about is location. That is all we are talking about—what is the best location to serve the public and serve the Government as a whole. That is all we are talking about.

We are not talking about increase, or so forth. And any one of these water supplies is available to any one of these locations. They are close enough for that.

So it is not a question as to location. It is a question of have we got enough water. And indications were we had.

The first plan was approved on that basis.

So it is a question of utilization of water and where you are going to utilize it. You can move it anywhere you want under the circumstances we are talking about.

Mr. MCCLORY. Well, is there any record any place that the Government is going to gain in water rights if the location of these buildings is one place, or they are going to lose if the location is some place else? Are you aware of anything like that?

Mr. WIRTH. No, sir; I am not.

Mr. MCCLORY. And if you were, you would not——

Mr. WIRTH. I would not have gone ahead.

Mr. MOSS. Isn't it a fact, Mr. Wirth, that you did not determine whether that was the case?

Mr. WIRTH. No; it is not true, Mr. Chairman. Not to contradict your statement—but I was definitely informed that it was all right.

Mr. MOSS. You have no legal memorandum that so indicates that?

Mr. WIRTH. No; I have no legal memorandum, sir.

Mr. MOSS. As I recall, you have indicated that the decision to change the plans which had been previously approved by you, and approved all the way from the field to the Washington office, and which approval was later reaffirmed, was a decision made upon the occasion of your visit to Death Valley in March of 1957, and that it was made on the spot in the course of an informal conference, and that there was no legal adviser on water rights available at that conference.

Mr. WIRTH. That is correct. But the regional setup on water rights and location and everything was cleared and approved, and I gave my reasons last time why I made the changes, for the benefit of the Government and of the people, better utilization of the area, better management, better design. And we all agreed on it. And it is within the same area the water rights was being considered, and it was OK'd.

Mr. Moss. Well, it involved some exchanges of land, didn't it, to effect the alternate plan, the plan that you finally approved?

Mr. WIRTH. It involved a donation of 90 acres. It involved a saving—the donation—that is where the visitors' center is.

Mr. ROMNEY. The donation occurred, of course, in March of 1958.

Mr. WIRTH. Yes.

Mr. ROMNEY. And the authority to make further exchanges was not enacted until July.

Mr. WIRTH. That is right. This was not an exchange. This was a donation. We have general authority to accept land, and we have accepted it, in fact, since 1956, since the starting of Mission 66—we have accepted over $8 million of land and money, and money to buy land, and land given to the Federal Government. There is a report of that every year to the Appropriations Committee, of our donations.

And this donation was reported also.

Mr. Moss. Here is an opinion memorandum from the field solicitor at San Francisco, dated September 16, 1958:

> In view of the complicated water rights situation, I have advised the regional director that I think the construction of the visitor center on the donated tract, before a determination of the water rights question is made, might well prove to be prejudicial to the public interest. I have suggested that if it is at all possible to construct the visitor center on Government lands riparian to Furnace Creek, upstream from the major developments of the Borax Company, I believe the Park Service should do so or else not start any extensive building program at all until the water rights matter is settled.

Mr. WIRTH. Who did that go to?

Mr. ROMNEY. The Solicitor of the Department.

Mr. WIRTH. What is the date of it?

Mr. Moss. September 16, 1958. And I think it is pertinent here as to who was your adviser on the legal issues, which you say were very carefully considered in connection with the change in plan.

Mr. WIRTH. Well, I think I can produce a memorandum that perhaps is signed by the same Solicitor, the plan of development.

Mr. MCCLORY. When was the decision to move the headquarters?

Mr. WIRTH. It was in 1958. March 1958. No—1957. Wait a minute. I will have to look.

Mr. LANIGAN. March 1957.

Mr. WIRTH. 1957, yes.

Mr. MCCLORY. Well, this document is September 1958. This is by Mr. McClellan, after he started his investigation.

Did you have any contact with Mr. McClellan at any time prior to the time that——

Mr. WIRTH. Well, he used to be in the chief counsel's office of the Park Service before he transferred to the solicitor, and he was moved out to San Francisco as a field solicitor. I think he could give you the dates more. I didn't have any direct contact with Mr. McClellan on this project. I think I am correct in that. I didn't know he was even making the investigation.

Mr. Moss. Well, of course, not only did it go to the Solicitor, but a carbon copy also went to the regional solicitor and the regional director, region 4, National Park Service.

Mr. WIRTH. That may be true.

But as you read that memorandum, which you only read part of it, I know, but I didn't see anything in there that would give any reason why—he said maybe, and we are still waiting for decisions.

Mr. Moss. Yes—we are, too.

Mr. WIRTH. But I got no decision from that memorandum—it says, "Hold up until we get time to think something over."

Mr. Moss. No, that is not what it said. It said hold it up until some legal determinations are made, so that action which is prejudicial to the Government's rights would not be taken.

It seems to me that there has been the need for some determination by the Government as to what it felt its rights to be in this whole area.

Mr. WIRTH. That is true, sir.

Mr. Moss. I think it was less than prudent to proceed with development without making some of those determinations, so that at least the Government would have a firmer foot on which to stand in asserting the rights it needed for water in order to develop the area it proposed using.

Mr. WIRTH. Well, Mr. Chairman, may I say this: You are reading one memorandum from one solicitor who made this investigation. And I would prefer for you—you say it was not prudent on our part—to look at the full record to find out what the background was on which I made my decision, because my action, my opinion, was prudent and in full consideration of the Government.

Mr. Moss. Mr. Wirth, I have spent almost 4 years in a most exhaustive study of this, because I did not want to move into hearings in a fashion that could be prejudicial to any person now living or dead who had anything to do with this unless the most exhaustive investigation indicated, with complete documentation, areas which should be of interest to the Congress and the Government. So I assure you that I have looked into it with great care.

Now, there is another memorandum, February 8, 1957, to the regional director, region 4, from the Chief, Water Resources Section. It is item D–38.

The subject is discussion of mutual interests of Borax Company and the Park Service in waters in Furnace Creek, Wash., Death Valley, with Mr. Horace Albright. And I will read it:

D–38

During his attendance at the meeting of the National Parks Concessions at the close of January, Mr. Albright called on me to determine what this service was now doing in Furnace Creek, Wash., and how I could enlighten him as to the relative rights of the borax company and the United States. He stated that he is assuming an advisory capacity to clarify the company rights now that he has retired.

I point out to you that this is not the only instance in the many, many documents where Mr. Albright is cast in the role of adviser to the company, and of having a very active concern over the company's interests.

I pointed out that the company rights were undefined and based on various initial uses since 1880, many not being supported by compliance with the State water laws in effect at the time they were initiated. It stated that I assumed that one of the reasons for requesting the utility line easements which the United States granted in exchange for land at Dante's View and the airport was as-

sumed to be to obtain necessary access by which the company water rights could be perfected, but that it was mutually agreed by the attorneys that there would be no consideration of rights in exchange of land and easements.

We also discussed the Federal rights to Texas Spring, including deliveries from the company tunnel; and to Furnace Creek, based on appropriations of 1940 with a designated point of diversion which would definitely have to be relocated when the system was constructed. I also pointed out the Federal grant of easements included reservation of the Federal right to make parallel or joint diversions at the water sources because the company had requested access to all known sources whether fully developed, or developed at all in some cases.

I then explained that in my share of the appraisal of the company assets, for possible Federal acquisition under "lendlease" at the beginning of the war, I was convinced that the total available water in Furnace Creek drainage was in excess of the reasonable use by the company, the probable normal increase in demand for expanding guest accommodations, and the Federal claim to 1.5 second-feet under the recorded water rights which the State permits which had been granted without company protest.

Mr. WIRTH. I think that is a perfectly normal thing for Albright to ask him, and that is a good answer.

Mr. MOSS. That isn't the point here. The point is there was a very clear documentation of concern over water rights. There was certainly enough to alert to the possibility that changes in location could have an impact upon water rights.

Mr. MCCLORY. Do we know that? It says, "No consideration of water rights."

Mr. MOSS. This exchange involved easements.

Mr. MCCLORY. Without consideration of water rights. That means to me that it is without prejudice or without interfering with rights or lack of rights.

Mr. MOSS. It would only go to a particular exchange that this had reference to.

Mr. MCCLORY. I think, Mr. Chairman, if we are going to suggest that any public official has knowledge of existing Federal rights which he is surrendering, whether it is surreptitiously or actively, we better have something more than this sort of innuendo thrown about here in this subcommittee meeting, and we better have something more than a letter written by somebody with an ax to grind some year or year-and-a-half after a decision is made.

Mr. MOSS. This letter is written by A. van V. Dunn, Chief, Water Resources Section, and not by anyone with an ax to grind.

Mr. MCCLORY. I understand that. But——

Mr. MOSS. And there is no innuendo here, stated or intended. It is merely a further evidence of what has to me been a matter of concern, that there was not, in my judgment—and that judgment I have a right to make, and I do make—a prudent course pursued in these locations to first determine as reasonably as possible, from appropriate legal counsel, the nature of water rights here involved, or the potential for prejudice which might exist.

Mr. MCCLORY. Mr. Chairman, are we suggesting now that this hearing is going forward because somebody in the Government didn't get advice of counsel with regard to decisions they were making, that this meeting out here was prejudicial to the Federal Government because they didn't have an opinion from the Attorney General?

Mr. MOSS. Mr. McClory, you have an absolute right as a member of this subcommittee to conclude anything you desire. And you have an absolute——

Mr. McCLORY. I don't think conclusions should be made until the evidence is in.

Mr. Moss. You have an absolute right, as a member of this subcommittee, when a report is drafted, to participate in the drafting of it, and to state——

Mr. McCLORY. I have a right to protect the rights of witnesses before the subcommittee, too. And I want the chairman to understand that. And I am going to see that all the facts are brought out here, and not inferences and innuendoes.

Mr. Moss. The chairman will complete the reading of this. The Chair has the floor, and he intends to exercise his rights to keep it.

Mr. McCLORY. I intend to exercise my rights as a member of this subcommittee, too.

Mr. Moss. The reporter will stop recording at this point until the subcommittee is in order.

Back on the record. I will continue reading from Mr. van Dunn's memo:

The purpose of the present water resources study by the Geological Survey was then explained as one to try to determine where there was undeveloped water at points most desirable for Federal diversion, where such diversions could be made with the least interference with the company developments. I also advised that the study might show that one or more sources of the Furnace Creek water should be much more extensively developed, and it might become desirable for the two interested parties to consider whether to share the enlarged diversion works, or to agree to exclusive use of some of the further developed sources by each party.

It was pointed out that the Geological Survey report would be available to the company, when completed. It was also explained that you had been instructed to bring the company into the picture at the design stage if the desirable diversions were to be on the utility line easements. I also advised that as a result of the study to date, the Geological Survey had recommended a test well in or near the new headquarters area which might establish an adequate Federal source completely independent of the company developments.

In connection with the status of company rights, I pointed out that since the water is not even accessible to others, the company attorneys had suggested reluctance to become involved in water rights when negotiating for the easements, and the Park Service did not intend to interfere with the rights based on beneficial use so there was probably no need to define them. Mr. Albright advised, however, that since Fred Harvey was taking over the operation, and the company was interested in disposal of the property, it would probably be desirable to define and appraise the water rights in the near future.

In connection with expansion, I expressed my own hope that any water needed at the airport would be supplied under Federal rights since the land was Federally-owned.

Mr. Albright also expressed his belief that the new headquarters area was inadequate for the potential development. I stated that I was somewhat surprised by the selection but had not been concerned with the matter except to the extent that change would affect the Federal rights to water of Cow Creek and Furnace Creek because all would have to be amended to designate new places of at least partial use.

Now, as I recall—and I am not a lawyer—from the very complex water laws of California, this matter of where you use water is a most pertinent one, one requiring most careful evaluation by the most knowledgeable lawyers obtainable in the field of water rights. And again, Mr. McClory, without inference, but with a very direct statement of my opinion at this point, there was not the prudence I would expect in making these important decisions ahead of making some determination of water rights.

Now, you are recognized for whatever statement you want to make, and it will be on the record.

Mr. McCLORY. Well, Mr. Chairman, the letter which you read does not in my opinion suggest any surrender or any waiver of any Federal rights to water, or any private rights to water, with regard to the location of improvements at Death Valley. It certainly does not suggest that any judgment by any official connected with the Department of Interior or the Park Service, with regard to the location of the headquarters residence area at one place or another, was, by any stretch of the imagination, with any knowledge or with any conscious thought of jeopardizing, sacrificing or imparing any right or interest of the Federal Government, whatever it had with regard to any water rights. And from the purely legal standpoint, the document is without any probative value insofar as this witness is concerned, or with regard to the whole hearing, insofar as water rights are concerned.

It recognizes that there are complicated legal water rights which we all have recognized, and furthermore, it doesn't suggest that anybody is going to adversely affect the Federal Government's water rights.

From the standpoint of questioning, or imputing a lack of prudence to, a witness who is appearing before the subcommittee today, the suggestion that this memorandum would indicate that he is supposed to go out and get counsel before he confers with other people in the Park Service as to where a visitor center or a headquarters residence area is supposed to be is unjustified; or any of the other things that have been pointed to as implying that a Park Service official, including the Director of the Park Service, was doing anything except a full and complete and honest service to the Federal Government and to the trust that the people have reposed in them.

Mr. WIRTH. Mr. Chairman, may I say a word?

Mr. Moss. Mr. Wirth, certainly you may.

Mr. WIRTH. I would like to point out first the decision was made in March 1957, and Mr. Dunn's memorandum is February 1957, and refers to the old one up on the shelf above Furnace Creek—Mr. Albright said he was surprised at the location of the headquarters, and Mr. Dunn said he told him he thought that ought to be checked in before it went ahead. And that is the old headquarters—I mean the one originally approved that I changed.

And that was done a month before I even went out to the field.

Second, the visitors' center is built, the headquarters is built, and there is ample water for these areas now in use—I mean the buildings are in use, and in good shape.

Mr. Moss. Let me point out again, Mr. Wirth, that on either side, it is my judgment that appropriate care was not exercised in determining a possible status of water rights. And I will go back to this very memorandum (D–38) which arrived in February of 1957—the last paragraph.

This is with reference to Mr. Albright's expressed conviction that this site was inappropriate—

D–38

I stated that I was somewhat surprised by the selection but had not been concerned with the matter except to the extent that the change would affect the Federal rights to waters of Cow Creek and Furnace Creek because all would have to be amended to designate new places of at least partial use.

Mr. WIRTH. He was referring to the site that you were asking why I changed.

Mr. Moss. Changing——

Mr. WIRTH. From up above Furnace Creek. He is referring to that in that memorandum.

Mr. Moss. You changed campgrounds location, I believe.

Mr. WIRTH. But the campground is below Furnace Creek—I mean below Texas Spring.

Mr. Moss. All of these matters had items affecting the use of waters at locations.

Mr. WIRTH. It wasn't changing. Texas Spring is still there.

Mr. Moss. From that you, I believe, get 35 gallons per minute.

Mr. WIRTH. That is right.

Mr. Moss. Which is the water you are now using?

Mr. WIRTH. And we are not moving the Texas Spring campground or extending the campground to headquarters until the water rights is determined.

Mr. Moss. And the question of adequacy of that water, I think we could stipulate, is a matter that is one of judgment and is debatable.

Mr. WIRTH. Water where, sir?

Mr. Moss. The 35-gallons-per-minute flow.

Mr. WIRTH. I don't think we are going to argue that point. We want more water. But that is water we have been using, and we do want more water, we hope to get more water. But that has to be done there through litigation, I believe, or on the basis of the 1958 act, if we get an opportunity to utilize that act.

Mr. MCCLORY. Mr. Chairman, may I ask this?

Mr. Moss. Certainly.

Mr. MCCLORY. We have—the subcommittee has an opinion from counsel, and my recollection is that there is nothing in that opinion or any place else as to the statement of the facts and the background which suggests, remotely or directly, that any act done or not done by the Federal Government, or officials acting on behalf of the Federal Government, either enhanced or impaired the relative water rights. And if there is any suggestion, then, of course, your comment as to how this action may have affected legal water rights of the Federal Government would be pertinent.

If it doesn't, if that opinion has not been expressed by counsel, I don't see there is any basis whatever. As a matter of fact, I don't see how there would be any basis unless counsel had advised these public officials in advance of their making the decisions which were made.

Mr. Moss. Well, I would point out that that opinion to which you refer is one that this subcommittee secured from outside counsel, and we did secure it in a reasonable period of time.

But to this day, this subcommittee has not received from the Department of the Interior, Office of the Solicitor, an opinion by the Government of what its water rights might be. And in its operations the Department of the Interior still has no legal opinion available to it. A very long period of time has been consumed in the study of this, without having yet developed an opinion.

Mr. WIRTH. The opinion you are referring to from an outside source is the one that is in the record?

Mr. Moss. That is right. That was the opinion prepared under contract for the subcommittee. Because the subcommittee felt that it had to have some form of expert legal advice on this matter if it was to make any kind of an evaluation. It would be much more helpful, of course, if we had the benefit of the opinion of the Government.

I think it would have been far more prudent, as I stated before, if the Government had acted long ago and had formulated some opinion, and taken some action in this determination of water rights, and the effects on those water rights of moves proposed by the Government.

Mr. McClory. Mr. Chairman, may I inquire further, then? The chairman's suggestion of prudence, as I understand it now, from your last statement, relates to the Department and, of course, indicates that neither the Attorney General nor the Solicitor of the Department has given any opinion as to water rights. You are not suggesting that the Park Service should have been waiting all this time for the opinion before making a decision as to where they were going to put some headquarters residence buildings.

Mr. Moss. Mr. McClory, I own some agricultural property in California. I regard myself as a prudent man. And involving water rights, I would not invest anything without a determination by the best obtainable counsel as to what my water rights were.

Now, I might be depending on his opinion, his informed opinion, and be faced ultimately with a decision by a court which would be adverse to me. But I feel that prudently you should not proceed without at least having that type of opinion. And I say that the Government from the beginning until today still has not the kind of opinion, the kind of legal advice on the matter of water rights, I feel that it should have had.

And I think if you read my statements, as they appear in this record today, there is a consistency in my position as to what constitutes the lack of prudence.

Mr. McClory. Well, Mr. Chairman, as I follow that, the decision as to whether or not the headquarters residence area was located on Furnace Creek up above the hotel without first getting a legal opinion would have been imprudent. So that certainly changing the location is not any less prudent than a decision as to the first location.

I don't see that prudence enters into it.

Mr. Moss. When related to water rights, we have a consideration in an entirely different context. I don't feel there was the care given that should have been given.

Now, on the question of the advisability of having a headquarters in one place or another, I am mindful of the fact, Mr. Wirth, that the Government has provided you as Director of the National Park Service with a staff upon which you placed great dependence, and in whom you had confidence. And in the process of developing governmental programs, the orderly procedure starts with careful study. This is evaluated on up to the top. The final decision, of necessity, had to be yours.

The change, however, that took place in the plans, was one made on the ground. The determinations as to the type of change were not subjected to the same careful study, the procedural study, that went into the proposal which was at that point changed in March 1957.

Now, we have Mr. Horace Albright——

Mr. McCLORY. Mr. Chairman, I would not want to agree with that.

Mr. MOSS. Mr. McClory, I ask no member to agree with me.

Mr. WIRTH. Mr. Chairman, may I say this at this point. The same people that made the first recommendation that I relied on were there with me in the field when we made the change, and we all agreed on the change. The same basic facts of the study, the why of this and that, the basic material was with us. And even at the time that they had made the first recommendation of the superintendent, up unil that time the plans were almost similar to the ones we finally approved—namely, the headquarters was at Cow Creek; namely, the visitors center type of thing was supposed to be down along the main road, the Texas campground was on our master plan, the original was a change. And I did agree to it, on the basis of submission.

And as outlined in the previous hearing—when Mr. Vint went out and saw it, and he is one of my principal advisers, and one of the best park planners in the country, bar none, and suggested I go out and take a look at it.

And I took pains of having not only the superintendent, but the regional director and the head of our design and construction in the field present at the time I did it. And I did not go out with any preconceived idea of changing it. But in going over all the facts, and with the assurance that there would be no difference, it would make no difference in the water rights——

Mr. MOORHEAD. Excuse me, sir. From whom was that assurance?

Mr. WIRTH. From Mr. van Dunn and the Geological Survey, and it is also covered in this memo of February 7, and also the attorney—I was glad to see that attorney's statement in the record, because it substantiates what our water rights man had told us, Mr. van Dunn, in our discussions.

And so the change in location had really, as far as I could figure out, administratively, no effect on the Government's rights to water.

And Mr. van Dunn says so in that letter, and the attorney that the subcommittee employed said the same thing.

So the question then comes—what is the best layout for public use and for management and administration? And rather than go into a whole new area, and because of distribution of public use, management, and so forth, we did, and I think rightfully, have nerve enough and guts enough to go ahead and make the change before it was too late, and get the best layout. And it is from the park's standpoint and management's standpoint the best layout. And I will stake my integrity and everything else on the fact that we did this legitimately and rightfully, and after careful consideration of all the facts that went into the first plan, as well as the last plan that we agreed upon.

Mr. MOSS. Mr. Wirth, the plans before you on March 19, 1957, were plans which had been most carefully developed.

Mr. WIRTH. That is right.

Mr. MOSS. And at all levels of the Park Service, from the superintendent through the region to the headquarters.

Mr. WIRTH. That is right. And they were there when I made my change.

Mr. MOSS. And at an earlier point there was a question as to whether they were the best, and a reevaluation, and a reaffirmation of the decision.

Mr. WIRTH. That is right.

Mr. Moss. From the beginning, when he first became acquainted with those plans, the only expression of disagreement with them was the disargreement of Mr. Horace Albright, a man highly respected in the Park Service, serving on the Secretary's Advisory Board.

Mr. WIRTH. May I just say—only one of record that has come in here.

Mr. Moss. Let me finish, and then you can comment.

Now, Mr. Albright, in extensive documentation, now in the record of this subcommittee, plainly wore two hats. He was adviser to both the Government and to the private interests in Death Valley. That is not my characterization—that is his own in a number of instances in documentation now in the record of this hearing.

Until his disagreement was expressed, there is no indication that persons in the Park Service felt that an error had been made in the plan which was then at a stage of approval.

Now, you started to say that he is the only one on record.

Can you give me other examples of disagreement, let's say following the second decision reaffirming the original approval of those plans?

Mr. WIRTH. A lot of it—I think you have got to understand how these decisions are reached.

There are several people in different phases of Government, management, maintenance, and so forth. They sit around and discuss these things. Some agree, some don't agree. But usually the man that signs it is signing it on the basis of his opinion plus the advice of those with him—some don't always agree with him. I don't know of a single plan that ever goes through the whole mill without some disagreement.

So that is why I said of record.

And I have no other record.

Because that is a customary procedure.

But I do say this, Mr. Chairman. The record does show, and your record that you dug out, your staff dug out for you, does show that Mr. Albright did give us a frank expression of his opinion, it does show that I turned him down, it does show that I met with him, and it does show that I turned him down after that, and it wasn't until Mr. Vint came back after all of that, without any contact with Mr. Albright, came and said, "I think you ought to take a look at it, it doesn't look right."

So when I went out to a meeting I did stop by and take a look at it, without further discussion with Mr. Albright, and made my own decision—with the technical people, the head of our design and construction in the West, on the advice of our design and construction here in the East, with the regional director present, and with the superintendent present.

Mr. Moss. Well, of course, the subcommittee is not able to call Mr. Vint before it because of his present physical condition.

Mr. WIRTH. I certainly hope you will not try.

Mr. Moss. And, therefore, we are not able to get his independent judgment or recollection for this record.

Mr. WIRTH. I think you have a file memorandum on that.

Mr. Moss. We had a staff interview with Mr. Vint. The subcommittee prefers whenever possible to have the person appear himself.

Mr. McCLORY. Mr. Chairman, may I be recognized?

Mr. Moss. Certainly.

Mr. McCLORY. I think this additional observation should be made, Mr. Chairman, and that is that this subcommittee has not unearthed anything insofar as Mr. Albright's dual role was concerned. This is something which was on the table all the time, and something well known, not only in the Park Service, but by everybody who dealt with him. He documented his interest.

We are not the ones who discovered something.

He has told us what his role was, and he told the Park Service, not only verbally, but in writing. And there is nothing that is mysterious about his appearance here. The fact that he was formerly head of the Park Service, of course, and his personal reputation, which as far as I know remains unblemished, was something which gained respect by those with whom he came in contact.

But insofar as his interest in the hotel company is concerned, of course, that interest had to be weighed by the Park Service in connection with the statements that were received, and other things that relate to his reputation.

But I don't think there can be any suggestion made by this subcommittee or anyone on the subcommittee that the dual role of Mr. Albright, or his dual interest, was something that we have discovered, that wasn't known, or that his influence was other than appears clearly from the documentation of the entire record here—which, insofar as I can see doesn't affect in any way the judgment, the reputation, the integrity, or any other personal aspect of anybody in the Park Service, or anybody who had contact with it.

I do think, from the chairman's statement as to the documentation that went on prior to the time of the final decision, that there might be a temptation on the part of the subcommittee—to second-guess what the Park Service did, and to rely on the preliminary material, and tend to overrule what the Director of the Park Service did, and what his decision was.

But I think that would not be a very fitting role for a committee of the Congress—to try to say that their decision was wrong, and that their judgment was wrong, even though we might individually feel that we would have made another judgment if we had had the opportunity.

Mr. Moss. No. But there arises inherently, in the role of any man who has two interests to serve, the question of conflict of interest. And I think you will find that the laws of this country are drawn on the moral principle that you cannot serve two masters—a very old law. As a matter of fact, let me give you a quotation here, quoting Matthew, chapter 6, 24th verse:

> No man can serve two masters. Either he will hate the one and love the other, or he will be devoted to the one and despise the other. You cannot serve God and mammon.

Now, the Supreme Court in the so-called *Dixon-Yates* case, 364 U.S. 520, 1961, has declared this maxim especially pertinent if one of the masters happens to be economic self-interest. I am not charging that Mr. Albright did anything. But I say there was inherent in the role of serving two interests a conflict of interest, and that when a man cast in that role advises both parties, he assumes a very onerous

burden, and certainly lays open to proper question the motivation for his advice to one or both of the parties. And there is no challenge to the fact that he was cast in the role of dual adviser.

Mr. WIRTH. Mr. Chairman, may I say this: I don't know of a person, hardly a person, no matter what his position or commission might be, or whether he serves Congress or the Government in any official position, who hasn't got other interests. I think most people, and I would say 99.9 percent of the people are good people, and they try to reason things out to do the best they can. They don't try to out-do other people. They try to do a good, fair job.

You quoted from the Bible there, but that had reference to God and mammon to which I certainly will agree. And there are no two ways about it.

You cannot serve God and mammon—you have got to serve one. And I think man lives his life accordingly. And I think a large majority of people believe in their God and are good people. And I think they are also honest people.

Mr. MOSS. Now, Mr. Wirth——

Mr. WIRTH. I wouldn't bring this up, but you brought up the Bible in there.

Mr. MOSS. The very fact of your extremely high regard for this man, and the uniformly high regard for him throughout the Park Service, placed him in even a more difficult position in undertaking to advise both parties.

If he was a person whose advice might be open to question because of a lack of that regard or respect, he would not have been in nearly the position of influence in advising you or his client.

Mr. MCCLORY. Mr. Chairman——

Mr. MOSS. And I might point out, I have not been the initiator of any conflict-of-interest law. They were on the books long before I ever came to Congress.

Mr. MCCLORY. Mr. Chairman, we have had this type of discussion before in the course of the hearing. Of course, as I brought out earlier, the real estate broker, the lawyer, not frequently, but occasionally, represents both interests. He does it with full knowledge of both sides—there is nothing that is illegal or immoral about the representation.

And the Scriptural recitation we had, of course, refers to trying to serve good and evil at the same time and, of course, you cannot do both.

But you can serve two good interests at the same time.

Now, I think it would be inherent in our suggestion implying that the opinion that the adviser gave was against one of the interests that he was serving in favor of a private or a selfish interest which he was undertaking to serve, insofar as this hearing is concerned, that that advice was followed by public officials, and that somehow or other there was some improper conduct involved in that action.

We have on practically every advisory committee of the Government people whose interests are such that they are knowledgeable of the subject. We have manufacturers who are advising with regard to matters of public health and products relating to public use. We have them because they know the product, they know what effect it has. We know in the Congress we have farmers whose interest with regard to their farms may affect their judgment with regard to farm legislation.

But, if we did not have the benefit of these people who were knowledgeable on the subjects, we would be doing a disservice, because we would not be taking advantage of the advice and talent that we can get, with regard to a product or development. If we decline that advice, then, of course, we would shut off a very important area of advice which I think the Government should have, and the public is entitled to have if it can get it.

And I think the only basis for criticizing that advice or censuring the advice that was given would be to show that there was some breach of trust.

I don't want to prejudge this hearing either, but I want to see some definite, concrete, precise, convincing evidence before I will entertain any suggestions of misconduct or breach of trust, or infidelity to duty.

That is all, Mr. Chairman.

Mr. Moss. Well, we had the advice, carefully documented, of Mr. Albright—his comments on the plans, expressing his areas of disagreement. And the Director carefully considered this, under date of December 28, 1956, document No. D–35, in a letter to Mr. Horace Albright, and reaffirmed his conviction.

An adviser at that point normally stops, or he tends to become an advocate rather than an adviser. In this case the adviser did not stop. He became the advocate. He continued to push for the revisions that he wanted. And he finally won out. This letter is already in the record. (See p. 187.)

Mr. McCLORY. Mr. Chairman, may I inquire—did the Federal Government suffer any detriment as a result of the——

Mr. Moss. Mr. McClory, you know as I do that that is a matter of personal opinion. You traveled with representatives of the Park Service throughout the park, as I did. Some had no disagreement to express. I recall at least one who felt that the headquarters site up on the alluvial fan was far preferable—far preferable.

Certainly, getting down to water rights, water underneath that fan was riparian to the land. So it becomes very clear, in determining whether the final action was in the best interests of the Government or whether the original proposal was better, that they must apply their personal judgment.

Mr. WIRTH. But your legal counsel said it has no effect.

Mr. Moss. No; my legal counsel didn't say that.

Mr. WIRTH. The one that you had in the record.

Mr. Moss. No. Now, here is a further memorandum, March 6, 1957. This is about 2 weeks before the visit to Death Valley.

Mr. WIRTH. Eighteenth, nineteenth, and twentieth.

Mr. Moss. Again we have a discussion of the matters affecting Death Valley National Monument—wherein Mr. Albright expresses his continuing concern over the new residential site.

Mr. WIRTH. That is right.

Mr. Moss. He continued to press his point.

Mr. WIRTH. Well, he expressed his concern. But I think that that is in the record. If not, it should be.

Because I don't think that letter is that kind of a letter—he expresses his concern, but he doesn't press the point any further in that letter.

If it is the letter I think I am familiar with, it doesn't.

Mr. Moss. Well, again, we are in an area of opinion.

Mr. Romney, you may continue.

Mr. ROMNEY. Mr. Wirth, I want to explore some aspects of activities within the Park Service and elsewhere leading to the enactment of the act of July 2, 1958, which authorized certain exchanges of lands and easements and adjustment of water rights.

When you visited Death Valley in March of 1957, did you discuss the matter of land acquisitions by the National Park Service with Mr. Stern or with anybody else representing the hotel company?

Mr. WIRTH. I can't recollect.

Mr. ROMNEY. Well——

Mr. WIRTH. I could have. We have, as you know, a defiinite policy within the approved boundary line of the park that eventually all land would be acquired. I know that is a policy of long standing, long before I became Director.

Mr. ROMNEY. Well, in May, on May 17, 1957, you wrote a letter (D–66) to Mr. James Gerstley, of the United States Borax & Chemical Corp., and I will read the first paragraph. I think it will answer the question.

D–66

As Horace Albright has undoubtedly informed you, this Service has under active consideration its Mission 66 plans for the development of Death Valley National Monument. After careful study, including my personal inspection on the ground, we have reached the point where the acquisition of additional land from your corporation will be needed if our developments are to proceed. I have discussed this with Mr. David Stern of your corporation and this letter is, therefore, confirmatory of matters we went over at the monument a short time ago.

Mr. WIRTH. Then apparently I did talk to him.

Mr. ROMNEY. This was one of many documents which relate to events leading to the enactment of the 1958 act. I would like to skip over some of these intervening letters for the time being to get to the matter of the Department's report to the committees of Congress commenting on the proposed legislation.

The Department's report to the then chairman of the House Interior and Insular Affairs Committee discusses the exchange plans, among the other provisions of the bill, and makes this statement with respect to these lands.

The report (D–93), April 18, 1958, reads as follows, in part:

D–93

A land exchange, and an equitable division of water supplies in the area, as contemplated under the terms of this bill, will assist materially in accomplishing these purposes.

That is, the purposes of carrying out Mission 66 development program in the area.

Pursuant to this proposal, the Federal Government will receive from the Death Valley Hotel Co., Ltd., approximately 440 acres of land in the monument area that is urgently needed for campground, housing, utility, parking, and other monument uses. In exchange for such conveyance to the United States, the Secretary of the Interior would be authorized to convey not more than 200 acres of monument land to the company and to enter into an agreement with the company concerning the respective right of the company and the United States to the use of waters in the monument area.

I see on the wall over there, Mr. Wirth, a map.

Mr. WIRTH. You are correct.

Mr. ROMNEY. I wonder if I might ask you to point out the areas of land involved.

Mr. WIRTH. The areas of land involved at the time of that report—and you correct me if this is wrong—were these three which the borax company had, and they wanted this land in exchange.

Now, they own this land in here which is known as the Date Orchard Ranch. This land was donated to us previously and so was this. But these lands were the ones involved in exchange for these lands here. During the process of the bill, this 90 acres was pulled out of the bill because it was donated, and these pieces were left in the bill.

Mr. ROMNEY. In the statute as enacted, there is reference to parcels F, G, and H.

Mr. WIRTH. F, G, and H.

Mr. ROMNEY. They are the parcels you have just pointed out.

Mr. WIRTH. Yes, sir.

Mr. ROMNEY. Would you give us your explanation of why parcels F, G, and H were, as it states in the Department's report, "urgently needed" for campground, housing, utility, parking, and other monument uses?

Mr. WIRTH. That is right.

Our plans at that time, and still do, provide for the extension of campground further into this area, including the building of two or three houses for our employees. And, at that time, that was the location, final location for the visitor center and administration building. Both have since been built. And over here is a historic structure or ruins of the old Harmony Furnace, built in the early days of the 20 mule team, to make borax. And we own land here, all this is federally owned land around here, with the exception of this. And this cleans up and blocks out our property, the Government's property.

There would be trails. We want to irrigate it and bring plant trees similar to over here in the ranch property, and get a good campground. We can do it down there, we feel quite certain.

Mr. ROMNEY. Now, the parcel that is blocked out at the lower end of parcel F was donated by the company to——

Mr. WIRTH. To the Government.

Mr. ROMNEY. To the Government—by a deed dated March 24, I believe, 1958.

The Department's report is dated April 18, 1958, so that if the report of the Department purported to include as part of the desirable features of the lands to be received by the Government the headquarters, the visitors center, and the campgrounds, then that would not be an accurate statement in the report. Am I correct?

Mr. WIRTH. Well, there were days in there, as I recall, that were touch and go. And the one saving thing on the bill says land of equal value. It provides in the bill that the Secretary should have land of equal value. So in submitting our proposition to the committee, the report was based—and it takes quite a little while for a report to be drawn up and clear the Bureau of the Budget and get up to Congress—I am not saying this in criticism.

But it does take some time.

And I cannot tell you when this was consummated—most likely during the period or negotiated during the period of the bill going through Congress.

But in any case, we did report the entire thing, and the legislation, to Congress, and it is clear what we intended to do.

Mr. ROMNEY. And I think I should make the point here for you, Mr. Wirth, that the orginal proposed draft of report which you signed on March 18, 1958, did precede the date of the actual conveyance—although, as you know, it was about to be consummated.

Now, I wonder if you would tell us why there appears in the report to Congress the adverb "urgently." I think it probably should be clarified.

What is the urgency expressed to Congress for these parcels F, G, and H?

Mr. WIRTH. Well, we fully looked to the act of 1958 to settle a lot of problems for us. It provides for trying to get together and settle the water problems, it provides for further study of it, and calling for the whole development here.

We were working on a project of Mission 66. And we were in hopes that we would get a lot of these things we are now still discussing and being held up decided, so we could go ahead with our program, and do the things we have outlined to you here.

Mr. ROMNEY. The Department's report is very specific: "It is urgently needed for campgrounds, housing, utility, parking, and other monument uses."

Isn't it true that the 90-acre tract which was donated by the company to the Government is the present site of the campground and the limited housing that is there, and the utilities—for instance, the sewage lagoon, and the parking area?

Mr. WIRTH. Well, Mr. Counselor, I cannot define what is meant. It was urgent to us at the time to get this legislation through as soon as possible so we could go ahead with our work. And it was urgent.

Mr. ROMNEY. I want to emphasize——

Mr. WIRTH. The 90 acres was not enough to do what we wanted to do.

Mr. ROMNEY. I am not talking about the urgency of getting the bill enacted. I am talking about the urgent need for these tracts for the purposes which I just named.

Mr. WIRTH. Well, let me just emphasize again—this bill not only includes land exchange, but includes trying to settle the water rights.

If we could have gone ahead, we would have had a lot more work done now than at the present time. We cannot build a house down there or extend our campgrounds until we get more water.

Mr. ROMNEY. But the statement of urgent needs for particular purposes was made to advise Congress of the reasons why it should enact this proposed bill; is that correct?

Mr. WIRTH. Yes, and it is still urgent. The urgency has not changed. You go down there, and when you see the people camping all over the place at certain times, when there is no camp and sanitary facilities and say it is not urgent—I am—well, I just have to admit I am wrong if it is not urgent.

Mr. ROMNEY. Mr. Wirth, on June 26, 1957, you wrote a letter to Mr. Horace Albright. In this you do discuss the transferring of certain lands to the National Park Service by the company.

You make reference to the parcels—and I believe I should read this letter in its entirety.

It is to Mr. Horace M. Albright, room 800, Associated Press Building, 50 Rockefeller Plaza, New York, N.Y.

Let me interrupt. This is from D–71.

D–71

DEAR HORACE: I have been checking on the points that you have made with further reference to the possibility of the United States Borax & Chemical Co. transferring certain lands to us at Death Valley National Monument.

For your information, there are enclosed two plans showing our preliminary location studies for the visitor center and the new campground in the monument. They are, of course, subject to refinement as our studies progress. There is also enclosed a print showing the various parcels of land discussed in my letter of May 17 to Mr. Gerstley, a copy of which I believe you have. We are particularly interested in obtaining parcel F. This is the area on which we propose to locate our administration building, a few employee residences, and a campground about as shown on drawing NM–DV–3127.

As a first stage in the campground development, we propose to irrigate and plant the area that will ultimately be used for campground purposes. Some adjustments may be necessary depending upon the available supply of water. A water study is, as you know, underway now. We will need most of parcel F for the campground development. We will follow up with additional camp facilities as may be necessary to accommodate visitors. In the meantime, vegetation will have been established and grown sufficiently to provide adequate shade. We are anxious, therefore, to have an irrigation and planting program undertaken as soon as possible to insure a satisfactory campground in the Death Valley climate. In these circumstances, it appears that we should secure all of parcel F as a minimum at this time.

Parcel K is the one tentatively planned as the site for the museum to be financed by the State of California. Our administration building would be built on parcel F land adjoining the north line of parcel K. The relationship of these two structures is shown in large scale on drawing NM-DV–1326, visitor center.

Parcels G and H will be extremely valuable in our interpretive program. However, their acquisition could be deferred because the first stages of development can be confined to parcel F.

Mr. ROMNEY (continuing). I will not read the rest of it.

I believe the point that you have made here is that parcels G and H are subject to or susceptible of being deferred so far as your purposes are concerned.

Is that not correct?

Mr. WIRTH. We were talking about acquisition there, as you recall, in the letter—this is the 1957 letter—am I correct on that?

Mr. ROMNEY. This is June 26, 1957.

Mr. WIRTH. Yes.

Then, later, we got into the question of exchange, and their expansion, and the process of negotiation and talking. And when the bill came out, we had authority to exchange those lands.

Mr. ROMNEY. But so far as you were concerned in June of 1957, the acquisition of G and H was not urgent; is that correct?

Mr. WIRTH. The G and H was—if the letter says it was urgent, if you are trying to tie that on to the report—it is hard for me to follow what point you are trying to make here.

We wanted the land. Now, you often establish priorities. Even an appropriations committee gives you an opportunity to establish priori-

ties. That doesn't mean you don't want it. But perhaps the word "urgent" in the Department's report, which referred to the letter, and to the overall picture, which came several months after that, changed our attitude.

Mr. ROMNEY. Mr. Wirth, we have here a letter——

Mr. Moss. We are going to have to—the members are going to have to go over for a quorum call. I think we had better adjourn at this point and reconvene at 1:30 p.m.

The subcommittee will adjourn now until 1:30 p.m. this afternoon.

(Whereupon, at 12:15 p.m., the subcommittee recessed, to reconvene at 1:30 p.m., the same day.)

AFTERNOON SESSION

Mr. Moss. The subcommittee will be in order.

FURTHER TESTIMONY OF CONRAD L. WIRTH, FORMER DIRECTOR, NATIONAL PARK SERVICE

Mr. ROMNEY. Mr. Wirth, just before the lunch recess, I was about to ask you some questions concerning a letter to the chairman of this subcommittee from A. C. Stratton, Associate Director of the National Park Service, dated April 20, 1964.

(The letter from Mr. Stratton follows:)

DEPARTMENT OF THE INTERIOR,
NATIONAL PARK SERVICE,
Washington, D.C. April 20, 1964.

Hon. JOHN E. MOSS,
Chairman, Special Subcommittee on Death Valley National Monument, House of Representatives, Washington, D.C.

DEAR MR. MOSS: During Mr. Lanigan's visit to this office on April 7 he requested information on two questions pertaining to the Furnace Creek area of Death Valley National Monument. Following are the questions and replies to them:

1. Question. What is the cost estimate for relocating State Route 190?

Answer. The estimated cost of the road prepared in 1959 was $462,500. An alternate alinement for a portion of this road was estimated to cost an additional $100,000. No further estimates have been made.

2. Question. What would the National Park Service plan to do with the lands in parcels F, G, and H and when would the Service use this land?

Answer. Acquisition of these parcels will provide a continuous area in Federal ownership from the main road west to the airport in the important Furnace Creek area, thus contributing to the fulfillment of the following long-range visitor use and administrative programs:

(*a*) Protection of a wildlife habitat.
(*b*) Construction of nature trails and interpretive devices.
(*c*) Provide space for future developments such as campground expansions.
(*d*) Insure long-range protection of the area against adverse uses.
(*e*) Eliminate an inholding and consolidate our land holdings in this area.

Actual use of the lands in terms of items (*b*) and (*c*) above cannot be estimated at this time because the timing of development and its consequent cost will depend upon availability of the land, appropriations of funds by the Congress, and visitor and administrative needs. Benefits derived in terms of items (*a*), (*d*), and (*e*) would, of course, be effective immediately upon acquisition of the land.

We trust that this information answers Mr. Lanigan's inquiries.

Sincerely yours,

A. CLARK STRATTON,
Associate Director.

Mr. ROMNEY. In view of the fact that this letter from the Park Service says that so far as providing space for future developments, such as campground expansions and construction of nature trails and interpretive devices, cannot be estimated at this time, would you again like to comment on the question that I raised earlier—that in your report, in the Department's report, to the House Interior and Insular Affairs Committee, on the proposed legislation that would effect the exchange of lands in 1958—it was stated that the lands in parcels F, G, and H were urgently needed for campground development, residences, and the other purposes which are discussed in the report?

Mr. MCCLORY. Mr. Chairman, I would like to voice an objection to this type of interrogation. Here is a self-serving statement that has been put together since the last hearing and it just seems to me that if we are ever going to come to a conclusion in this hearing, we have to stop at the period under investigation.

Here is the opinion of somebody who is now in the Department. I do not know whether they were there then or not, and it is an opinion expressed today with regard to events that occurred a long time ago. It is since the last hearing. It seems to me that we cannot be developing a case as we go along with new statements, new witnesses, and new evidence that we go out and find. I would not know how to pursue any cross-examination on this without possibly calling in Mr. Stratton, whom I do not know.

I just want to object to the type of interrogation with respect to this hearing. This goes far beyond any scope of the hearing, as I understood it.

Mr. MOSS. Mr. Wirth, are you familiar with A. Clark Stratton?

Mr. WIRTH. Yes, sir. I know him very well. He has been in the Service since 1933 and he is now Associate Director of it, was Assistant Director before he became Associate Director.

Mr. MOSS. Is he a knowledgeable person?

Mr. WIRTH. A very fine person, very knowledgeable.

Mr. MOSS. Mr. McClory, your objection is noted.

Mr. MCCLORY. Mr. Chairman, I did not suggest he is not an honorable person or anything like that. I am just talking about the length of our hearings and the scope of our hearings.

Mr. MOSS. The Chair was directed to undertake hearings to develop all facts relating to the development of Death Valley National Monument and the actions in connection with the Mission 66 development program. He feels that the material is pertinent, is very cognizant of the gentleman's objection, but nevertheless directs that the staff continue with the interrogation.

Mr. WIRTH. My answer to your question was "No." I stand on the record. Six years have passed, different ideas have come in by this time. Furthermore, if this development had not been held up and had gone ahead according to the Mission 66 program—remember, this is being held up at the request of Congress, which is entirely within their prerogative.

We are abiding by your wish and, consequently, the money that had been set up for Death Valley has been moved to other places by act of Congress, and we are sitting still.

There is no difference between his statement and my statement as far as the need of the land is concerned.

Mr. ROMNEY. Mr. Wirth, you spoke, as you were standing in front of the large map and overlay against the wall, about the Harmony Borax Works, which I believe is located within the perimeter of parcel G.

Mr. WIRTH. That black spot is the Harmony Works.

Mr. ROMNEY. What is the desirability of the Harmony Borax Works from the Government standpoint?

Mr. WIRTH. This is of historic value, to show an exhibit and explain how these furnaces were run so people coming there can better understand the mining interests of that area and know how they processed the minerals. If we had the Harmony furnace, the actual site, we could better tell the history of mining in the West and its importance to the development of the West.

Mr. ROMNEY. This, I take it, would be at least one of the considerations for the Government in obtaining parcel G, is that correct?

Mr. WIRTH. It happened to be in parcel G, yes; the works is in there.

Mr. ROMNEY. Do you recall that at the request of the officials of the Borax Co., the officials of the National Park Service agreed to delete the 5 acres on which the Harmony Borax Works are located from the parcel?

Mr. WIRTH. Yes. I known they wanted to be sure it is protected and so forth. I think they wanted to find out whether we are going to do it first. It is not in operation, you know, has not been in operation for quite a while.

Mr. ROMNEY. The letter in which this request is made is a letter dated March 19, 1958, from Mr. J. Stern, vice president and general manager, to you as Director. It is document D–88 in our files. In this he makes the request that this parcel be deleted and gives the reason that perhaps the transfer could be accomplished in a subsequent transaction to which publicity could be attached.

Then by a telegram from Mr. Tolson, Acting Director, dated March 28, 1958—this is item D–92—Mr. Stern was advised that it was satisfactory to handle the Harmony Borax Works' 5-acre tract separately from other lands to be exchanged under the proposed legislation.

Was the fact that this had been agreed to between the company and the Department made known to any of the interested committees of Congress when they were considering the proposed exchange legislation?

Mr. WIRTH. I think in reading the record, nothing was said about the Harmony Furnace, though I am not certain. But the lands, the committee wanted to know just what lands they were talking about, which we indicated to them. Then also, they asked us what the appraised value was and we went to the problem of getting them appraised. The 5-acre tract—I do not recall whether that was mentioned in the hearings or not, I do not remember whether it was brought up—it was apparently brought up before that.

What was the date it was passed?

Mr. ROMNEY. The date of the act is July 2, 1958.

Mr. WIRTH. It was apparently brought in before that got into being.

Mr. ROMNEY. In a letter to the regional director dated March 19, 1958, item D–88, Mr. Stern indicates that he is sending a map which would show the various parcels of land to be transferred to the Service.

He asks that this map be recorded as a legal reference so that, through the legislation, there would be a basis for determining precisely what lands were contemplated by the designated parcels.

On this map, which I would like to show you, could you read the indicia on the upper left-hand corner identifying the map?

Mr. WIRTH. This is a legal description.

Mr. ROMNEY. What is the NM–DV number on it?

Mr. WIRTH. 2123.

Mr. ROMNEY. Does it speak about a revision?

Mr. WIRTH. As revised March 14, 1958, yes.

Mr. ROMNEY. Now, in the act of July 2, 1958, this specific map is referred to. I would like to ask you if you would look on the map to see if there is any indication that the Harmony Borax Works is eliminated from parcel G.

Mr. WIRTH. No. it does not even show the borax property there—I mean the furnace there.

Mr. ROMNEY. So that although part of the consideration for the receiving of the parcel was the Harmony Borax Works, the actual intention of the Park Service was not to include that at the time as part of the exchange legislation; is that correct?

Mr. WIRTH. They wanted to do it a little later.

Mr. ROMNEY. Is there any reason why this was not brought to the attention of the subcommittee?

Mr. WIRTH. No, I did not think 5 acres was of sufficient importance, perhaps, to even worry them about.

Mr. ROMNEY. Did not these 5 acres have some special significance?

Mr. WIRTH. Oh, yes; but they were protecting that, had for years. They were after the same thing we are, to hold it, protect it, and tell the story. Their letter, as I think you read it, indicated that they would transfer at a late date and we said that would be all right.

We didn't say we were not ever going to get it.

Mr. ROMNEY. This is something which would have been accomplished by agreement in the future, presumably?

Mr. WIRTH. That is right. Most likely we got the agreement at the time we got the rest of the land that would be in the transfer. They did not say they weren't going to, they said they would like to do it at a later date in a different document and we we said OK.

Mr. ROMNEY. Mr. Wirth, during the time that the proposed legislation was being formulated, there was considerable activity on the part of Mr. Horace L. Albright in this matter; was there not?

Mr. WIRTH. Mr. Horace Albright, yes; he helped us considerably.

Mr. ROMNEY. Did the National Park Service ever provide Mr. Albright with any special services, drafting services while——

Mr. WIRTH. We worked up, as I recall it and I am speaking from memory, now—I didn't expect to get into this detail—but we had a draft of a proposed piece of legislation and we used Mr. Albright as a go-between between the potash company and ourselves. This bill had a considerable amount of sending drafts back and forth in which the language was clarified.

Mr. ROMNEY. And at Mr. Albright's requests, were drafting services provided for him?

Mr. WIRTH. We talked about an exchange of land and they agreed they would like to see it in draft form so that they could see what we

were asking for and we could see what they would want. We would have drafted the bill anyway. I do not know what you mean, Mr. Albright asked for drafting services.

Mr. ROMNEY. I referred this morning to a letter from you to Mr. Gerstley dated May 17, 1954. Was this prepared as a result of Mr. Albright's request? That is D–66.

Mr. WIRTH. This letter says in the beginning:

D–66

As Mr. Albright has undoubtedly informed you, this Service has under active consideration its Mission 66 plans for the development of Death Valley National Monument.

So the letter itself states that.

Mr. ROMNEY. By a letter dated May 14, 1957, addressed to Horace M. Albright, item D–68, you state:

D–68

DEAR HORACE: Complying with your request during Hillory's telephone call to you on May 10, there is enclosed a copy of a draft of a proposed letter to President Gerstley of the United States Borax & Chemical Co. concerning matters of interest to that corporation and to us at Death Valley National Monument.

I shall appreciate it, Horace, if you review this draft, as you kindly offered to do, and return it to me with any suggestions you desire to make with respect to it.

There follows a handwritten note from Mr. Albright to you, which reads as follows:

Dear Connie: I do not see how you could write a better letter than the attached draft. If you send it, let me have a blind copy if you can spare it. The airport in Death Valley may come up in the National Parks Association discussions.

Regards,

H.M.A.

Mr. Albright did review this draft at that time.

Mr. WIRTH. That is right.

Mr. ROMNEY. Then, did not Mr. Albright also request the Park Service to prepare a draft of legislation after it was determined that the proposed exchange should be accomplished with specific congressional authorization?

Mr. WIRTH. I imagine you have a record there that he did.

Mr. ROMNEY. That is correct. On July 25, 1957, you wrote to Mr. Albright—this is item D–73:

D–73

DEAR HORACE: As requested in your letter of July 9, we are enclosing a draft of legislation on the Death Valley exchange and water matter.

This draft represents a preliminary attempt which has not been cleared by the Legislative Counsel for the Department.

So that here we have two instances where drafting services were provided to Mr. Albright. Do you recall providing similar services to other people in similar circumstances, Mr. Wirth?

Mr. WIRTH. I do not consider this providing drafting services to Mr. Albright in the context which you are asking. The fact is, we were negotiating for a land exchange and what they wanted to do is to see it in the kind of legislation we were going to propose, which we would have to draft ourselves for the committees of Congress, and the fact is we did draft this and put it in shape so that we will know what they are talking about and they can understand what we are talking about.

Mr. ROMNEY. The initial draft of legislation provided, did it not, merely for a conveyance by the United States of easements rather than

actual lands to the company in exchange for the company's conveyance of some of its lands to the Government?

Is that correct?

Mr. WIRTH. I do not know.

Mr. ROMNEY. On August 5, 1957, Mr. Albright writes to you, and the item is D–74. He says:

D–74

DEAR CONNIE: I do not think I have acknowledged your letter of July 25 with which you sent me a draft of legislation relating to the exchange of lands, water rights, and so forth in Death Valley. I have only had an opportunity to glance at this draft of bill. However, it does not seem to be broad enough; it should contemplate a possible exchange of lands as well as merely an exchange of company lands for easements. The company feels that it may need some lands in the neighborhood of the inn and while it is willing to work out under exchange legislation a grant to the Government of many more acres than it might receive in exchange, we would like to have the legislation broad enough to enable the company to receive some acreage, perhaps as much as 160 or 200 acres along with whatever smaller acreage may be involved in easements.

So far as I can see the second section of the bill is all right. We have sent the papers to our attorneys in Los Angeles for comment.

Faithfully yours,

HORACE.

Now, the act as enacted does provide for the exchange of lands in addition to these——

Mr. WIRTH. That is right.

Mr. ROMNEY. Mr. Wirth, the lands proposed for exchange to be conveyed to the company from the United States are those indicated on the map, are they not?

Mr. WIRTH. That is right; blocked out this way. There is their ranch and this is where they have their cottages and where they have their golf course and the date orchard and so forth.

We were expanding in this direction and they were expanding in this direction [indicating].

Mr. ROMNEY. Can you tell us what the company's proposed plans were for the use of those lands?

Mr. WIRTH. These lands here? [Indicating.]

Mr. ROMNEY. Yes, sir.

Mr. WIRTH. It is my understanding it was for the extension of the ranch land type of housing for visitors. They may have a building there for employees, I do not know. But they are all dealing with the operation of the inn and the ranch.

Mr. ROMNEY. Is it not true that some parts of those parcels are located on the alluvial fan of the Furnace Creek?

Mr. WIRTH. Yes. I would say that there is an Indian village over here now on the alluvial fan. In fact, the fan extends from a place about in here and around here [indicating].

In fact, that is on alluvial fan, too.

Mr. ROMNEY. The ground in that area is generally more solid than the ground farther on into the valley; is that not correct?

Mr. WIRTH. Well, what do you mean by solid?

Mr. ROMNEY. Is it more capable of holding structures?

Mr. WIRTH. Well, there is more gravel, I imagine.

Mr. ROMNEY. So that as you indicated, it could have been possible for the company to make use of those parcels by building structures?

Mr. WIRTH. That is right. That is what they wanted it for. That is what we would expect them to do with it.

Mr. ROMNEY. I would like to turn now, Mr. Wirth, to the 1952 exchange act.

I believe you are generally familiar with the background of this statute, are you not, sir?

Mr. WIRTH. It is getting pretty far back in years, but I will try to remember it.

Mr. Moss. Is there anything you would like to refresh your memory?

Mr. WIRTH. No; except if we get into the question of who said what at the time of the hearing, I think I would have to do a lot of research. But I do know the principle and the purpose of the act.

Mr. MCCLORY. Is this the Senate bill on the exchange of land?

Mr. ROMNEY. No, sir; this is the 1952 act—I believe it is item 14(a) in the members' folder. The act itself is items 14(b).

Mr. MCCLORY. The act of 1952?

Mr. ROMNEY. Yes, sir. It is the act of March 24, 1952. I wonder, Mr. Wirth, if you could very briefly give us the background of this matter as it developed?

Mr. WIRTH. Well, as you know, I had only been Director for a few months—I became Director in December of 1951. This map is marked "February 11, 1933, to June 1, 1960." In other words, it includes all the things that took place in that period. So it includes the gift here [indicating] and in this particular case is shown in purple? These lines also shown in purple were abandoned. These easements were given and are shown in red, and they are water-carrying trenches and pipes that bring water down to the inn and the ranch, and in exchange we got the Zabriskie Point property. And the airport came in, and I guess that is all. This and this in exchange for the easement of their line. Many of the lines were already on Government property, but they did not have legal easement. This gave easement, legalized the easement of those rights-of-way for carrying water down to the ranch across Government lands.

Am I correct in that? Basically that is what took place.

Mr. ROMNEY. Was an appraisal made of these interests to be exchanged?

Mr. WIRTH. I would have to check back on that.

Mr. Sanders indicates the record will show that.

Mr. ROMNEY. Mr. Wirth, when you were testifying before the Subcommittee on Public Lands, of the House Committee on Interior and Insular Affairs, on the proposed bill, H.R. 4515, in testimony which occurred on Thursday, October 18, 1951 (D–188), you gave the subcommittee an estimate of the values of the interests to be exchanged.

To a question, "What is the comparative value of the new tract"—meaning the tract for the airport extension—"to the 20 acres"—which were the acres proposed to embrace the easements, permanent easements which the bill visualized—you gave the following answer:

D–188

We estimate the land that the Government will get, the 230 acres, is valued at $2,875 and the rights-of-way, the 20 acres of arid land given to the private company for rights-of-way, at around $25. It is $25 as against $2,800 in our favor as far as valuation is concerned, and the advantages are even greater than the difference in value.

Mr. ASPINALL. Have the advantages to the private company been estimated as far as the value is concerned?

Mr. WIRTH. In my opening remarks I said the pipeline was in there and was part of their operation. I will admit it is of tremendous value to them to have control over their utility property. The point is this, that with the developments and improvements there it would be unfair and improper, I think, for the Government even to try to cut them off. Even though they do not have that right-of-way at the present time, we would have to live with them, anyway, and we are legalizing their right-of-way and taking in exchange additional lands, which I think is very fair.

Mr. Wirth, I realize this is going back, as you say, in time. But I would like to read from a report from the then superintendent of Death Valley National Monument, which deals with the appraisal. This is a memorandum to you from Mr. Goodwin, the superintendent, dated August 10, 1951. It is item D–186. Its subject is "Comparative Values of Airport Site Land Exhange, Death Valley National Monument."

D–186

With reference to an appraisal of the private lands of the Pacific Coast Borax Co., offered in exchange for certain acreage covering this firm's utility rights-of-way, this office has never received a map or even legal description of the lands proposed to be conveyed to the Government, and without such information it is manifestly impossible to make any appraisal of value.

In general, I would state that lands bordering on Furnace Creek Ranch developed area on the west and north are substantially of the same nature for a width of about one-fourth mile as are the lands now under cultivation in dates and alfalfa, and are at elevations that could be irrigated. Such raw lands, if water were available, would be valued at $75 to $100 per acre. However, as no water is available except from the Pacific Coast Borax Co., their agricultural value is nullified. The remainder of the land near the proposed airport is of no commercial value and could not be considered as having a nominal value of more than $1.25 per acre.

It is my understanding that there is also proposed relinquishment of some acreage around Zabriskie Point. This land also would be valued only as desert-lands without water and are further restricted by being within the boundaries of a national monument. The highest valuation that could be considered would be $1.25 per acre.

On the other side of the exchange, the lands desired by the Pacific Coast Borax Co. are occupied or adjacent to utility rights-of-way, long occupied before the establishment of the national monument.

These lands have no higher value to anyone except the Pacific Coast Borax Co. than their land proposed for relinquishment. * * *

Mr. ROMNEY (continuing). These lands, then, are appraised by the superintendent at $1.25 an acre. Could you explain how the increased valuation was arrived at which is reflected by the fact that, in your testimony before the House Interior Committee, the lands to be conveyed to the Government are to be appraised at $2,850 and the easements to be conveyed to the company are appraised at $20?

Mr. WIRTH. Well, in the first place, we did not need the superintendent to tell us that the airport land is not agricultural land. We knew that. The land is worth so much to the company for their purpose and their purpose only and the land is worth so much to the Government for park purposes and park purposes only.

To answer your question directly, which I should have done, I do not know how that was arrived at. I know our real estate people went over it and they apparently differed from the superintendent's opinion. Nevertheless, the real estate people's approach is the value accepted and is the official approved value and the report was made to the subcommittee.

My report to the subcommittee which you read to me, I thought, was very good.

Mr. ROMNEY. Is there any reason why the superintendent was not provided with a description of the land and the map?

Mr. WIRTH. What is the date of his letter again?

Mr. ROMNEY. August 10, 1951.

Mr. WIRTH. And the bill was in 1952. Chances are he had one before the bill was passed, because we had to give a map to the committee of Congress in order to submit a description of the property that we were after. Maybe not necessarily a map, but we told them the acreage and so forth and the location.

A lot of that land, you know, was not properly surveyed. In fact, some of the surveys, as it came out in this subcommittee's hearings in California, were way off. In a hearing in Sacramento, BLM reported that the old surveys were not too well done.

Mr. ROMNEY. Mr. Goodwin, of course, speaks about the peculiar value of these easements to the company.

Mr. WIRTH. That is right.

Mr. ROMNEY. Yet he gives them a figure of $1.25 an acre.

Mr. WIRTH. Yes.

Mr. ROMNEY. Which you accepted for the purpose of your testimony, apparently.

Was any consideration given in the National Park Service to a special value which these lands might have had to the company insofar as giving them a dollar valuation?

Mr. WIRTH. You are talking about the 1952 act now?

Mr. ROMNEY. Yes, sir.

Mr. WIRTH. I think my testimony to the House committee, which is a matter of record there, states that they had been using these lands for a long time, long before we came in there. They had no right-of-way and it would have been unfair on our part to try to cut them off. The only thing we could do was to legalize their right-of-way We think that was only proper and fair. We need housing for the visiting public and they were furnishing it.

What I said before the subcommittee was just the way I felt then and the way I feel today.

Mr. ROMNEY. But the appraisal by Mr. Goodwin, was that the only appraisal that was made?

Mr. WIRTH. I would just as well have done it without an appraisal, because as a matter of fact, they were using it and that is the only way they could get water down to their place. We needed the accommodations and we got some 250 acres of land at Zabriskie Point on top of it without giving them anything of real value to us.

Mr. ROMNEY. But you were aware that the subcommittee would be very apt to ask questions about evaluation, were you not?

Mr. WIRTH. Well, we got the evaluation to the best of our ability through our land people and that is the figure I used. I did not make the evaluation myself, I can assure you.

Mr. ROMNEY. Was any consideration given to the effect of granting these easements upon water rights which the company was claiming in the Furnace Creek area?

Mr. WIRTH. In 1952?

Mr. ROMNEY. Yes, sir.

Mr. WIRTH. I do not think so. Certainly we were not tied down to any water rights in the act of 1952 or in the act of 1958.

Mr. ROMNEY. Well, is it not possible in your opinion that the water rights of the company could be affected by the granting of these easements?

Mr. WIRTH. I do not think we could on that, do you, Don?

(Discussion off the record.)

Mr. WIRTH. Between Mr. Sanders and Mr. Lee, the answer is that the deed definitely states it has no effect on water rights.

Mr. ROMNEY. I would like to return to that point in a moment, Mr. Wirth, but first, I would like to call your attention to a letter from Acting Director Demaray, dated February 23, 1951, to the regional director, region 4, item D–179.

Mr. WIRTH. What is the date of that letter?

Mr. ROMNEY. February 23, 1951. That is D–179. Subject, "Proposed Relocation of Airport at Death Valley National Monument and Inclusion of Construction of 1952 Airport Program."

This letter has a number of paragraphs in it. I would like to move directly to the last paragraph:

D–179

It is hoped that Mr. Drury's memorandum of February 12 will close the issue of potential permanent easements between independent properties of the borax company. However, if the matter is given further consideration, we should determine just what easements are desired and should discourage any attempt to obtain special legislation to authorize such easements until their potential effect on the water right situation is fully known.

Can you tell us what occurred which apparently changed this policy which cautioned against proceeding into legislation without some knowledge of the potential effect of granting these easements on the water rights?

Mr. WIRTH. Well, all I can do is make an assumption because Mr. Demaray became Director, I think, in April 1951 and I became Director on December 9, 1951. What was going through his mind I do not know, except that I noticed in the opening paragraph, it says:

D–179

By memorandum of February 12 Mr. Drury advised that the Secretary did not seem to have authority by which to grant title or permanent easement to the utilities between Furnace Creek Inn and Furnace Creek Ranch, and advised that no better title could be granted than that now covered by the special use permit of March 1, 1938—

Of which a copy was attached.

I handled no negotiations between them other than to become Director toward the tail end of any such negotiations as far as I can recall. But the fact remains that they did get legislation, lay the matter before the Congress to give them permanent easements for their water pipe and to exchange it for a certain amount of land.

Mr. ROMNEY. You have stated that attempts were made in the actual deeds of easement to save for the United States any rights that it might have in connection with its preeasement interests in the land. Mr. Moss has referred to a legal opinion which we received from a water rights attorney in California, an opinion which is now part of the record of this subcommittee's hearing. In this opinion, Mr. McDonough, the attorney, refers to the language in these grants

of easements which were made pursuant to the authority of the 1952 act. I will quote:

> Nothing herein shall be deemed to grant or deny either the grantee or the United States the right to establish, initiate, or perfect water rights in conformity with the appropriative water laws of the State of California in effect when each appropriation is, or has been, initiated.

Mr. McDonough then, in response to questioning by Mr. Indritz, subcommittee chief counsel, states at page 114:)

> I took the view that since the company has now acquired easements for its pipelines in 1955, pursuant to the act of 1952, the United States has no ability now to prevent the company from putting the water across Federal lands and therefore any defect that the right of the hotel company had before no longer existed.
>
> Mr. INDRITZ. Well, would that view be incompatible with the declaration in the easements that the easement wasn't intended to either grant or deny any right or to affect the water rights that may have been in existence?
>
> Mr. MCDONOUGH. I did not think that the saving language involved here prevented the document from clearing up the title of the hotel company so far as getting access to the water supply is concerned.
>
> Mr. INDRITZ. Would it, therefore, be your opinion that the inclusion of saving language in the easements, which was intended to prevent any effect upon the water rights, was a nullity?
>
> Mr. MCDONOUGH. I would not think it was a nullity, but I would think it was not appropriate to the particular situation of access to the water supply.
>
> Mr. INDRITZ. I am not speaking of the access, I am speaking of the effect on the water rights.
>
> Mr. MCDONOUGH. Well, the deficiency which existed in the water rights theretofore was the liability to be excluded from the Federal land and the liability to be excluded from access to the water supply, and I take it that the granting of easements remedied that defect. I don't want to say that it may not be argued either way. I only give you my view on it.

Here we have the considered opinion of an expert that indeed, notwithstanding the saving language placed in the easements, the effect of the 1952 act was to convey something more to the company in the way of its right to the use of the waters involved than it had had before.

So I ask you again, is it not a matter to be considered—the effect on the U.S. potential water rights claims in the area, when permanent easements are to be granted?

Mr. WIRTH. Well, let me just answer that question this way. I was perhaps a little out of line this morning, but I was being criticized because I was not consulting lawyers. I apologize for losing my temper a little bit. But let me just say this: There is not a deed ever accepted or a piece of legislation ever to go before Congress that is not cleared through the Solicitor's Office of the Department of the Interior.

I am not a lawyer, I can report on the bill only after they have analyzed it and made their report and I assume from the legal standpoint, they have protected the Government. I can do nothing else. We have no attorneys in our Park Service. We rely on the Solicitor's Office. There are several people on the staff of this subcommittee who used to be with the Department. I do not think they were there at the time we are speaking of. However, they know that what I have just said is the case. Further, all deeds go to the Solicitor and also go to the Attorney General's office for approval before they are accepted by the Secretary on behalf of the Government.

But legislation and a deed of this kind is cleared in through the Solicitor's Office before it is recorded. And we have no right to sign it until it is cleared.

So I cannot answer those legal questions, sir. All I can say is that we were certainly doing our best to reach a solution and thought we had the right solution and had it all cleared by legal authority. I know that one lawyer will have one opinion and another will have another, especially in these water rights cases, because they are complicated. I know some Park Service people have a different idea on how to develop or manage parks. And that is good. I do not object to that. But someday somebody is going to have to make a decision.

Mr. ROMNEY. Mr. Wirth, I want to mention briefly Mr. Albright. I want to preface my remarks by saying that Mr. Albright's name is being brought into the matter at this point with full awareness that Mr. Albright, in 1951, was not a member of the Advisory Board, since he only came on in 1952, and that Mr. Albright's interest in this proposed legislation was, so far as the record indicates to me, perfectly legitimate and without objection.

But I was wondering if you would answer this question: Did not Mr. Albright take a very active interest in the proposal leading up to this 1952 Exchange Act?

Mr. WIRTH. I do not know how to answer that, because I do not know. I may have been in on parts of the discussion but as to the degree of active interest of Mr. Albright, I don't know. Of course, he was representing Pacific Coast Borax Co. when we were negotiating with his company.

I think that was the case at that time, wasn't it? Wasn't he general manager of the Pacific Coast Borax Co. at that time? So he naturally would have an interest in it.

Mr. ROMNEY. In a letter from Mr. Hill to you dated May 17, 1951——

Mr. WIRTH. That was before I was Director.

Mr. ROMNEY. Yes. I am sorry. To the Director, Mr. Hill states, in the second paragraph, and this is document D–181:

D–181

Our representatives were told by the officials of the Pacific Coast Borax Co. that the company no longer is contemplating *donating* their land to the United States for the site. The reason, it was said, is that Mr. Albright discussed the matter with our Washington office at which time an understanding was reached that legislation would be introduced in this session permitting an exchange of lands under which the Pacific Coast Borax Co. would get title to land for their several utility lines. The legislation is, we believe, to be by the addition of a rider to some bill now near the passing stage. We assume that this is the presently proposed plan of handling the situation. Please inform us if our assumption is correct.

There are other letters, which I do not believe I will burden the record with now, showing that Mr. Albright was in constant touch with National Park Service people and in fact made personal visits, both to Washington and to the region.

Mr. WIRTH. No doubt that is absolutely correct.

Mr. ROMNEY. I neglected, in my reference to Mr. Demaray's memorandum of February 23, 1951, to call attention to the fact that a copy of this memorandum was marked for you. Mr. Wirth.

Mr. WIRTH. Good. I will have to look at it.

Mr. LANIGAN. Could I ask just one question?

Mr. MOSS. Yes.

Mr. LANIGAN. In your testimony on the 1952 act, you say that the value of the property to be transferred to the Government was $2,550, as I recall.

Mr. WIRTH. $2,850.

Mr. LANIGAN. $2,850. The field statement to you valued it at $1.25 an acre, roughly. Now, we have not found anywhere any appraisal other than that supplied to you by the field. You have indicated your land people gave you some other valuation. I am just asking if you can supply, or have the Park Service supply, for the record any other appraisals made in connection with the 1952 act which show a valuation of the $2,850 an acre? It is just that an appraisal, I assume, is made by a person who sees the land or is familiar with it and then puts a valuation on it. We have not found it. Now, there may be something.

Mr. WIRTH. I do not say there is, but I think you made a mistake there. It was not $2,850 an acre.

Mr. LANIGAN. $2,850 for the total tract.

Mr. WIRTH. That is right; just to correct the record.

We will certainly look and see whether we got any further information on it. My statement was a general one that I got my information from our people as to just what the valuation is, without going back and finding out what the Superintendent said.

Mr. LANIGAN. Of course you said it had been appraised at that price. Somebody has to appraise it. If you have an appraisal, if we could have it——

Mr. WIRTH. I would like to correct the record. It would not imply that we got a commercial appraisal, but we arrived at an appraised value just like the Superintendent said he appraised it.

Mr. LANIGAN. Will you furnish us anything you have?

Mr. WIRTH. If we have anything, of course. I did not mean to imply that we had a commercial appraisement, because I do not know.

(Subsequently, the following letter and memorandums were received from A. Clark Stratton, acting director, Department of the Interior:)

DEPARTMENT OF THE INTERIOR,
NATIONAL PARK SERVICE,
Washington, D.C.

Hon. JOHN E. MOSS,
Chairman, Special Subcommittee on Death Valley National Monument, House of Representatives, Washington, D.C.

DEAR MR. MOSS: During the course of the hearings held on April 21, reference was made to the estimates of the value of the properties and interests to be exchanged under the act of March 24, 1952 (66 Stat. 27). It was indicated that the record would be supplemented to reflect these estimates. (See p. 219, vol. 2 of the hearings.)

To comply with the above, copies of the following memorandums relating to the estimates of value are enclosed:

1. Memorandum dated August 2, 1951, from the Associate Director, National Park Service, to the regional director, region 4.

2. Memorandum dated August 7, 1951, from the assistant regional director to the Superintendent, Death Valley National Monument.

3. Memorandum dated August 10, 1951, from the Superintendent to the Director.

4. Memorandum dated August 30, 1951, from the Chief of Lands, National Park Service, to the chief counsel, with enclosure of statement on comparative values.

We trust this information will clarify the matter.

Sincerely yours,

A. C. STRATTON,
Acting Director.

Enclosures 4.

DEPARTMENT OF THE INTERIOR,
NATIONAL PARK SERVICE,
Washington, August 2, 1951.

MEMORANDUM

To: Regional Director, Region 4.
From: Associate Director.
Subject: Comparative values of lands in Death Valley National Monument.

The Department's reports on S. 1730 and H.R. 4515, to authorize the acquisition, by exchange, of lands in Death Valley National Monument, have been drafted and it is anticipated that hearings may be held on these bills reasonably soon.

While we have most of the information as to the lands and rights-of-way involved, we have nothing on their comparative values. It is almost certain in a bill of this nature that inquiry will be made as to comparative values to determine whether or not the United States is receiving a fair exchange.

In order that we may be in a position to answer such questions at any hearings, we should appreciate your having Superintendent Goodwin airmail to us his personal appraisal of the several tracts on privately owned lands involved, together with his thought as to the values of the proposed rights-of-way to be granted in exchange by the United States. Since the value of the privately owned lands is obviously greater than the permanent easements for rights-of-way, it is not felt that an outside disinterested appraisal is necessary. We would appreciate, however, receiving the requested information in sufficient detail to provide convincing answers to any anticipated questions.

CONRAD L. WIRTH, *Associate Director.*

DEPARTMENT OF THE INTERIOR,
NATIONAL PARK SERVICE,
Region 4, August 7, 1951.

MEMORANDUM

To: Superintendent, Death Valley National Monument.
From: Assistant Regional Director.
Subject: Comparative values of those lands involved in proposed exchange of lands involved in airport site, Death Valley National Monument.

Attached is copy of Washington office memo of August 2 requesting that you airmail to Washington immediately your "personal appraisal of the several tracts of privately owned lands involved" in the airport site exchange and now in the ownership of the Pacific Coast Borax Co., together with your "thought as to the values of the proposed rights-of-way to be granted in exchange by the United States."

Mr. Wirth says "since the value of the privately owned lands is obviously greater than the permanent easements for rights-of-way, it is not felt that an outside disinterested appraisal is necessary," and continues "we would appreciate, however, receiving the requested information in sufficient detail to provide convincing answers to any anticipated questions."

Please comply with Mr. Wirth's request, airmailing these data direct to Washington with copy to this office. In this connection mention should be made that some weeks ago a representative of the State highway department called at this office at the suggestion of the Pacific Coast Borax Co., regarding the latter's requested utilities right-of-way. It seems that some of these utility lines closely follow the State highway alinement. The State is concerned as to what the

United States is contemplating giving to the Pacific Coast Borax Co. along what the State has looked upon as their right-of-way. Incidentally, we do not appear to have anything in our files here that specifically indicates a State road "right-of-way," or the width intended for such "right-of-way." The State official who visited us promised he would officially write this office outlining the problems involved; however, no letter has been received here to date. Nevertheless, it seems that this aspect should be given consideration.

SANFORD HILL,
Assistant Regional Director.

DEPARTMENT OF THE INTERIOR,
NATIONAL PARK SERVICE,
DEATH VALLEY NATIONAL MONUMENT,
Trona, Calif., August 10, 1951.

MEMORANDUM

To: The Director.
From: Superintendent, Death Valley National Monument.
Subject: Comparative value of airport site land exchange, Death Valley National Monument.

Reference is made to Assistant Director Hill's memorandum (L–1413 DEAT), and Associate Director Wirth's of August 2 of the same number.

With reference to an appraisal of the private lands of the Pacific Coast Borax Co. offered in exchange for certain acreage covering this firms utility rights-of-way, this office has never received a map or even legal description of the lands proposed to be conveyed to the Government, and without such information it is manifestly impossible to make any appraisal of value.

In general, I would state that lands bordering on Furnace Creek Ranch developed area on the west and north are substantially of the same nature for a width of about one-fourth mile as are the lands now under cultivation in dates and alfalfa, and are at elevations that could be irrigated. Such raw lands, if water were available, would be valued at $75 to $100 per acre. However, as no water is available except from the Pacific Coast Borax Co., their agricultural value is nullified. The remainder of the land near the proposed airport is of no commercial value and could not be considered as having a nominal value of more than $1.25 per acre.

It is my understanding that there is also proposed relinquishment of some acreage around Zabriskie Point. This land also would be valued only as desert lands without water and are further restricted by being within the boundaries of a national monument. The highest valuation that could be considered would be $1.25 per acre.

On the other side of the exchange, the lands desired by the Pacific Coast Borax Co. are occupied or adjacent to utility rights-of-way, long occupied before the establishement of the national monument. Those lands have no higher value to anyone except the Pacific Coast Borax Co. then their land proposed for relinquishment. As to the question of right-of-way of the California Division of Highways, Route 190 from Furnace Creek Inn southwesterly, the entire route from Stovepipe Wells Hotel to Death Valley junction was acquired by surrender from Inyo County of the old county right-of-way and, as far as I can learn, gave no rights beyond the travelway itself. The irrigation ditch from Travertine Springs to Furnace Creek Inn closely parallels the roadway and crosses under it twice. Part of this distance, if not most of it, is not on land contemplated in this exchange as I understand it, but, of course, cannot verify this without a map of the lands in question.

It would seem to me that the division of highways has a battle on to widen this right-of-way on lands already owned by the borax company regardless of any extra lands we transfer to them southwest of their present property line.

T. R. GOODWIN, *Superintendent*

DEPARTMENT OF THE INTERIOR,
NATIONAL PARK SERVICE,
Washington, D.C., August 30, 1951.

MEMORANDUM

To: Chief Counsel.
From: Chief of Lands.
Subject: Estimated values of lands and rights-of-way in connection with H.R. 4515 which provides for the acquisition by exchange of certain lands in Death Valley National Monument.

In connection with possible hearings on the subject bill, Mr. Sullivan asks that we attempt to determine the values of the lands and rights-of-way involved in the bill. Subsequent to this, we wrote to the region 4 office requested that the Superintendent furnish this office with his estimate of the values. With the information furnished by Superintendent Goodwin and that available to us in the real estate branch, Mr. Cecil Smith has prepared the attached valuation data on the lands and rights-of-way. These are rough and approximate but show a relative value which should be satisfactory to answer questions in case there are hearings.

Mr. Albright, while he was in Washington sometime ago, advised Senator Knowland and the Senate Committee on Interior and Insular Affairs that I was in a position to explain the features of the bill in case a hearing was called.

C. A. RICHEY, *Chief of Lands.*

DEATH VALLEY NATIONAL MONUMENT, CALIFORNIA–NEVADA

Data which the House subcommittee may require in their study of the "comparative values of airport site land exchange, Death Valley National Monument," Calif.

The National Park Service proposes to exchange rights-of-way permanent easements in favor of the Borax Consolidated, Ltd. (Pacific Coast Borax Co.) for the Borax Consolidated, Ltd., lands in the vicinity of the airport and at Zabriskie Point.

Lands offered to the National Park Service by Borax Consolidated, Ltd., in exchange for permanent easements

160 acres arid land at airport site at $1.25 per acre	$200
30 acres land at airport site suitable for agricultural development[1] at $87.50 per acre	2,625
40 acres arid land at Zabriskie Point at $1.25 per acre	50
Total value (230 acres)	2,875

[1] These lands are suitable for agricultural development and are similar to nearby lands under cultivation in dates and alfalfa, and could be irrigated from Borax Consolidated, Ltd., own water supply. At present these 30 acres are undeveloped.

Rights-of-way permanent easements to be granted Borax Consolidated, Ltd., by National Park Service, in exchange for 230 acres of land

20 acres arid land, at $1.25 per acre	$25

The National Park Service proposes to retain surface rights in the 20 acres. Furthermore, the Park Service may have jurisdiction over only 15 acres, more or less, depending upon the disputed limits of State Highway No. 190. One source of information reveals the State acquired from Inyo County, by surrender, the travelway itself and no rights beyond the same. However, another source recites the State as possessing a 100-foot right-of-way which is not authoritatively established as yet, and it is within these possible limits that approximately 5 acres of easements may fall.

Mr. Moss. Mr. McClory?

Mr. McCLORY. Mr. Wirth, you have been the subject of a great many accolades and testimonials and tributes here in recent weeks and months, including, I believe, one here in Washington just on the 16th of April; isn't that right?

Mr. WIRTH. Yes, sir.

Mr. McCLORY. That has to do with your years of service and your record in the National Park Service and as Director of the National Park Service?

Mr. WIRTH. That is correct.

Mr. McCLORY. Would you just recall to me briefly when you entered the Federal service?

Mr. WIRTH. I entered the Federal service in 1928, with the Planning Commission here in Washington, and transferred to the National Park Service in 1931 as Assistant Director of the National Park Service. I handled the CCC program during the 1930's for the whole Interior Department and sat on the Advisory Council of Mr. Bob Fechner, and I also was sent by Harold Ickes over to—Secretary Ickes, I should say—over to Vienna in 1945 and 1946 to represent the Interior Department in Austria, and came back in 1947.

I became Associate Director in April 1951 and Director on December 9, 1951, and retired on January 8, 1964.

Mr. McCLORY. You were with the National Park Service at the time Death Valley National Monument was first established, were you not?

Mr. WIRTH. Yes, sir.

Mr. McCLORY. You did not have anything to do with that establishment, though, did you?

Mr. WIRTH. No. I did not. That was a decision made at a higher level, although as in charge of the branch of land which went to study most of the big areas to be added, most of this work had been done before my coming to the Service. Mr. Albright and many others knew more about Death Valley than I did.

Mr. McCLORY. Did you know Mr. Albright while he was with the Park Service? I think he was a former Director of the Park Service?

Mr. WIRTH. He was Director from 1928 to 1933. Mr. Albright was Director of the National Park Service and also by right of being Director of the Park Service, a Commissioner on the Planning Commission for the city of Washington.

It was Mr. Albright and Mr. Cammerer who followed Mr. Albright—he was then Associate Director—both of them asked me to come over and be the Assistant Director on Land Planning of new park areas for the National Park Service. So I transferred from the Planning Commission to the National Park Service in 1931.

Mr. McCLORY. So you have known Mr. Albright ever since your first entry into service in the National Park Service?

Mr. WIRTH. If it hadn't been for him, I wouldn't have been in the Service.

Mr. McCLORY. Was he the Director at that time?

Mr. WIRTH. He was the Director at that time.

Mr. McCLORY. Did you know him before you came into the Federal service?

Mr. WIRTH. No. I did not. The name was familiar, but I did not know him.

Mr. McCLORY. You got acquainted through the Service?

Mr. WIRTH. That is right.

Mr. McCLORY. Now, during all of your years of service, did you ever have any charges of any kind filed against you in the Department?

Mr. WIRTH. I have never had anything and I looked at my record before I left, courtesy of the Department, and I found no charges of any kind against me.

Mr. McCLORY. Have you received any censure or any criticism from any person in authority in the Park Service or in the Department of the Interior during your years of service, which would be a matter of record in the Department?

Mr. WIRTH. I do not think there is anything that is a matter of record in the Department, but I worked for Harold Ickes and he was a pretty tough but fair master. I do remember being called on the carpet a couple of times during his tour as Secretary. But the only thing that happened was he gave me more responsibilities after he got through lecturing me for not doing what he thought I should do.

Mr. McCLORY. Now, in connection with the decisions made about Death Valley National Monument and the various exchanges of land, the water rights, and the developments there about which we have had testimony, do you know of any favors or any gifts or anything of value or any beneficial inducements that flowed to you or to anyone in the National Park Service from the Death Valley Hotel Co. or anyone connected with it or the United States Borax Co.?

Mr. WIRTH. No, sir; I do not and I do not know of anybody ever making an offer or even tempting us with a gift of any kind.

Mr. McCLORY. Off the record.

(Discussion off the record.)

Mr. McCLORY. Has there been any further review or investigation of the decisions reached by you and by the National Park Service with regard to the location of the headquarters, residence area, the visitor center or any of the other improvements about which we have had testimony, in the Department or within the Park Service?

Mr. WIRTH. No, sir.

Mr. McCLORY. You have been interrogated earlier regarding a letter dated May 17, 1957 (D–66), the original of which was signed by you and which went to Mr. James M. Gerstley. I want to read the second paragraph of the letter which relates to water rights:

D–66

I sincerely feel that, as time goes by, our proposed Mission 66 plans will have a definite benefit to your corporation, with the public being the primary beneficiary. Our plans involve, as you know, the acquisition of certain lands from your corporation. At the same time, we appreciate that the acquisition should be tied in with the settlement of right-of-way and water right matters. This is, I feel sure you will agree, highly desirable so that there will be no misunderstanding between your corporation and this Service in the future. We are, therefore, anxious to complete the necessary acquisition phase of our program and at the same time resolve any allied problems that might be of concern to you.

Does that express substantially your view and your position with regard to the relative water rights, the respective water rights that were in existence at that time and which appear still to be of concern?

Mr. WIRTH. I would write that paragraph today just the way I wrote it then. I think it is high time we get that matter settled.

Mr. MCCLORY. Do you know of anything that was done during your term as Director of the National Park Service in derogation of the public's right to the water rights?

Mr. WIRTH. No, I do not.

I think what we have been trying to do is to get water and land to the best public use. The only reason we need water or want water is for the public use, whether it is Furnace Creek Inn and the ranch, which is entirely a public accommodation type of thing, or campgrounds. I made the statement, I think last time I was here, off the record. I think I made it to the staff, that the best solution to this whole problem is to acquire the land and the water rights and to have somebody buy the hotel and we will run this park just like the other parks; the matters to be handled by the Government are water and land and the concessionier through a Government contract in the park will operate the hotel and ranch like the regular concessions in the other parks and we would be through with this problem. I think there is a possibility of doing that. But we have to have an opportunity to sit down and work some things out and that is what we felt we were trying to do.

Mr. MCCLORY. Directing your attention to another letter dated June 26, 1957, which you addressed to Mr. Horace M. Albright (D–71), I believe the first page of that letter was read to you. The second page relates to the subject of water rights and I will read as small a part as I can to cover this subject:

D–71

We are having the Geological Survey make a determination of the amount of water available from Cow Creek, Furnace Creek, and Texas Spring. When this study is completed we will be in a position to resolve the relative needs and claims of the company and the Government. We expect this study report to be completed this summer.

As a step in resolving the water rights problem, I wonder if the company would mind defining its beneficial water needs, based on what the State of California recognizes as reasonable use for the various purposes. We would like this information for use with our estimated requirements. When we have these data we should be able to negotiate an equitable allocation of the available supply of water if there is need for such action.

Again, does that set forth your position then and now with regard to the respective water rights?

Mr. WIRTH. Yes, sir.

Mr. MCCLORY. Now, I gather from some questions that have been addressed to you that moving the proposed headquarters residence from above the Furnace Creek Inn to the location at Cow Creek jeopardized or impaired the Government's legal position with regard to water rights. Now, did you receive any advice or did anyone tell you at the time that you were making the decision to establish the headquarters residence area of Cow Creek that any legal rights of the Federal Government would be impaired?

Mr. WIRTH. If you are referring to the exact time of making the decision in the field, I would say no. But I know that before I went

to the field, there had been discussions on that. I realized that there had been some difference of opinion, but I think the majority of the opinion was that it would not make any difference.

Now, I understand the riparian rights and California and other rights are quite involved, and I know there are differences of opinion. But my impression was from our people that it did not make too much difference where we put it as long as it is on that overall apron.

Now, that is as close as I can get in my recollection, sir.

Mr. McCLORY. Now, at the same time, there was not any effort, was there, to assert any Federal water rights which were in derogation of any private water rights, was there?

Mr. WIRTH. No, sir. There was not.

Mr. McCLORY. So that if the establishment of the headquarters residence area above Furnace Creek and the use of water from the test well raised a legal question as to the right to use the water, you would still want that adjusted by a negotiation or by a test suit or something, and you would not want to be in a position of exercising any authority that you did not have?

Mr. WIRTH. That is correct, absolutely.

Mr. McCLORY. I mean in addition to wanting to be fair with the Government, you wanted to be fair with the citizens and the public, is that right?

Mr. WIRTH. Absolutely.

Mr. McCLORY. Is there anything that you have seen or was there any statement made to you, either in writing or orally, that the location of the visitor center below Furnace Creek Inn would interfere with the view from Furnace Creek Inn?

Mr. WIRTH. No. You mean where we did put it?

Mr. McCLORY. No. I meant at the location on the fan below the inn?

Mr. WIRTH. No. I do not recall. The main reason we did not put it on that road below the inn was more—first, there were two points on it. One, some people raised the question as to flood control and so forth coming down that alluvial wash. The other point was that they wanted it in a place where they would get a good view. Well, visitors centers are not built just to get views. They are to tell the story and most of our visitors centers, you will find out, have sort of museum presentations, and they need a lot of wall space and not a lot of windows. Furthermore, it is better to have it near headquarters where you have a certain amount of protection.

For those two reasons, I felt the location was better down where we had it rather than put it up there in that alluvial wash and you did not get too much additional view from the alluvial wash location.

Mr. McCLORY. With regard to the transfer of lands which was involved in connection with the Senate bill in 1958, did the hotel company want some land from the Government partly because of errors in these early surveys?

Mr. WIRTH. No. I think most of the land they wanted in 1958, sir, was for the purpose of expanding their ranch property development.

Mr. McCLORY. They were going to put on some house trailers and some additional——

Mr. WIRTH. That is right, to take care of the public. That is in accord with the general expansion and also nine holes of golf. They

spoke about that at one time. That was their main concern, as I understood it.

Mr. McCLORY. Wasn't the land behind the golf course and the date ranch—they are using that, aren't they?

Mr. WIRTH. Yes.

Mr. McCLORY. And that is the land where the excess water collects.

Mr. WIRTH. That is right.

Mr. McCLORY. So that it was really up to them to acquire land that they needed and which they were using without any authority at that time?

Mr. WIRTH. That is right.

Mr. McCLORY. Now, has Horace Albright served as a member of the Advisory Committee in Mission 66 since its inception, do you know?

Mr. WIRTH. Yes; I think he was a member of the Advisory Board from 1952 to 1958. It is a 6-year term and they do not repeat them.

Mr. McCLORY. He did advise with regard to the other aspects of Mission 66, did he not, aside from the Death Valley?

Mr. WIRTH. Well, the Advisory Board is really an advisory board to the Secretary of the Interior, but the Park Service is well acquainted with all the advisory board and works with them. We used Horace Albright and all the others on it. In fact, some of them much more than Horace, because they are very much interested in parks, they serve without salary and they work on it. Some of them, quite a few of them, are retired and serving on an advisory board is something they like to do when they retire. They usually have more time than you have material for them to advise you on. Things get involved.

Mr. McCLORY. Now, this hearing was initiated because or partly because of withholding of information from the committee of the Congress. You probably recall the exchanges that occurred back then.

Mr. WIRTH. I do.

Mr. McCLORY. What did you have to do with making the decision as to withholding or not withholding information from the subcommittee?

Mr. WIRTH. I had nothing to do with it. I feel this way and I say this in all sincerity, that Congress represents the people and we work for Congress and we have nothing to hide and nothing to hold back.

We want to work with Congress and anything I have, they can have—they can look over my record any time they want. They may not agree with some of the things I do, but I do the best I can. I do not mean to be critical of the Department. That is something in the high echelon. That is their business and not mine. But as far as I am concerned, I do not care, the subcommittee can have anything we have.

Mr. McCLORY. Now, we have gone into a great many written documents here and reports and exchanges of letters and interoffice communications and so on.

Could you identify for me any facts, any statements, in any of those letters or communications, which anybody in the Department or the National Park Service that you know of, was endeavoring to conceal from the public or from scrutiny at any time by any committee of the Congress or anyone else? Is there anything in there that should not be known?

Mr. WIRTH. I do not think there is. I think that the subcommittee staff will substantiate my statement that we have made everything available that they want, and they are welcome any time they want to go through anything we have. I do not know of anybody who is holding anything out on them.

Mr. MCCLORY. How about your intent? Did you intend that any information should be concealed or withheld?

Mr. WIRTH. No, sir.

Mr. MCCLORY. Now, there is one letter which I do not have before me right now but which we have placed quite a bit of emphasis on. That is the letter from you to Mr. Albright, in which you forward him the plans of the location of these buildings and mention that you have never done that before. What did you have in mind when you were addressing him in that way and——

Mr. WIRTH. Well, that is something that has always bothered me, why I should make a statement like that in the letter or any time, because I have no reason to hold out from him. My main purpose was that I did not want it broadcast around the country because we were still considering a considerable amount of details, we did not know what our water might be, and so forth. Consequently, to get plans out and everybody see the plan and this is what they are going to do and then we do not do it is hard to explain sometimes. That was the main purpose as I recollect. But I think if anybody in this room came in and said, "What is your intended plan for Death Valley?" I would have given him the plan. In fact, our Mission 66 program had been before the Appropriations Committee and Interior Committee for about 2 years at that time, where we outlined in words what we were going to do in Mission 66 and Death Valley. However, we didn't have the plans completed.

Mr. MCCLORY. Is it a policy of the National Park Service that where you are planning some new construction or you are relocating a road or doing anything to change the character of the development and the location of improvements in the development, that you withhold that from the public until a final decision is reached to avoid land speculation and so on?

Mr. WIRTH. I think the public in this case and in all cases know in general terms what we propose to do. But when you get down to a map showing specific locations and so forth is when you get into trouble. There was not any other private land involved around there except the borax company and our own, so I thought we could talk confidentially without getting too much out in the open as to details. I will admit the choice of words was a little—it is a little embarrassing now.

Mr. MCCLORY. What is your statement as to the question of the availability of water on the location of the visitor center, the headquarters residence area, other decisions that were made? Did that enter into the decision and to what extent?

Mr. WIRTH. Well, we felt when we had the 1958 act coming along that we could then sit down and make a division of water.

In fact, we have been in contact since then, since the act, in trying to find out just exactly what the potash company, or rather, the Death Valley Hotel Co. would need in the future and what we would need

in the future in order to determine which has higher priority in order to try to reach a solution. I think the question of settling this by judgment of the amount of water needed for each phase of the plan in order to better serve the entire public is the important way and the logical way to approach the problem. That is covered in one of the paragraphs and one of the letters that we had here today and that I said I subscribed to today, just as I did back several years ago. The water situation is important. If it is decided against the Government, I would say then we should find some way of acquiring a certain amount of water or if it is decided against the hotel company and they have not enough to run their operation, we should make some kind of arrangements to supply them with a reasonable amount of water so they can stay in operation.

Mr. McCLORY. Are you talking now about litigating the water rights?

Mr. WIRTH. If we do not reach an agreement, we will have to litigate, and the agreement would have to be based on what the overall plan is.

Mr. McCLORY. Now, we have had some testimony about riparian rights to water and what the law of California is or might be with regard to superior rights, where there is a riparian owner.

Mr. WIRTH. Yes.

Mr. McCLORY. Is there anything in your correspondence or anything in any of these agreements that were made, or any changes made in location of buildings, in which the subject of riparian rights to water was discussed or noted?

Mr. WIRTH. I did not enter into discussions of details of riparian rights. I know that my staff did. And I was advised that the results of their discussions and based on this information is why we went ahead. But I have to plead lack of time to check into everything. I figured that we had Mr. van Dunn and Mr. Lee and Mr. Sanders, all of whom had knowledge of water problems and so forth. And they advised me that the location would not be objectionable to our water rights. In fact, in the legislation, in the 1958 legislation, that was made definite, I think, in the legislation—that does not affect the final solution of the water rights. Is that correct, Mr. Lee?

Mr. LEE. The 1958 act, we recognized there would be litigation necessary if it came to a showdown, to establish what those water rights would be. That could have been a long-drawn-out process. We made various tests there that you are familiar with, to determine what quantities of water were available. We tried to find new supplies of water. We realized that we would be held up indefinitely on it, the company certainly would not agree with us. And we had a pressing name to go ahead. So my recollection is we told Mr. Wirth that the only way we could go ahead with that proposal to establish that——

Mr. MOSS. Would you wait a moment? If you are going to give testimony, I am going to have to swear you in and identify you for the record.

(Donald E. Lee, called as a witness before the Special Subcommittee on Death Valley National Monument, was duly sworn.)

Mr. MOSS. Will you identify yourself for the record, and then proceed to restate the substance of what you have already given us.

TESTIMONY OF DONALD E. LEE, CHIEF, DIVISION OF LAND AND WATER RIGHTS, NATIONAL PARK SERVICE

Mr. LEE. My name is Donald E. Lee. I am Chief of the Division of Land and Water Rights of the National Park Service.

I will try to make a brief, general statement here to cover some of the points that I think have been brought out by the subcommittee here.

I will not try to cover all of this in detail, which will take a lot of time. I will try to cover one or two of the highspots.

Early in the Mission 66 program, the question of the land that we would need in the monument and also the question of water was raised. We had been testing, we had been making tests in there, we had been trying to determine what rights the company had; we had been trying to find out what waters they had been using, and what the purposes of the use had been. Those all determined in our opinion what the rights would be.

We would not—the Park Service would not be the one to make the legal determination. But we would have some idea of what those rights would be, and we could know what we could do and what the company could do.

It became perfectly apparent early in the discussion with the company that in no event would we be able to resolve a division of the waters arbitrarily on our part without litigation. But we did make a number of tests to find out how much water was there. We were looking for additional sources.

Then Mr. Wirth talked to us about the plan to locate first on the new location and then on the old location.

We were then in the process of doing some testing, as I remember.

Mr. Wirth then indicated he wanted to locate down on the lower level, which is on the 90-acre tract——

Mr. MOSS. Would you suspend for a moment.

Mr. LEE. I think I can close this out in 5 minutes.

Mr. MOSS. Well, we have Mr. Wirth here, who is most anxious to leave.

Mr. LEE. Then I will be perfectly willing to withdraw.

Mr. MOSS. We can hear you after he leaves—if you are giving testimony here based on your own knowledge.

Mr. LEE. Fine.

Mr. MOSS. I think we better proceed now with Mr. Wirth, so we can conclude this.

Mr. MCCLORY. Well, I think Mr. Wirth was deferring to the other witness because, of course, a great deal of Mr. Wirth's information comes from others in the Department.

But reverting for just a moment to the question of the water rights that were involved in the 1952 bill, when there was a grant of easement to the hotel company, there was a specific reservation there that the grant of easement was without effect insofar as the respective water rights or claims of the parties were concerned.

Mr. WIRTH. Of either party, that is right.

Mr. MCCLORY. And that has been the policy all along, has it not, with regard to any land transfers or any other contacts or business with the company?

Mr. WIRTH. That is absolutely correct.

Mr. McCLORY. Do you know of any documents or any admissions or concessions or anything at all which consist of surrendering by the Federal Government to the company of any water rights or claims that the Federal Government has or claims to have?

Mr. WIRTH. Not to my knowledge have we given anything away.

Mr. McCLORY. Is there anything further that you would like to offer or volunteer, while I have the opportunity to ask you some questions?

Mr. WIRTH. No, I haven't. I try to make my statement for the subcommittee as clear as I possibly can and answer the questions. I think we have got a good plan for Death Valley. I know we have. We would like very much to get a solution to the land and water problem, so we can go ahead and finish up the plan, because the area needs the development as rapidly as possible. People are coming in there in increasing numbers. The sooner we get the water, get these lands, and get trees there, shade trees growing, the better off it is going to be. And this is about the only location in the valley that we can possibly develop for the public.

Mr. McCLORY. Well, I would just like to add my compliments to you, Mr. Wirth, for your service and for your testimony, for the very forthright way in which you have handled yourself in this hearing, in furnishing the subcommittee with information.

Mr. WIRTH. Thank you.

Mr. McCLORY. I would like further, with leave of the subcommittee, to place at this point in the record a statement of the distinguished chairman of the House Committee on Interior and Insular Affairs, Mr. Aspinall, of Colorado—the statement and tribute that he placed in the Record on January 8, 1964, in connection with Mr. Wirth's service and his retirement as Director of the National Park Service.

Mr. WIRTH. Thank you, sir.

Mr. Moss. Is there objection?

Hearing none, it will be so included.

(The material referred to follows:)

[From the Congressional Record—January 8, 1964]

CONRAD L. WIRTH

(Mr. Aspinall asked and was given permission to extend his remarks at this point in the Record and to include editorials.)

Mr. ASPINALL. Mr. Speaker, today the long and distinguished career of Conrad L. Wirth with the National Park Service comes to an end. Connie is retiring after 15 years as Director and 32 years of dedicated service with that agency. Upon this occasion, I would like to publicly express my appreciation to Connie for the cooperation he has given the Interior and Insular Affairs Committee and pay a special tribute to his long and distinguished service. During this career of public service, which spans all but 15 years of the life of the National Park Service, Connie has contributed immeasurably to the welfare and enjoyment of millions of American citizens. I doubt if any other single man has done more in our time to preserve the rich outdoor legacy for future generations to enjoy. The outstanding public service which he has rendered to the Nation and its people could only come from one whose whole being and energy was dedicated to the welfare of his fellow citizens.

Mr. Wirth has been honored in many ways for his accomplishments in the field of parks and recreation. In 1946, he received the Pugsley Gold Medal for long and valuable service in behalf of the national parks; received honorary fellowship in American Institute of Park Executives, October 1954; he is a life member of the board of directors of the National Conference on State Parks;

a life member of the board of trustees of the National Geographic Society; a fellow of the American Society of Landscape Architects; a director of the American Institute of Park Executives; a director on the board of the American Shore and Beach Preservation Association; and a member of the American Planning and Civic Association and other organizations.

He received an honorary degree of doctor of landscape architecture from his alma mater, the University of Massachusetts, June 7, 1953. On December 14, 1954, Queen Julianna of the Netherlands awarded him a citation honoring him with the rank of commander in the Order of Orange-Nassau. On June 20, 1955, he received an honorary degree of doctor of civil law from New England College. On March 12, 1956, he received the Distinguished Service Award of the Department of the Interior, in recognition of outstanding service in promoting and administering the national park system. On October 1, 1957, he received the 1957 Conservation Award of the American Forestry Association, in recognition of outstanding service in the conservation of American resources of soil, water, and forests. On June 1, 1958, he received honorary degree of doctor of humanities from the North Carolina State College of Engineering of the University of North Carolina. On January 21, 1959, he was awarded the Horace Marden Albright Scenic Preservation Medal for 1958, for accomplishments in the field of conservation. In January 1959, he was awarded the George Robert White Medal of Honor by the Massachusetts Horticultural Society, for his inspiring leadership in the great task of helping to preserve the magnificient heritage of natural beauty and historic significance of the national park system throughout the United States. On March 2, 1959, he was one of 10 recipients of the National Civil Service League's Career Service Award for 1959. On September 22, 1959, he received the American Automobile Association Achievement Award for 1959.

On April 11, 1961, he received the Rockefeller Public Service Award for 1960–61 for achievement and long and distinguished career service in conservation and resources." On April 13, 1961, he was awarded by the State University College of Forestry at Syracuse University, the College of Forestry 50th Anniversary Distinguished Service Medal for dedicated leadership in national park administration. On September 26, 1962, he was elected president of the American Institute of Park Executives, Inc. On April 16, 1963, he was awarded the 1963 Gold Medal of the Civil War Round Table of Washington, D.C., for preserving Civil War battlefields through "Mission 66." On June 8, 1963, he was recipient of a University of Massachusetts Alumni Medal for "distinguished professional service."

Mr. Speaker, Connie Wirth has indeed had a distinguished career.

I am including as a part of these remarks a few of the many editorials that stem from Connie's retirement.

[From the Washington Evening Star]

MR. PARK SERVICE

We have sometimes been critical, even strongly critical, of the stiff-necked attitude of the National Park Service. When it stands like Horatius at the bridge, blocking some project vital to the emerging new Washington, patience runs low.

On the other hand, if it had not been for the National Park Service, Washington might well have lost, or perhaps never have acquired, what amounts to one of the finest park systems in the world.

Since 1951, Conrad L. Wirth has been "Mr. Park Service" to us.

Connie Wirth's retirement as Park Service Director was announced last Friday, 4 days after Assistant Secretary of the Interior Carver made a speech to Park Superintendents that was highly critical of the organization's attitudes and contained the implication that the Interior Department high command had lost patience with Mr. Wirth.

Among other things Mr. Carver charged the Service with resorting to a semi-religious mystique to thwart Interior Department policies. He said it fostered a public-be-damned attitude and was not cooperating with the Department's new Bureau of Outdoor Recreation.

Mr. Wirth denies that his retirement was hastened by his superiors. And Interior Secretary Udall, since Mr. Carver's speech, has taken pains to praise

Mr. Wirth's record and to disavow to Mr. Wirth's subordinates Mr. Carver's implied slap. It is now clear that George B. Hartzog, who is to succeed Mr. Wirth as Director, was one of five men recommended for the post by Mr. Wirth. His selection does not presage an about face in national park policy.

We are glad that this is the case. For to sacrifice to expediency or popular demands of the moment the basic policy of conserving natural America for generations yet unborn could have tragic consequences.

The men who fathered the park movement were zealots. They were missionaries. Without these qualities the movement never would have got off the ground. The men who continue their work must have the same basic zeal.

While we intend to continue to argue the merits of specific decisions on the use of park land, we do not believe that a soft policy concerning such use should be adopted. We congratulate Connie Wirth on 32 years of dedicated service to the Nation and especially to its capital. If his successor does as well, we will all have been very ably served.

[From the Memphis Press-Scimitar]

IN APPRECIATION OF "CONNIE" WIRTH

"One of the greatest, finest, best public servants anywhere in the world."

That is what Lyndon Johnson, only 2 months before he became President, said of Conrad L. Wirth, who voluntarily retires as Director of the National Park Service on January 11.

"I suspect there is no other single man in the United States who has done so much for the healthful recreation and pleasure of so many people, along with promoting conservation of our historic areas."

This was said of Wirth by a man noted for his conservatism, Senator Harry Byrd, of Virginia.

Wirth was with the National Park Service for 33 of the 47 years of its existence, its Director for 12 years.

Early in his career he did a creative job in conservation by supervising the work of the Civilian Conservation Corps (CCC) in State, county, and metropolitan parks throughout the country. His administrative ability had a large part in proving what youth camps could do for conservation, and what this camp experience could do for youth.

When he became Director of National Parks in 1951, Wirth was confronted with a problem which only statesmanship could solve, and he brought statesmanship to the job. The problem was: How to accommodate the vast throngs that increased population was sending to the national parks, and yet preserve the wilderness character that gives them their unique value? The answer was a program that would add to the areas, expand and improve their facilities, imbue the personnel of the Park Service with renewed idealism and renewed dedication to the preservation of unspoiled nature, and establish such good relations with Congress, the administration, and the public that the seemingly conflicting needs of use and preservation would both be successfully met.

Since Wirth's imminent departure from the Park Service has become known, enthusiastic tributes have been paid to him at many meetings. On one such occasion Dan Beard, Jr., regional director of parks of the Southwest, said:

"He is 'Connie' to 10,000 people. He is the world's greatest authority on all park values and problems of administration."

On another such occasion, Frank Masland, manufacturer of Carlisle, Pa., who is former Chairman of the Advisory Board on National Parks, and in that capacity got a closelup of Connie, said of him:

"Connie gave light to an ideal. He gave the Park Service purpose. Those on an 8-hour day gave a 14-hour day service."

Secretary Udall praised Wirth as an "outstanding public servant" who ranks "on the highest honor role of those * * * who have done the most to preserve a rich outdoor legacy for the American people."

But Secretary Udall's action has spoken louder than his words in showing esteem of the outgoing Director. He allowed Wirth to pick his successor. Wirth submitted a list of five career men whom he thought worthy; Udall selected one of them, George Hartzog. Those who know both men are confident that Hartzog will carry on both Wirth's ideals and his practical performance. This well-founded confidence is the true measure of Wirth's success.

[From the Wheeling (W. Va.) News-Register]

A Career Ends

An announcement over the weekend that Conrad L. Wirth, Director of the National Park Service in the Department of the Interior, planned to retire early next year served to remind that Mr. Wirth long has been a friend of Wheeling.

Going back to the early days of the Civilian Conservation Corps (CCC)—Wheeling first became acquainted with the personable, dedicated, hardworking, visionary Mr. Wirth. At that time he was instrumental in establishing a CCC camp at Oglebay Park for sound, basic, needed improvement of this now nationally known and envied recreational facility.

Throughout his lifetime of laudable service to our Nation as a career man with the National Park Service and in recent years as its Director, Conrad Wirth has maintained a helpful, constant, and increasing personal interest in our Wheeling park system. He served for years as an active member, director, and officer in the 65-year-old American Institute of Park Executives, now headquartered in Oglebay Park's old Mansion Guest House and he just concluded a term of accomplishment as president of that association of North American park people.

As head of the National Park Service, Director Wirth saw to it that West Virginia's Harpers Ferry became a national monument which included a utilization of old Storer College there as a training school for parks personnel and with local glassmen established the already famous working replica of America's first "free enterprise"—the 1608 Glass house at Jamestown, Va. These are but two examples of his good deeds that are dear to our hearts. His national parks program has brought that system and Service to the point where this year, at least 1 million persons enjoy these properties daily.

As for long years he cooperated with Wheeling's late W. P. Wilson and Homer Fish regarding our parks so he has willingly continued to be available and helpful to our present parks superintendent, Earl Gaylor, and our commission chairman, Sam L. Good.

Mr. Wirth, or "Connie" as a few fortunate local citizens are privileged to call him, has had a proud, distinguished public career and as he voluntarily retires from the Department of the Interior, he does so with the well-deserved approving applause of millions of grateful people, which we hope will touch his heart and in some way reward him for his lifelong dedication to the parks and people of America. After retirement, in January, we earnestly hope Mr. and Mrs. Wirth will more often visit Wheeling, enjoy our friendship, continue to give us wise counsel as our parks become increasingly valuable each and every year, and rest comfortably in this appreciative community.

[From the Roanoke Times]

A Public Service Well Done

One of this Nation's most important assets is its national park system which comprises some 200 areas, including 31 parks, and covers 26 million acres. Each year the system draws 100 million Americans to enjoy its benefits.

One of the men chiefly responsible for all this is Conrad L. Wirth, who has just retired after 12 years as Director of the National Park Service. Mr. Wirth literally grew up with the Park Service, having been with it in all but the first 15 of its 47 years of existence, and he deserves a great deal of credit for the Service's popularity both in Congress and among Americans generally.

The familiar Mission 66 program designed to greatly strengthen the national park system was conceived by Mr. Wirth, who then diligently worked for its approval and saw it well on its way to fruition when he stepped down. In this section of Virginia, with its great national forest and popular Blue Ridge Parkway, Mr. Wirth is widely known and his work appreciated.

Praise for the Park Service comes from Senator Byrd, who said, in commenting on Wirth's retirement, "I regard the national park system as one of the most worthwhile of all Federal programs." And Senator Byrd paid this tribute to Mr. Wirth in remarks on the Senate floor: "I suspect there is no other single man in the United States who has done so much for the healthful recreation and

pleasure of so many people, along with promoting conservation of our natural resources and preservation of our historic areas." In retirement as well as during his more active years, Mr. Wirth has earned the gratitude of millions of Americans.

[From the Conservation News, published by the National Wildlife Federation]

MISSION 66 A TESTIMONY TO VISION OF "CONNIE" WIRTH

As reported in the November 1, 1963, issue of Conservation News, Conrad L. Wirth, Director of the National Park Service since 1951, is retiring from office in January 1964. Born in 1899, "Connie" Wirth had already logged many accomplishments and many years of park experience when he became Director. He has been a dedicated crusader, putting his whole heart into the preservation of the parks, at the same time maintaining that "parks are for people."

Wirth directed the Civilian Conservation Corps, first the State and county work and then the Department of the Interior's entire CCC program. This, it has been said, advanced the Nation's park program by at least 20 years. In 1936, he initiated the movement which resulted in passage by Congress of the Park, Parkway, and Recreational Area Study Act. But the crowning achievement of his career in Mission 66, the dramatic and imaginative National Park System development program which caught the attention of the public and won the support of Congress by the magnitude of its design.

In the 10 years following World War II, a deep concern for the national parks plagued Conrad Wirth. The parks were deteriorating. They had suffered through the lean war and postwar years. Appropriations had been cut to the bone, all but absolutely essential work had stopped, and staffs had been trimmed to mere skeleton forces. Yet, in the postwar years, droves of visitors flocked to the parks. Their impact hastened the deterioration. Clearly, something had to be done to call attention to the plight of the parks. It was then that Wirth conceived a fresh and objective idea of park development, and he gave it the name of Mission 66, to commemorate in 1966 the 50th anniversary of the National Park Service.

Wirth named a special task force which enunciated the following guidelines: Preservation of park resources is a basic requirement; substantial and appropriate use of the National Park System is the best means of assuring the perpetuation of the system; and adequate and appropriate developments are required for public use and appreciation of any area, and for prevention of overuse.

From this beginning, the goals of Mission 66 evolved as: Better public accommodations and services; campgrounds, roads, and other improvements provided by the Government; a more adequate, better-trained staff; effective presentation and interpretation of the historic and natural scene; acquisition of needed park lands; cooperative planning for a national recreation program; and preservation of wilderness and the historic and natural scene.

The parks already accommodate more visitors than the number planned for by 1966. The original goals are now reaching achievement, and will continue under a new long-range plan to provide for constantly growing demands.

Thus, Mission 66 is a vital force that will leave its mark upon the National Park System and Service. This, in turn, will remain an enduring testimony to the vision and devotion of Conrad L. Wirth.

Mr. MOSS. Mr. Moorhead?

Mr. MOORHEAD. I have one question, Mr. Wirth.

It seems to me that in discussing the matter of the change of the location of the headquarters and so forth, we have been discussing one side of the equation, which is: Did the Government suffer any detriment in the matter of water rights or otherwise, as a result of change of location?

Now, sir, on the other side of the equation I would like to know whether, as a result of this change, the position of the hotel corporation or any of the other corporations was improved?

Mr. WIRTH. No. I will say this. If the road relocation goes through, Furnace Creek Inn will be on a park road and not on an

entrance road. In other words, the new road location we are proposing comes in this way, comes over here to where the visitors center is. The Furnace Creek is over here. And that is on the road that goes south in the park. It is maybe half, three-quarters of a mile from the junction.

I think—some may think it is not as good because they want to be right on the main road. On the other hand, I think it is better, and some people would agree with me, because it is not on the main approach road. Yet it is perfectly visible, and people can go to it very easily.

So it is a question of which school of thought. As far as I am concerned, I think they are better off.

On the other hand, I know some think they are not.

Mr. MOORHEAD. What did Mr. Albright think on this point?

Mr. WIRTH. They did not raise a question on this point. I do not recall them expressing themselves one way or the other on this point.

Mr. MOORHEAD. Thank you, Mr. Chairman.

Mr. MOSS. Mr. Wirth, I refer to a memorandum of May 17, 1956 (D–20), to the Director, attention Chief, Division of Design and Construction, from the Chief, western office, Division of Design and Construction, subject: "New Headquarters Location, Death Valley National Monument"—and it then details the proposal which had been approved and continued to receive approval until March of 1957.

The concluding paragraph states:

D–20

Another justification for the development of the proposed site is the firming up of water rights for the service in the Furnace Creek Wash.

The term used here is "the firming up of water rights."

Mr. WIRTH. Yes.

Mr. MOSS. Was that indeed one of the justifications?

Mr. WIRTH. I would not say so, because we had not firmed up anything on that development.

Mr. MOSS. This is signed by Sanford Hill, Chief, western office, Division of Design and Construction.

Mr. WIRTH. I do not quite understand what he means by firming up the rights, because the rights would not be involved in our improvement. The rights would have to be resolved under the 1958 act.

Mr. MOSS. No. They would be resolved under the laws of the State of California.

Mr. WIRTH. Could be reserved by the State of California.

Mr. MOSS. And the use and location of use are important parts of the law of the State of California.

Mr. WIRTH. Yes; I realize that.

Mr. MOSS. Would you assume this was an idle, inconsequential comment here—that further justification for the development of the proposed site is the firming up of water rights for service in Furnace Creek Wash?

Mr. WIRTH. I think that would be a matter of opinion.

Mr. MOSS. Is Mr. Hill in the habit of making such observations if they have no relevance?

Mr. WIRTH. Well, nobody denies it has some relevance. There is a difference of opinion, though.

Mr. Moss. Do you disagree with it?

Mr. WIRTH. I do not know enough about it to disagree. All I go on is the advice of legal counsel and water rights people that did advise me.

Mr. Moss. Well, of course, to reiterate something I have observed before, from the beginning—with all the interest in water rights, there has not been a carefully considered opinion rendered by the Solicitor. I do not know how much pressure he has been under from the Park Service, or from any other source, other than this subcommittee, in the last few years, to prepare such an opinion. But now, 6 years after the 1958 act and 12 after the 1952 act, when these matters were discussed and recognized as having some significance, there still is not an opinion setting forth the Department's views of its own water rights.

I find it very difficult to understand why so much time has been consumed.

You discuss the matter of negotiating for land exchange in connection with the 1958 discussion. Who initiated the move for exchanges in 1958?

Mr. WIRTH. I am pretty sure it was the Park Service.

Mr. Moss. With whom were discussions held?

Mr. WIRTH. Discussions were held between the Service with the United Potash Co. and the representatives and with the representatives of the Congress in California that had an interest in this at that time, and with local representatives in the State legislature. The whole question, sir, of that development down there, as you recall——

Mr. Moss. I know——

Mr. WIRTH. The building and everything else——

Mr. Moss. The location of the museum.

Mr. WIRTH. That's right.

Mr. Moss. And a very old friend of mine had a great deal of interest in it.

Mr. WIRTH. Had a great deal to do with getting it, too—a very fine man.

Mr. Moss. No, I will make no further observation—the gentleman is dead. But I served with him in the legislature.

But it is a very interesting fact that under oath the president of the company says that the company never approved the site discussed here, that it was their official position on the matter of acreage to be exchanged—the location of it—that it be left open, and an absolute disclaimer that the company ever concurred in that map. And yet we find a map actually referred to in the statute.

Mr. WIRTH. Well, I——

Mr. Moss. I believe you have had the benefit of Mr. Gerstley's testimony.

Mr. WIRTH. I have read his testimony, and I do not think I am in a position to judge his testimony or make comments on it. I will say this, however. We went to a considerable amount of trouble in our discussions and in agreement on legislation with the committee of Congress before they passed it. And I certainly was under the impression that we had reached an understanding, although I do

not think that I can say definitely that it was all on the dotted line just waiting for legislation. Nevertheless, I was certainly under the impression that we had worked out a possible solution on the land and opened the door for negotiation on the water rights in such a way that we——

Mr. Moss. I do correctly state Mr. Gerstley's contention that the company never approved.

Mr. WIRTH. Sir?

Mr. Moss. I do correctly state Mr. Gerstley's position that there was no approval, and that the company has to this date not given its approval to the areas of—discussed in the legislation.

Now, Mr. Romney, you have a last item to develop?

Mr. ROMNEY. Yes, sir.

Mr. Wirth, when you made your decision on March 19, 1957, with respect to the new proposed residence and utility site, it involved a number of different elements, did it not?

Mr. WIRTH. Yes, it did.

Mr. ROMNEY. One of these was to do away with the Texas Spring campground and instead to relocate the campground on another site which at the time you anticipated the Government might obtain north of the ranch, is that correct?

Mr. WIRTH. That is right.

Mr. ROMNEY. We have received information with respect to the amount of land which the present and proposed campground in the area would cover. By letter to the chairman dated April 16, 1964, Mr. Jackson Price of the National Park Service has advised us that in the Furnace Creek campground there are now existing, as existing campgrounds, 3 acres. Proposed expansion, 23 acres—for a total of 26 acres.

He has advised that the additional development down there for the visitors center is 7 acres, and then there is 0.6 acre for the sewage lagoon.

This amounts to a total of 33.6 acres of land within an area of approximately—this is the 90-acre tract which I think is shown on the overlay.

(The text of Mr. Price's letter follows. The map referred to appears on p. 37.)

DEPARTMENT OF THE INTERIOR,
NATIONAL PARK SERVICE,
Washington, D.C., April 16, 1964.

Hon. JOHN E. MOSS,
Chairman, Special Subcommittee on Death Valley National Monument,
House of Representatives,
Washington, D.C.

DEAR MR. MOSS: During Mr. Romney's and Mr. McClellan's visit on Monday, April 13, they requested copies of correspondence and a print of a drawing they had reviewed in this Office. They also requested acreage figures of the areas encompassed by the visitor center complex, the sewage lagoon, and the campground at Furnace Creek in Death Valley National Monument.

A photostatic print of drawing NM–DV–3127–A, Public Use Area, Furnace Creek, was given to Mr. McClellan on a subsequent visit. The remainder of the material is provided in the enclosures to this letter. We trust that the material will fulfill your requirements.

Sincerely yours,

JACKSON E. PRICE, *Assistant Director.*

Death Valley National Monument

	Acres
1. Furnace Creek campground:	
Existing campground	3.0
Proposed campground expansion	23.0
Total area	26.0
2. Visitor center development: Area including entrance road, visitor center, parking, service road, and limited area for planting	7.0
3. Sewage lagoon: Area within fence	.6

In a report of an interview with Mr. Lanigan, which has already been referred to, dated August 9, 1960, Messrs. Hill and Knowles recorded the following as a question asked of them:

Why was a major campground located north of Furnace Creek Ranch, and is expansion contemplated beyond that shown on current drawings some time in the future?

The report of interview gives as the sense of the reply the following:

The selection of the visitor center site, plus the fact that Furnace Creek Ranch is now a major developed area in the park, were determining factors in the selection of the site for a major campground. In addition, existing vegetation at this site and the fact that campground selection elsewhere would result in more noticeable intrusion upon the natural scene justified its selection. At this time no additional expansion of the planned campground is contemplated. The presence of bentonite will probably make any expansion in the future unfeasible.

We have seen there are now 3 acres of existing campground, and perhaps an additional 23 acres may be extended in the future. I would like to ask you if you know whether the plans for the abolition of the Texas Spring campground still stand?

Mr. WIRTH. Well, I don't know. I assume they are. I have not gone back to check and see what happened since January 8. But the pink slip on decisions reached in the field that came in after I came back certainly outlined that principle.

I do know there appeared in your hearing out in Sacramento some words to the contrary. But I am not too familiar with that.

Mr. ROMNEY. What knowledge did you have at the time you made your decision in 1957 as to the extent of acreage suitable for campsites in this general parcel that you anticipated getting?

Mr. WIRTH. Well, first, as I recall when you requested this information you wanted to know how much the allotment of ground within the 90 acres we already had was. I would like to point out to you we are talking about much more than the 90 acres we now have. We still have not given up the fact that we are going to get additional acres, and we can expand our campground there as demand requires it.

Now, as to the condition of the ground in desert country and this kind of country you are going to deal with it wherever you go. They had the same thing on over to the ranch. And there is bentonite, different pockets of it there that we have to contend with. And to say exactly where every spot is, I cannot tell you now. But I know we can develop it.

We walked down over the property and had people look at it.

Mr. ROMNEY. Did you have a report from any of your staff as to the suitability——

Mr. WIRTH. We walked and talked it over together, and I had observations of my own on it.

Mr. ROMNEY. Would you care to comment on the statement of Mr. Knowles and Mr. Hill that bentonite would make further expansion of this campground unfeasible?

Mr. WIRTH. Yes. I will be perfectly willing to say I do not think they are right.

Mr. ROMNEY. Mr. Wirth, another one of the elements of your decision in making and revising the Mission 66 plan in March of 1957 was to relocate Route 190 through the proposed headquarters site and of course through the area of the Texas Spring campground which would, under your decision, have been abolished.

Did you have any information as to whether this road would have had any effect on the water developments in the Furnace Creek area?

Mr. WIRTH. I don't get your point. Furnace Creek area—you mean the whole area?

Mr. ROMNEY. The construction of the highway—I believe you testified last time that there was some question raised as to the water, the impact of the construction of the highway.

Mr. WIRTH. I think I made the statement that the highway would have no more effect on the water than the building of the headquarters area up in the same location. You would have to bring a road into that. And the road actually would not go into the Texas Spring campground at the present time. The best location is over on the side. But there are several studies yet that have to be made. In fact, I had a map here the last time showing the different routes under study.

Mr. ROMNEY. Would this relocation be the one which we referred to earlier today—reading a recent letter from the Department—costing an additional $100,000?

Mr. WIRTH. I don't know. That is something since I have been out.

Mr. ROMNEY. Mr. Wirth——

Mr. WIRTH. And I would say this. I do not think that is a very accurate estimate.

Mr. ROMNEY. But you do not deny that it is an official estimate.

Mr. WIRTH. It is official. But I do not think it is a very accurate estimate—because they do not have enough information to make an accurate estimate.

Mr. ROMNEY. At the time you made this decision to relocate the highway, did you make any attempt to find out whether the California State Division of Highways would concur in this relocation of the highway?

Mr. WIRTH. No, I did not. I will be perfectly frank. We built all the roads in Death Valley, have for years, and they have never had any objection. They have now only recently taken over the maintenance of them and called them State highways. Until we have a definite location set up, we would have really nothing to talk about. We would have to get their approval—I grant you that. I don't say we don't.

Mr. ROMNEY. At the time you made the decision to relocate the highway, you had not considered the possible effect of construction on water developments in the Furnace Creek area?

Mr. WIRTH. Oh, yes.

Mr. ROMNEY. You had considered that?

Mr. WIRTH. We considered the headquarters area, and that was right in the middle of it. That did much more damage than the road would have done.

Mr. ROMNEY. Mr. Wirth, I would like to hand you this——

Mr. WIRTH. Is this something already written—then it is all right as far as I am concerned.

Mr. ROMNEY. You have before you a memorandum from Mr. Scoyen, acting as Director, to the regional director, dated April 19, 1960. This contains the comments of the Chief of Water Resources Section concerning a reconnaissance survey for relocation of State Route 190.

Mr. Scoyen then relays to the regional director this statement of his opinion:

> It is now our opinion that any action on this project should be suspended until we have had more of an opportunity to analyze what effect road construction would have had on the water resources situation along the proposed relocation routing. In this regard, Chief of Water Resources Section A. van V. Dunn, makes the following comments.

Mr. Dunn's comments then itemize certain potential impairments to the water supply in the wash which might accrue as a result of constructing a highway.

Mr. WIRTH. I know all of that. With this road crossing the watershed there as far as Texas Spring is the same road that was in the headquarters area that there was complaint about changing, plus all the roads necessary for the headquarters area houses and so forth. And that plan was approved and passed all through, as was indicated—through the technical people, both in the region and the park, and into the Washington office, and was approved, and it was that plan that I changed—and this other road is in the same category. This is a review several years later of people again coming up with more information and thinking they ought to make further studies on it before they move.

Now, that is the size of that.

I do not criticize their technical ability. All I say is you can approve them one day, and with further studies you have to make adjustments and changes.

Now, if they find this interferes with the water supply there, naturally we will not build it. But until it is——

Mr. ROMNEY. But at the time you made the decision, no studies had been made as to the feasibility——

Mr. WIRTH. Except we had clearance from the same people raising the objection, that the old road location was all right.

Mr. ROMNEY. But you did not have clearance as to the route of the relocation——

Mr. WIRTH. Well, it is the same location that came into the headquarters area, except when it starts down the wash. But it crosses right here, and that is the area they are talking about. Then it

goes down with it. So it is the same location as the administration road is concerned. I can show that on the map, but I cannot do it now. If you want me to come back a couple of weeks from now, I will be glad to.

Mr. Moss. Mr. Wirth, I think we are within 2 minutes of meeting our commitment to you.

Mr. Wirth. I appreciate that very much. If you wish me to come back later, Mr. Chairman, I will be very glad to.

Mr. Moss. We will be in touch with you.

Mr. Wirth. Thank you very much.

Mr. Moss. Now, Mr. Lee.

Mr. Lee. I think I could throw some light on this one point here. I have no documents here. I can give you just a general résumé of how this water problem did enter into the picture.

Mr. van Dunn was one of my branch chiefs. Mr. van Dunn was in charge of the Branch of Water Resources.

I just remember that we had this question about what rights the hotel company had. We had conducted the various tests in there. We had made an examination of the ground to find out whether there were additional areas where water could be obtained. We had even found out that there were certain plans there that reflected that there was underground water that probably could be siphoned out of the ground. But if that were done, some of the, I guess it is called mesquite would die.

But anyway, at the time that Mr. Wirth made this decision, there was still no final resolution of what water rights the Federal Government had as against the hotel comany.

We did have in existence at that time a definite agreement, and understanding, that in no event would the company question the right of the United States to use 35 gallons per minute from the—I believe it is the Texas Spring area.

After—I remember there was a statement made that there might be riparian rights upon the ground near where the test well is drilled. Unfortunately, in my opinion, I think that that test well was not tested sufficiently to really determine a number of things that might have been determined.

But in any event, if that is riparian water, it is always there. It can be used if we need it for any other purposes up there.

But the main point was that it came to us that Mr. Wirth had made a decision that he wanted that museum building down at this lower level, on this 90-acre tract of land, which the Death Valley Hotel Co. was willing to donate to us. Likewise at that time an important thing was that the State of California was making available the sum of $350,000 to be put into the museum that was to be built there. Therefore, the pressure was on to move, and to move as rapidly as possible to consummate the transfer of that tract of land from the hotel company to the United States.

When we were asked in our Division as to whether we had sufficient water to take care of the new development there, I consulted with Mr. Dunn. We went into this very carefully and came to the conclusion that 35 gallons per minute would permit adequately the development that we wanted at that location, but we would probably have

to limit some of the plantings to types of plants that did not consume too much water. For example, I know they brought out that if we put a lot of date palms and althea around there, we would run short of water, because they apparently consume a lot of water. There is some other species of plant that the boys were all talking about that causes them concern, and we pulled those out of the plantings. But we did definitely advise Mr. Wirth that we could go ahead on the 90-acre donation, the location of the museum there, on a reasonable scale and carry through the development he had in mind.

We got the deed in from the company. We took this matter up with the Solicitor's Office. At that time we raised specifically this question about the water, saying that—here, we have 35 gallons per minute, our people tell us this will get us by; likewise, we put in some storage there so at the peak period we would be sure we could take care of the visitors there.

So Mr. Wirth did know that as far as we were concerned, we felt there was enough water there to reasonably carry on the development on a scale that perhaps would not be ideal, but certainly was adequate to take care of the visiting public and would, for a reasonable period of time to come.

In the meantime, we did what we had in mind—and we believe there will be some additional supplies of water that can be found in that vicinity. But as has been indicated thus far, we have had about as much water as we have been pressed for at the present time.

Now, if the decision is finally made, or a court decision has to be arrived at, so that we need more water there, or if the company on the other hand finds that they will need more water, Mr. Wirth's position always has been, certainly in his discussions with us, that we would have to work out some kind of a division of the water, because it was immaterial whether we had all of the water or the company had all of the water, or how we divided the water. If there was just so much water there, the point was we were going to take care of so many visitors, and that the total amount of water would probably largely determine how many we could take care of.

Mr. Moss. Do you really mean to say that you feel it is immaterial as to the ownership of this water?

Mr. Lee. No, I did not say that, Mr. Moss. The point is, suppose we determine—to answer your question there, I would like to cover that. Suppose we determined that there are 5 second feet there, and we would need 1 and they would need 4, or whether they would need 2 and we would need 3. If we found that we needed a half of one or whatever it might be, we would not go in there and assert a right to water and cut them off from water, so that the visiting public could not come in there and be accommodated. We might wind up having to sell them water. Perhaps that might be an ultimate solution.

The point that I am making is that Mr. Wirth—and I do know that the company has talked along this line—has consistently felt that so many visitors will come into this area, and they can be accommodated. And that water will have to take care of all of those visitors regardless of what we may think or what we may desire to

do in the future, because the water will limit how much you can put in there.

If we would win a lawsuit there, we would probably wind up selling them some water. If they won the lawsuit, we would probably have to wind up buying some water from them.

But the point is thus far Mr. Wirth and the company—I do know, because I have been in meetings with company people that have come in and talked to Mr. Wirth about this—they had in mind a plan where each of us would work out a development plan together to take care of what would be the maximum visitation that that area could stand in the light of the water that is available.

So from that standpoint, if we got into a lawsuit on this thing—that was the prevailing thought at the time—if we got in a lawsuit we might be in litigation for 5 years. We would have no museum building there, we would not have the things there which we have put in since this whole thing started in 1957.

The only point I know is this: I had no part in this decision on the headquarters location, and I am not expressing any opinion on it, because that is not the function of the Lands Division. It came to us as a decision by Mr. Wirth that here is where he wanted the museum—he did not want it up there. Did we have enough water to do it? We told him we had enough water to do it, provided you did not go out on an extravagant planting program, putting in high-water consumption plants and things like that.

So I think Mr. Wirth, who was intending to point out to you that he was advised, correctly stated that he could go ahead with this plan, put a development there, with reasonable water.

Now, he might have been able to plant a beautiful Garden of Eden up above there at the other spot. But he decided that he did not want the headquarters up above. And that is my general knowledge of the thing.

I had no reason at the time to press for a legal decision, for the simple reason we knew we had enough water to do what we had to do at that time, and we went ahead and did it.

That is all I have to say.

Mr. LANIGAN. Mr. Chairman, may I ask a question?

In contemplating the division of the water between what the hotel needed and what the public needed, other public use might be, from what I am told at least, that the hotel has a date grove there of considerable extent, and also has a nine-hole golf course they keep watered and in use.

Mr. LEE. That is right.

Mr. LANIGAN. Now, would you, in considering dividing water with the hotel company, without regard to the rights, give up water that might be used by campers or expand the campground to let the hotel continue to use—develop its course and date grove provided it did not have a legal right to that water? Or would you——

Mr. LEE. The golf course—I think you have to distinguish between—as I understand it, from our development people, because I am not a developer—they come in and tell me what they want, and our Lands Division goes out and tries to get it. That is our function. We do not advise the planners unless they come in and ask us whether

they can move here on a piece of land, whether we have to get a right-of-way or what.

But I have been in contact with the planners. They have told me that in their opinion one of the desirable things there to bring people in and keep them in the park areas is to give them more recreation—to have a golf course. Apparently the play on that golf course at the time of the year where Death Valley is heavily used is very heavy, and it is quite a source of pleasure for the people there. As a matter of fact, more and more places where you see tourist facilities developed, you find a golf course as an adjunct to it. It is quite expensive to develop, but it is there.

Now, as to the date orchard, I do know this: The company has complained that they are fearful they are going to lose some of their date palms because they are not getting enough water into their date palms. They may have to ultimately do something about that date orchard because in my opinion the date orchard is a thing that uses water very heavily.

I also believe I recall correctly the water that has been used in the swimming pool is flushed on into the golf course and is used there to keep the golf course green.

Mr. LANIGAN. Now, I have not been to Death Valley, but people that have been there camping on the public campgrounds have told me that there is enough water on the public campgrounds for cooking and washing dishes, but during the time they were at Death Valley there was no water for showers or for washing clothes. Is it true that water is that restricted?

Mr. LEE. I cannot answer you there, Mr. Lanigan, because that is the type of thing our WODC people get into, and they have to prepare the development plans for that.

Mr. LANIGAN. When you tell us there is enough water, you really do not know how much water is being utilized or how the public——

Mr. LEE. If you say we do not have enough water for the entire, and ultimate camp program there, you might be right.

Mr. LANIGAN. I am just saying people who were there said they could not take a shower.

Mr. Moss. Well, all you have knowledge of is the 35 gallons per minute.

Mr. LEE. I know we were able to put in the facilities. I recognized, as Mr .Wirth said while he was here—sure it would be fine to have more water there, and I think the hotel company would like to have more water. How much more water we can get, I don't know.

Mr. Moss. Well, you have no knowledge of water rights.

Mr. LEE. No, I could not advise you there. But I do know Mr. Wirth is right when he said he came in and asked us how much water we had. We feel that we have more than enough water at certain times of the year, as I am sure you recognize only too well out there. We do have a few—a short critical period there.

Mr. MCCLORY. Mr. Lee, you are Chief of what Division?

Mr. LEE. It is the Division of Land and Water Rights.

Mr. MCCLORY. Now, when you say that Mr. Wirth and others talked about accommodating the visitors there at Death Valley and dividing up the available water, is it not the policy of the National

Park Service to have the hotels and the trailer camps and things of that nature operated privately on a concession?

Mr. LEE. Yes, sir; Mr. McClory, that is the general situation.

Mr. MCCLORY. So that the only part of the public that the Park Service now would accommodate would be the campers.

Mr. LEE. The campers. And then of course there are a large number of people who come into the museum center. And then of course we have to have our own administrative——

Mr. MCCLORY. But in connection with accommodating people overnight, does the Park Service encourage the development of hotels or motels?

Mr. LEE. Decidedly.

Mr. MCCLORY. How about trailer parks?

Mr. LEE. Trailer parks also are very frequently put in by concessionaires.

Mr. MCCLORY. If that additional type of development went on, the water would have to be supplied there, too.

Mr. LEE. Yes, it would. Now, you have a question as to who would put it in. There are some facilities that concessionaires are not too anxious to put in—say, trailer courts—because sometimes they do not pay out too well.

Mr. MCCLORY. In other words, what you are trying to tell us, as I interpret it, is that in the discussions that you overheard or that took place, you did not anticipate litigation. You felt that the question of the respective water rights based upon needs could be amicably worked out.

Mr. LEE. I can say this—because I was in meetings where Mr. Gerstley and Mr. Wirth sat down and said it wouldn't do us a bit of good to get into protracted litigation on this thing. All the while we were arguing about who owns what, the public would be suffering; so let us go ahead and put in a joint plan.

Mr. MCCLORY. Now, is there anything in those meetings, or anything that came to your attention at all during any of your experience, that indicated to you that Mr. Wirth or anyone in the Department was going to give in to some private interest or give away any rights or interests of the Federal Government?

Mr. LEE. None whatsoever, because the only thing—the only general plan that I know of has been a general plan where both sides would plan for the future and try to utilize the water that is available as economically as they could in order to carry out the joint plan which would be aimed at taking care of the maximum number of visitors to the area.

Mr. MCCLORY. Do you think that the Government's rights are just as strong now as——

Mr. LEE. We have done nothing to prejudice our rights to water in there.

Mr. MCCLORY. They are the same now as they ever were?

Mr. MOSS. Are you qualified to answer that question?

Mr. LEE. Yes, sir; I am.

Mr. MCCLORY. Well, insofar as you know.

Mr. LEE. I can answer Mr. Moss to this extent—because the legal documents that I have seen, none of them—either they have either

reserved the right of the Government to maintain its legal position on water, or they have not involved in and of themselves the use of water.

Mr. Moss. Mr. Lee, I ask again if you are qualified to state that nothing that has occurred has prejudiced in any fashion the right of the Government.

Mr. LEE. In my opinion the answer is "Yes."

Mr. Moss. Are you an attorney?

Mr. LEE. Yes, sir.

Mr. Moss. Do you specialize in water rights law?

Mr. LEE. No, but I have had a lot of association with it, Mr. Moss.

Mr. Moss. Are you prepared to contradict the opinion prepared for this subcommittee by Mr. Martin McDonough of Sacramento, who engages extensively in the practice of water law? He raises a very definite question of the probable prejudice of Government rights as a result of the easements.

Mr. LEE. Well, I can only answer that——

Mr. Moss. Have you actually studied this as it relates to Death Valley?

Mr. LEE. Yes, I have.

Mr. Moss. You have prepared an opinion?

Mr. LEE. No, I have not.

Mr. Moss. Why not?

Mr. LEE. Because my position at the present time, Mr. Moss, is basically administrative.

Mr. Moss. Well, let's take the statement you made here about Mr. Wirth and Mr. Gerstley in meetings. In a situation where we are going to sit down and have a conference, Mr. Gerstley and the Government, and we are going to decide how much water we both need, isn't it absolutely essential that, if I am going to participate in that discussion for the Government, I have a pretty sound idea of what my rights are? Now, I know that the company has an idea of what its rights are, because we had an access to their files.

Mr. LEE. Yes, I know what the company's position is, too.

Mr. Moss. And I know they have been very prudent in determining to their own satisfaction what they feel their rights are in attempting to document them. But nowhere do I find that the Government has taken comparable action. The company would not sit down and discuss the water rights without having good legal opinion as to what their rights might be. And I would wager that in such discussions they would not give away a single right they thought was firm and beyond successful challenge in a court.

Mr. LEE. The only way I could answer you there, Mr. Moss—and I have heard this in the discussion—I have heard Mr. Gerstley inform Mr. Wirth and he said:

> Regardless of who owns the water, if you have to have additional water there to carry out this joint program, we may have to give you some of ours, or if you own it, we may have to buy some of yours, if we get into litigation and lose.

I do know I have heard that statement made.

Mr. Moss. "If you own it, we may have to buy it." In other words, "we are going to negotiate on what rights we have and what rights

you have." And they would be very foolish if they did otherwise. And I think the Government would be very foolish to do otherwise.

Mr. LEE. That may be true.

Mr. Moss. I feel that from the very beginning of this, right up to this very moment, the Government has not been prepared to discuss this matter. I am shocked that they are not. I do not care which administration sits in Washington, or who directs the Park Service. I do not think it is proceeding on a route that best preserves the public interest—because the ownership of that water becomes a very important matter.

We talked about use there. There can be very luxurious uses of water in the desert. You can create some fine gardens, as they have, while others up on the bench haven't enough water for a shower. Yet they have an equal entitlement, if it is the water of the Government, to be able to utilize it. And only the Government is in a position to afford them protection, to secure that right for them, and guarantee its preservation.

Again, in my judgment, the whole study of this issue in Death Valley for 4 years demonstrates nowhere the fine sense of responsibility I feel we have a right to expect of those who temporarily hold the reins of power.

I do not think you are prepared today to answer the question in any substance. You may give off-the-cuff opinions. But I think that is about all they are, and that is all the value I would place on them.

Mr. INDRITZ. Mr. Lee, you have mentioned that the Park Service believed that the 35 gallons per minute provides adequate water for the Park Service's present needs in this Death Valley National Monument Furnace Creek area.

Mr. LEE. For what they had in mind at that particular time.

Mr. INDRITZ. Are you familiar with the fact that on July 3, 1957, Howard R. Stagner, acting chief of the Mission 66 staff, wrote a memorandum to the Director on the subject of "Water Supplied Death Valley," the first sentence of which reads: "Water exploration at Death Valley has proved only 0.23 second-feet—much less than the planned developments required." That is the end of the quote. I would like to point out that 0.23 second-feet is three times more than the 35 gallons per minute, because 35 gallons per minute is equivalent to 0.078 second-feet. And yet then, on July 3, 1957, the acting chief of Mission 66 staff described 0.23 second-feet as "much less than the planned developments required."

Mr. LEE. I can only answer that by saying that at the time, in the discussion of putting the museum down there, when the question was raised, we turned to the best man that we had, our engineer, Mr. van Dunn, and I am sure that you have documents that reflect that he initialed the memorandum that indicated that if we located on the 90-acre tract, that that would be adequate for our then planned development.

I recognize, as you do—and I am sure that the Mission 66 planners had this in mind—that they would have liked to, as Mr. Moss has said, develop a far nicer development. But the question is how far can you carry that luxury in desert country when you have limited water.

Mr. McCLORY. Mr. Lee, do you have any responsibility or authority to write legal opinion with regard to water rights?

Mr. LEE. No; I do not write legal opinions on water rights.

Mr. McCLORY. Or to request legal opinions from the Solicitor's Office?

Mr. LEE. No, sir; I do not request them.

Mr. MOSS. You mean you cannot request an opinion from the Solicitor?

Mr. LEE. Well, the request for opinions of that nature to the Solicitor are invariably signed by an Assistant Director for the Director in our organization.

Mr. MOSS. You initiate requests.

Mr. LEE. We may initiate requests.

Mr. MOSS. I think that would be a more responsive answer.

The subcommittee will now stand adjourned——

Mr. McCLORY. Subject to call of the chairman?

Mr. MOSS. Subject to further notification.

(Whereupon, at 4 p.m., the subcommittee was adjourned, to reconvene subject to call of the Chair.)

APPENDIXES

APPENDIX 1—DOCUMENTS RECEIVED DIRECTLY FROM DEATH VALLEY HOTEL CO., LTD.

[Extract from John Ryan's letter, Sept. 25, 1908]

Mr. W. L. Locke:

Yours of the 22d received. Regarding the location of the Death Valley Ranch, I had this surveyed about 2 years ago for Mr. Dumont and gave him all the information he asked for concerning same. The two water locations are not on the ranch; one is what is called Furnace Creek and is about 1½ miles from the ranch; this runs in a ditch to the ranch. The other water location is called Texas Springs and would be in the neighborhood of about three-fourths of a mile from the ranch. Texas Springs is piped to ranch. However, I will get our engineer to give you the exact location of the ranch according to the township lines, and as soon as I receive it I will forward it to you.

September 30, 1910.

Mr. Jno. Ryan,
Office

Dear Sir: W. B. Robinson, Jr., located the Furnace Creek Springs and transferred them to Wm. T. Coleman Co., and eventually they were transferred down to us. Does this establish absolute ownership in us for these springs? And not only these springs, but all other springs which are down on the list as belonging to us, such as Hidden Spring, Indian Spring, Perkins Spring, Texas Spring, etc.? Let me know please, and oblige.

Yours very truly,

W. L. Locke.

Greenland Ranch

Also known as Furnace Creek Ranch (sec. 16, T. 27 N., R. 1 E., S.B.M.)

(Written by C. M. Rasor, about 1941, according to W. A. Ackerman, secretary Death Valley Hotel Co.)

My first visit to above-named property was made in 1904. I reached the ranch about April 15, of that year, exact date unknown, and left the ranch about the middle of July, of the same year. I was there in the capacity of U.S. deputy mineral surveyor, and had with me another surveyor, Jean Valjean, and four chainmen. The party was accompanied by John Ryan, then general manager of Pacific Coast Borax Co.

On arrival at ranch, conditions as I now recall them, were about as follows:

There was, as a "ranchhouse," an adobe building about 24 by 40 feet, divided into about five compartments, or rooms. One compartment was used as a kitchen, and was equipped with a cookstove; another was used as a storeroom, in which was stored provisions, such as flour, beans, sugar, coffee, and other nonperishable groceries; there was also a dining room and one or two bedrooms.

On the side of the adobe building facing west (the long side) there was a veranda, or porch, about 10 feet wide. This porch was about 2 feet above the ground level. There were a few iron "cots" on this porch, on which blankets could be spread for beds. But the porch was so infested with scorpions that most of our party preferred making our beds on some closeby gravel spot.

Alongside of the north end of the building, distant about 30 feet, was a ditch, about 5 feet wide, which carried the waters of Furnace Creek; Furnace Creek

being the stream that has its source in and alongside of Furnace Creek Wash, about 2½ miles to southeast. This ditch was about 3½ feet wide, and about 1 foot deep at center. It had a clean gravel bottom, and the banks were covered with devil grass. All forms of waste water from the kitchen were emptied into the ditch, and were carried away by current, to fields below. About 50 feet below the house, and over the ditch, was a 4 by 8 frame structure in one end of which was a lavatory, and in the other end, a shower bath. Thus, waste from kitchen, bathhouse, and lavatory were disposed of, and the living quarters were kept quite sanitary.

To the west along the ditch there were a number of fig trees. These formed considerable shade. Figs formed on them in the springtime, but as warm weather came on, the fruit would dry up and fall to the ground.

There was a pressure pipe, about 2½ inches in diameter, leading from Texas Spring, about 2 miles easterly, to the ranchhouse. The water carried in this pipe was used for domestic purposes. It also propelled a 4-foot homemade fan, located about midway between the ditch and north end of veranda. This fan created a draft, along the porch. Surplus water from Texas Spring, and water used in propelling fan was diverted into main irrigating ditch. A system of pipes from the Texas Spring pipeline, carried water under pressure to hydrants around the dooryard, and to a truck garden to northeast of ranchhouse. There was a standpipe outside of fence, where tanks, barrels, and other containers could be filled with water, and hauled away to various mining operations in the district.

To west of ranchhouse—distant about 50 feet—there was a cellar; the floor of which was about 4 feet below ground level. The top of this cellar extended about 4 feet above ground. The entire cellar was covered with about 2 feet of earth and sand. The cellar was used for storage of canned goods, potatoes, butter, cheese, eggs, etc.

In all, the ranchhouse and dooryard was a very comfortable place, even in summertime. Prospectors and miners from desert properties many miles away made frequent visits to the place to rest up.

To the west of the ranchhouse—beginning about 100 feet away—was quite a group of buildings, consisting of blacksmith shop, wagon sheds, grain sheds, etc., followed by large corrals and feed yards. Also a fenced area still farther west in which were haystacks and hay-baling machine.

To west and northwest of ranchhouse were fields of cultivated lands—about 80 acres in extent. Alfalfa was the main crop, and alfalfa grew luxuriantly.

The ranch was, in 1904, under the management of Adolphus Nevarez, whose most reliable laborers were a group of Shoshone Indians. The Indians camped in a group of teepees, alongside the ditch from Furnace Creek Spring, about 200 to 400 feet east of the easterly boundary of section 16.

Prior to 1904, and until 1907, supplies were brought in from Daggett—a station on Santa Fe Railroad, distant about 180 miles, southerly—and from Mojave, distant about 200 miles, southwesterly.

In 1904, the old Harmony Borax Works, about 2 miles above the ranch, was in a fair state of preservation. Some of the kettles were in place; also, a number of the old crystaling vats were standing; the "office building" was in good shape, except for roof, which had probably blown away; a few sections of an old pipeline from Texas Spring to the works were scattered along the former route of pipeline, etc. But even in its days of activity Harmony must have been a forbidding place to live—being as it was on the edge of the windswept marsh. It is probable that most of its employees either lived at the ranch or at least used it as a weekend resort.

Judging from the size of old cottonwood trees along the south boundary of the ranch, and some large trees about the ranch, in 1904, one might conclude that the ranch had been cultivated 10 or 15 years, prior to the discovery of borate by Aarren Winters in 1880.

Among surveys to be made in 1904, were a number of placer (marsh) claims on the floor of the valley from 2 to 5 miles northwesterly from the ranchhouse.

These claims were intersected by San Bernardino meridian. Having the advantage of maps showing earlier surveys (1883) tied to corners on the prime meridian, finding the meridian was comparatively an easy matter. The closing corner on the prime meridian, set for southeast corner of township 16 S., R. 46 E., was marked by a 3 by 3 pine post, set in a large mound of earth and rock salt, and the scribings on it were definitely legible. From this monument, we chained south, finding a few of the original markings for section corners. These markings consisted of mesquite hubs, projecting about 12 inches above the ground. They were badly "weathered" to such an extent that no scribings were observed.

After following the meridian a distance of about 10 miles where it had arisen well above floor of valley, and was in very rocky country, no marking monuments, or means of identification could be found. The line across south boundary of sections 31 to 34, T. 27 N., R. 1 E., was run, but no marked stakes were found. These were, however, at proper intervals very old and badly weathered mounds of earth and salt.

The prime meridian was run in 1851, 1852, and 1853, and townships 27 N., R. 1, 2, and 3 E., were subdivided in 1852 and/or 1853.

A study of the official plat of T. 27 N., R. 1 E., gives rise to the thought that the surveyors in the field may have labored under trying conditions, and that the draftsman who compiled the plot had had confusing field notes from which to work. Considering the difficulties under which the surveyors must have worked, we must conclude that they did pretty well.

Among the difficulties that the surveyors of this section had in the early fifties was that of hostile Indians. Only one of these was living in 1904; he being "Panamint Tom."

In 1904, I inquired of an Indian, "Bill Bolen" then about 50 years old, as to how members of his tribe got into Death Valley, from far away southern Idaho, their tribal home. According to his short story, gotten from his parents, other Indians had driven a band of Shoshones south from the country now known as Idaho, into the country now known as Death Valley, expecting them to perish in this desolate region. Bolen could not say whether it was members of the Shoshone tribe, or some other tribe, that did the driving.

In 1905 I made a number of trips to Death Valley. These were often in company with Mr. John Ryan. Also in 1906, 1907, and 1908. On these trips the matter of opening up the large, for those days, deposits of ore in the vicinity of Corkscrew Canyon and Monte Blanca, were examined and discussed. As early as 1908, Mr. Ryan foresaw the exhaustion of the then being operated Lila C. mine; the Tonopah & Tidewater Railroad had reached the Lila C. mine in 1907, and all the Borax Co.'s requirements of borate came from this mine, until period ending 1915. In 1915, the Lila C. was practically exhausted. From general knowledge, I can state that, as to quantity of ore available, the Lila C. deposit did not come up to expectations.

In 1908, as above stated, studies were begun for the development of Monte Blanca and Corkscrew deposits. Although large quantities, at least in those days, of high-grade ores were exposed on the surface, considerable prospecting by means of cross-out tunnels was being done.

It was Mr. Ryan's idea that a camp should be established at a point convenient to these mines; that a pumping plant should be established at Furnace Creek Spring; a pipeline should be laid up Furnace Creek Wash to campsite selected, distant, about 3 miles, against a 5-percent grade.

Following the conception of this plan, surveys were made for determining a means of transporting the ores from the selected campsite to a point on the Tonopah and Tidewater. The matter of transportation, during years 1911, 1912, and 1913 was given considerable attention.

During the years 1911, 1912, and 1913, considerable prospecting had been done on deposits known as Biddy McCarty, Grand View, and Widow, situate along hillsides that form the right bank of the wash leading from Furnace Creek Wash to Greenwater. This prospecting revealed that these deposits would supply the company's requirements of ore for many years, and the Borax Co. decided to make them its next point of mining activity. In 1913, I was engaged, during the months of June, July, August, and September on a railroad project in Oregon. In September, Mr. Ryan ordered me back to Death Valley. On November 1, 1913, I arrived at Death Valley Junction with a locating party of 12 men, and began the location of a railroad from a point on the Lila C branch of Tonopah & Tidewater Railroad, to the Biddy McCarty mine. Construction of this road commenced shortly after a part of the location had been made, and the entire line, about 22 miles, was completed in December 1914.

After this railroad was completed and in operation, the matter of water supply for the mining operations was still a mooted question. We made a calculation of the cost of pumping water up from Furnace Creek Spring, and equated the cost against the cost of hauling water from Death Valley Junction, over the new railroad. As to cost, the water from Death Valley was definitely the cheaper and the supply of water for the new mining camp at Biddy McCarty Deposit, came from deep wells at Death Valley Junction.

The ore from the newly opened deposits was satisfactory for a while. A few years of mining proved up larger tonnage than shown by preliminary estimates. But with further and deeper extensions of mining openings, the ore became lower in grade, and changed to a character that was less amenable to concentration. The water from Death Valley Junction caused much complaint among our employees—about 250 in number. Analysis of water from Death Valley Junction showed it contained 2,200 grains per gallon of alkaline solids. The miners clamored for better water.

In 1924, a line of railroad was surveyed from a point on the constructed railway, so laid as to head toward the big deposits of Corkscrew and Mone Blanca. No action had been taken on the construction of this line up to the year 1926. In the year 1926, new deposits in Kramer District, Kern County, Calif., had been discovered and opened up. Prospects of a large tonnage of ore of a superior quality were offered, and all mining of borate ores in Death Valley ceased in 1927.

With the foregoing varied history of Death Valley water set before us, we are now faced with the problem of placing a money value on the Death Valley water supply.

C. M. Rasor.

[Excerpt from general report, New York office (Pacific Coast Borax Co.), March 1912]

Greenland Ranch

Located in Death Valley 39.2 miles from Lila C. Mine via Greenwater Road and Furnace Creek Wash, takes 3 hours, 15 minutes by automobile. Ranch is in charge of Thomas Osborne, who is paid $3 per day.

There are about 100 acres of ground cleared, 75 acres in alfalfa, 3 acres in field corn and Kaffir corn, one patch cabbage, small vineyard and considerable fruit and garden truck.

There are 103 head of cattle at the present time, including calves, cows, and steers. Osborne harvests his alfalfa 5 times a season and expects to get about 300 tons this year. It is quite difficult to get help at the ranch during the summer months while the harvesting is in progress. Indians are employed whenever available at $1.75 per day; white men are paid $2. The ranch is fairly well equipped with livestock and farming implements.

The present supply of water from Furnace Creek and Texas Springs is amply sufficient to irrigate all the land under cultivation. The supply could be doubled or trebled, if desired, by going to the expense of collecting up the water now running to waste and scattering over the desert near the headwaters of Furnace Creek.

The ranch is well fenced and in good shape. The present foreman, Thomas Osborne, has cleared about 10 acres and is engaged in clearing more.

Respectfully submitted.

———— ————, *Auditor.*

April 15, 1912.

RYAN, INYO COUNTY, CALIF., *January 27, 1913.*

Mr. W. L. LOCKE,
Oakland, Calif.

DEAR SIR: Replying to your favor of the 21st, asking if we have ever tried to raise figs, olives, and dates, will state that we have a number of fig trees and date palms on the ranch at present.

The fig trees are quite large, but only one tree bears fruit that matures. This one seems to be an early variety as the fruit ripens the later part of April or early in May. The fruit is good tasting and a fair size, but only the first crop matures. The heat seems to be too intense for the second crop, as well as the first crop on the rest of the trees, for the figs form and get about the size of marbles and then harden or dry up.

It is my opinion that an early variety does well there, but we can only expect the one crop to mature.

Twelve olive trees were sent to the ranch in 1906 and I presume were planted, but none remains today so I do not know what results were obtained. It is possible Mr. Ryan would know something about them.

Regarding dates, I think they would do well there and mature if properly cared for, judging from results we obtained this year, or rather last summer, from the date palms that are out there. I do not know when these palms were planted or what variety they are, but last summer we gave them more water than they usually get, and the result was that about half of them bore fruit and it ripened, but there is something lacking about it. The seeds are too large in proportion to the size of the fruit and there is not enough meat on them. In others words the dates are small and have large seeds. However the meat that is on them is very sweet, and tastes like a real date.

Now it may be that these trees are seedlings and need grafting, or possibly fertilizing of some kind, this I do not know but have been trying to find out.

When Mr. Hoyt S. Gale, geologist, was in the valley a couple of months ago, I explained our situation to him, and he promised to take it up with authorities in that line, in Washington, and let me know what they needed, but to date I have not heard from him.

As I understand it, dates need lots of good hot sun, lots of water on the roots, but no rain, so I see no reason why they should not do well in the valley.

On May 31, 1911, Mr. C. S. Mason, acting physiologist in charge of the U.S. Department of Agriculture at Washington, wrote you a long letter regarding conditions in the valley, and asked for data regarding the climate and soil. At that time we were unable to give him either, but now we have some intelligible information regarding weather conditions, and when we get returns from the samples of soil sent you some time ago, we will have some valuable data in that line also. After we get this information, I think if we were to take it up again with Mr. Mason, he could tell us more accurately what trees would be best adapted for the valley. Also send us the date offshoots of the imported varieties, he spoke about and advise us how to take care of them.

In looking over the ranch records to ascertain if I could find out the variety of date palms that are on the ranch, I ran across a list of trees and vines that were sent to the ranch in 1906, and no doubt planted. I am enclosing the list herewith, and will state that the following are the only trees that remain, or grew, out of the entire list: Figs, pepper trees, grapes, palms, dates, and oleander trees.

Yours very truly,

F. W. CORKILL.

CALICO BORATE DEPOSIT.

Draft List No. .....

PACIFIC COAST BORAX CO.
101 Sansome Street,
San Francisco, Cal.

Dear Sir:

I beg to advise having drawn the following drafts on ~~Bagdad~~ Barstow, Cal.

No.	Date	Payee or	Account of	Amount
		6 Dahlias White		.25
		6 Tuberoses		.15
		1 Amaryllis Vittata		.25
		1 " Belladona		.25
		3 Begonia Single Mixed		.25
		12 lbs. Sweet Peas		.30
		500 Pepper Tree Protectors		4.50
		200 Eucalyptus Rostrata		3.00
		200 " Globulus		2.50
		100 Pepper Trees		20.00
		1000 Monterey Cy. Trees		10.00
		10 Acacia Melanoxylon		.50
		1 " Baileyana		.75
		6 Texas Umbella Trees 3-4 ft		1.80
		1 Magnolia		1.00
		2 Mulberry Trees		1.00
		2 Apple " Astragan		.40
		2 " " Cal. Favorite		.40
		2 " " Siberian Crab		.40
		6 Fig Black		2.10
		2 Persimmon Trees		.50
		10 Washingtonia Robusta Palms		10.00
		2 Quince Trees		.70
		2 Monterey Trees Pine		.70
		2 Eucalyptus		.50
		1 Bamboo		.50

Yours very truly

R. Clark

Superintendent

CALICO BORATE DEPOSIT.

Draft List No. ____ Daggett ____ 190

PACIFIC COAST BORAX CO.
101 Sansome Street,
San Francisco, Cal.

Dear Sir:

I beg to advise having drawn the following drafts, viz:

No.	Date	Favor of	Account of	Amount
1		Lagerstroemia		25
1		Hydrangea		35
1		Oleander		50
1		Camphor Tree		50
1		Collection Cactus #2		250
14		Grape. Vitis Arata.		100
12		Olive Trees		420
25		Phoenix Canarensis		1875
1		Sterculia Diversifolia		75
1		Pampas Grass		50
				9660

Yours very truly

Superintendent

PACIFIC COAST BORAX CO.,
Ryan, Inyo County, Calif., March 14, 1913.

Mr. W. L. LOCKE,
Oakland, Calif.

DEAR MR. LOCKE: Regarding spineless cactus, will state that I have studied Burbanks booklet regarding same, also instructions in your favor of the 5th, as to how to plant, and care for them.

It appears to me that they should thrive in the valley, and if this is true, which our experiment will determine, it would enable us to raise an unlimited amount of cattle on the ranch. As it is now, our supply is limited for we have to depend on alfalfa for feed, and the amount of alfalfa we raise depends on our water supply. At present we cannot plant any more for during the hot summer months, it requires all the water we have to properly irrigate the alfalfa fields. As a result of the above our herd of cattle has to be limited. For instance, this winter we were forced to do considerable butchering in order to bring our herd down to the proper size, for figuring the increase, our hay crops that will be put up during the coming summer, would not carry them through the year.

While the assessment crew were in the valley, they used 2,941 pounds of beef from the ranch, and during the months of December, January, February, and March, we have hauled in 9,522 pounds to the mine, making a total of 12,463 pounds we have disposed of, to date.

If our experiment with spineless cactus proves successful, within a few years we could have enough growing to feed at least 300 or 400 head of cattle, and with the proposed railroad within 15 miles of the ranch, we could easily market them.

As yet the plants have not arrived, but when they do, I will take them to the ranch and see that they get a proper start, also keep a record of them in order to determine which variety does best in that climate.

Yours very truly,

F. W. CORKILL.

APRIL 8, 1913.

Memorandum.

Mr. JOHN RYAN:

Will you please furnish Mr. Locke with particulars about Furnace Creek Ranch:

The quantity of water available.

The elevation of the water at its source—whether the supply could be increased—what the supply at the present discharge amounts to—the loss by evaporation.

What area of land is now tillable, and is there adjacent to this land a further area that could be procured?

What would be the cost of a concrete trough in which to bring down the water, and what waterpower could be procured?

Very truly yours,

W. L. LOCKE.

APRIL 9, 1913.

Mr. WM. L. LOCKE,
Office

DEAR SIR: Your letter of April 8 received, asking for particulars about Furnace Creek Ranch.

The quantity of water available is about 100 inches—the elevation of the water at its source is 600 feet above the level of the ranch, and will develop about 75 horsepower. The distance, a little over 1½ miles.

The supply could be increased by putting in a subterranean dam in the canyon. How much it is impossible to tell—possibly the increase would be one-quarter or one-third.

We have a smaller spring called Texas Spring that brings water in a pipe to the ranch. This spring will give a supply in the neighborhood of 25 inches. I do not know if it has been accurately measured. I am making this statement by judging the amount from recollection.

Regarding the area of land tillable, will say that the land we are working is in the vicinity of 40 acres. I think our records show that we own about 160 acres—if I am not correct you can get the exact amount from your files in the

office. I do not think we can get any land outside of our boundaries as the land adjoining us has been taken up by scrip. In fact a little of our fence on the side of the ranch, where we have our entrance going into the yard, overlaps this land that is taken up by scrip.

Regarding the loss by evaporation, I cannot recollect anything about this. It has been measured and reported on but we are unable to find the data in this office. However, I have written to Fred Corkill to get this information for us the next visit he makes to the ranch.

Regarding the concrete trough—it would be difficult to estimate, as we would have to carry the water in an iron pipe along the hillside to bring it out beyond the mouth of the canyon to avoid being washed out. It requires at least an inch of water to irrigate an acre of land, and in order to utilize the whole of our 160 acres it would take all the water we can develop.

Very truly yours,

THE PACIFIC COAST BORAX CO.,
By JOHN RYAN.

APRIL 11, 1913.

MR. W. L. LOCKE,
Oakland, Calif.

DEAR SIR: Replying to your favor of recent date relative to fertile land available in the valley, will state that, in my opinion, we could take up another 160 acres of good ground, and possibly a great deal more that would do for spineless cactus, providing it does well in the valley.

If cactus proves a success, we could greatly reduce our alfalfa acreage, in fact just raise enough for our horses, and by doing so, we would then have enough available water to raise anything that might do well in the valley, and plenty of it. In other words, we could broaden out, but as it is at present, during the hot summer months our alfalfa fields require all the water we have.

In my letter to Mr. Ryan today, I gave him measurements of our water supply, and in case you would like to have them, you can get same from him.

I received the soil analysis today, and wish to thank you for them. I will study them out and see what they have determined for us.

Yours very truly,

F. W. CORKILL.

APRIL 14, 1913.

MR. WM. L. LOCKE,
Office

DEAR SIR: Supplementing my letter a few days ago, regarding the flow of water in Furnace Creek Ranch, will state that 9 months ago both Mr. Corkill and Mr. Rasor measured the flow of water from the head of Furnace Creek, and also measured the amount of water that was lost by evaporation and seepage.

Furnace Creek waters and Texas Springs combined were measured in the yard at Greenland Ranch at 1 p.m. about 9 months ago, and the measurements showed that there were 69.1 miner's inches, equal to 1.383 cubic feet per second.

The measurement of waters at the head of Furnace Creek was taken at 2:45 p.m., and the measurements showed that there were 92.1 miner's inches, equal to 1.843 cubic feet per second.

The Texas Spring is a separate flow of water coming from a canyon east of the ranch, and the flow of the Texas Spring was estimated at 6 miner's inches.

The two measurements of Furnace Creek show a loss in seepage and evaporation of 29 miner's inches, or 31 percent in the passing of the waters from the headwaters to the ranch.

The above measurements were made over rectangular weirs set under favorable conditions.

They do not take all of the water from Texas Springs, for the pipeline that conveys it to the ranch will not carry all of it. There are about 4 miner's inches that are running to waste.

If we had a pipeline sufficiently large to carry all the water from Texas Springs, there would be in the neighborhood of 10 inches.

At present there are two 2-inch pipes running from the tank to the spring to within a half-mile of the ranch, and from there down, a 2-inch single pipe carries the water to the house.

Regarding the amount of land tillable—there are 50 acres in alfalfa at present. They also have about 20 acres more under fence, that is good ground. Some of these 20 acres are in wheat, corn, cactus, stock beets, and melons—the rest of the land is idle.

As I have already stated the elevations from the headwaters of Furnace Creek to the ranch is 600 feet—distance about 1¾ miles.

I cannot answer the question of the cost of putting in a concrete pipe or trough until I can communicate with someone who does this kind of work.

Mr. Corkill states that there is possibly another 160 acres of ground that could be taken in and cultivated, but I think he is not aware of the fact that the tillable land, outside of our own property, is held by scrip by other parties—therefore we could not utilize it.

The present area of the ranch that we have fenced in, according to Mr. Corkill, is 70 acres. Your records will show you how much more land we own there, and how much outside of the fence could be cultivated.

Very truly yours,

THE PACIFIC COAST BORAX CO.
By JOHN RYAN.

JUNE 22, 1913.

Mr. W. GARNER SMITH,
San Francisco, Calif.

DEAR SIR: A short time ago I received a letter from Mr. Looke, requesting me to send you photographs of our spineless cactus, showing new growth, and data relative to them. Complying with his request, will state that the cuttings were planted March 29, photographs enclosed herewith were taken April 28, and show new sprouts 1 month old.

At the time they were photographed, some of the slabs appeared a little dry, and had began to wither, so on April 29, they received their first water. May 23, we watered them again, also on June 14. We do all the watering after sundown, and give them just enough to saturate the ground in which they are planted.

The above-mentioned plants are making their start in an arid, dry region, 178 feet below sea level, in soil that is not overly rich, but it is the writers' opinion that with a little care, and watering during the hot, dry summer months, they can be successfully grown, for at the present writing some of the slabs have three tiers of new sprouts.

Regarding our alfalfa, will state that we irrigate by flooding with a stream that measures 69 miners inches. Our fields are divided into sections or blocks of about three acres each, and these blocks are flooded in rotation, each block receiving a thorough flooding twice per month.

The yield of alfalfa is as follows:

The first crop, which this season, we started harvesting April 22, averaged approximately 2 tons per acre. The succeeding crops which follow 30 days apart, yield from 1½ to 1¾ tons per acre.

This season, we will harvest six crops.

Trusting this information is what you desire, I am,

Yours very truly,

F. W. CORKILL.

THE PACIFIC COAST BORAX CO.,
Ryan, Inyo County, Calif., January 30,1914.

Mr. W. L. LOCKE,
Oakland, Calif.

DEAR SIR: Replying to your favor of recent date, relative to a small strip of Greenland ranch overlapping ground claimed by Messrs. Lavenson and Glover of San Francisco, will state that it is impossible for me to check this up. For that reason I have held your letter up until I could see Mr. Rasor and talk the matter over with him.

I met him at Death Valley Junction yesterday, and he states it is impossible for anyone to determine this line within 100 feet. As Greenland ranch was taken up when the township corners were practically new, the original survey was probably correct. In view of the fact that the original corners have long since disappeared, and Mr. Rasor states it would be next to impossible to reestablish them with absolute certainty, it looks to me, this company could declare their ground does not overlap, and defy the above parties to prove it does.

Regarding Texas Springs, Mr. Rasor states he has never done any work in that vicinity and has no notes whatever regarding them.

I do not know how the above parties took up the land they claim, but I do know they have done no work to hold the ground they claim since I have been making trips into the valley. It would be possible for them to come in and make locations without us seeing them, but if they had worked in that vicinity, our ranchman would have seen them, therefore I cannot understand how these people are holding all the ground they claim.

Just as soon as I can spare the time, I will go over this ground they claim, and see if I can find any of their monuments.

At present all of the water from Texas Springs does not run to the ranch, as the old pipeline will not take it, in fact it has been this way for some time. Recently Mr. Ryan purchased enough 4-inch pipe for a new line, but on account of using all our stock to keep the drill rig going, we have been unable to get it to the ranch, and from present indications, we will be unable to get it all out until the drilling is finished. Inasmuch as there is room for a dispute over this water that we cannot carry in our present pipeline, it looks to me the sooner we get our new line in, the better, and it might pay us to hire outside teams to take the pipe from Ryan to the ranch. We could probably contract it, and get it hauled cheaper, than paying for an outfit by the day.

After the pipe is once on the ground, it will only take a few days to lay it.

I would like either you or Mr. Ryan to advise me regarding this. If you do not think it necessary to get the line in soon, we can haul it out ourselves at odd times, and get the line laid before the hot weather sets in, but if it has to be done soon, we cannot do it with our stock, as we cannot spare them from the drill rig.

Yours very truly,

F. W. CORKHILL.

THE PACIFIC COAST BORAX CO.,
Ryan, Inyo County, Calif., February 15, 1914.

MR. W. L. LOCKE,
Oakland, Calif.

DEAR SIR: I would like the following data regarding dates.

At the present writing we have at Greenland ranch two date palms that are going to bear fruit this year, unless a late frost kills the buds that are now maturing. We have also a male tree that is bearing pollen tassels.

What I want to know is: How do you fertilize the buds of one tree with the pollen of the other? Does nature do this, the same as in many other plants, or does it have to be done by hand? And if so, in what manner, and how do you tell, or can you tell when this pollen has reached the proper stage for distribution?

I read an article some time ago, and it said this had to be done, but it did not say how to do it. A few days ago while at the ranch, I noticed we had two kinds of date palms, and I take one to be the male and the other the female tree.

Two years ago we raised a small crop of dates, but they were all stone, and very little meat on them. At the time I thought they were perhaps seedlings, but since reading the article above mentioned it occurred to me that perhaps they were not, or had not been properly fertilized.

It may be that we have a good variety of dates, and with proper care, we can get some good results, so if you can get me any information along the above lines, it will be appreciated, and we will do what we can to raise some good fruit.

Yours very truly,

F. W. CORKILL.

[Excerpt from Annual Report 1919–20 of Mine Superintendent J. Boyd, Ryan, Calif., to Pacific Coast Borax, Co., Oct. 30, 1920]

"* * * GREENLAND RANCH

"The herd of cattle has been maintained on the ranch and about 70 acres of alfalfa have been cropped. * * *"

[Excerpt from Annual Report, 1920–21, of the Mine Superintendent J. Boyd, Ryan, Calif., to Pacific Coast Borax Co., Oct. 27, 1921]

"* * * GREENLAND RANCH

"During the year the ranch supplied the Ryan and Death Valley boarding houses with 21 head of cattle. Strange to say the increase in the herd exactly equaled this slaughter, as there were 65 head of cattle on the 30th of September 1921 as there were on September 30, 1920. Taking into consideration the inventory valuation, as well as the Greenland Ranch expense account, the loss on the ranch this year was $8,285.16, as against $14,885.49 the previous year.

"During this year a considerable amount of labor was spent in cleaning out the springs, rebuilding the irrigation ditch for a length of 1 mile and erecting substantial breakwaters to prevent the ditch from being washed out by cloud bursts as in previous years. Experiments were made in planting vegetables and date seeds. The vegetables were planted in March, which proved to be a month too late. The small date palms are growing well. A start was made in the clearing of an additional 10 acres. The amount of alfalfa hay cropped was about the same as last year.

"The amount of ground under cultivation was erroneously given last year as 70 acres. The ranch was surveyed in September 1921 (a plan accompanies this report) and the amount of land under cultivation was found to be only 40 acres. The amount of water arriving at the ranch was measured and found to be 85 miner's inches, sufficient to irrigate 70 acres easily.

"A new ranchhouse was erected for the foreman. * * *"

[Excerpt from Annual Report, 1922–23, of Mine Superintendent J. Boyd, Ryan, Calif., to Pacific Coast Borax Co., Nov. 5, 1923]

"* * * GREENLAND RANCH

"The loss in running the ranch this year was $7,055.76 as against $6,500 last year. The cattle are doing fairly well. Fifteen beeves were slaughtered and the herd increased by 17 head. In addition, the ranch supplied the boarding house with 375 dozen eggs, 4 dozen chickens, and small quantities of miscellaneous vegetables. * * *"

CALIZONA DATE PALM,
Indio, Calif., June 3, 1924.

Mr. F. M. JENIFER,
Los Angeles, Calif.

DEAR SIR: Your letter of May 22 was duly received and in reply I will state that I can supply you with palms along the lines suggested and will enclose blank contracts for signature.

There is one point that is slightly different from proposition as outlined in your letter and that is regarding replacing the palms in case scale should later develop.

After watching the situation closely for a few years we have every reason to believe that the palms we send out will be absolutely free of scale but in case scale should develop later either from old or from new infection we want the privilege to replace such a palm but cannot agree to replace it, or it might be impossible to do so.

The experiment of planting Deglet Noors in Death Valley will be watched with great interest and we wish you great success.

Sincerely yours,

(Signed) C. E. COOK.

PACIFIC COAST BORAX CO.,
New York, June 12, 1924.

Mr. C. R. DUDLEY,
Western Manager,
San Francisco, Calif.

DEAR SIR: Herewith, in duplicate, a contract which we are entering into with Mr. C. E. Cook, of Indio, Calif., for the purchase of 20 date palm trees for delivery during the spring of 1925, planting to be at the Furnace Creek Ranch. There is also attached copy of letter from Mr. C. E. Cook to me, and I am asking Mr. Miller to send you a copy of my letter of May 22 to Mr. Cook in order that your file may be complete.

Will you please arrange for the proper execution of these contracts, retaining one in your files after Mr. Cook's signature is affixed. Also send him a check, as provided in the contract, for 20 percent of the amount, or $180.

When the contract has finally been closed, will you please advise Major Boyd that such arrangements have definitely been made and we can expect the delivery of the 20 palms during the early part of 1925.

Very truly yours,

F. M. JENIFER.

AGREEMENT BETWEEN C. E. COOK AND THE PACIFIC COAST BORAX CO., JUNE 15, 1925

Whereas C. E. Cook of Indio, Calif., the party of the first part, is the owner of forty acres of land near Yuma, Arizona, on which land are now growing approximately 1,200 Deglet Noor Date Palms, and

Whereas the above-named company, of Death Valley, the party of the second part, desires to purchase a portion of said palms the party of the first part agrees to sell one hundred of said palms to the party of the second part and the party of second part hereby agrees to buy said number of said palms from the party of the first part, the terms and conditions as mutually agreed being as follows:

The said palms are to remain in said orchard and be given good care by the party of the first part or his agents until they are ready for shipment at the proper season of the year and they will be considered ready for shipment when they can be delivered with an average of at least four offshoots per palm attached to the parent palm exclusive of any offshoots that shall be retained by the party of the first part for propagating purposes. The time of delivery to be in the spring of the year 1926 for the first half and in or before the spring of 1927 for the second half.

The purchase price of the palms covered by this agreement is a total of Four Thousand Five Hundred Dollars ($4,500.00) F.O.B. Yuma, Arizona, to be paid as follows: One-fifth the entire amount, cash in hand, the receipt of which is hereby acknowledged, and the balance remaining on any shipment of said palms, to be paid when they are ready to be dug from the nursery for delivery, no interest on deferred payments. No palms to be included on which scale can be found at time of delivery.

In case said palms shall not produce sufficient offshoots so that they can be delivered with an average of at least four offshoots per palm as above specified they will be considered ready for delivery when they have reached a height of nine feet above the ground but the party of the first part shall forfeit the sum of ten dollars per offshoot for each offshoot that he is not able to deliver as specified above, said forfeiture to be deducted from any sum due to the party of the first part at the time of delivery of palms as herein provided.

Time is the essence of this agreement and partial payments shall be forfeited as liquidated damages on failure to make subsequent payments when due. It is understood that all palms comprising said lot are of the Deglet Noor variety but the party of the first part shall not be held responsible for damages if any should vary from the true type.

Signed June 16, 1925:

C. E. COOK.

Pacific Coast Borax Co., party of the second part:

By F. M. JENIFER,
Signed by BRUCE DRUMMOND,
Agriculturist.

FEBRUARY 25, 1925.

Prof. J. LE CONTE,
Department of Mechanics,
University of California,
Berkeley, Calif.

MY DEAR SIR: I would be infinitely obliged if you could give me the following information to help out in a little hydraulic problem that we have here in Death Valley.

In Furnace Creek we have a flow of 90 miners inches (equivalent to a flow of 135 cubic feet per minute or 2¼ cubic feet per second) at a point which is 350 feet above sea level. We wish to convey this stream of water in an enclosed pipe to Greenland Ranch which is situated 178 feet below sea level in Death Valley, a distance of 2½ miles.

What size of steel-riveted pipe would be required to convey this stream of water this distance?

What horsepower could be developed by means of an hydroelectric plant by this stream of water which, under the foregoing circumstances, would have a head of 528 feet?

If it would not be asking too much, would you be able to let me have the figures and formulae used in working out this problem.

Yours very truly,

(Signed) J. Boyd,
Mine Superintendent.

September 15, 1925.

Mr. C. B. Zabriskie,
New York, N.Y.

Dear Sir: Rasor, Gower, and I went over the Furnace Creek water situation Friday and Saturday visiting all of the springs and water-bearing areas. It was very apparent to all of us that we are not getting all the water by any means and that measures should be immediately taken to establish our rights by usage and otherwise to the springs and waters that we do not now control the exclusive right to.

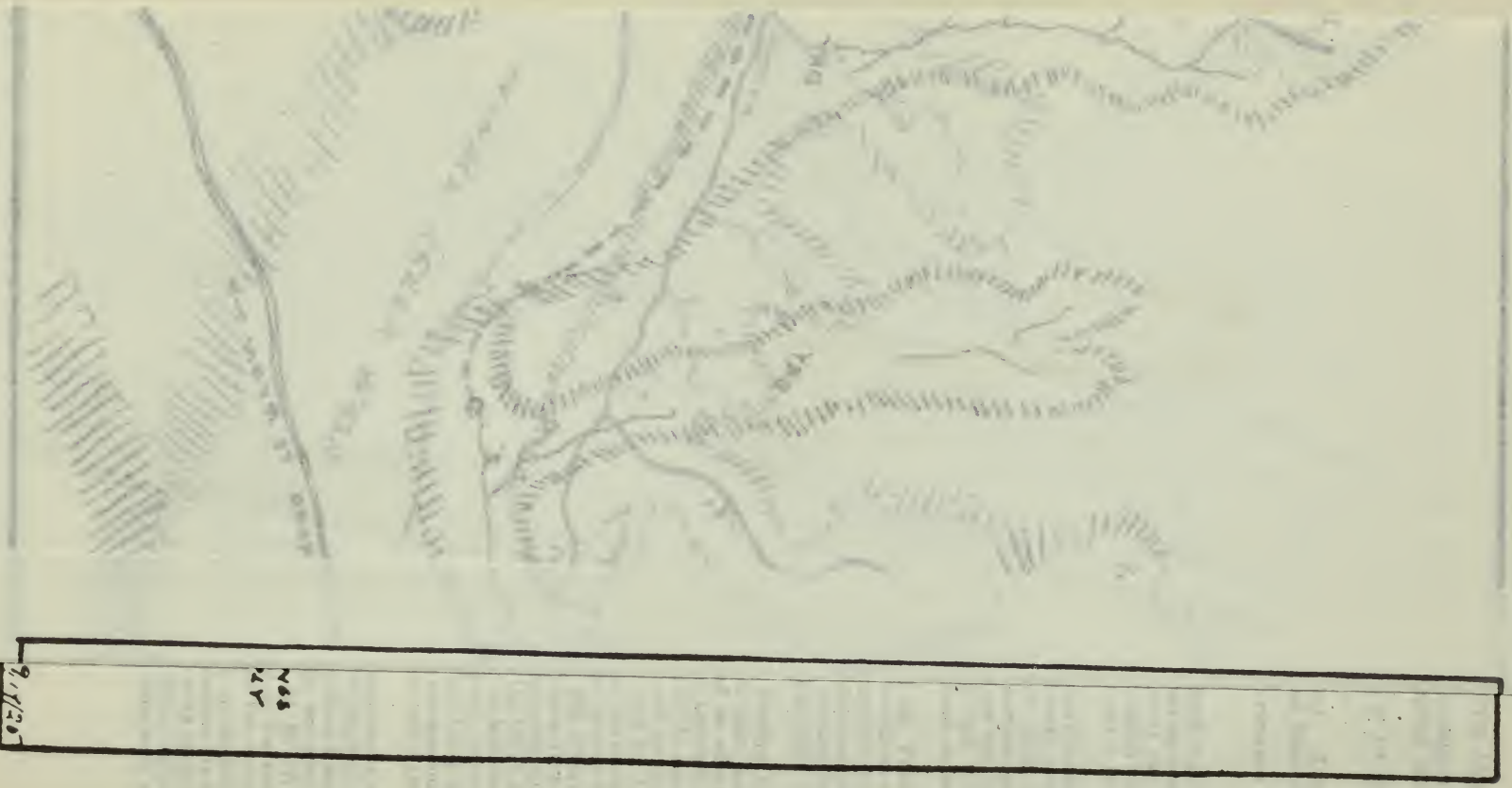
The water from the Texas Springs is under quite satisfactory control, excepting that a number of springs adjacent to the headwater and main spring are not tapped and the waters therefrom are not diverted into our ditch or pipeline. It is questionable how much the flow through the Texas Springs pipeline can be increased by tapping the other springs, but since the springs are quite numerous and are not far from the main springs which are being used, it is assumed that the supply from this particular district can be increased somewhat at a reasonable cost.

The principal water supply for the ranch comes from the Furnace Creek springs or headwater, of course, and at such point similar conditions as those at Texas Springs mentioned above exist. The springs and ditches feeding into the main ditch to the ranch have not been kept open and in such condition as to assure us the full water production. There is considerable wastage and seepage from those springs that are tapped and a number of springs that we are not getting the benefit of at all.

In the most southerly canyon or draw leading out of the Furnace Creek there are a large number of springs which apparently have never been opened up or ditched in a manner to determine the full production and no effort has ever been made to divert such waters into the ranch ditch, which leaves such springs entirely detached from our water system and probably subject to appropriation by others. The waters from the springs in this canyon sink before reaching Furnace Creek Wash and it is the assumption of Mr. Rasor and Mr. Gower that such water rises again on the west side of the wash opposite the swimming pool in springs which are connected with our main ditch, but this is only theory and of course it would be difficult to establish same as a fact. The diversion of the water from the canyon springs before reaching the point where they disappear to our main ditch might, through a drying up process of the lower springs, conclusively demonstrate that their theory as to the source of the lower spring production is correct. It is obvious that the appropriation or location of these springs in the southerly canyon would involve a considerable expense on our part to establish our rights and prove that those waters are being used by us after sinking and rising again in a lower spring. It is my recommendation that these waters be diverted before sinking under the wash into our main ditch, as the expense of such diversion will not be large.

Between the Furnace Creek Springs and the Texas Springs are at least three canyons leading back from one-half mile to a mile from the Furnace Creek, where there are numerous springs, mostly small, that have no connection whatever with our ditch or any lower springs and such waters undoubtedly are open to appropriation by others according to the recent opinion given by Mr. Wehe. The springs in these separate canyons, which are bowl shaped at the head, are so situated along the faultline near the top of the hills that the waters can be diverted to a central point without a great amount of work or expense and conveyed therefrom in a pipeline to our ditch. These several canyons are each capable of a substantial production and it is my opinion such work should be done immediately, unless of course after consulting Mr. Wehe some method of protecting our rights to such waters can be developed without doing such work until we actually need the water.


DITCH TO RANCH
FURNACE CREEK WASH
ROAD TO RYAN →
DRY
DRY
DRY
DRY
SPRING
SKETCH OF NEW WATER SPRINGS
OF GREENLAND RANCH WATER SUPPLY
SHOWING PROPOSED ADDITIONS
SCALE 1" = 200' APPROX
DITCHES
DITCHES PROPOSED
TRENCHES "
ROAD
SPRINGS
N
9-17-20



35-429 O - 65 (Face p. 469)

Mr. Rasor is of the opinion we could scrip the land on which the springs are located and in that way fully protect our rights. He may be correct in this idea but my opinion is we cannot hold through the purchase of lands or otherwise the exclusive or unquestioned right to any waters that we are not making a beneficial use of or at least conveying to a point where we can after time permits as to bring sufficient land under development beneficially use the waters. This is another point we will take up with Mr. Wehe in San Francisco in a few days.

As no lines have ever been run to this district I have arranged that Gower and Givens, as soon as Paul returns from his vacation in about 10 days, project one of the lines near the ranch and determine the exact description of the lands where the numerous springs are located and the location of the different springs with regard to section lines. They have also been asked to prepare a map or sketch showing all the springs with the various canyons and contours, indicating thereon the springs now connected with our ditch and those that are not so connected. When you have this sketch you will have a much clearer idea of the situation than you can gain from anything I can convey by letter. It will also be possible to get some idea of what the cost of developing the unused springs will be. After going over the ground the other day I remarked that we must have seen 30 or 40 springs which were not connected with our ditch, but Harry thought we had seen at least a hundred. Whatever the number you will have some idea of the extent of the water area that we have not under control and to which I believe we should at once establish our positive right.

With regard to the waters rising in the southerly canyon referred to, the volume is so substantial and the connection through the lower spring with our ditch so uncertain that I believe we should immediately divert the water from these springs into our ditch. I am therefore writing today to have Gower run a line and make a determination as to what expense would be involved in such diversion without waiting for the assistance of Givens.

Mr. Rasor and I expect to see Mr. Wehe in San Francisco Monday and will advise you after seeing him as to just what action is necessary in his opinion.

Yours truly,

F. M. JENIFER.

PACIFIC COAST BORAX CO.,
Ryan, Inyo County, Calif., September 19, 1925.

Mr. F. M. JENIFER, A.G.M.,
Tonopah & Tidewater Railroad Co.,
Los Angeles, Calif.

DEAR FRANK: I was down to the head waters yesterday morning and made a rough sketch of the springs from which the ranch supply is obtained, and also those from which you wish to obtain an additional supply. I enclose two copies of this sketch.

I believe that we will be able to get 10 inches of water from the canyon, where we found the springs which soak into the ground before reaching the ditch. I also believe that by digging trenches, where shown in the sketch, and connecting these with an open ditch, we can get the water down to the main ditch. I should think that an expenditure of $200 would be ample to collect this water. Of course, as we would get 10 inches of water, we might have to enlarge the main ditch in several places, but then we can attend to that when we find out whether catching this 10 inches up in the canyon reduces the flow of the spring down in the wash by 10 inches.

I have marked the number of inches coming from each spring. This is nothing more than my guess, but probably gives a relative amount. We await your further orders.

With best regards.

Yours very truly,

HARRY P. GOWER.

PACIFIC COAST BORAX CO.,
New York, September 21, 1925.

Mr. F. M. JENIFER,
Los Angeles, Calif.

DEAR SIR: This is to acknowledge yours of the 15th inst., giving very interesting information regarding the water supply at Furnace Creek and Texas Springs. It is certainly a very pleasant surprise to learn that there is available such an additional quantity of water and by all means we should take steps promptly to

secure a clear title to the same. This I believe can only be done by making use of the water. To scrip the land, on which these springs are located and not make any use of the water, I am positive would not prevent others from coming in and filing on and appropriating the water.

I am inclined to believe that in order to have a perfect title, we must file the springs and utilize the water as well.

It seems to me, years ago the Southern Pacific piped water from what was known as the New Boston Spring down to a water tank, which was known as New Boston. This was a point a little north or a little south of Luning, but I think it was north. After using this water for a number of years, a sharper came along, filed on the springs and took up a mining claim on the west side of the track and Mr. Yorrington had to pay him several thousand dollars to clear the title. The railroad company had neglected to file on the spring.

I am glad you have taken prompt steps to get full information regarding the southerly canyon as it is quite evident that we should divert and use this water at once.

I will be glad to get the full information which Gower and Givens will prepare including the probable cost of the work that will be necessary to bring this flow into the Furnace Creek ditch and the Texas Spring pipe. When I have this information I can promptly submit it to Mr. Baker and there is no question in my mind but what he will at once authorize the work being done without delay. Knowing, as we do, what can be done with date culture in the valley and the amount of ground that there is there, according to Mr. Drummond's reports, all of this water will be very valuable and now is the time for us to secure it. Your recommendations are sound and meet my hearty approval.

Yours very truly,

C. B. ZABRISKIE.

PACIFIC COAST BORAX CO.,
Ryan, Inyo County, Calif., November 6, 1925.

To F. M. Jenifer.

DEAR FRANK: We were happy to have your letter of October 18. Pardon my delay in answering. We are preparing the plan and estimate for the building you suggest. It will be a nice place but as an experiment I would design one of about the same rooms but with smaller patio and porches. This would take less grading and cost a thousand or so dollars less to build and I think serve the same purpose. I'll be in Shoshone this week and will look over the site before making a plan. Some time ago Chas. Brown came up to see me. Said you told him that I would help him with a small hotel he expected to build. I was glad to do so. I drew the plan and ordered his bill of material and sent him down a good man to run the job. It is of four rooms and two baths with large screen porch. It should be finished by December 10. Possibly you could combine with him to experiment with that building this season and build something better than galvanized iron later.

I was glad to hear from Mr. Rasor the other day that he had cornered the land we wished near the ranch. He expects to be out soon and we will help him with the survey. We have collected most of the water in the most southerly canyon at the headwaters. This is now running into the main ditch, increasing the flow from 88 to 95 inches. These measurements are taken from a weir on the ditch just below the swimming hole. We spent $134.50 in collecting the water as planned on the sketch which we sent you some time ago.

As you probably know we have been led to expect great things from Mr. Ichbaum who now has a franchise to build his toll road from Lone Pine to Stovepipe Wells. When I came out from Los Angeles on October 4 and 5 with Mrs. Gower and Mary Lillian we came by way of Lone Pine and there at the Dow Hotel we met Mr. Ichbaum. He seems a good sort and told us all his road building plans, etc., etc. I asked him where he would get his water for his hotel; he said from wells probably although he was investigating some springs thereabouts. When I got home I wrote to Dolph Nevares and got an option on his property in Cow Creek. He claims to have a deed to 280 acres including the water up there. From the legal description it looks to me like the property isn't on the creek but when Mr. Rasor comes out he can check that up. I would suggest that you ask him to do so if the company wants the water, because I'm sure Mr. Ichbaum has money and will grab the stream if we don't. Dolph said he expected to be out here to do some improving on the place if it wasn't sold soon and would only give me 75 days in which to peddle the place at the price of $10,000.

Please understand that the only reason I jumped into this personally was to try to sew the place up for the company as it rather looked to me that we were in danger of losing it. Of course if the company don't want it I would like to try to sell it to brother Ichbaum or Bill Wrigley or whoever is back of that road and hotel.

Pauline joins me in best regards to yourself and Aunt Jule.

Yours,

(Signed) HARRY,
HARRY P. GOWER.

NOVEMBER 11, 1925.

Mr. H. P. GOWER,
Pacific Coast Borax Co.,
Ryan, Calif.

MY DEAR HARRY: It is very gratifying to note from your favor of November 6 how you have increased the flow in the ranch ditch at so small a cost, and I hope that the collection of water from the other springs to the north, which have never been associated with our water system, will add a substantial quantity also. The expense will be relatively greater than at the southerly canyon, where you have already done the work, but with the development of the date project every inch of water becomes extremely valuable, and we must establish by conversion, and/or usage, our unassailable right to all the water in the Furnace Creek region. Mr. Rasor has been very successful in his efforts to gain control of the patented areas in the vicinity of Furnace Creek and as soon as his time permits will, as advised you some time previous, undertake with you a survey which is to definitely establish legal descriptions and locations. At the same time a map can be made showing all the water-bearing areas and their relation to the ranch. At the same time a plan of collecting the additional waters can be developed and an estimate of the cost thereof be made.

You state that the flow from the ranch ditch below the swimming pool has been increased from 88 to 95 inches, and I have been wondering whether or not this has had any effect upon the production of the spring on the west side of Furnace Creek, which you previously believed was being fed by the waters from the southerly canyon, which sank before reaching the Furnace Creek Wash. We will be interested to know just what effect the diversion of these waters has on the spring referred to.

Copy of this letter goes to Mr. Rasor as a suggestion that he go into this matter with you at his earliest convenience.

Very truly yours,

FRANK M. JENIFER.

JANUARY 8, 1926.

Mr. C. B. ZABRISKIE,
New York, N.Y.

DEAR MR. ZABRISKIE: I went over the Furnace Creek water situation with Gower very fully and it was decided that all the springs intermediate to Furnace Creek and Texas Springs should be cleaned out and ditched, so that a determination could be made as to how much water is available and then later on such waters can be collected at central points in the various canyons and taken by pipe to the main ditch if the volume justified such expense. The initial expense of cleaning out the springs and making such ditches will be nominal and Harry will proceed with the work as fast as possible. After this is done another map will be made and also a full report giving an approximation of the amount of water that can be obtained with the expense of doing so.

Yours truly,

F. M. JENIFER.

PACIFIC COAST BORAX CO.,
New York, January 13, 1926.

Mr. F. M. JENIFER,
Los Angeles, Calif.

DEAR MR. JENIFER: This is to acknowledge yours of the 8th informing me that you have gone over the Furnace Creek water situation with Gower very fully and decided that all springs intermediate to Furnace Creek and Texas Springs should be cleaned out and ditched, in order that a determination could be made as to how much water is available and later on such waters to be collected at

central points in the various canyons and taken by pipe to the main ditch, if the volume justifies such expense. That a map will be prepared, accompanied by a full report giving approximation of the amount of water that can be obtained and the expense.

This information and records will be appreciated and will be of value to the company.

Yours very truly,

C. B. ZABRISKIE.

PACIFIC COAST BORAX CO.,
Ryan, Inyo County, Calif., April 22, 1926.

DEAR FRANK: I believe Major answered your letter to me regarding the ranch survey before he went to town. I'm sorry I didn't get the job done but have not had time and now that the surveyor has definitely decided to quit I don't believe I'm going to have time. I did put in the ranch corners including those of the new 80 acres south of section 16, but that is as far as I got.

I am sending you under separate cover the two copies of the water survey which you requested.

Best regard to yourself and Aunt Jule.

HARRY.

PACIFIC COAST BORAX CO.,
New York, April 26, 1926.

Mr. C. M. RASOR,
Los Angeles, Calif.

DEAR SIR: Some time ago, it was arranged that Harry Gower and Paul Given make a survey of the Death Valley region in which the Greenland Ranch, Furnace Creek, and Texas Springs are located, but this was postponed on account of Given's absence and now that he has resigned and will not be replaced immediately at Ryan it becomes impossible for Gower to do the work.

If you cannot spare the time, I would suggest that you arrange with Mr. Valjean to do so as soon as possible. If Mr. Valjean goes out, Mr. Gower can show him what is required and give him the necessary help. He can also get an outline from Gower as to just what is wanted in the way of survey maps, etc.

Yours very truly.

F. M. JENIFER.

PACIFIC COAST BORAX CO.,
Los Angeles, Calif., May 4, 1926.

Mr. F. M. JENIFER,
New York, N.Y.

DEAR SIR: Your letter of April 26, 1926, re surveys near Furnace Creek:

Mr. Valjean will make these surveys beginning May 6, 1926, arrangements having been made with himself and Major Boyd to have the work started at that time.

Very truly yours,

C. M. RASOR.

SEPTEMBER 18, 1926.

Mr. C. B. ZABRISKIE,
New York, N.Y.

DEAR MR. ZABRISKIE: In discussing the Furnace Creek water situation with Mr. Rasor we have decided that it would be very desirable insurance to scrip or otherwise secure the lands on which the springs are located. We already have the water appropriated and in our control and use, but homesteaders or squatters might possibly cause us some annoyance if any activity takes place in the vicinity of the ranch. By securing the NW¼ of the NW¼ of section 25 and the north half of the NE¼ of section 26, 120 acres in all, we will have absolute ownership of the water bearing areas with the exception of some very small springs which amount to nothing.

Mr. Rasor says that we can secure the necessary scrip at $11.50 an acre including attorney, filing fees, etc., making a total expenditure of $1,380, which is a small amount compared with what it might cost to rid ourselves of any homesteaders or locators.

You will note from the map that the NW¼ of the NE section 23 recently acquired and which has been patented some years ago, took in the Texas Springs and can readily appreciate from that that others might in a similar manner step in and acquire ownership to the 120 acres described above, which I recommend the acquirement of.

The SW¼ of the SW¼ of section 24 which was apparently patented at the same time that the 40-acre tract taking in the Texas Springs was patented, did not take in any of the water producing area with the possible exception of a very small spring or two. It was evidently intended however to take in the larger springs and apparently only through error in their survey that it missed.

If you approve the purchase of the 120 acres will you please so instruct Mr. Rasor who will arrange for the scrip.

Yours very truly,

F. M. JENIFER.

PACIFIC COAST BORAX CO.,
New York, September 24, 1926.

Re Furnace Creek water.

Mr. F. M. JENIFER,
Chicago, Ill.

DEAR MR. JENIFER: This is to acknowledge yours of the 18th instant, with reference to obtaining scrip in order to protect us from annoyance and legal complications with squatters who may come in. It is very important that we should have the absolute ownership to all of that water, particularly in developing the date cultivation.

I am, therefore, writing Mr. Rasor to secure the necessary scrip at a total expenditure of $1,380.

Yours very truly,

C. B. ZABRISKIE,
Vice President and General Manager.

PACIFIC COAST BORAX CO.,
Ryan, Inyo County, Calif., December 18, 1926.

Mr. F. M. JENIFER,
Pacific Coast Borax Co.,
Los Angeles, Calif.

DEAR FRANK: Enclosed is Requisition No. 5558, showing in detail the amount of pipe required for water line to Furnace Creek Inn.

Yours very truly,

H. P. GOWER.

				Total.
4" Pipe	- $54.00 Net			$2592.00
Valves	- 28.00-23%	- $21.56 Net.		86.24
T's	- 6.50-40%	- 3.90 "		23.40
Unions	- 3.15-26%	- 2.33 "		13.98
L's.	- 4.25-40%	- 2.55 "		7.65
Nipples	- 2.40-45%	- 1.32		7.92
6" Pipe	- - -	9.92 "		9.92
6x4 Reducer.	- 3.70-27%	- 2.70 "		2.70
				$2743.81

2" Pipe	13.42	$17.55 Net.		$ 842.40.	626.48
Valves	6.80	15.00-23%	- $11.55 Net.	46.20	20.60
T's	1.63	1.35-60%	- .81 "	4.86	3.24
Unions	2.85	1.50-26%	- 1.11 "	6.66	4.56
L's	1.72	.90-40%	- .54 "	1.62	1.26
Nipples	.32	.76-45%	- .42 "	2.50	1.92
4" Pipe	2.40	- - -	- 4.93 "	4.93	2.40
2x4 Reducer	.86	- - -	- 1.65 "	1.65	.96
				$ 910.82	661.22

DECEMBER 28, 1926.

Mr. W. E. HINCHMAN, P.A.,
Wilmington, Calif.

DEAR SIR: Herewith requisition for pipe and fittings material covering 4-inch layout for the Borax Co. I got in touch with Mr. Hesse and after getting quotations on both the 4-inch, 2-inch, and 1½-inch, requested him yesterday by phone to place the order for the 2-inch, he having advised me that pipe was going up today.

Prices Mr. Hesse furnished me for the 2-inch equipment is $910.82, that for the 4-inch being $2,743.81.

Yours truly,

F. M. JENIFER.

PACIFIC COAST BORAX CO.,
Ryan, Inyo County, Calif., January 20, 1927.

Mr. F. M. JENIFER,
Pacific Coast Borax Co.,
Los Angeles, Calif.

DEAR FRANK: I went to Dante's View this morning, and it begins to look as if we would be able to drive to the ridge by the first of the month.

Down at the hotel, progress is being made. The six rooms in the north wing are practically completed. The kitchen is plastered, and will be floored tomorrow, ready for the equipment as soon as it arrives. The ceiling is going on the lobby now, and that room will be completed by the first.

I am putting floor in the old schoolhouse today, and we are getting the washroom started. Will try to have those houses ready by the first.

The material is on the ground to build the tank, but I don't know that Bliss will have time to get the form in right away. However, this will not matter, as we can use the little iron tank temporarily by simply taking it up to a higher level.

The pipeline from the spring is all completed.

Yours sincerely,

H. P. GOWER.

LOS ANGELES, CALIF., *February 1, 1927.*

Re Furnace Creek Inn.
PACIFIC COAST BORAX CO.,
Los Angeles, Calif.
(Attention Mr. Jenifer).

GENTLEMEN: I am enclosing a copy of last week's report from Mr. Bliss. Also a copy of report for the previous week which I failed to send you.

I am quite pleased with the progress noted in this last report and hope you are not misquoted in the last paragraph.

Very truly yours,

ALBERT C. MARTIN,
By ARTHUR MCARTHUR.

REPORT FROM HARRY S. BLISS RE FURNACE CREEK INN, JANUARY 22, 1927

Kitchen ready for equipment installation (if they had it here).
All finish cement floors and base in north wing and kitchen complete.
Wood trim in north wing 75 percent completed.
Painters following right behind carpenters in north wing.
All plastering will be completed next Friday.
All cement finishing will be done 1 week from today.
Lounge and dining room ceilings all complete except in area formed by bay windows.
Colonnade in front (south wing) poured today. North wing will be poured Wednesday.
Main roof is sheathed. Will be ready for roofing tile Wednesday.
All masonry work complete. Sending last two brickmasons to Los Angeles on train tomorrow.
Pack trains have all cement and gravel on mountain for water tank. Start packing up form lumber and reinforcing steel tomorrow.
Foundation, all underground piping for machine room is in. Floor poured tomorrow.

Have water from Texas Springs down to hotel site.
All plumbing fixtures in north wing set.
Electric wires about one-half pulled.
The building will be tenantable February 1. I expect to be all finished February 15.
Turned the first shovel full of dirt (rock) 8 weeks ago yesterday. One week of this was very rainy and cold, making work almost impossible.
Suppose the best report will be when I say "All done," February 1.

REPORT FROM HARRY S. BLISS RE FURNACE CREEK INN, JANUARY 29, 1927

Tile roof half on; will be completely on by night of February 1.
North wing of building (except exterior whitewash) completed.
All interior plastering (except passage) completed.
South wing two-thirds trimmed with painter following close behind.
Kitchen completed except finish coat of enamel and concrete coping on roof.
Will set kitchen range tomorrow. Where is the stack?
Finish cement floor complete everywhere except front veranda of north wing. This will be done Monday. Finish cement floor not in passage yet.
Machine room ready for roof. Hot water tank set.
Kohler light units to be set tomorrow.
Everything on mountain for water storage tank. Will start forms Monday. Will have same complete February 5, understand.
I have a very ample supply of water at hotel now.
Cesspool completed today (350 feet from building).
Wish lighting fixtures were here as I am turning over north wing to hotel manager tomorrow.
Looks very favorable that I will be coming home around February 10.
Mr. Jenifer is here and expresses himself as: "Well pleased with the progress."

PACIFIC COAST BORAX CO.,
Los Angeles, Calif., February 4, 1927.

Re Furnace Creek lands.

Mr. C. B. ZABRISKIE,
New York, N.Y.

DEAR SIR: The district known as Furnace Creek is situated in T. 27 N., R. 1 E., S.B.M., and as nearly as can be determined, in S.E. ¼ sec. 23, S.W. ¼ sec. 24, N.W. ¼ sec. 23 and N.W. ¼ sec. 26 thereof.

The survey of township 27 N., R. 1 E. was made or alleged to have been made in the early "fifties," probably in 1851 or 1852.

In 1904, I spent some weeks surveying in the vicinity of Furnace Creek. The only marks of the original survey of the township were on the west boundary, which is also the San Bernardino prime meridian. I retraced the prime meridian a distance of about 15 miles, which included the west boundary of township 27 north, and found the section corners generally from 80 to 150 feet less than 1 mile apart. That is, there was an underplus of from 80 to 150 feet in every section. I made diligent search at that time for interior corners of the township, and was unable to find any trace of a single one.

In the "seventies" U.S. mineral surveyors made many official surveys of mining claims in this township, field notes of which are available in the land office today. These field notes set forth that the original corners of the public land survey were not standing at that time, and that the mineral surveyors set "mineral monuments" to which to tie the claims.

I cite the above to show you that when I now plat a tract of land in this township as so and so, that the same is only a projection from a distant corner presumed by me to be an original corner, and that some other surveyor may, with equal assurance, make a projection from some other point which he thinks is an original corner and get a location that differs from the one made by myself. Usually such differences are taken to court and each surveyor is given an opportunity to explain why he thinks his projection is correct, and the court decides that one or the other is correct.

In 1911, John D. Ackerman, a surveyor, projected a survey over a part of section 24 of this township and according to his survey the larger portion of Furnace Spring was and is on S.W.¼ S.W.¼, section 24. Mr. Ackerman acquired title to

this "40" believing it to cover the Spring, and, in turn, our Company, believing it to cover the Spring, later bought it of Ackerman.

In 1926, Surveyor Valjean of our company, made a projection from a corner of a patented mining claim about 2½ miles east, and his projection shows but little of the spring to be on the tract bought of Ackerman. While I am inclined to believe that Ackerman's survey does cover considerable of the spring, I have no means of proving.

Valjean made an elaborate map of the district, copy of which I enclose.

In December 1913, the Government withdrew from entry certain lands in this vicinity, being Public Water Reserve No. 13. It is reasonable to conclude that the withdrawal was an attempt to withdraw from entry the lands upon which all the springs are located. The withdrawal, however, did not cover any part of section 26, and looking about for some reason why the withdrawal was so made I conclude:

That the party who prepared the description of the lands to be withdrawn used as a basis of information the "Furnace Creek Quadrangle" of U.S. Geological Survey.

I am attaching to the Valjean map a portion of the Furnace Creek Quadrangle, with a projection of the interior section lines of Township 27 North, placed thereon.

You will note from this projection that Furnace Creek Springs, marked "Warm Springs" on this map, fall entirely within section 23. This description is I believe far from correct.

I have outlined in pencil, on the Valjean map, the S. ½ N.E. and N. ½ S.E. ¼, section 22 of this township, and marked the same "Hotel Site." There are no springs on this land and no raising water within a half mile of it. There is no natural stream of water over or across it. There is an open ditch which conveys all of the waters from Furnace Springs to Furnace Creek ranch. This is the same ditch or canal that was carrying waters to Furnace Creek ranch in 1904, the date of my first visit. At that time, 1904, foliage along the ditch seemed to be of 20 years or more growth. I have passed the ditch nearly every year since, and know that it has been there carrying all of the water all of the time.

Very truly yours,

C. M. Rasor.

Ryan, Inyo County, Calif., *January 21, 1928.*

Mr. F. M. Jenifer,
Los Angeles, Calif.

Dear Frank: Thanks for your letters of the 17th and 18th. We will put in the stone stairways, as you suggest.

I have looked over the landing field situation again, and think the place you suggest east of the ranch is the logical one. It can be about 500 feet wide, and nearly one-half mile long. It will be almost parallel to the water ditch. From the upper end of this field it would not be far to the hotel, and a direct road could connect, possibly coming across near the swimming pool site.

To put this place in fair shape would require a week's work with the tractor and drag, followed by truck and several men to pick up rocks and clean up that pile of trash and brush east of the ranch; $150 to $200 should be ample to cover this job.

Two miles south of the inn there is a place which could be put in shape for $50. It crosses the road, however, and that's not a good feature, as there would always be a rut there. The mesa back of Texas Spring is too soft, and not long enough either.

We are putting up the adobe powerhouse, and will have the generator running within a week or 10 days after delivery.

We will finish the 2,400 feet of 12-inch pipe at the ranch tomorrow.

My estimate for foundation and pipe trench for front building at hotel is $7,000. Front wall can be faced with stone later. It is possible we may build the front wall entirely of stone. Further figuring may prove this the most economical method anyhow, as no forms would be necessary on the high front wall.

Sincerely,

Harry.

OCTOBER 30, 1928.

Mr. C. B. ZABRISKIE,
New York, N.Y.

DEAR SIR: I took up last week with Gower the question of the protection of our water at Furnace Creek and he is now fencing all the springs, ditches, etc. In running a trench for pipeline below the swimming pool it was developed that there was considerable water, perhaps as much as 10 or 12 inches, which was flowing down under the wash and lost entirely. I therefore arranged for Gower to fence in that area also on both sides of the road and run deep trenches in order to recover all of that additional water. After that it is done and all the other known supplies under full control it will be advisable, in my opinion, to go still further below and sink a shaft, bedrock if possible, to determine whether or not there are still other waters that we are not getting the benefit of. Mr. Raser and Mr. Gower agree that this is advisable but we will not undertake it until we have all the known supply in our ditch and pipeline.

The pipeline from the present intake at the head of the powerline put in last year will be installed up to a point just opposite the swimming pool within another week. By that time the fencing will probably be near completion so we can then feel pretty sure that we have the water all well under control with the exception of whatever might be going out under the wash and which the proposed shaft will demonstrate.

Mr. Gilbert of the Inyo Mines has shipped in a light drilling outfit and is now sinking a hole up near his mine in an endeavor to develop water for his proposed mill. If he does not get it there he will come to us for the accommodation which we have advised him we will extend him for 1 year back of the Texas Springs, which was the site we decided on. Since they have developed no water whatever in their mine it does not seem probable that they will succeed in their exploration for water in that vicinity and I believe we will have to take care of him. Personally, I believe it is more to our interest to take care of him for the year than to have them succeed in developing water farther up the canyon, as that might result in interfering with our plans and hope to have under control all the tourist accommodation possibilities in that vicinity.

With the completion of this water development and control work, Gower will prepare a blueprint which will be sent on for your information and files.

Yours truly,

F. M. JENIFER.

PACIFIC COAST BORAX CO.,
New York, November 12, 1928.

Mr. F. M. JENIFER,
Los Angeles, Calif.

DEAR SIR: This will acknowledge receipt of yours of October 30.

I am pleased to see that you took up last week with Gower the protection of our water at Furnace Creek, and that he is now fencing all the springs, ditches, etc., in accordance with the plans we discussed when I was out there. Am glad to know that you discovered that there was from 10 to 12 inches flowing under the wash and lost entirely, and that you arranged to fence in that area, also on both sides of the road and run deep trenches in order to recover all of that additional water. This is certainly a valuable find.

Your idea of sinking a shaft to bedrock quite a distance farther down to determine whether or not there are still other waters that we are not getting the benefit of, is a good one, which can be done after you have all of the known supply in the ditch and pipeline. When you have the pipeline from the present intake extended up to the point opposite the swimming pool, you can then feel pretty sure that you have the water all well under control, with the exception of what is going out under the wash and proposed shaft as mentioned above.

I note that Gilbert of the Inyo Mines has shipped in a light drilling outfit and is now sinking a hole up near his mine in an endeavor to develop water for his proposed mill. If he is able to develop there just enough for his mill, I would be rather pleased. If not when he comes to us we shall have to let him have the water as decided, with the understanding that it is for 1 year only. Of course if he should develop any amount of water that would more than take care of his mill that would be unfortunate, but it is pretty hard work to develop water in that region, and from the fact that he has no water in his mine, it would indicate that he will not get any water in his well.

Note that with the completion of this water development and control work, Gower will prepare blueprint, which we shall be pleased to receive.

Very truly yours,

C. B. ZABRISKIE,
Vice President and General Manager.

NOVEMBER 14, 1928.

Mr. C. B. ZABRISKIE,
New York, N.Y.

DEAR SIR: The water development work at Furnace Creek has shown that we have been losing a good deal of water and the trenching already done has increased our flow fully 12 to 15 inches. It is apparent there is a good deal more getting away from us under the wash and the shaft I wrote you about recently will be sunk at the narrowest point below the springs as soon as the fencing is completed. Rasor will go out with me to go over the ground with Harry and determine what is the best place to sink.

Yours truly,

F. M. JENIFER.

PACIFIC COAST BORAX CO.,
Death Valley, Inyo County, Calif., March 19, 1933.

Mr. F. M. JENIFER,
Los Angeles, Calif.

DEAR SIR: In reply to your recent letter, unfortunately destroyed before date and file number were noted.

As reported by Miss Ronan we recently had a visit from Mr. Harry B. Hammon, sanitary engineer of the U.S. Public Health Service, 76 New Montgomery Street, San Francisco. He was accompanied by Mr. E. M. Hilton, connected in some way, with the Park Service at Yosemite.

Mr. Hammon said they were working on a preliminary report covering water sources in Death Valley. He was using the regular topographical sheets and checking up all water as shown thereon. He had begun at Scotty's and worked on south touching Stove Pipe Wells, Triangle Springs, Surveyor's Wells, Salt Creek. He was unable to find Cow Creek as shown on the map and then asked for help. I took him up there and later showed him our own sources of water with equipment for handling same. His survey was very casual, we making the whole round including Cow Creek in about 2 hours. Next day he intended to visit Bennets Wells and other points to the south, and did make a trip down that way but I don't know what points he visited.

Mr. Hammon inquired about disposal of sewerage at the inn and at the auto camp. I told him of our facilities for handling this problem and pointed out (from the inn) the location of septic tank and pit for disposal of overflow. I don't know that he examined them. He took a number of notes as we went along which he said would be incorporated in a report to Washington. I ventured to suppose that he would soon be writing us some letters of instruction and correction and he said, "Oh, no! This data is for Washington, you may hear from them."

He was interested particularly in the free public camp. He asked the amount of water available for that place and went up and looked at the pipes with which we collect it and at the tank where we store it. He made no comment on the outhouses and bathhouse suggesting only that we should fix up a little drain for the faucet where the public draw their water. Someone had left the tap open and it was muddy there. He did not say who would eventually operate the public campground.

Mr. Hammon did not inspect the ranch other than to ride with me through the campground and down to the ornamental date plot. I explained to him how we used the water from the springs through the Pelton wheel, the swimming pool, ranch, date garden, alfalfa fields, and thence on to the duck ponds. He did not care to visit the ponds.

We have continued to do about 1 days work per week with 2 men on the dikes. Soil is very soft there and full of soda and dissolves like sugar so we have had some difficulty in holding water. We will put special effort on this from now on and will keep you posted on all further developments and visits by Government officials

In leaving, Mr. Hammon was exceedingly cordial and hoped for many pleasant visits in the future and congratulated the Government in having the place already developed by a company who were doing things in such a substantial and sanitary and well-kept manner. It will be interesting to see how his written report to Washington, checks up with his oral one to ourselves.

Yours very truly,

H. P. GOWER, *Superintendent.*

PACIFIC COAST BORAX CO.,
Death Valley, Inyo County, Calif., July 10, 1935.

Re Furnace Creek Wash water development.

Mr. F. M. JENIFER,
Vice President and General Manager, Pacific Coast Borax Co.,
Los Angeles, Calif.

DEAR SIR: On June 20, we rented a turbine sinking pump from Mogle Bros. of Chino and installed it in the pit which we had begun in the wash about 1,000 feet below the intake box at the springs.

The pump is electrically operated and we have run a line up from the hotel power line. And have now sunk the hole to about 20 feet in depth and the pump takes out about 10 inches of water constantly. The material is loose running sand and gravel and a tough proposition to sink through. We have timbered thus far with old railroad ties but must change our method and make a cribbed box and force it down as we remove the sand and gravel.

No sign of bedrock yet and indications are that there will be plenty of water. It will be rather difficult to drive a tunnel across the canyon through the sand but no doubt it can be done.

The monument officials have inspected the work and so far have made no comment except to say that we should be able to get plenty of water.

You will be advised as further progress is made.

Yours very truly,

H. P. GOWER.

JULY 18, 1935.

Mr. H. P. GOWER,
Death Valley, Calif.

DEAR MR. GOWER: I have your letter of July 10 regarding the Furnace Creek water development and note that you are evidently faced with a very difficult undertaking to control the underflow waters. From your outline of the situation I am still inclined to the opinion that possibly a better job can be done and our purposes served to better advantage if we can recover such waters on our own land east of the hotel, particularly if you do not hit bedrock where a more or less complete damming of the waters can be effected in the immediate vicinity of the springs. Even though you could make a cutoff at the point of your present attempt you would still have to contend with the percolating waters originating between the Warm and Texas Springs.

I have discussed this matter fully with Rasor, who is going out within the next day or two to go over the situation again with you. This is a matter that we will now have to discuss fully with our attorneys, which can be done when you come in next week. I thought it would be advisable and helpful to have Rasor go over this with you before you see the attorneys. You should bring in a map showing the areas and springs involved for the purpose of our discussions with Mr. Ashburn.

Yours very truly,

F. M. JENIFER,
Vice President and General Manager.

PACIFIC COAST BORAX CO.,
Death Valley, Inyo County, Calif., August 4, 1935.

Mr. F. M. JENIFER,
Vice President and General Manager, Pacific Coast Borax Co.,
Los Angeles, Calif.

DEAR SIR: Since my last report of progress of the work in this vicinity we have continued a small force of men at work with good results.

We are driving the tunnel under the inn. We have completed 95 feet of the work and have 139 to go. Hope to finish by September 1. It is our plan then to line the tunnel with studding covered with metal lath and cement plaster.

We have been doing the cutting of walls, masonry ceilings, etc., for Lohman Bros., the heating contractor. The work is considerable in order to put in the recessed or enclosed type of radiators. However, the piping and ducts are all in for the main administration building and the boots which are to contain the radiators are set in all the walls of the terrace rooms. We are now at work in the north wing and expect to have that pretty well along by August 10 when we are going to shut down. The steel frame is all in place as you know by the pictures which I left on your desk. The refrigerator men are on the job now putting in the walk-in boxes.

Martin's office asked me to report on the painting job. The same finish has been used in the lobby as before, possibly a shade lighter. An experiment was tried on the fireplace plaster to make it a little different from the walls. It looks rotten but a couple hours work will return it to its former condition. The blue that you have heard about is on the ceiling of the arched entrance; that is the part of the lobby which used to be the outside walk. This is the undercoat to be covered after the ventilating grills are put in with a gray glaze. It is to give an added appearance of height to the entrance. This too can be changed if it does not work out to the satisfaction of everyone. At present it is blue and would knock an eye out.

The well up near the spring was completed to bedrock at 22 feet. The pump makes 10 inches of water from there constantly. We have started another pit about 100 feet south of the completed one. The plan is to have three pits in a row across the wash.

Work at the amargosa is going ahead, framing and rough plumbing is complete, roof is being repaired where skylights were cut in for interior bathrooms. Plastering is now being done as well as the setting in baths and painting in some completed rooms. No work yet on the changes of the dining room. I have a nice plan for a counter but will consult with you before starting anything there. I would be glad to know if your plans include a trip out here in the near future.

Yours very truly,

H. P. GOWER.

PACIFIC COAST BORAX CO.,
Death Valley, Inyo County, Calif., April 19, 1936.

Mr. F. M. JENIFER,
Vice President and General Manager,
Pacific Coast Borax Co.,
Los Angeles, Calif.

DEAR MR. JENIFER: During the past month we have noticed that our springs at Furnace Creek are 10 percent below the usual flow for this time of the year. This has hit us hard in our drinking water system as, with the increase of business and the addition of rooms and facilities at the inn and camp, our requirements are constantly increasing. The garden at the inn, the golf course, and new plantings at the helps' quarters all draw so heavily on this same system that this week I have set to work to gather into the domestic system all the water below the intake box of the hydroelectric system. This now is collected by open-ditch or open-joint tile and brought to the ditch. With your permission, we will get this into a tight pipe and carry it to the inn reservoir doubling, we hope, the supply now furnished by Texas Spring. This will not be the developing of new waters on the public domain but merely the more sanitary gathering of the supplies which already go into our ditches.

Would be happy to discuss these matters on the ground with you when convenient but, owing to the urgency of our needs, will get busy on the project at once as I'm sure this in line with your wishes.

Yours very truly,

H. P. GOWER, *Superintendent.*

PACIFIC COAST BORAX CO.,
Death Valley, Inyo County, Calif., April 23, 1936.

Re Furnace Creek water.

Mr. F. M. JENIFER,
Vice President and General Manager,
Pacific Coast Borax Co.,
Los Angeles, Calif.

DEAR MR. JENIFER: The plan for recovering additional water is part of the original scheme all right but the proposed disposition of the water is different

in that if we can recover uncontaminated water from under the sand we will put it into the drinking water supply rather than into the hydroelectric supply. The reason for this is that we do not want to reduce our power supply by taking domestic water out of the upper springs while we still have available water below the intake box. In any event, the development of the water below the box will be the same regardless of which system it goes into. At present, we take it out with open red tile drains and carry it over to the open ditch. We intend to replace the open tile with tight pipe and make the recovery of water in deep trenches which we will fill with coarse gravel. This should serve as a most efficient filter.

After the hotel closes we will clean out all the springs again and replace the open ditches with thin, felt-wrapped, tar-dipped pipe. The idea of flumes now appears impracticable for the reason that the green moss grows so rapidly where the container is exposed to light.

We shall shortly start work in the shaft back of the helps' quarters at the inn in an endeavor to determine the depth to bedrock and amount of water available. When this is determined we may be able to drive a water tunnel from a point north of the inn garden and tap the bottom of the shaft. If results and progress in this shaft are unsatisfactory we will get a well rig and punch down a number of holes in a row across the wash. By pumping two or three of these holes at the same time, we, perhaps, can get the information required.

Your very truly,

H. P. GOWER, *Superintendent.*

PACIFIC COAST BORAX CO.,
Death Valley, Inyo County, Calif., June 6, 1936.

F. M. JENIFER,
Vice President and General Manager,
Pacific Coast Borax Co.,
Los Angeles, Calif.

DEAR SIR: We have now arrived at a point in our water development and ditch-cleaning operations in Furnace Creek Wash where we are in need of further consultation and advice.

As planned, we have cleaned the ditches and have redeveloped the two springs on the left of the road and the one on the right (north) of the road which have been tapped for a number of years by open red tile drains. These springs were gathered in a series of concrete sandboxes with tile drains. From the final sandbox a line of 6-inch pipe was installed 3 feet underground for a distance of 6,600 feet to the inn reservoir. There, a direct connection was made to the ranchline with bypasses to the reservoir for use if and when the supply from Texas Spring should prove inadequate for the inn. By this development we have placed 247 gallons per minute additional domestic water in the system, increasing the flow of 205 gallons from Texas Spring by 120 percent and giving a supply ample for a long time for all uses of the inn, camp, gardens, and golf course.

In the wash, on the property of the Death Valley Hotel Co., just north of the old helps' quarters we have put down two shafts. No. 1 in the middle of the wash went to 44 feet where we were unable to continue on account of the weight of the sand pressing against the box we were driving down as we hoisted out the muck. Here we were pumping 425 gallons per minute in order to hold the water down to where the miner could work.

No. 2 shaft was started 150 feet to the west of No. 1 and some 30 feet from the west wall of the canyon. We got into water at 14 feet and must be right in the main stream as we were only able to continue to 24 feet after 2 weeks' work. The gravel and sand came in under the box in spite of all that we could do so that we were taking out many buckets of muck for every inch of progress. We only quit, however, when the pump would not keep the water below the miner's knees and shoveling had become hopeless. The capacity of the pump was 864 gallons per minute and held that rate for a 12-hour test.

Pumping in shaft No. 2 only lowered the level in shaft No. 1 by a few inches so it is safe to say that both shafts could be pumped simultaneously making 1,200 gallons per minute or better. For comparison, the normal flow of water from the springs which we run to the water wheel is about 900 gallons per minute.

A nice, permanent, and inexpensive way to get this water out would be with a tunnel, which I have computed to be 565 feet long, driven from a point in the

gulch just north of the north wing of the inn. This tunnel would hit the canyon 6 feet below the bottom of No. 2 shaft and would get the 864 gallons per minute which we pumped and a lot more if continued farther across the wash. Of course, before any such tunnel is started it would be well to bring in a drilling rig and sound for bedrock. Possibly a few feet deeper would get all the water and it would be much easier to tunnel in the bedrock and later drill into the back of the tunnel.

Temporarily we are installing a 6-inch siphon out of No. 2 shaft, carrying it down the wash to a point below the level of the bottom of the shaft. If we can get this started to work we will be able to run out several hundred gallons per minute at no expense and with a welcome addition to the irrigation water supply at the ranch.

With the installation of the siphon, we will quit the development for the season unless otherwise instructed.

Yours truly,

H. P. GOWER.

ENGINEERING OFFICES OF TAYLOR AND TAYLOR,
Los Angeles, Calif., April 6, 1937.

PACIFIC COAST BORAX CO.,
Los Angeles, Calif.
(Attention, general manager).

GENTLEMEN: The Inyo Mine in Echo Canyon about 12 miles from Furnace Creek Inn has recently been purchased under a contract and the purchasers have employed this firm to advise them on getting water for use in mining and milling which, we are informed, are going to begin promptly.

Your superintendent, Mr. Gower, at Death Valley Junction, advised the writer that the former owners of the mine at one time negotiated with your company for buying water at Travertine Springs. We would like to inquire if you will now be willing to contract with the new mineowners selling water at this location.

The amount of water required would be from 30 to 50 tons per day, or say 5 to 8 gallons per minute continuously. A contract need not run indefinitely but rather for the life of the mine or some period not less than 5 years.

We will appreciate your consideration of this matter and would like to know at what price you would sell the water when the mineowners stand all expenses of works for taking the water and pumping it to the points of use.

Very truly yours,

NELSON TAYLOR.

PACIFIC COAST BORAX CO.,
April 9, 1937.

Re Inyo Mine.

Mr. NELSON TAYLOR,
Los Angeles, Calif.

DEAR SIR: Your letter of April 6, addressed to our Los Angeles office for my attention, has been forwarded here.

We did at one time tell Mr. Gilbert that we would be willing to supply him with a limited amount of water at Texas Spring, under certain conditions, but when similar requests were made subsequently Mr. Gilbert and others interested in the property were advised that we could not spare any water. That is the condition today. It will therefore be impossible for us to undertake to supply your requirements which, according to your letter, will not be large. We regret being in this position as obviously the development and operation of a mine in Echo Canyon would be of benefit to our interests, but our present requirements and other projects which we have underway, make it necessary now for us to undertake the development of more water for our own use.

Yours very truly,

F. M. JENIFER,
Vice President and General Manager.

PACIFIC COAST BORAX CO.,
Death Valley, Inyo County, Calif., January 27, 1938.

Mr. F. M. JENIFER,
President and General Manager,
Pacific Coast Borax Co.,
Los Angeles, Calif.

DEAR MR. JENIFER: We are preparing a map showing proposed pipeline from inn property to the powerhouse at the ranch. We will use this in our application to the monument for permit to cross Government land.

In this same map we will also show the strip of land between the new road and the east line of our ranch property. Suggest we apply for permission to landscape this strip for noncommercial purposes on the same application.

Pauline and I have a date to take in a Nelson Eddy concert on February 2 with our daughter, so will be in Los Angeles the following day. Will bring along the map and application for your suggestions or approval.

Mr. Goodwin says such an application will have the prompt approval of the Department. I wonder if he knows.

Yours very truly,

H. P. GOWER, *Superintendent.*

FEBRUARY 3, 1938.

Re water: Furnace Creek.

BORAX CONSOLIDATED, LTD.,
London, England.
(Attention of managing director).

GENTLEMEN: As you know we have within the last year or so by means of a tunnel driven under the hill from a point adjacent to the north end of the Furnace Creek Inn tapped a new water supply in the canyon to the east and back of the inn. The additional water so far developed, which our experts figure can be substantially increased, about equals the quantities now running from the springs which have always provided our water supply. It is estimated that the springs' present flow is about 800 to 1000 gallons per minute. The new water development project referred to is at present providing about 800 gallons per minute which, as just indicated, it is believed can be very substantially increased by a short extension of our tunnel.

The water from such development, as in the case of the water coming from the springs, is run in a open ditch largely over Government property between the inn and the ranch, the water from the springs to the inn being run through a pressure pipeline for power purposes.

It is desirable, though not immediately necessary, that we install a pressure pipeline between the tunnel outlet at the inn and the ranch for the purpose of avoiding the waste incident to the running of water in open ditches and the objection to running such open ditches over Government land and ultimately for the operation of a pelton wheel power unit at the ranch. The cost of such pressure line installation with the tailrace from the powerhouse we estimate at $14,000. This installation is hereby recommended. The time of such outlays, which we will spread over a period of about 3 months, will be according to your suggestion.

Estimates and recommendations for the suggested power unit will be withheld until we know something more about the volume of water to be available for power development. For power development at the ranch it is not only proposed to use the water obtained through the tunnel project but to increase such flow by combining with it that now coming from the springs after it is run through the powerplant at the inn. It is figured now that we are producing 35 to 40 horespower at the inn and that it will be possible to produce more than that at the ranch, although the head from the inn to the ranch is less than from the springs to the inn plant.

With such additional power installations a substantial saving will be made in the cost of power at the inn and ranch combined. During the closed and slack seasons a hydroelectric plant at the ranch in conjunction with the one now operating at the inn will provide all the power necessary and also during the open season, excepting during the peakload periods in the late afternoon and evening. At present the steam powerplant at the ranch must be operated almost continuously during the hotel season and part of the time during the closed season, although during some of the closed season the water powerplant at the inn provides all the requirements at Furnace Creek. The operation of the steam

powerplant at the ranch requires two and sometimes three engineers for a corresponding number of shifts which, aside from the fuel, wear and tear on the plant, etc., is quite a heavy expense for our power requirements. If the additional hydroelectric plant is installed at the ranch we will require at the most one engineer during the hotel season and none of course during the off season.

The reference to the power situation is made at this time to explain the necessity for the heavy pressure pipeline which is recommended.

Yours very truly,

F. M. JENIFER.

P.S.—Total length of proposed pipeline is about 4,700 feet heavy 12-inch pressure pipe and about 1,000 feet of lighter weight 12-inch pipe for tailrace from powerplant location.

PACIFIC COAST BORAX CO.,
Death Valley, Inyo County, Calif., May 16, 1940.

Mr. F. M. JENIFER,
President, Pacific Coast Borax Co.,
Los Angeles, Calif.

DEAR MR. JENIFER: We are again at work on the Texas Spring Tunnel job, after shutting down there for a time so as not to disturb the inn water supply. We have increased the flow somewhat and have almost dried up the spring on the surface. A small flow is still coming from the east end of the spring and we will drive in that direction until the entire flow ceases on the surface.

In connection with our water development: Would it not be well to do a little work in the long tunnel when we complete the Texas Spring job? We have two good men here and I believe we can place the concrete bulkhead with door and valves to control the flow and drive the few feet left to reach the wash, all at an expense of not exceeding $1,500.

The various crews of Government and national monument surveyors messing around Furnace Creek this past winter might well prompt us to get this water supply established.

Other company activities in this area are slow and about as follows: We have completed some roof repairs at the inn. Other repairs there are postponed until the fall. Project No. 97, the replacement of 6-inch water and sewer lines, approved last winter and for which pipe was purchased several months ago, has now been completed with exception of covering the ditch. This will be done with the ranch tractor. At the ranch we have prepared the rough area of the golf course in the triangle formed by fairways 5, 6, and 7, for date planting. One hundred offshoots will be set out there at once and some 45 more will be moved to vacant spaces in the regular garden and in the auto camp.

The auto camp was closed on the 12th. The business there was disappointing for May but as we were able to care for our crew of workmen and Miss Ronan's crew up till time of closing, we do not feel that holding open was an entire loss. Statistics now indicate that the inn should close 1 week after Easter and the camp on May 1.

Some work is being done at the camp by our maintenance painters and carpenter. This will continue as long as weather permits as with 115 or more cabins and cottages there is always patching and painting which seems necessary.

This winter at Ryan we found the sewer pipes in the old staff house corroded out in many places—wrought iron pipes, probably swiped from the mines, having been used largely in place of cast iron. The repairing of these difficulties is being caught up by the maintenance plumber and carpenter and their work should be completed this month. The removal of considerable wallboard and floor to get at the pipes disturbs the wallpaper and linoleum a lot so that the painters will be sent there for a time to get the place back in shape for use again. This is considered wholly a repair job and charged against the regular shutdown account.

At Death Valley Junction things are very quiet. Four persons are employed now in the kitchen and dining room but as there is little travel we can expect only heavy losses there. We will let the one waitress go shortly and use a cook, dishwasher, and waiter only through the summer. This means long hours and no days off but the actual work for these persons will not be excessive.

The mill has been shut down all month but will run one train at least of clay beginning next Monday. Business in the store and gas station is poor. Forces have been reduced where possible and will be continued as low as possible during the summer, but allowing for vacations there is little further reduction to be made.

Assessment work for the year will all be completed next week, but all reserve of mined ore at Gerstley has been used up so with your permission we will mine several carloads and store them in the bunkers for future orders which come along from time to time from the weed eradicator people and others. Mr. Rasor suggests that part of the ore at least be taken from the X-cut at the bottom of the shaft, thus getting a little developmen done as we go along.

Yours very truly,

H. P. Gower, *Superintendent.*

September 3, 1940.

Re Texas Springs-Death Valley Water Development Construction project No. 96.

Managing Directors,
Borax Consolidated, Ltd., London, England.

Gentlemen: Referring to Mr. Gerstley's letter of December 4, 1939, we beg to advise that the project in question was completed just before Gower left for South America. A full report will be made by him on his return.

The work done has not only accomplished the purpose of keeping the domestic water under full control and protection from contamination, but has about doubled the flow.

Before this work was done the flow measured 153 gallons per minute. That was increased to 325 gallons per minute, which has continued uniformly for 3 months, a long enough period, we believe, to justify the expectation that such flow will be continuous. This is most satisfactory as now we will have ample water for the hotels without diverting from the source of water used for power, swimming pool, garden, irrigation, and other such purposes and, as indicated above, the water has been put under such control as to eliminate health hazards and the criticisms of the State inspectors.

Yours very truly,

F. M. Jenifer.

Los Angeles, *October 21, 1940.*

Re Furnace Creek water.

Mr. F. M. Jenifer,
Office

Dear Mr. Jenifer: Visit by C. M. Rasor and W. W. Cahill, October 18, 1940.

Government's notice of appropriation was found posted on fence, alongside highway, at a point which bears S. 20° W., 180 feet from intake box at head of Pacific Coast Borax Co.'s steel pressure pipe, which leads to powerhouse at Furnace Creek Inn. Copy of this notice is on file in Los Angeles office.

TEXAS SPRING

Measurement of water from new tunnel on October 18, 1940, by Pacific Coast Borax Co.'s surveyor showed a flow of 266 gallons per minute. Measurement on September 23, 1940, showed 266 gallons per minute, and on September 8, 1940, 274 gallons per minute. There being no diminution shown between September 23 and October 18 (25 days) it may be concluded that the development has reached its normal—about 266 gallons per minute. In 1926 measurements showed 124 gallons per minute arising in Texas Springs cienega.

The ground—old cienega—above tunnels is completely dried up and large shrinkage cracks are developing.

A crew of Government (park) men were engaged in cutting a deep trench across hill to the west of mouth of tunnel, about 700 feet. This is for laying a pipe which will tap the company's line, below mouth of tunnel.

No conversation with any Government men.

C. M. Rasor.

Pacific Coast Borax Co.,
Los Angeles, Calif., October 30, 1940.

Managing Directors,
Borax Consolidated, Ltd.,
Oxshott, Surrey, England.

Gentlemen: Directly after his return from South America I spent several days in Death Valley with Gower for the purpose of going over the Furnace Creek water situations and various other matters.

We had a very satisfactory talk with Superintendent Goodwin, through whom we think it will be possible to negotiate an arrangement whereunder they will withdraw their application for a water appropriation and in lieu of that take their limited requirements from us. Our discussions with Goodwin were, of course, only tentative as we did not want to definitely commit ourselves in any way until the whole matter could be discussed with Ashburn, who prefers to handle it personally rather than to leave it to any of his associates or assistants.

Ashburn is expected back here on November 5 which will allow ample time within which to thoroughly go into the matter in view of the extension to November 29 of the time within which we can protest. Goodwin stated that they have been obtaining from the small springs which were dried up by our Texas Springs development between 25 and 35 gallons per minute, which would be ample for their necessities; that if we would agree to supply them continuously with such quantity it would not be necessary for them to proceed with the water development contemplated in their application to the Division of Water Resources of the California Department of Public Works, and that he would recommend and urge to the Director of national parks that such an arrangement with us be made. It is my understanding that he has already written Washington accordingly.

This information has been passed on by telephone to Albright, who is now in Washington, and he is to review the whole matter with the park authorities today or tomorrow, with the idea of getting them to approve Goodwin's plan and recommendations just referred to above.

From what Goodwin intimated there is apparently a serious difference of opinion between Colonel White, regional director, and himself, as to what their position and policy should be respecting water development at Furnace Creek and the use to which their supply, whatever it is, should be put. In the past White has a number of times told me in a threatening way that unless our auto camp accommodations, services, charges, etc., conformed more fully with his ideas of what the standard should be it would be necessary for them to set up through concessions a competing facility near our camp. This necessarily would require considerable water which they could only obtain by development of Furnace Creek or from us. You will note from the map sent you with my New York letter of September 26 that in their application they have designated 40 acres, that is the NW¼ of the SW¼, section 22, T. 27 N., R. 1 E. as the place of disposal or use of a part of the Furnace Creek waters to be appropriated. Goodwin did not state how they proposed utilizing such 40-acre tract but from what he did say we gathered that it was intended for auto camp purposes. Goodwin did say that he did not agree that conditions require additional camp facilities; that he was entirely satisfied with our layout, particularly since we had extended and improved such facilities as the dining room, lobby, and store. Further he said that he did not believe that a concessioner could be found account of the difficulty of competing with us, since we could adjust charges on short notice whereas concessioners must have rates approved in Washington.

Whether or not White thinks the Government should finance hotel or camp facilities and operations I do not know, but Goodwin emphasized his opinion that there was no chance whatever of the Government doing that.

The facilities for which Goodwin states that 25 to 35 gallons per minute are necessary, are the public camp grounds maintained by the park about a mile north of the Furnace Creek Inn and the Indian Village about a half mile south of the Furnace Creek Ranch. He states that aside from these facilities they do not need or want any water so far as he is concerned. Gower maintains that in the past he knows that they have not obtained more than 10 gallons per minute from the springs which have gone dry. However, that is a very small amount of water for such purposes and we are entirely agreeable to allowing them up to 35 gallons per minute, which will not be sufficient to carry on any public auto camp or hotel operation. By our development during the past 3 years I calculate that we have added at least 600 gallons per minute to our supplies without diminishing at all what was being obtained from the springs. By completing the tunnel under the Furnace Creek Inn property, which Gower estimates will not cost more than $2,500, we believe that an additional 300 to 400 gallons per minute can be easily obtained. You will appreciate, therefore, that the 35 gallons per minute which Goodwin wants is very unimportant compared to our supply and possibilities and particularly if by granting them such amount of water we can avoid their direct appropriation and development at Furnace Creek near the Warm Springs.

Yours very truly,

F. M. JENIFER.

History of Furnace Creek Ranch and Water Rights

From the earliest period of the borax industry in Death Valley, beginning in 1880, the ranch, variously known as the Death Valley Ranch, Greenland Ranch, and more recently as Furnace Creek Ranch, has been the center of activity in that area.

In the days of the 20-mule teams, 1882 to 1888, this ranch served as the Death Valley terminus of the 165-mile haul between the Harmony Borax Works and the railroad at Mojave. As such it became extremely valuable in this vast desert area as a home and headquarters and source of beef and sustenance for the men employed in the manufacture and transportation of borax, and as a source of feed and forage for the many head of livestock.

The ranch was then and remained for many years the center and headquarters for men employed on the great area of borax-bearing mineral claims surrounding it. Assessment work was done from that point and men went out from there to build roads and trails and to open tunnels, shafts, and trenches in the development of the many claims.

The main ranchhouse was of adobe construction and had five rooms and wide porches. Smaller buildings were maintained for the men, and ample corrals and sheds were provided for the care and shelter of livestock and equipment.

Domestic water was brought down from Texas Spring in a small pipe to the amount of 0.4 feet per second and approximately 2 feet per second of irrigation water was conducted down from Travertine or Warm Springs by open ditches and distributed to the various fields by a system of small headgates and canals. Considerable work was constantly required to keep the springs and ditches open and free from weeds and various methods of protecting the ditches in the canyon had to be devised and maintained.

Several crops per season were cut from 60 acres of alfalfa and garden truck was harvested from small patches of ground near the houses. From 90 to 120 head of cattle were fed on the place or run on the surrounding ranch, which is rich in mesquite beans during late summer and fall.

The value of the ranch property with its water rights would be represented by a very large figure at the time the 20-mule teams and the Harmony borax factory were operating. Surely the expenditure of $2,000 per month could not have provided and transported like facilities for the care of men and animals, had the ranch not existed.

From 1888 to 1907 the use of the ranch was not so imperative as mining had been discontinued in the vicinity while deposits of borax at Old Borate were being worked. However, the assessment and development work had to be continued in a large way and in 1899 an expense of at least $1,000 per month would have been required to provide and transport corresponding facilities to carry on this work had the ranch not been available. This amounts to $12,000 per year, being 4 percent on an investment of $300,000, which figure is a fair and just appraisal of the surface and water rights at that time.

By 1907 the reserves of borax ore at Old Borate had been exhausted and a railroad built to and mining commenced at Lila C. Beef and produce were obtained regularly again from the ranch for use at this mine near Death Valley junction. Assessment and development work of the Death Valley and Furnace Creek properties continued to center at the ranch.

As uses of borax multiplied and the demand grew, examinations of new deposits and surveys for methods of transportation again reached over into the Death Valley region, and the ranch took on at least new potential value as it seemed only a short time till a mining center, temporarily established at Ryan, would move on down the canyon to Mount Blanco in the vicinity of the ranch. For this reason it can be conservatively estimated that the ranch and its water rights had by 1913 increased in value by 33⅓ percent to the figure of $400,000.

With increased ore reserves developed at Ryan and later at Boron, the ranch and water may have returned to its former value of $300,000 and stayed fixed around that figure until 1927 when the tourist business came into the picture.

This industry has increased by leaps and bounds, as the following count of visitors to the valley shows:

Official checking station count of visitors entering Death Valley National Monument

	Persons
1933–34	8,000
1934–35	20,235
1935–36	42,061
1936–37	40,815
1937–38	48,874
1938–39	61,310
1939–40	80,843
1940–41	96,500

Paralleling this phenomenal growth are the many improvements and developments which have been needed and installed at Furnace Creek until at this time (October 1941) a fair and accurate appraisal of the ranch and its water rights has risen from the $300,000 of 1899 to figures as follows:

Furnace Creek Ranch

Land values:	
Auto camp, 30.5 acres at $750	$22,875.00
Date gardens, 33.5 acres at $250	8,375.00
Golf course, 44 acres at $500	22,000.00
Golf course annex, 40 acres at $150	6,000.00
Miscellaneous planting, 35 acres at $150	5,250.00
Bird refuge, 15 acres at $150	2,250.00
Natural land, 362 acres at $5	1,810.00
Total	68,560.00
Texas Spring property, 40 acres at $500	20,000.00
Travertine Spring, 40 acres at $50	2,000.00
Water rights and improvement, Texas Spring, 0.59 sec. ft. plus water to be developed	88,671.00
Water rights and improvements at Travertine, irrigation and domestic water springs, 3.83 sec. ft. plus water to be developed	505,412.75
Grand total, land and water	684,643.75

History of Furnace Creek Ranch and Water Rights

Supplementing data given in the foregoing pages, and in order to portray progress of developments and plans for future developments, the following is offered:

In 1904 I was in Death Valley during the months of April, May, June and part of July, and again in December. Also in the years following, 1906 to 1925, I made frequent trips to the valley. Until the year 1915 trips were usually made in company with Mr. John Ryan, the general manager of Pacific Coast Borax Co. On these trips investigations of various ore deposits were made, and plans for development were discussed.

As early as 1909, Mr. Ryan foresaw the exhaustion of the then being worked Lila C. mine. A branch of the Tonopah & Tidewater Railroad had been completed to the Lila C. mine in 1907, and all of the borax company's requirement of borate ore came from this mine until 1915, when the Lila C. was practically exhausted.

In 1908, as above stated, studies were begun for the development of other deposits. Principal deposits first considered were those along Furnace Creek wash, about 3 miles up the wash from Furnace Creek Spring. The ore bodies on these deposits were exposed on the surface, but considerable prospecting by means of cuts and crosscuts was done to further determine quantity and grade of ore.

It was planned by Mr. Ryan to establish a camp at a point convenient to these deposits, install a pumping plant at the springs, and lay a pipeline from the springs to the camp at the mines, and thus furnish the camp with an abundant supply of good water.

Also, during the years 1910, 1911, and 1912, the matter of transportation of ores was given considerable study. Trial lines were run over various routes. The country was, for railroad purposes, quite rough. The bottoms of gulches could not be used, both on account of storm waters and excessive grades. In planning for transportation, it was established that railroads must follow the hillsides.

In the running of a certain trial line from a point on the Lila C. branch toward Monte Blanco, deposits known as Biddy McCarty, Grand View, and Widow could be developed.

These deposits—Biddy McCarty, Grand View, and Widow—while not comparable with Corkscrew and Monte Blanco in size, give promise of considerable ore; and it was decided to build the railroad to them, work them to exhaustion, and then continue the railroad to the larger deposits farther down toward the floor of the valley.

In November and December, 1913, a final location survey of a railroad, as far as the Biddy McCarty mine, was made, and the railroad was completed and in operation by January 1, 1915.

The ore from the newly opened deposits was satisfactory for awhile. Mining operations proved up more ore than expected; but the ore was low grade, and with depth became somewhat more refractory. Along about 1922 the matter of continuing the railroad to the larger and better deposits was again taken up. Before construction commenced, about 1926, the new deposits in Kramer district were struck; these deposits were of considerable extent, and of very desirable quality.

By 1927 practically all of the borax company's requirements of borate ores came from Kramer district, and its mining in the Death Valley region ceased.

From the above it can be seen that as of 1913 it seemed eminently probable that mining operations would once again be resumed close to Death Valley in the Monte Blanco region, and any determination of the value of Furnace Creek Springs and Texas Springs water at that time should be made with this fact in mind. Certainly the likely establishment of a big mining camp in the vicinity of these springs made the value of the water to the company extremely substantial at that time, even more so than the then principal use of the water in connection with the regular prospecting work, etc., in Death Valley, which has been previously covered.

A further factor to be borne in mind is that the presence of substantial amounts of water not far from Monte Blanco could have made it possible even to conduct a refining operation requiring substantial amounts of water at such point. Actually, by 1913 with the Tonepah & Tidewater Railroad running from Death Valley Junction to connect with the main line, and with the establishment at Death Valley Junction of a concentrating unit, the probabilities are that any ore mined at Monte Blanco would not have been refined at that point but would have been transported to Death Valley Junction, and, if necessary, concentrated there before being shipped to refineries elsewhere.

C. M. Rasor.

Pacific Coast Borax Co.,
Death Valley, Calif., August 12, 1942.

F. M. Jenifer,
President and General Manager, Pacific Coast Borax Co.,
Los Angeles, Calif.

Dear Mr. Jenifer: As reported to you by telephone the Furnace Creek area was hit on Sunday evening by the worst storm and flood in many years. It struck near Ryan and extended clear to the ranch. Three and one-half miles of oiled road were taken out and another 4 miles covered with mud and rocks. Five miles of our telephone line was destroyed. The heaviest downpour occured in the hills to the northeast of Zabriskie Point and this water coming into the wash to join that coming down from above was more than the cutout of the wash at Zabriskie could handle and much water went on down to Furnace Creek in rather a destructive torrent.

The canyon was swept almost bare of trees at the Travertine Springs, much of our 12-inch pipe was rooted up or filled with sand and the auxiliary 6-inch domestic water intake and 6-inch line is also out. The fence bordering the road where it passes the springs was taken out clean.

The domestic water line from Texas Spring where it runs in the wash from the help's quarters to the point where it goes up the hill to the tank was carried

away, some 700 feet of 6-inch pipe. Below that point the annex or old help's quarters building was undamaged but one pillar of the arch entrance to the inn went out and water over the top of the wall there in front of the barber shop gutted that area, wrecking the front wall of that 5-room unit. The wall in front was then undermined and toppled over for about 300 feet of its length. The 20-mule team wagon outfit standing right there moved on down the creek and was considerably battered up, not so badly however but what we can dig it out and restore it. At least the tires will be tight for awhile.

With the wall at the barber shop out the water went past the tennis courts and on down the fan south of the ranch. Some water followed the road around to the entrance of the camp and ran in there but did no damage other than soaking the floor of the recreation hall and depositing a lot of mud in the streets and parking areas.

The first job to do and which we went right at, is the restoration of the domestic waterline from Texas Spring. We gathered 700 feet of old pipe from here and there and are laying it on the surface of the ground till later we get time to trench for it. This will be in today and also the Travertine Spring water will be back in the ditch where there is a ditch and otherwise directed down and around the tennis court to the ditch below the inn which was not damaged. We will thus be able to get the water back onto the dates again where it is much needed.

Next the water supply from the tunnel will be restored by digging out the shaft where the siphon end is clogged. The collar of the shaft there was 4 feet above the wash but filled up with sticks, mud and sand anyhow. The furniture from the barber shop unit is being stored in a safe place and this building can later be restored with a new front wall. The entrance to the inn looks better with one pillar than it did with two so we can be consoled to that extent. All we need there is new roadway and a new retaining wall.

Before we get to that I will submit a new idea for that wall designed to take the bend out of the wash which came right at the inn entrance. At that bend the water running 3 or 4 feet deep could not make the turn and piled right on over with damage as noted.

Mr. Goodwin has his motor graders cleaning off the roads and we expect the Salt people to give some help in restoring the pavement. That is if they get a liberal extention to their permit. My plan is to put our own local phone line in temporary shape as soon as possible. Just two wires on wide spaced poles without crossarms. Later we can see about the long distance line and the telegraph wire.

Extent of the damage to the pipelines cannot be estimated until we do some digging to determine what sections are still in place. Our crew is very small and additional help is proving difficult to muster on short notice at the $5 per day we pay extra help down there. However, we will carry along and dig ourselves out as soon as possible.

Yours very truly,

H. P. Gower.

[Interoffice correspondence]

February 6, 1956.

To: Executive Department.
Attention: Mr. P. J. O'Brien.
From: R. S. Brown.
Subject: Death Valley water.

Regarding the water at Death Valley, we are now able to report the results of our recent survey. This includes flow measurements at the water source and the selection of sites to install permanent measuring devices to determine water consumption at the Furnace Creek inn and ranch.

Water is furnished to the inn and ranch from five sources, designated on the attached diagram as Texas Spring, Furnace Creek Wash (domestic), Travertine Springs, South Travertine Springs, and the Inn Water Tunnel. Each of the above sources are discussed below.

1. Texas Spring

Texas Spring, located about 1 mile northeast of Furnace Creek Inn, furnishes water to the inn reservoir through a 6-inch pipeline. Water from the spring is piped to a galvanized iron-housed settling and diversion basin located about 380 feet southwest of the tunnel portal. In the lower end of the settling basin

there is a 2-inch diversion line which carries water to the Texas Spring Public Campground maintained by the National Park Service. On May 25, 1940, a rectangular weir was installed in the lower end of the settling basin with the weir notch about 0.5 foot downstream from the 2-inch diversion. Water below the weir passes through the 6-inch line direct to the inn reservoir. On January 6, 1956, we measured 0.501 cubic-foot-per-second flow over this weir and, on January 18, 1956, the measured flow was 0.484 cubic foot per second or a difference of about 4.2 gallons per minute. Each of the above was taken with the Government line closed and shows full yield of the spring. Measurements taken in 1940, from July 19 to October 18, range from 0.591 cubic foot per second to 0.664 cubic foot per second, with the diversion line closed.

2. Furnace Creek Wash (domestic)

The intake for this source is situated in the bottom of Furnace Creek Wash about 200 feet southwest of Travertine Springs settling basin. The intake is buried in the wash and water collected here is carried to a cement settling basin about 1,500 feet to the northwest. From the settling basin the water is carried by 6-inch line to the inn reservoir where it can be turned direct into the reservoir or bypass and go direct to the ranch for domestic use. (See attached reservoir diagram.)

We installed a rectangular notched weir in the settling box with a crest length of 0.5 foot. The measured flow on January 18, 1956, was 0.396 cubic foot per second. The National Park Service reported a flow of 0.275 cubic foot per second on January 9 and 10, 1941.

3. Travertine Springs

This source represents the collected yield of a number of springs situated northeast of the highway in Furnace Creek Wash about 1¼ miles upstream from Furnace Creek Inn. The water is collected from the different springs by a cement flume which dumps into a settling pond southwest of the highway. Water from the pond goes into a cement galvanized iron-covered settling basin where it is mixed with water from South Travertine Springs and carried by a 12-inch line to the pelton wheel and to the ranch for agricultural use. We installed a dam and rectangular notched weir in the settling pond and measured 1,851 cubic feet per second January 26, 1956. Earlier measurements include Travertine and South Travertine and will be discussed later.

4. South Travertine Springs

This spring is situated about 500 feet southeast of Travertine settling pond in the lower part of Furnace Creek Wash. The water is collected by open cut in the alluvium and carried by pipe to the cement settling basin where it is mixed with Travertine Springs water and carried by the 12-inch line. At the lower end of the spring there is a notched cement settling box in which we installed a rectangular notched weir and measured 1.15 cubic-feet-per-second flow on January 26, 1956.

The combined flow from Travertine and South Travertine was measured in 1940 by a weir located about 275 feet west of Furnace Creek Inn Gardens. At this location all of the 12-inch line can be diverted through the weir. At that time, measurements taken from March 15, 1940, to September 3, 1940, range from 2.81 cubic feet per second to 3.1 cubic feet per second. The flow measured in the same weir on January 18, 1956, was 3.09 cubic feet per second. The combined measurements of South Travertine and Travertine measured at the source January 26, 1956, indicate a total flow of 3.00 cubic feet per second.

5. Inn water tunnel

The water tunnel situated north of the Furnace Creek Inn collects water from Furnace Creek Wash and discharges into an open ditch at the tunnel portal. In 1941, measurements taken from March 1, 1941, through September 3, 1941, range from 0.35 cubic foot per second to 0.96 cubic foot per second. We measured the flow from the tunnel by float and time method January 6, 1956, and January 18, 1956, and found an average flow of 0.815 cubic foot per second. This

is not a true comparison, however, as the method of flow has been changed since these 1941 measurements.

	1940–41	1956
Texas Spring	[1] 0.6000	0.501
Travertine Spring	[2] 3.000	1.850
South Travertine Spring		1.150
Furnace Creek Wash (domestic)	.275	.396
Inn Water tunnel	[3] .650	.815
Total	3.925	4.712

[1] Average.
[2] Includes Travertine and South Travertine.
[3] Method of flow has been changed since 1941 and this value cannot be compared with our 1956 measure ments. We are searching the files for measurements taken after above-mentioned changes.

To determine water consumption, we have surveyed all the outlets and have indicated, on the attached water source diagram, a number of meter locations where we propose to install some type of metering equipment.

As you know, the water presents a chemical problem in that travertine will deposit on any surface in contact with the water. We have surveyed all types of metering devices and have discussed the advantages and disadvantages below.

6. Sparling flowmeter

This type measures flow through a pipe by a propeller and is very accurate for constant flows which vary no more than the limits for each meter. This would not be suitable for small domestic lines which have wide variation in flow, especially in the lower range. As an example, the 2 inch meter varies from 20 to 80 gallons per minute and any small use during night hours below 20 gallons per minute would not register.

To overcome the travertine problem, the Sparling people suggest we use their standard meter with a neoprene dip and plastic propeller. The dip process involves 10 to 12 days more time for shipment as it must cure before use. The cost for each size is as follows:

2 inch Sparling flanged-tube meter	$165
3 inch Sparling flanged-tube meter	231
4 inch Sparling flanged-tube meter	291

The 2 inch with neoprene dip was not recommended by Sparling. This type would be best suited for installation on the ranch 4 inch line.

7. Orfice flowmotor

This type is again best suited for constant flows requiring the pipe to be full at all times. It has the advantage of no moving parts but to record or talize the volume would require a mechanical ring balance meter which would be spring run and would only operate 7 days without rewinding, thus power would be required to operate any recording device of this type over a longer period. The mechanical recorder and orfice fittings cost between $425 to $500.

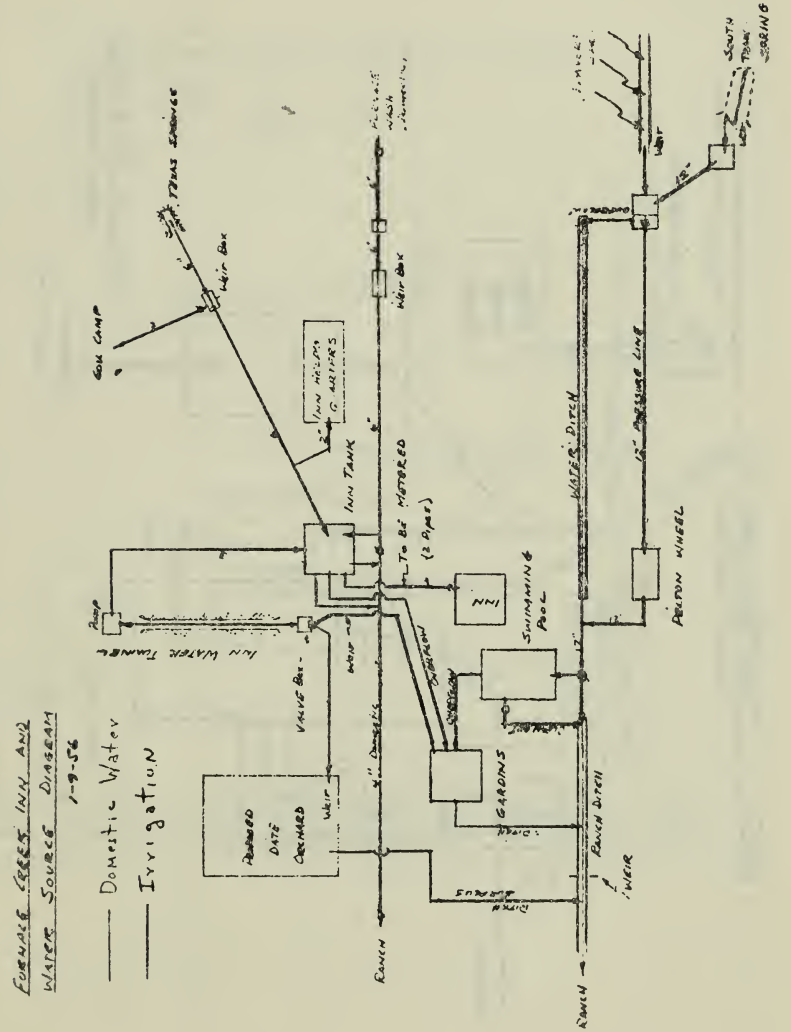
8. Positive displacement volumetric meter

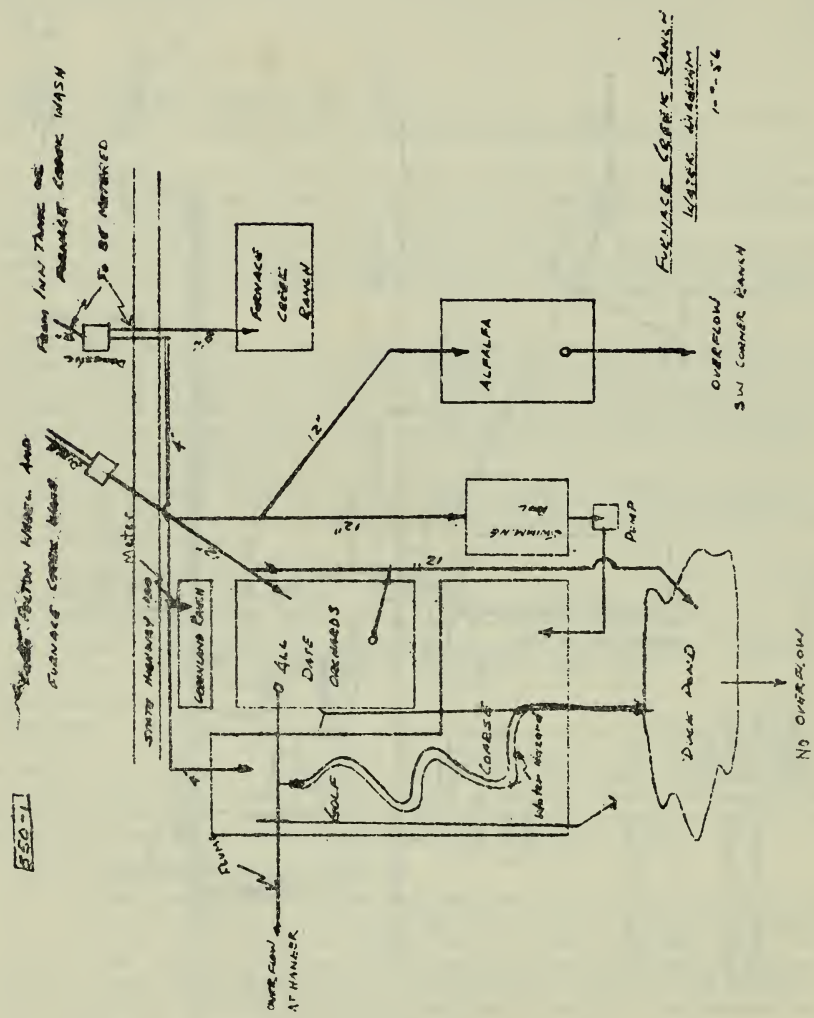
This type has a measuring chamber and registed meter and is similar to the house watermeter. There is an industrial type suited for high-temperature industrial liquids which seems best suited for our smaller domestic lines. We are not sure as to the rate of travertine deposition and we, therefore, propose to install a meter of this type on the 2 inch ranch line to determine if it is suitable for our water. The cost for this type is: 2 inch, $193.20; 3 inch, $395.60 and 4 feet and above are extremely costly in this type.

The open ditches are best measured and recorded by a Porshall flume and recorder or Sparling flowmeter. The cost will range between $275 to $400, depending on the recording device used.

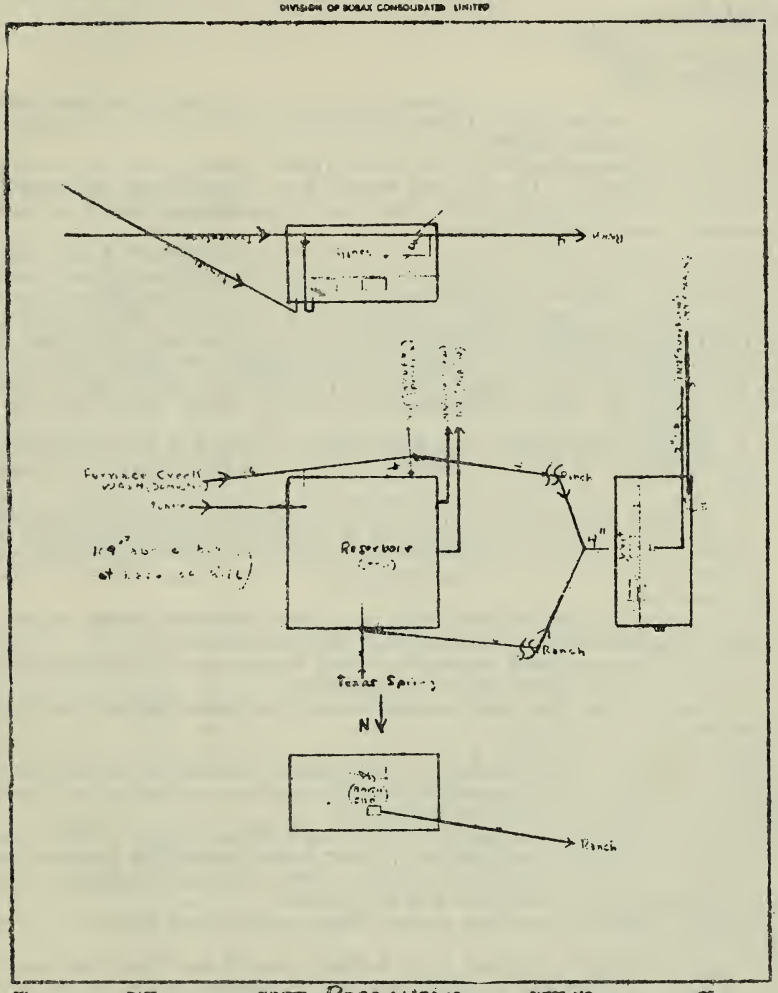
We are continuing our survey of metering equipment and should be able to give a more positive recommendation after we install the 2-inch meter and can observe the results regarding the travertine deposition.

R. S. Brown.


FURNACE CREEK INN AND
WATER SOURCE DIAGRAM
1-9-58
Domestic Water
Irrigation
GOLF CAMP
Weir Box
INN TANK
To 85' MOTORED
(2 Pumps)
INN
SWIMMING POOL
GARDENS
DATE ORCHARD
WEIR
RANCH
WATER DITCH
12" PRESSURE LINE
PELTON WHEEL
POWER DITCH
SOUTH TEXAS SPRING


FURNACE CREEK RANCH
ALFALFA
SWIMMING POOL
PUMP
GARDENS
GOLF
COARSE
DUCK POND
NO OVERFLOW
OVERFLOW
SW CORNER RANCH
OVERFLOW AT HANGER
PUMP
SOUTH HIGHWAY
MILL
FURNACE CREEK WASH
TO BE REMOVED
12"
21"
4"
2"

PACIFIC COAST BORAX CO
DIVISION OF BORAX CONSOLIDATED LIMITED



BY _____ DATE _____ SUBJECT Reservoir SHEET NO. _____ OF _____
CHKD BY _____ DATE _____ Furnace Creek INN PROJECT NO. Death Valley

JUNE 19, 1956.

MR. RAY GOE,
Pacific Coast Borax Co.,
Furnace Creek Ranch,
Death Valley, Calif.

DEAR MR. GOE: I have included below a list of the various water installations you are to visit and measure. Care must be taken that all measurements are accurate and recorded promptly.

Each of the sites listed below are to be visited weekly and the waterflow measured and entered in the attached weekly form. Each week the completed form together with recorder sheets from flumes so equipped are to be sent to Los Angeles, care of Ralph S. Brown.

All measurements must be taken to the nearest hundredth of a foot and repeated at least three times. If there is any abnormal condition such as a leaking weir, it should be repaired and indicated on the form. Listed below is a description of the different sites to visit together with a description of the measuring point (mp) ; the same measuring point must always be used and care taken that your measurement is given in tenths and hundreds of feet rather than inches which is a common error. When changing recorder you should do so with a checklist to prevent loss of measurements. I have listed points to check in changing recorder:

1. Before removing pen, read flume head and see if it is the same as on recorder sheet. If different, indicate on recorder sheet near last measurement.
2. Lift pen, remove drum, change sheet insuring lines adjoin each other.
3. Write on old and new sheet name of installation, recorder number, date covered by record and if flume flowing, write last flume measurement near last recorder measurement, together with the exact time recorder stopped for changing.
4. Place new recorder sheet with head measurements on left column of sheet, being careful that it reads in the correct direction.
5. Mark time and head on new sheet and replace pen. Fill reservoir with ink and clean pen if necessary before replacing.
6. Check to see that float and drum are operating; replace battery if necessary.

Locations to be visited weekly:

1. Texas Spring: Weir located in glavanized-iron-housed cement settling basin 380 feet southwest of tunnel portal. Measuring point east side 30 inches north of weir crest, top shank of horizontal nail.
2. Government meter: On 2-inch line west side Texas Spring settling basin.
3. Furnace Creek Inn water tunnel: Weir located east side proposed date orchard west of Tunnel Road near 6-inch overflow. Measuring point top nail west side of pond 27 inches southwest of weir notch.
4. Four-inch reservoir overflow meter: Meter located near portal of Furnace Creek Tunnel.
5. Two-inch reservoir overflow meter: Meter located on 2-inch line back of inn north side dirt road leading from inn up hill adjacent to inn on the north.
6. Ranch 4-inch meter: On main ranch domestic line in cement box east of ranch weather station.
7. Ranch 2-inch meter: On main ranch 2-inch line in wood box west of 4-inch meter.
8. Ranch annex 2-inch meter: South of road near northeast end of annex on 2-inch line in covered wood box.
9. Ranch ditch weir: Located west of inn garden west end of pond on ranch ditch. Measuring point top nail in 2 by 4 inch, 40 inches upstream from north end weir notch.
10. Travertine: Flume located west end of pond east of Travertine cement stilling box.
11. South Travertine: Weir in cement stilling box northwest corner of open cut about 500 feet southeast of Travertine. Measuring point top galvanized nail head west side 18 inches south of northwest corner of box.
12. Furnace Creek Wash 6-inch domestic: In long cement wood-covered stilling box about one-fourth mile west of Travertine stilling box. Measuring point top galvanized nail south side of box 3 feet west of southeast corner of box. Water must be diverted for this measurement for about 30 minutes.
13. Ranch outflow north side: Flume located in ditch west of hangar (recorder).

14. Duck pond outflow: Located west end stilling pond about 200 feet east of center duck pond on ranch overflow ditch (recorder).

15. Duck pond outflow south side: Located in overflow ditch northwest edge of athel rows which are located west and north of electric plant.

Yours very truly,

RALPH S. BROWN.

[Interoffice correspondence]

LOS ANGELES, *July 11, 1956.*

To: Executive Department.
Attention: Mr. J. M. Gerstley.
From: Mr. R. S. Brown.
Subject: Death Valley Water.

The following is submitted as a report of our water study at Furnace Creek Ranch, and Furnace Creek Inn, Death Valley, Calif.:

In Death Valley, there are five sources of water which furnish domestic and agricultural supply to Furnace Creek Ranch, Furnace Creek Inn, and the Government Texas Spring Campground, and Indian village. The water sources are designated on the attached diagram as Texas Spring, Furnace Creek Inn water tunnel, Travertine, South Travertine, and Furnace Creek Wash domestic. At each source we have installed a weir or flume to measure the quantity of water produced, and have, likewise, installed equipment to measure the quantity used by ranch, inn, and Government. Each source and installation are herein described with a summary of water production and consumption over the period of time covered by our measurements. In addition to the water flow diagram, we have attached the NPS map of the springs, main pipelines, and irrigation ditches.

PRODUCTION

1. *Texas Springs.*—Texas Spring, located about 1 mile northeast of Furnace Creek Inn, furnishes water by 6-inch pipeline to the inn reservoir; and, by a 2-inch pipeline, to the National Park Service public campground, and Government Indian village. Water from the spring is piped to a galvanized iron housed cement settling and diversion basin located about 380 feet southwest of the tunnel portal. The intake for the 6-inch line is located at the low or south end of this settling basin below a rectangular notched weir and the intake for the 2-inch Government line, in the same basin, is about 0.5 feet upstream from the weir. The weir was installed May 25, 1940, and an average of 22 measurements, taken from July 19, 1940, to January 16, 1941, was 0.6295 cubic feet per second (c.f.s.). One cubic foot per second represents 448.83 gallons per minute. From January 6, 1956, to May 17, 1956, 10 different measurements were made with an average of 0.501 cubic feet per second, or 224.86 gallons per minute. On April 25, 1956, the settling tank was pumped dry and a time flow test was conducted. The test was run three times with an average computed flow of 0.504 cubic feet per second, with a difference of 0.003 cubic feet per second or 1.3 gallons per minute from the weir measurement taken before and after the test. Thus, for all practical purposes, the weir measurements are correct. Details of the above test are found on plate II.

Prior to completion of the existing tunnel, the flow of Texas Spring was measured at 0.407 cubic feet per second; after the tunnel was completed, the average flow was measured at 0.6295 cubic feet per second. This year the average flow was measured at 0.501 cubic feet per second, or a decrease in flow of 0.1285 cubic feet per second since the tunnel was completed. When a spring is initially opened, the water is under pressure and will usually flow at a higher rate until the pressure is relieved. For this reason, I believe the diminished flow is due to pressure relief rather than depletion of available supply.

2. *Furnace Creek Inn water tunnel.*—The inn water tunnel is a low-level tunnel driven into the hill north of Furnace Creek Inn. Water is collected in the tunnel by several sand point perforated pipes driven in the tunnel face into the water alluvial fill in Furnace Creek wash. The water flows from the collecting point to the portal through a 14-inch pipe. At the tunnel portal there is a diversion gate to divert the water, by cement flume, to the inn garden, or by a buried 6-inch pipe to an open field south of the tunnel portal indicated on the water sketch as "proposed date orchard." We constructed a weir below the diversion gate in the proposed date orchard to measure the tunnel flow on February 9, 1956. At each

measurement, the entire tunnel flow is diverted through the weir—thus, our measurement represents the entire flow through the 14-inch pipeline.

On April 23, 1956, I was conducting a flow test at the inn reservoir on the hill above the tunnel and, during the process, discovered that the 6-inch line connecting to the north end of the reservoir was an overflow line and emptied into the 14-inch tunnel line about 200 feet from the portal. This overflow line is exposed only for a short distance down the hill, and all concerned had informed me it connected to the ranch main line, furnishing water to the ranch; whereas, it is connected to the tunnel 14-inch line, and has been dumping Texas Spring and Furnace Creek Wash 6-inch domestic overflow water into and mixing with the tunnel water ahead of our weir. Thus, our tunnel weir measurements to that date represent tunnel water plus Texas Spring and Furnace Creek Wash domestic overflow. This overflow is variable, depending on excess above inn and ranch domestic use. To determine the amount, we installed a 4-inch meter May 17, 1956, and will be able to determine the true tunnel flow by subtracting the overflow measurement from the weir measurement.

Using the above method, the tunnel flow is computed at 0.283 cubic feet per second or 127 gallons per minute.

In 1940, Mr. Gower and Mr. Seal recorded an average tunnel water flow of 1.15 cubic feet per second. However, at that time the method used to obtain water was different than the present method—thus, no true comparison can be made, as the water was collected in a shaft sunk in the Furnace Creek Wash. A 12-inch syphon carried the water from the shaft to a cement box at the tunnel face, and the water would flow to the portal by gravity. They were able to control the flow by valve, and did so based on actual water need rather than allow the well to continuously flow. A search of records indicates no measurements were taken after the present method was installed. However, it is obvious that the perforations in the pipe have become filled with travertine which has probably reduced the flow much less than maximum capacity.

3. *Travertine Springs.*—Travertine Springs is a group of several small springs located on the north side of Furnace Creek Wash about 1¼ miles southeast of Furnace Creek Inn. Water is collected at the springs by an open cement flume which discharges into a settling pond located south of the highway in Furnace Creek Wash. Water from the pond flows into a galvanized iron covered cement settling basin where it unites with South Travertine water and is carried by a 12-inch pipeline down Furnace Creek Wash through the pelton wheel, the inn swimming pool, and to the ranch for agricultural use.

January 26, 1956, we installed a rectangular notched weir in the settling pond ahead of the cement stilling box, and made seven measurements through March 24, 1956, with an average flow of 1.926 cubic feet per second, or 864.50 gallons per minute. In early April the weir washed out and a prefabricated Parshall flume was installed. The flume was installed April 27, 1956, and measurements taken since that date show an average flow of 1.88 cubic feet per second, or 843.8 gallons per minute. The latter flume measurements are probably more near the actual flow. Earlier 1940 measurements include Travertine and South Travertine, and are discussed below.

4. *South Travertine Springs.*—South Travertine is about 500 feet southeast of Travertine settling pond in Furnace Creek Wash. The water is collected by open cut in the alluvium and carried by pipe to the cement Travertine settling basin where it unites with Travertine Springs water and is carried down Furnace Creek Wash by a 12-inch pipe to the ranch. We installed a weir in the cement settling box located at the lower west end of the spring on January 26, 1956, and measured 1.15 cubic feet per second. On April 27, 1956, we installed a new weir because of certain hydrologic errors in the earlier installation and recorded a more accurate reading of 1.196 cubic feet per second, or 536.8 gallons per minute.

According to our measurements the combined flow of Travertine and South Travertine Springs is 3.07 cubic feet per second. To check our measurements, we conducted a time flow test at the inn swimming pool with the entire flow of both springs diverted into the pool for the test. On March 24, 1956, the pool was drained and the rate of flow was computed by measuring the time required to fill a portion of the pool. The flow computed by this test was 3.07 cubic feet per second and, as indicated above, the combined measurement at the source also indicated 3.07 cubic feet per second. Details of the above test are found on plate III.

When the water from the 12-inch pipeline is not diverted to the inn swimming pool, it goes into the ranch irrigation ditch. Water from this line is measured over a weir having a crest length of 2 feet with a rectangular section. The weir is located about 275 feet west of Furnace Creek Inn gardens at the foot of a pool

and at the intake of a mile-long rock-line irrigation ditch, leading to Furnace Creek Ranch. The weir was installed in 1940 and measurements taken from March 15, 1940, to September 3, 1940, range from 2.81 to 3.1 cubic feet per second, the difference in flow was no doubt due to diversion at the pool. Measurements taken at the same weir from January 18, 1956, to April 17, 1956, range from 2.98 to 3.09 cubic feet per second. Measurements since May 1, 1956, are not valid due to some overflow loss at the 12-inch intake.

5. *Furnace Creek Wash 6-inch domestic.*—The intake for this source is located in Furnace Creek Wash south of the highway about 200 feet southwest of Travertine Springs settling basin. The intake is buried in the wash and water collected is carried by buried pipe about 1,500 feet northwest to a cement settling basin. The settling basin is located south of the highway near the old National Park Service well. From the settling basin, the 6-inch line goes down Furnace Creek Wash to the inn reservoir where the water can be turned into the reservoir or bypassed direct to the ranch for domestic use. Water from this 6-inch line is measured at the cement settling basin over a rectangular notched weir having a crest length of 1 foot. We installed the weir February 23, 1956, and have measured since an average flow of 0.422 cubic feet per second or 198.4 gallons per minute. The National Park Service measured the flow at the same box January 9 and 10, 1941, and reported 0.275 cubic feet per second (NPS report "Water Use Study in Furnace Creek Area" by A. Van Dunn, p. 10).

The following is a summary of our 1956 measurements as compared with measurements taken in 1940–41:

Water production summary

	1940–41 cubic feet per second	1956	
		Cubic feet per second	Gallons per minute
Texas Spring	0.6295	0.501	224.86
Travertine Springs	[1] 3.1000	1.880	843.80
South Travertine Springs		1.196	536.8
Furnace Creek Wash 6-inch domestic	.2750	.442	198.4
Furnace Creek Inn water tunnel	[2] 1.1500	.283	127.0
Total	5.1545	4.302	1930.86

[1] Includes Travertine and South Travertine.
[2] Method of flow changed since 1941—thus, this value cannot be compared with our 1965 measurements

WATER CONSUMPTION

Furnace Creek Ranch domestic.—Domestic water supply for the ranch is obtained by a 4-inch pipeline from the Furnace Creek Inn Reservoir. The 4-inch line is laid from the reservoir direct to a junction box east of the ranch and from the junction box to the ranch golf course where it terminates. A 2-inch line couples into the 4-inch line at the junction box below the meter and furnishes supply to the main ranch buildings. The annex and boilerroom connect with 2-inch pipe to the 4-inch line north of the annex.

To measure ranch consumption, we installed a 4-inch meter ahead of the junction box, and this meter will measure the total water delivered to the ranch for domestic use. Meters installed on the 2-inch lines will measure staff and customer use. The 4-inch meter reading less the two 2-inch meter readings will give golf course use for sprinkling. Results of the meter readings to July 1, 1956, are as follows:

Total ranch domestic consumption 4-inch meter

Date	Time	Meter reading in gallons
Feb. 24, 1956	3:45 p.m.	[1]
Mar. 8, 1956	3:45 p.m.	2,077,200
Mar. 25, 1956	9:03 a.m.	4,618,700
Apr. 29, 1956	12:15 p.m.	9,711,400
May 17, 1956	2:07 p.m.	13,096,700
June 22, 1956	7:40 p.m.	19,898,800
July 1, 1956	9:10 a.m.	21,599,400

[1] Meter placed in operation.

The average consumption rate for the above period between meter readings is as follows:

Average consumption rate

Inclusive period	*Gallons per minute*
Feb. 24, 1956 to Mar. 8, 1956	110
Mar. 8, 1956 to Mar. 25, 1956	105
Mar. 25, 1956 to Apr. 29, 1956	100
Apr. 29, 1956 to May 17, 1956	130
May 17, 1956 to June 22, 1956	130
June 22, 1956 to July 1, 1956	130

The following is the distribution of water used at the ranch, which is the actual breadkdown of the 4-inch meter reading:

Furnace Creek ranch domestic consumption, 2-inch meter (2-inch line to ranch)

Date	Time	Meter reading in gallons
Feb. 8, 1955	3:00 p.m.	[1]
Feb. 24, 1956	9:15 p.m.	984,000
Mar. 8, 1956	3:50 p.m.	1,762,000
Mar. 25, 1958	9:06 a.m.	2,855,100
Apr. 29, 1956	12:15 p.m.	5,573,500
May 17, 1956	2:05 p.m.	6,613,200
June 22, 1956	7:50 a.m.	8,013,400
July 1, 1956	9:05 a.m.	8,297,700

[1] Meter placed in operation.

The average consumption rate for the above inclusive periods between meter readings, as follows:

Average consumption rate

Inclusive period:	*Gallons per minute*
Feb. 8, 1956, to Feb. 24, 1956	42
Feb. 24, 1956, to Mar. 8, 1956	40
Mar. 8, 1956, to Mar. 25, 1956	39
Mar. 25, 1956, to Apr. 29, 1956	54
Apr. 29, 1956, to May 17, 1956	40
May 17, 1956, to June 22, 1956	27
June 22, 1956, to July 1, 1956	27

Furnace Creek ranch domestic consumption (2-inch meter (2-inch line to range annex))

Date	Time	Meter reading in gallons
Feb. 24, 1956	11 a.m.	[1]
Mar. 8, 1956	5 p. m.	34,400
Mar. 25, 1956	8:30 a.m.	63,300
Apr. 29, 1956	11:55 a.m.	123,900
May 17, 1956	2:15 p.m.	135,600
June 21, 1956	7:35 p.m.	137,200
July 1, 1956	8:55 a.m.	137,700

[1] Meter placed in operation.

Average consumption rate for above inclusive periods between meter readings, as follows:

Average consumption rate

Inclusive period:	*Gallons per minute*
Feb. 24 to Mar. 8, 1956	1.2
Mar. 8 to Mar. 25, 1956	1.2
Mar. 25 to Apr. 29, 1956	1.2
Apr. 29 to May 17, 1956	.4
May 17 to June 21, 1956	.03
June 21 to July 1, 1956	.03

Furnace Creek Ranch golf course.—Average golf course consumption rate for inclusive periods between meter readings, as follows:

Average consumption rate

Inclusive period:	Gallons per minute
Feb. 24 to Mar. 8, 1956	68.8
Mar. 8 to Mar. 25, 1956	64.8
Mar. 25 to Apr. 29, 1956	44.8
Apr. 29 to May 17, 1956	89.6
May 17 to June 21, 1956	103.0
June 21, to July 1, 1956	103.0

During the winter months the ranch swimming pool is drained daily, and the water is pumped to the golf course for sprinkling. However, the water used for the swimming pool is obtained from the ranch irrigation ditch, and is not withdrawn from domestic supply. During the summer months, part of the golf course is flooded by open ditch which is considered necessary to maintain the course.

Furnace Creek Ranch per capita consumption.—During the period from February 24 to April 29, 1956, which is the ranch closing date, the per capita consumption rate at the ranch, exclusive of the golf course sprinkling, is as follows:

Average per capita consumption

Inclusive period:	Gallons per day
February 24 to March 8, 1956	224
March 8 to March 25, 1956	215
March 25 to April 29, 1956	315

Furnace Creek Ranch consumption—Agricultural.—The water used at Furnace Creek Ranch for agricultural use is obtained from an open ditch, as indicated on the attached water source diagram. The water used represents the entire production of Travertine, South Travertine, Furnace Creek water tunnel, and the inn reservoir overflow. The Travertine, and South Travertine water pass through the pelton wheel and into the irrigation ditch south of the inn. Part of this water is diverted into the inn swimming pool which drains into the inn garden pool, and back into the ranch irrigation ditch, with only minor loss by evaporation. The inn water tunnel water unites in the 14-inch line with the 4-inch reservoir overflow water, which is diverted to the inn garden pool draining into the ranch irrigation ditch. The overflow from the 2-inch reservoir overflow line also flows into the inn garden pool and onto the irrigation ditch.

To determine the volume of water furnished to the ranch for agricultural use, we have used Travertine, South Travertine, and inn water tunnel measurements, which are a constant flow, and have added the metered flow of the 2-inch and 4-inch reservoir overflow lines, which are variable—depending on available excess of reservoir water. We have measured the above sources since January 1, 1956. However, in early May, as previously discussed, we discovered the 4-inch overflow line was connected to the inn water tunnel line. Accordingly, the true volume of water delivered to the ranch can be computed only from May 17, 1956, which is the date the 4-inch overflow meter was installed.

Listed below are the measurements taken since May 17. Previous water source measurements are listed under production:

Ranch agricultural water (total delivered by open ditch), May 17 to July 1, 1956

[In gallons per minute]

Travertine	843.8
South Travertine	536.8
2-inch overflow	59
4-inch overflow	184
Furnace Creek Inn water tunnel	127
Total rate	1,750.6

Ranch agricultural water—Beneficial use.—The Furnace Creek Ranch irrigates date palms, athol trees, and pasture throughout the entire year, and a portion of the golf course during the summer months. All of this makes a relatively large water demand especially during summer months when most of the plants require continuous irrigation. During this period, most of the available supply

is required to completely irrigate the ranch. However, during the winter months there is some excess, especially between irrigation periods. The excess, and any normal drainage are, for the most part, diverted to the athol trees north of the airport road, and to the duckponds which are located on the westerly end of the ranch property. The athol trees to the north are used for firewood, and the duckponds are maintained as a game refuge. To measure the amount of water diverted north of the airport road, we have installed a Parshall flume, with a continuous water level recorder, in the outflow ditch north of the hangar, and the water, so diverted, must pass through the flume where it is measured. The degree of accuracy, in this type of installation, is less than a metered pipe; but it is considered adequate and used by all water agencies in States where open irrigation ditch water is measured. The flume and recorder were installed March 9, 1956, and during the period of March 9 to 25, 1956, the average flow recorded through the flume was 0.99 cubic foot per second. From March 25 to April 9, 1956, the average flow recorded was 0.816 cubic foot per second. Since April 9, 1956, there has been essentially no water diverted north of the airport highway.

To measure water diverted to the duckponds, we have constructed a lateral drainage ditch along the east boundary of the duckponds and divert essentially all drainage and excess water into a stilling pond where we have installed a Parshall flume and recorder. It should be pointed out that the westerly end of the ranch drains into the duckponds by gravity and, accordingly, most of the area bounding the ponds on the east is low-lying swampy ground through which the excess water migrates to the duckponds by way of innumerable small waterways which are constantly changing course, and carry only small amounts of silty water. Likewise, the area is covered, for the most part, with athol, willow, and other types of vegetation. The above conditions made the task of measuring the water nearly impossible without a drainage ditch to consolidate the volume and a stilling pond to remove the silt. During the winter months, we made several attempts to construct the ditch and install measuring equipment, but ground conditions made the task impossible. Since we could not divert all runoff and drainage during that period, we were required to wait until the swampy areas were dry. Accordingly, we were unable to install the recorder until May 16, 1956. However, we have measured all flow into the ponds since that date. Prior to this, the only data available is an estimate made after estimating the total flow in several ditches which run through the golf course and drain into the duck pond area. The estimate, made March 9, 1956, was that approximately 1 cubic foot per second was being diverted to the duck pond area as excess runoff. As we were unable to determine if it was during maximum or minimum irrigation requirements, we could only guess that the 1 cubic foot per second was excess. From May 16 to July 1, 1956, we measured a total flow of 12,000 gallons of water diverted to the duckponds which would be about one-fourth gallon per minute. As no water was diverted through the hanger flume during this period, essentially all of the 1,750 gallons per minute of available water was used for irrigation.

Furnace Creek Inn.—Furnace Creek Inn obtains its water from the inn reservoir which is supplied by Texas Spring and the 6-inch Furnace Creek Wash domestic line. To obtain inn water consumption, we have metered all pipelines from the reservoir other than inn lines, and compute inn use by subtracting the total metered flow from the combined rated flow of Texas Spring and the 6-inch Furnace Creek Wash domestic source. The metered lines include the Government 2-inch line which is connected to the Texas Spring line, the 4-inch ranch line, the 2-inch overflow line, and the 4-inch overflow line. During the period May 17 to June 22, 1956, we have been able to determine actual inn consumption; prior to that period, we have taken measurements. However, as the 4-inch overflow meter was not installed until May 17, 1956, the true consumption data must start as of that date. Included below is a summary of all other water used from the reservoir and the corresponding inn consumption:

Water use from reservoir other than Furnace Creek Inn

[In gallons per minute]

Inclusive period: May 17, to July 1, 1956	
4-inch ranch line	130.0
2-inch government	3.5
2-inch overflow	59.0
4-inch overflow	184.0
Total	376.5

Water supply diverted to reservoir

[In gallons per minute]

Inclusive period, May 17 to July 1, 1956:	
Texas Spring	224.86
6-inch Furnace Creek Wash domestic	198.4
Total	423.26

Furnace Creek Inn water consumption

	Gallons per minute
Inclusive period: May 17 to July 1, 1956	46.0

The inn water consumption of 46 gallons per minute would seem rather high. However, during this period approximately 20 sprinking heads out of a total of 75 heads were in constant use, and, in addition, the inn operates, during the summer months, 3 water coolers and uses considerable water to clean the swimming pool.

SUMMARY

The Furnace Creek Ranch and Inn obtain their domestic and agricultural water from five sources known as Texas Spring, Furnace Creek, Inn Water tunnel, Travertine, South Travertine, and Furnace Creek Wash domestic. At each source, we have installed a weir, flume, or meter, and have measured the volume of production since January 1956. Measurements indicate the above water sources produce water at a constant rate and furnish a total of 4.302 cubic feet per second or 1,930.8 gallons per minute of which a total of 1,927.3 gallons per minute is delivered by pipe or open ditch to the Furnace Creek Ranch and Inn, and a total of 3.5 gallons per minute is piped to the Government Texas Spring campground and Indian village. During the period of May 17, to June 21, 1956, the Furnace Creek Ranch used an average of 130 gallons per minute for domestic and sprinkling use, and 1,750.6 gallons per minute, or 3.9 cubic feet per second for agricultural use. During this period, less than ¼ gallons per minute was diverted to the duck ponds—thus, the ranch used essentially 1,881.3 gallons per minute. The Furnace Creek Inn, during this period, used 46 gallons per minute for domestic and sprinkling use with no excess. Accordingly, the ranch and inn were able to use all of the 4.302 cubic feet per second of water produced by the above-mentioned sources with the exception of 3.5 gallons per minute diverted for Government use.

During the period of March 9 to April 9, 1956, an average of 0.9 cubic feet per second was recorded as excess irrigation water diverted to the athol trees north of the airport road. An estimated 1 cubic foot per second was also diverted during that time to the duck ponds which would mean that an estimated 2 cubic feet per second was required for irrigation. It must be pointed out that this is an average use over a period of time and that during any one irrigation period the amount needed would possibly be the entire 3.9 cubic feet per second and runoff between irrigation period would also be higher which would average out 2 cubic feet per second over the period covered by the measurements.

All water measuring installations are completed and measurements or meter and recorder readings are taken weekly and forwarded to the Los Angeles office. We have been recording measurements since January 6, 1956. However, as previously explained, the 4-inch reservoir line was not metered until May 17, 1956, for which reason we can only report on data since that date. Measurements prior to that date for production are accurate, but actual consumption data must be estimated. Likewise, due to ground conditions, we were unable to install the necessary equipment to measure water diverted to the duck ponds until May 17, 1956.

It is our intention to continue measuring and recording Death Valley water, on a weekly basis, through at least one complete year, and will continue our measurements thereafter at intervals necessary to maintain a complete record. This interval can only be determined after a study of the yearly record. Also, it should be pointed out that we are measuring warm, high mineral content water under varied hydrologic conditions which may require some readjustment in the type and location of our measuring equipment. The necessity for such change can only be determined after a progressive study of data after it is collected.

RALPH S. BROWN, *Land Department.*

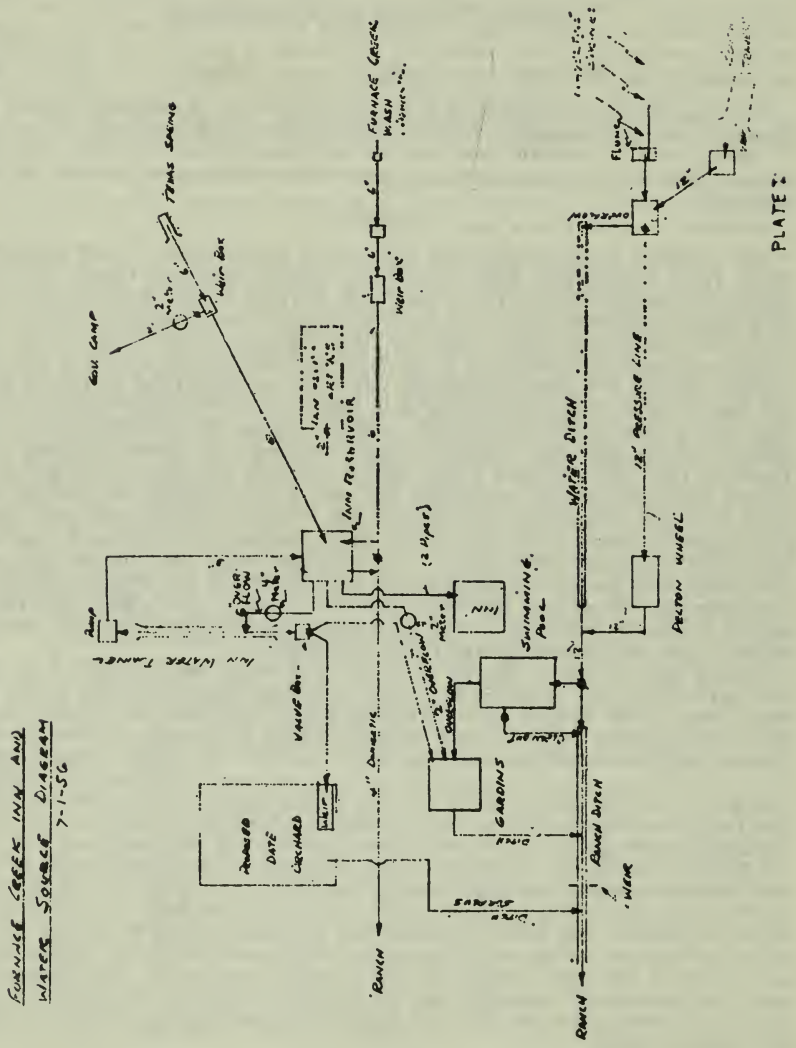
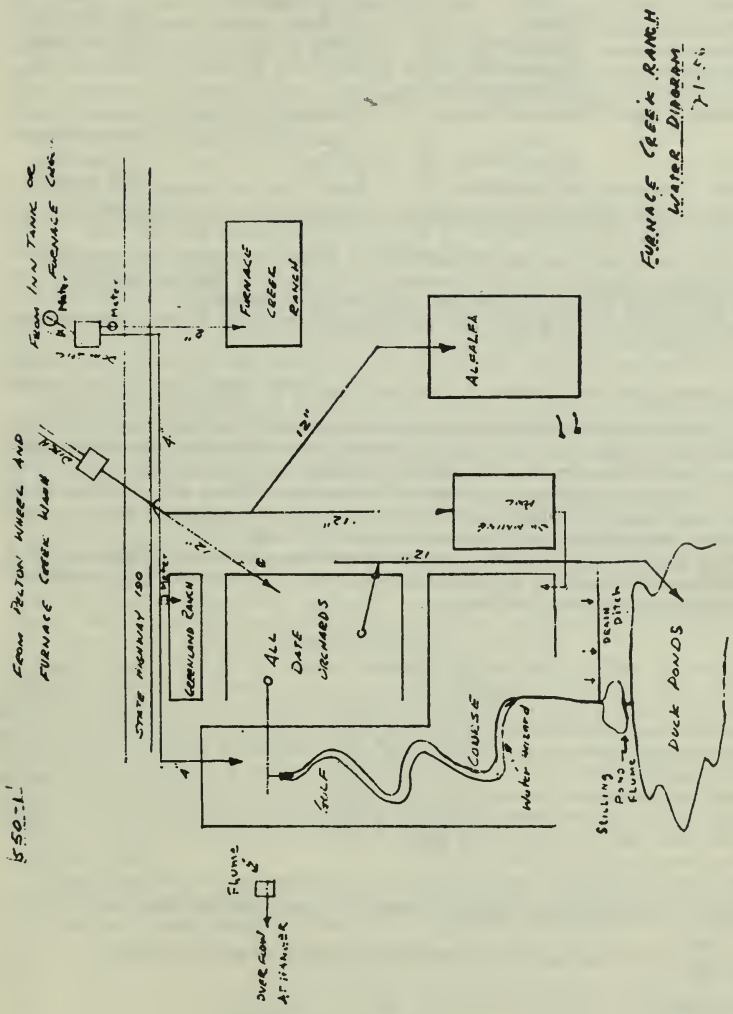

FURNACE CREEK INN AND
WATER SOURCE DIAGRAM
7-1-56
Furnace Creek Wash
Weir Box
Gas Line
Gas Line
Furnace Creek Wash
Weir Box
Inn Reservoir
Inn Water Tanker
Valve Box
Swimming Pool
Water Ditch
Pelton Wheel
Flume
Ranch
Ranch
Ranch Ditch
Weir
Gardens
Garage
Date Orchard

PLATE 2


FURNACE CREEK RANCH
WATER DIAGRAM
PLATE I.
FROM PELTON WHEEL AND FURNACE CREEK WASH
FROM INN TANK OR FURNACE CREEK
METER
FURNACE CREEK RANCH
ALFALFA
12"
4"
STATE HIGHWAY 190
GEORGIANA RANCH
ALL DATE ORCHARDS
GOLF
COURSE
WATER WELL
SETTLING POND
FLUME
DRAIN DITCH
DUCK PONDS
FLUME
OVERFLOW
AFTERBAY

April 25, 1956, Ralph S. Brown—Flow test conducted on flow from Texas Spring.

Cement stilling box 380 feet southwest of Texas Spring tunnel portal was measured and pumped dry and full flow from Texas Spring was discharged into tank under time test.

Surface area of tank was computed at 41 square feet, measurements were started 0.5 foot from bottom of tank and were taken up to 2 feet which is below discharge level of tank.

Water level measurements

1st test:	*Time*
0.5 foot	Start.
1 foot	40 seconds.
1.5 feet	81 seconds.
2 feet	122 seconds.

Water rose 1.5 feet in 122 seconds.

2d test:	*Time*
0.5 foot	Start.
1 foot	40 seconds.
1.5 feet	81 seconds.
2 feet	121 seconds.

Water rose 1.5 feet in 121 seconds.

Test 3:	*Time*
0.5 foot	Start.
1 foot	40 seconds.
1.5 feet	81 seconds.
2 feet	122 seconds.

Test 1 (1.5×122) : 61.5-foot discharge in 121 seconds or 0.504 cubic foot per second.

Test 2: 61.5-foot discharge in 121 seconds or 0.508 cubic foot per second.

Test 3: 61.5-foot discharge in 122 seconds or 0.504 cubic foot per second.

Average flow from above tests 0.505 cubic foot per second.

Weir measurement taken same time was 0.22 foot head or 0.501 cubic foot per second.

FLOW TEST CONDUCTED BY RALPH S. BROWN, MARCH 24, 1956, AT DEATH VALLEY

The Furnace Creek Inn swimming pool was completely drained, measured and the complete flow from Travertine and South Travertine was discharged into the swimming pool through the 12-inch pipe which is laid down Furnace Creek Wash and carries the total production of the springs which arise on the north side of the road designated here as "Travertine" and the spring in the center of Furnace Creek Wash designated here as "South Travertine."

The surface area of the pool was measured and computed at 1,839 square feet, and as water was discharged into pool measurements were taken at south end after irregular pool bottom was filled.

Water level measurements

	Time (minutes)		*Time (minutes)*
0.2 feet	([1])	1.6 feet	15.06
0.5 feet	2.54	1.8 feet	16.05
0.7 feet	4.38	2.0 feet	18.16
0.9 feet	7.02	2.2 feet	19.56
1.0 feet	8.09	2.4 feet	22.01
1.2 feet	10.03	2.5 feet	23.01
1.4 feet	12.00		

[1] Start.

Water rose 2.3 feet in 23.01 minutes—4,229.7 cubic feet in 1,381 seconds:

$$\frac{4,229.7}{1,381} = 3.07 \text{ cubic feet per second total flow from 12-inch line.}$$

Weir measurements taken same day as test:

Travertine:	
Head	0.339
Cubic feet per second	1.926

South Travertine:	
Head	0.39
Cubic feet per second	1.15

3.07 cubic feet per second total flow measured by weir.

3.07 cubic feet per second measured by swimming pool.

[Interoffice correspondence]

LOS ANGELES, *August 20, 1957.*

To: Executive department.
Attention: Mr. P. J. O'Brien.
From. Mr. Ralph Brown.
Subject: Death Valley water.

This report is submitted as an annual review of water conditions at Furnace Creek Ranch and Furnace Creek Inn, Death Valley, Calif.

The Furnace Creek Ranch and Inn obtain all domestic and agricultural water from five sources designated as Texas Springs, Furnace Creek Inn water tunnel, Travertine, South Travertine, and Furnace Creek Wash domestic. At each source, we have installed a weir or Parshall flume to measure production and have installed meters on most of the water mains to measure consumption. We also measure, as part of our water inventory, the amount of Texas Spring water diverted by National Park Service for supply to the Indian village and Texas Spring public campgrounds.

WATER PRODUCTION

Texas Springs is located about 1 mile northeast of Furnace Creek Inn and water from the springs is carried by 6-inch pipeline to Furnace Creek Inn Reservoir. The water is measured by weir in a covered settling basin near the springs which also serves as intake for the reservoir 6-inch line and the 2-inch Government diversion line.

Furance Creek Wash 6-inch domestic is located in Furnace Creek Wash about 1 mile southeast of Furnace Creek Inn. The intake is buried in the wash about 200 feet southwest of Travertine Springs settling basin and water is carried by buried 6-inch pipe to the inn reservoir. The flow is measured by weir in a settling basin in Furnace Creek Wash.

Travertine Springs is a collective name for a group of small springs located north of Furnace Creek Wash Highway, about 1¼ miles southeast of the inn. The combined spring flow is collected by open cement flume and discharged into a settling pond south of the highway where it is measured by Parshall flume and discharged into a closed cement basin which serves as intake for a 12-inch pipeline. About 500 feet southeast of the cement basin there is an open alluvial cut designated as "South Travertine Springs." Water is collected in the cut measured by weir and discharged by pipe into the Travertine cement settling basin where it mingles with Travertine Springs water. The combined flow of Travertine and South Travertine Springs is carried by 12-inch pipeline down Furnace Creek Wash through the pelton wheel, the inn swimming pool, and by open ditch to the ranch for agricultural use.

The Furnace Creek Inn water tunnel is a low-level tunnel driven into the hill north of Furnace Creek Inn to a point where the tunnel face intercepts the alluvial fill in Furnace Creek Wash. Perforated sand points have been drilled through the tunnel face into the water-saturated alluvium and the water flows in the tunnel about 50 feet to a settling basin where it is measured by Parshall flume. The settling basin also serves as intake for a 14-inch pipe which carries the water by gravity to the tunnel portal where it is discharged into a cement ditch. The ditch carries it through the inn garden to the ranch ditch where it mingles with Travertine and South Travertine water to be used as ranch agricultural water.

We started our water measuring program early in 1956 and have continued to measure each source of water on a monthly basis. We list below the description of equipment used together with our monthly measurement.

TABLE 1.—*Texas Springs*

Date	Measured (cubic feet per second)	Flow (gallons per minute)	Date	Measured (cubic feet per second)	Flow (gallons per minute)
Feb. 9, 1956	0.501	224.86	Nov. 28, 1956	0.501	224.86
Mar. 8, 1956	.501	224.86	Dec. 10, 1956	.501	224.86
Apr. 29, 1956	.501	224.86	Jan. 10, 1957	.501	224.86
May 17, 1956	.501	224.86	Feb. 6, 1957	.501	224.86
June 21, 1956	.501	224.86	Mar. 21, 1957	.501	224.86
July 1, 1956	.501	224.86	Apr. 1, 1957	.501	224.86
Aug. 8, 1956	.501	224.86	May 9, 1957	.501	224.86
Sept. 7, 1956	.501	224.86	June 4, 1957	.501	224.86
Oct. 8, 1956	.501	224.86	July 24, 1957	.501	224.86

NOTE.—Measured by weir with 1.5-foot crest.

TABLE 2.—*Furnace Creek Wash 6-inch domestic*

Date	Measured (cubic feet per second)	Flow (gallons per minute)	Date	Measured (cubic feet per second)	Flow (gallons per minute)
Feb. 23, 1956	0.442	198.40	Nov. 28, 1956	0.437	196.10
Mar. 24, 1956	.442	198.40	Dec. 20, 1956	.437	196.10
Apr. 29, 1956	.442	198.40	Jan. 18, 1957	.437	196.10
May 17, 1956	.442	198.40	Feb. 6, 1957	.442	198.40
June 21, 1956	.442	198.40	Mar. 21, 1957	.442	198.40
July 1, 1956	.442	198.40	Apr. 1, 1957	.442	198.40
Aug. 8, 1956	.437	196.10	May 9, 1957	.442	198.40
Sept. 7, 1956	.437	196.10	June 4, 1957	.430	193.00
Oct. 8, 1956	.437	196.10	July 24, 1957	.421	188.95

NOTE.—Measured by rectangular weir with end contractions and a crest of 1.0 feet.

TABLE 3.—*Travertine Springs*

Date	Measured (cubic feet per second)	Flow (gallons per minute)	Date	Measured (cubic feet per second)	Flow (gallons per minute)
Apr. 29, 1956	1.88	843.8	Dec. 12, 1956	1.92	861.8
May 17, 1956	1.88	843.8	Jan. 15, 1957	1.94	870.7
June 21, 1956	1.88	843.8	Feb. 6, 1957	1.88	843.8
July 1, 1956	1.88	843.8	Mar. 21, 1957	1.88	843.8
Aug. 8, 1956	1.88	843.8	Apr. 3, 1957	1.88	843.8
Sept. 7, 1956	1.88	843.8	May 9, 1957	1.82	816.9
Oct. 8, 1956	1.88	843.8	June 4, 1957	1.82	816.9
Nov. 28, 1956	1.94	870.7	July 24, 1957	1.78	797.5

NOTE.—Measured by Parshall flume with 9-inch throat.

TABLE 4.—*South Travertine Springs*

Date	Measured (cubic feet per second)	Flow (gallons per minute)	Date	Measured (cubic feet per second)	Flow (gallons per minute)
Apr. 27, 1956	1.196	536.8	Dec. 12, 1956	1.261	566.0
May 17, 1956	1.196	536.8	Jan. 19, 1957	1.261	566.0
June 21, 1956	1.196	536.8	Feb. 5, 1957	1.283	575.8
July 1, 1956	1.196	536.8	Mar. 21, 1957	1.283	575.8
Aug. 8, 1956	1.196	536.8	Apr. 1, 1957	1.283	575.8
Sept. 7, 1956	1.196	536.8	May 9, 1957	1.283	575.8
Oct. 8, 1956	1.196	536.8	June 4, 1957	1.280	574.5
Nov. 28, 1956	1.261	566.0	July 24, 1957	1.239	556.1

NOTE.—Measured by rectangular weir with end contractions and a crest of 1.5 feet.

TABLE 5.—*Furnace Creek Inn tunnel*

Date	Measured (cubic feet per second)	Flow (gallons per minute)	Date	Measured (cubic feet per second)	Flow (gallons per minute)
June 21, 1956	0.283	127.0	Jan. 10, 1957	0.283	127.0
July 1, 1956	.283	127.0	Feb. 5, 1957	.283	127.0
Aug. 8, 1956	.283	127.0	Mar. 21, 1957	.285	128.0
Sept. 7, 1956	.283	127.0	Apr. 5, 1957	.285	128.0
Oct. 8, 1956	.283	127.0	May 9, 1957	.285	128.0
Nov. 1, 1956	.283	127.0	June 4, 1957	.260	116.7
Dec. 10, 1956	.283	127.0	July 24, 1957	.160	71.7

NOTE.—From June 6, 1956, to Feb. 14, 1957, the tunnel flow was measured near the tunnel portal by rectangular weir and on Feb. 14, 1957, we installed a Parshall flume and a Stevens water stage recorder which we are now using to record the flow. The flume has a throat width of 6 inches.

TABLE 6.—*Production summary*

Source	Flow measurement	
	Cubic feet per second	Gallons per minute
Texas Spring	0.501	224.86
Travertine Springs	1.890	848.29
Furnace Creek Wash 6-inch domestic	.440	197.49
South Travertine Springs	1.239	556.10
Furnace Creek Inn tunnel	.284	127.47
Total	4.354	1954.21

NOTE.—Our monthly measurements indicate some fluctuation in flow of at least 4 of the 5 sources we, therefore, list below the average of 12 measurements taken from June 1956 through May 1957.

Thus, the five sources of water used by the company for domestic and agricultural use are yielding a total of 4.354 cubic feet per second or 1945.21 gallons per minute.

During the past year, the U.S. Geological Survey have measured all the above water sources and have included Nevares Springs in Cow Creek and the recently opened water diversion in Furnace Creek Wash. Nevares Springs is the source of supply for the National Park Service administration and housing area in Cow Creek, and the new water diversion is a lateral open cut installed in Furnace Creek Wash upstream from our inn tunnel intake. The diversion was completed during the latter part of May 1957 and has been diverting water out of the wash by open ditch and for the present is being used at the ranch to prevent flooding in the wash. The flow is measured by Parshall flume installed by the National Park Service. I have obtained the Geological Survey measurements and have listed below their reported average flow together with the average of our measurements.

TABLE 7.—*Water flow measurements*

[In cubic feet per second]

Source	U.S. Geological Survey	Death Valley Hotel Co.	Source	U.S. Geological Survey	Death Valley Hotel Co.
Travertine	1.9	1.890	Nevares Spring	0.6	
South travertine	1.3	1.239	Furnace Creek diversion	.2	
6-inch domestic	0.4	0.440			
Furnace Creek tunnel	.3	.284	Total in area	5.2	4.354
Texas Spring	.5	.501			
Total company water	4.4	4.354			

In addition to the above-measured flow, I estimate there is about 0.3 cubic feet per second of water lost in Furnace Creek Wash during the spring and summer months by surface evaporation and plant transpiration. The Geological Survey has made a similar estimate and consider this figure as reasonable. We have not accumulated sufficient yearly measurements to specifically prove this is the exact amount lost, therefore, for the present this must remain as an estimate only. As an illustration, the plant growth was removed from around the springs and ditches during the 1955–56 season and we record no significant change in travertine flow during 1956 summer season. The growth was not removed during the 1956–57 winter season and travertine flow shows some decline this summer. Although this is not conclusive, I feel we should continue cleaning the springs and ditches at least every 2 years which I understand has been past policy. Mr. Scholl informs me this will require two or three men for about 3 months and he further advises they start early in October to prevent muddy water getting in the inn swimming pool after opening.

The Park Service started their water diversion in Furnace Creek Wash during the latter part of May 1957. During this period, we have maintained a water

stage recorder in the Furnace Creek tunnel which is downstream from their intake. The recorder graph shows a constant flow of 0.285 cubic feet per second from March 21, 1957, to May 9, 1957, at which time the flow started a gradual decline to 0.160 cubic feet per second recorded July 24, 1957.

This decline may be seasonal or due to a head loss created by the Park Service diversion. The exact cause can only be determined by accumulation of several seasons of measurement or by conducting a controlled test. This test would essentially consist of starting and stopping the diversion flow over a period of a week or more and observing results on our recorder. This should be done during the winter season when the flow has stabilized and any effect from seasonal decline is over. I will consult the Park Service and, if possible, arrange such a test for this coming winter and will report results when completed.

Water consumption—Furnace Creek Ranch and Inn

The Furnace Creek Inn reservoir, which is supplied by Texas Springs and Furnace Creek Wash domestic, furnishes water to the ranch by 4-inch pipeline and to the inn by 3-inch and 2-inch pipeline. The reservoir overflow is removed by two metered lines; a 6-inch line to the tunnel 14-inch line where it goes to the ranch for agricultural water and a 2-inch line that discharges into the inn garden and is also used for ranch agricultural water. Ranch domestic consumption is measured by metering the 4-inch main line and a 2-inch domestic line connected below the 4-inch meter. To find inn consumption, we subtract ranch consumption, reservoir overflow, and Government use from the total flow into the reservoir and assign the balance to the inn. We have had considerable trouble with the meters due to sand and Travertine wearing out the gears. We keep some spare parts for replacement but nevertheless have had long periods when the meters were out of action. We have consulted several meter companies and have installed the best equipment for the above conditions but we still have breakdowns especially in the 4-inch meters. We will, however, continue our efforts to improve the situation.

The Furnace Creek Ranch irrigates date palms, athol trees, lawn, and pasture throughout the entire year and requires most of the water produced during winter months and all production for the summer season. During the winter, any surplus after irrigation, drains to the low westerly edge of the ranch to a series of ponds constructed for a wild bird refuge. The area in and around the duck ponds is low-lying, swampy ground covered with athol, willow, and other vegetation. Therefore, to measure this surplus irrigation water, we have installed a Parshall flume and settling pond east of the duck ponds where we catch the main surplus stream.

During the 1956–57 winter season, we had a great many washouts in the settling pond due to the nature of the ground and the soil used in construction. As the ground is swampy and inaccessible during winter months, we could only make temporary repairs which usually washed out. We therefore have obtained a bulldozer and will rebuild the pond this summer in an effort to correct the situation.

In reporting water consumption, we have selected two periods which represent seasonal high and seasonal low water demand. These periods also have continuous meter records and stabilized spring flow production.

Water consumption, June 22 to September 7, 1956

During this period, the ranch used 21 gallons per minute for domestic use and 95 gallons per minute for golf course sprinkling, or a total of 116 gallons per minute. The Furnace Creek Inn used 55 gallons per minute for sprinkling and domestic use which includes that used by 75 sprinkling heads and 3 air-conditioning units. The Government line diverted 8 gallons per minute of Texas Spring water to the Indian village and public campgrounds.

During this period, the combined yield of the five water sources produced an average of 1,932 gallons per minute. The ranch, inn, and Government domestic lines used a total of 179 gallons per minute and the balance, or 1,753 gallons per minute, was used by the ranch for irrigation purposes. There was no overflow recorded into the duckponds during this period. Thus, all 1,932 gallons per minute were beneficially used. Records indicate the ponds are usually dry from May 1 to September 1 when any surplus water is used on the golf course.

Water consumption, February 7 through March 21, 1957

During this period which represents the maximum winter and spring demands, the ranch used 37 gallons per minute for domestic use and 76 gallons per minute

for golf course sprinkling, or a total of 113 gallons per minute. The Furnace Creek Inn used 37 gallons per minute for domestic and customer use and the Government diverted 10 gallons per minute for the campgrounds and Indian village. During this period the total water produced was 1,970 gallons per minute. The ranch, inn, and Government line used 160 gallons per minute. Thus, the balance, or 1,810 gallons per minute, was used at the ranch as agricultural water diverted to the duckponds as surplus.

During winter and spring irrigation much of the surplus water trickles or seeps to the swamp area in and around the duckponds. We divert the main drainage streams to our settling pond but to measure all the small seeps and trickles is virtually impossible. Additionally, as I indicated before, we have had considerable trouble maintaining our pond and we therefore only have intermittent records except during the dry summer months.

From data available, I would estimate the duckponds receive about 0.3 cubic feet per second or 135 gallons per minute during the winter months when irrigation requirement is low. This estimate is an average of total flow received, as much of the drainage is intermittent and varied in amount with periods when there is little or no surplus water and others when the drainage will range up to 1 cubic foot per second.

SUMMARY

During the period covered by this report, we have measured all water sources available for domestic and agricultural use at Furnace Creek Ranch and Inn. The combined flow will average 4.354 cubic feet per second or 1,954.21 gallons per minute. The Geological Survey has measured the same water sources and has measured the flow as 4.4 cubic feet per second. In addition, they measured 0.2 cubic feet per second from the Park Service Nevares Springs and an additional 0.2 cubic feet per second being produced from their new diversion in Furnace Creek Wash.

We report consumption data during two periods representing seasonal high and seasonal low water demand. During the period June 22 to September 7, 1956, the inn and ranch used 171 gallons per minute for domestic use, the Government Indian village and campground use 8 gallons per minute, and the balance of 1,753 gallons per minute was used for agricultural use at the ranch. The duckponds were dry, therefore, all production was used beneficially. All water produced is required at the ranch and inn from May 1 to September 1, as indicated by no recorded surplus in the duckponds.

During the period February 7 through March 21, 1957, the ranch and inn used 150 gallons per minute, the Government diverted 10 gallons per minute, and the balance, or 1,810 gallons per minute, was used at the ranch for agricultural or surplus water. Surplus water, which is most drainage from irrigation, will average an estimated 0.3 cubic feet per second or 135 gallons per minute. Thus, during winter months the ranch and inn use 4 cubic feet per second beneficially. The surplus is only available at the ponds and at present there is no method available to reuse this .03 cubic feet per second. We list below the flow and consumption data for the above representative periods.

TABLE 8

[In gallons per minute]

Source	June 22 to Sept. 7	Feb. 7 through Mar. 21
Water production:		
Texas Springs	225	225
Furnace Creek Wash (domestic)	198	198
Travertine Springs	844	844
South Travertine Springs	537	575
Furnace Creek Inn tunnel	128	128
Total	1,932	1,970
Water consumption:		
Furnace Creek Ranch (domestic)	116	113
Furnace Creek Inn (domestic)	55	37
Government campground and Indian village	8	10
Ranch (agricultural)	1,753	1,675
Surplus (duck ponds)	0	135
Total	1,932	1,970

LOS ANGELES, CALIF., *December 20, 1957.*

Re granting Government right to use Death Valley water.

Mr. FRED BINNEWIES,
Superintendent, Death Valley National Monument,
Death Valley, Calif.

DEAR SIR: This is in reply to your request for a temporary water supply for use at the new museum and campground site during the early construction and planting period.

Although we make beneficial use of all water we produce and thus have no surplus water, there are intermittent periods within the winter irrigation cycle when we can temporarily divert some water to you through the ditch behind the old hangar site, as you suggest. We cannot continue to do this after about May 1, 1958, however, since the available supply of water produced by us after that date will not be adequate for all of our own uses.

The 0.2 second foot of water from your Furnace Creek development now running into our ditch will, of course, be available to you at all times. This assumes, of course, no loss of water by evaporation, seepage, or other causes and no interference with our own water production.

Regardless of what amount becomes available in the hangar ditch, if you make a connection from the Texas Spring, Indian village line, the new development will always be able to at least share the 35 gallons per minute to which you are entitled from Texas Spring. By use of your big storage tank above the public campground, you can make full use of this steady flow of 35 gallons per minute or about 50,000 gallons per day and perhaps thereby supply all your construction needs and with your 0.2 second foot from the hangar ditch, most of your early planting requirements as well. The balance of your requirements we will endeavor to supply when available, as stated in the paragraph above.

We trust that the above will meet with your approval.

Yours very truly,

J. D. STERN,
Vice President and General Manager.

[Interoffice correspondence]

LOS ANGELES, *January 7, 1959.*

To: Executive.
Attention: Mr. James M. Gerstley.
From: James N. Allan.
Subject: New ranch domestic waterline, $26,000 estimated cost.

It is recommended that the present domestic 4-inch line running between the storage tank located behind Furnace Creek Inn and the ranch be replaced with an 8-inch line and that two 6-inch lines be installed at the ranch sandbox to divert water for domestic and golf course sprinklers' use at the ranch.

At an estimated cost of $26,000 the existing 4-inch line was installed in 1936 using old air line from the mines at Ryan. During the last 10 years we have had to replace approximately one-half of this line which was rusting out or which was so badly clogged with travertine as to reduce the water pressure. The balance of the line is rusting and is clogging to the point where pressure has been seriously reduced at the ranch and the golf course. When Mr. Scholl and I recently tested two fire lines—one at the school, the other at the museum—we found that the water pressure would not force a stream of water as high as the eaves of the building from the small fire hoses which are maintained by these installations.

We had received from Harvey's General Henderson a water survey dated June 5, 1958. A copy of General Henderson's report is attached to this memorandum. This report has been reviewed by Mr. Brown. General Henderson estimated that Furnace Creek Inn, the ranch, and Greenland Ranch would need about 0.378 cubic foot per second of water for domestic use, and an additional 3.743 cubic feet per second for existing golf course use. Mr. Bell, the golf course architect, estimates that the 18-hole golf course which he proposed would only require about 1.24 cubic feet per second during the hot summer months to be adequately watered. This is equivalent to 800,000 gallons per day for the hot dry months of June, July, August, and September.

Mr. Cooke of Glendora Country Club advised Mr. Scholl that during the hottest summer days they used 300,000 gallons or 0.464 cubic foot per second. We believe that for an 18-hole course in the valley 500,000 gallons per day or 0.744 cubic foot per second would be adequate during the hot summer months. General Henderson's estimated 3.743 cubic feet per second for the 9-hole existing golf course figures is clearly erroneous.

Mr. Brown disagrees with the Henderson golf course figure and advises that actual metered use during the past year was 100 gallons per minute of domestic water supplemented by surface irrigation during the hot summer months. This 100 gallons per minute was the maximum flow possible through the existing lines delivered to the golf course. We consider this present flow inadequate.

Mr. Brown points out that should we accept Henderson's golf course estimate, it would take the major portion of our total production from all sources which is 4.2 cubic feet per second to develop this much for sprinkler use only leaving no date irrigation, domestic, or other sanitary uses possible.

However, Mr. Brown states that General Henderson's estimate of 0.378 cubic foot per second for domestic use is reasonable as our measurements recorded during the past year show ranch, inn, and Greenland Ranch consumed about 0.271 cubic foot per second.

Reduced pressure in the domestic lines is causing difficulty in keeping the golf course in good condition and at times during the winter months the pressure is insufficient in the motel units to handle normal demands.

Assuming continued use of the existing inn storage tank, we have established a fixed capacity head, and distance for water to be transported. The existing 4-inch line is worn out after over 20 years' service.

Since we have to replace the entire line, the question arises as to what the proper pipe size should be. We have three possible pipe sizes: 4, 6, and 8 inches.

The present 4-inch line develops inadequate pressure due to friction loss reducing the effective head. At the same time a 4-inch line can transmit only a limited amount of the available domestic water from the inn reservoir. The balance of the available domestic supply is discharged to two reservoir overflow lines which drain into the surface irrigation ditches extending between Furnace Creek Ranch and Furnace Creek Inn. This domestic usable water is lost to us as domestic water and becomes merely irrigation water due to the fact that our 4-inch line cannot fully accept and transmit the capacity of domestic water which we presently develop and have available. A new 4-inch line would not accept the complete amount of water available at the inn tank and restricts the deliverable usable quantities and pressure at the ranch.

It is our recommendation that we do not replace the old 4-inch line with a similar line.

Either a 6- or 8-inch line would adequately carry the volume of water produced at the reservoir tank. However, due to frictional loss, the pressure in a 6-inch line would only be about 98 pounds per square inch as compared with 127 pounds per square inch in the recommended 8-inch line. The approximate head required to sprinkle the golf course should approach 127 pounds per square inch which would be possible by use of an 8-inch line.

The engineering department has advised that they would recommend our using steel pipe in preference to transite. We do not use transite at Boron.

Mr. Scholl's estimate based on using transite pipe shows a cost of roughly $30,000 as compared to $26,000 for steel pipe. Since transite would be more expensive and more susceptible to early travertine buildup and breakage due to ground movement, it is recommended that a steel line be used.

The major difference in cost between a 6-inch line and an 8-inch line would be the difference in cost of pipe and coupling which would approximate a total saving of $2,000. However, the reduction in pressure is the most important factor to be considered and the slight additional expense fully justifies the installation of a new 8-inch line which would have a life of about 30 years and which would take care of any future water demands for the ranch area.

We recommend that authorization be given to proceed immediately to engineer and survey the new line which must be moved to our new right-of-way granted by the National Park Service.

We recommend that the land department prepare the necessary survey and that Mr. Shanley of the engineering department prepare necessary plans and superintend the construction.

Mr. Scholl's estimate on replacing the waterline from inn storage tank to ranch golf course

1. 5,000 feet 8-inch line, inn tank to ranch sandbox	$9,400
2. 1,800 feet 6-inch line, sandbox to golf course	2,700
3. 125 8-inch couplings	1,000
4. 45 6-inch couplings	260
5. 8-inch water meter with 4 bypass valves	2,000
6. Ditching, laying, and backfill	10,200
Total	25,560

We have funds owned by Harvey for deferred maintenance on the junction, and for deferred maintenance on the waterlines which could be applied to this project.

Harvey obligated $22,000 for the junction maintenance and repairs and have used approximately $11,000 of this sum for the agreed repairs leaving about $11,000 available from the junction fund. Harvey is obligated to spend $2,000 each lease year to maintain or improve the Furnace Creek water system. Since the commencement of their lease they have only spent $3,077.83 for this work, leaving a balance of $2,922.17 due as of the end of the third lease year this May 31, 1959.

We could use these funds to cover the major part of the cost of this project. The balance could come from the remaining balance of the improvement fund which is now $29,903.47 available only from the rentals payable by Harvey during the fifth lease year commencing June 1, 1960.

While I would prefer using capital improvement money as a contribution toward a third motel unit so as to increase revenue, our continued losses in this operation should make us commit income rather than our cash surplus for this type of project until our earnings' position improves.

I request the foregoing proposal be approved.

JAMES N. ALLAN.

DOMESTIC WATER

Up to 1926: 4-inch line from old tank three-fourths of a mile from ranch. This operated a 3-kilowatt light plant at the ranch from 1920 to 1930—130 gallons per minute.

1926: 2-inch line 1 mile from Texas Spring to inn, $3,200.

1927: Built tank at inn, $1,600.

1930: Connected up every small spring and seepage to the public campground, $4,000 (7 gallons per minute).

1930: Put in 6-inch line from new water box at Texas Spring and moved old 4-inch line over to connect inn tank and ranch, $5,400.

Connected sprinkler system to domestic water lines. Golf course sprinkler system and construction of greens, $24,000 in 1930–31.

1931: Protecting fence, $2,903.60.

1936–37: To increase domestic water supply—opened up all springs below the 12-inch intake box and put in system of tile drains connecting to concrete water boxes. Put in open cut in gravel on south side of canyon near Travertine Spring. This was covered with timber and earth and protected by stone walls. From here 6-inch pipeline, 7,000 feet to the inn tank. The various laterals connected to this line. Cost $11,351, developing 90 gallons per minute or 0.2 cubic foot per second.

Total domestic water supply June 1, 1940: 90 plus 266 equals 356 gallons per minute or 0.8 cubic foot per second.

1940: Put in tunnel at Texas Spring, increasing flow from 180 gallons per minute to 266 gallons per minute, 0.5 cubic foot, and connected same to the inn domestic water supply, $5,523.11.

1934–40: Domestic water dispensing system added to as needed at ranch to a cost of $4,000.

1920 to date: $200 per year have been expended in maintenance of ditches, boxes, pipelines, etc., in connection with domestic water supply.

IRRIGATION WATER

Up to 1928 when water wheel was installed there had been put in a $10,000 concrete pipe system on the ranch and $200 per year were expended on maintaining the ditches. 1.90 second-feet of water were obtained and about 1.7 delivered to the ranch.

1928: 3,000 feet of 12-inch pipe, a concrete intake and sand box and a Pelton water wheel were installed at and above the inn. 2.08 second-feet of water were used and 35 horsepower generated. Cost $7,750.

Duck ponds 1933, $500.

1931: 3,000 feet were added to the 12-inch pressure line. A new sand box and intake system were installed, a larger generator was substituted and a larger runner put in the wheel. Ditches were cleaned out and spring to south of the road increased somewhat, bringing total through wheel to 2.25 second-feet.

1937: Test pits were put down in the wash both at Warm Springs and two at the inn. Water was pumped all summer showing a constant flow. Cost $1,130.09.

1937–38: The long tunnel was driven developing 1.04 second-feet at cost of $12,476.95.

1940: Material for lengthening the tunnel was purchased for $953.24.

1939: Spring on south of road was opened up with a trench, increasing the total flow through the water wheel to a constant 3.02 second-feet, which, with output of tunnel gives (3.02 plus 1.04) 4.06 cubic feet per second in irrigation water.

Total all water:

Irrigation	[1] 4.06
Domestic	[1] 0.80
Total	[1] 4.86

[1] Cubic feet per second.

History of Water Production at Furnace Creek

The lands and water rights of the Death Valley Hotel Co. pertinent to the discussion of operations at Furnace Creek are listed as follows together with the date and method of acquisition:

(1) Furnace Creek Ranch comprising the 640 acres of section 16, T. 27N, R. 1E., S. B. B. M. were patented by W. T. Coleman, E½ in 1884, W½ in 1885 and following a number of intercompany transfers came finally into the hands of the Death Valley Hotel Co. by deed from Borax Consolidated, Ltd. on February 29, 1956. Two parcels from this section were deeded to the United States, namely: The Death Valley Airport, 201 acres and the national monument headquarters and museum site, 90 acres, leaving 349 acres more or less of the original 640 acres with the Death Valley Hotel Co.

(2) The desert borate placer (1,927 acres) which envelopes to some extent the NW¼ of section 16 and upon which the Harmony Borax Works is located. The tract was patented in 1887 by the Harmony Mining Co. and after many intercompany transfers also came into the hands of the Death Valley Hotel Co. on February 29, 1956.

(3) Agricultural land, 80 acres, adjoining the ranch and described as N½ of NE¼ section 21, T. 27N., R. 1E., S. B. B. M. was patented on May 21, 1908 by J. D. Ackerman and came to the hotel company from Borax Consolidated, Ltd., on February 29, 1956.

(4) Texas Springs, a 40-acre tract described as NW¼ of NE¼ section 23, T. 27N., R. 1E was patented by J. D. Ackerman on May 21, 1908 and transferred subsequently to the Death Valley Hotel Co. on February 29, 1956.

(5) Furnace Creek Springs, a 40-acre tract described as the SW¼ of SW¼ section 27, T. 27N., R. 1E was patented by J. D. Ackerman and came to the Death Valley Hotel Co. by deed from Borax Consolidated, Ltd., on February 29, 1956. Patent dated May 21, 1908.

(6) Furnace Creek Inn, 160 acres described as S½ of NE¼ and SE¼ section 23, T. 27N., R. 1E, S. B. B. M. was patented with land script by Thos. Lowe on June 10, 1927, and transferred subsequently to Death Valley Hotel Co. on July 6, 1927.

(7) Texas Spring water rights to the amount of 300 inches were appropriated on March 1, 1882, by R. Neuenschwander and relocated on May 5, 1883, by W. T. Coleman. This water right subsequently came into the hands of Borax Consolidated, Ltd., who, prompted by an agreement signed on February 27, 1941 by F. M. Jenifer for Pacific Coast Borax Co. and Newton B. Drury, Director of National Parks, transferred 0.078 second-feet (35 gallons per minute) of water to the United States in the grant of easements dated July 1, 1955. This water right subsequently came into the hands of Borax Consolidated, Ltd. who, prompted by an agreement signed on February 27, 1941, by F. M. Jenifer for Pacific

Coast Borax Co., and Newton B. Drury, Director of the National Parks, transferred (35 gallon per minute) of water to the United States in the grant of easements signed July 1, 1955, by the Secretary of Interior.

(8) Furnace Creek Springs water right to the amount of 500 inches were appropriated on June 30, 1882, by W. B. Robertson, transferred to F. M. Smith on April 4, 1890, and subsequently came into the hands of Death Valley Hotel Co. on February 29, 1956.

We attach a letter by C. M. Rasor to Frank R. Wehe, our legal counsel, of San Francisco, on May 14, 1925, in which he gives a history of the water at Texas Spring and Furnace Creek Springs as personally observed by him since 1904. He emphasized the fact that all the water was used continuously and that there had been no adverse claimants. It appears that no definite water measurements were available at that time so that following the circulation of this letter, Gene Valjean, a U.S. mineral surveyor and civil engineer, employed at that time by the company, was commissioned to and did conduct a survey between May 8 and 14, 1926, and made a map showing the location of various springs in the Furnace Creek area and a record of the amount of water being produced at that time by each.

From the date recorded on this map now known as page 66 of company atlas (copy attached) it appears that 1.98 second-feet were available from the Furnace Creek Springs and 0.28 second-foot from Texas Spring. However, owing to ditch losses and evaporation only 1.70 second-feet was being delivered from the Furnace Creek Springs to the ranch for irrigation purposes and it was estimated that on account of various losses the 0.28 second-foot was reduced to 0.14 second-foot before it reached the tank. At that time, 1926, the Furnace Creek water was carried to the ranch in an open ditch and the Texas Spring water came down in an open ditch to a tank at the point where the public campground is located.

From the tank it continued on for three-quarters of a mile to the ranch in 4-inch iron pipe for domestic use and to operate a 3-kilowatt light plant. The company also installed a 2-inch branch north from the ranchhouse a quarter of a mile to the village where the local Indians made their winter homes. During 1926, the construction of the Furnace Creek Inn was begun and a 2-inch line was run from Texas Spring to a new concrete 10,000-gallon tank built early in 1927 at a point 100 feet above the inn site.

Cost of 2-inch pipeline	$3,200
Cost of tank	1,600

In 1930, the demand by travelers for camping space with water was growing rapidly and to guard against contamination of water at our springs and along our ditches, the company established a public campground on Government land in the gulch just north of the inn property and just below the Texas Spring water storage tank serving the ranch. Camping space, running water, and sanitary facilities were made available to the public at no charge. As this service put something of a strain on our domestic water supply, we moved a lot of 1½- and 2-inch steel pipe down from the abandoned mines at Ryan and connected up several springs and water seepages outside the Texas Spring 40 acres to the public campground. This gave a supply of 7 gallons per minute, or about 10,000 gallons per 24-hour day which took care of the public camp needs. This improvement cost the company $4,000 including pipe, trucking, installing, etc.

By 1930, additional buildings, the palm garden, and increasing patronage of the public rendered the water supply inadequate at that point, and a 6-inch line was run from Texas Spring to the inn tank, replacing the 2-inch line. To supply the ranch we moved its former 4-inch supply line to connect the ranch from the inn tank, giving us water under pressure for domestic use and for the sprinkling system then being installed on the ranch golf course. The 6-inch line and changeover of 4-inch ranch line cost us $5,400. A wire fence to enclose all the springs, whether on our land or not, was installed in 1931 to protect them from the herds of wild burros which grazed there during the winter months. The fence cost $2,903.60. After the war when the burros had disappeared, the fence was removed or at least opened up.

In 1932 the Furnace Creek Camp at the ranch was opened and its rapid growth indicated that an additional or rather an auxiliary source of domestic water should be made available, and we turned our attention to the several springs and seepages below the mainspring in Furnace Creek Wash which, though directed toward the main ditch, usually settled in the sand and never reached it.

A system of cuts in the gravel, tile open joint drains with concrete settling boxes was installed 4 feet below the ground and connected by 7,000 feet of 6-inch steel pipe to the inn tank from which, as before mentioned, the ranch also got its domestic supply. This improvement added at least 0.2 second-feet of water at a cost of $7,962.40.

In 1940 to quiet the occasional complaint of organic contamination of our domestic water supply we drove a tunnel into the Texas Spring area at an elevation 35 feet below the spring, and installed a settling box underground connected to the existing domestic supply line. Complaints were eliminated and the water supply increased from 0.35 second-feet to a total of 0.6 cubic foot per second, which in time settled back to approximately 0.5 second-feet. This improvement cost the company $5,523.11, bringing the overall total of domestic water to approximately 0.7 cubic feet per second.

The above refers only to the domestic water and a short review of the Furnace Creek Springs irrigation water system follows:

As stated above from Valjean map and record, we were delivering 1.7 second-feet of water to the ranch in 1926 from a developed supply of 1.9 second-feet. We got busy and cleaned up the ditches and got production up to 2.08 second-feet in 1928 and into a 3,000-foot line of 12-inch pipe to generate 25 kilowatts of power at the inn. The cost of this installation was $7,750 and gave us this continual year-round power at practically no operating cost.

In 1931 the 12-inch pressure line was lengthened 3,000 feet to a new intake and screening box at the springs. Power output was raised to 40 kilowatts and by cleaning out the South Travertine Springs raised the volume going through the wheel to 2.25 cubic feet per second. The added cost was $3,500. From the wheel the water proceeded as needed through the inn swimming pool and gardens to the ranch a mile away where it gave life to alfalfa fields, the growing date gardens, the patches of athel woods being grown for firewood and windbreaks and in the winter season to the duck ponds below the ranch where as a tourist attraction many varieties of waterfoul were attracted. The pools cost $1,200.

In 1936 the suggestion of a possible sale of the hotel brought up the question of a separate water supply and as a preliminary and exploratory move a pit was sunk 20 feet in the sandy wash at a point 1,000 feet below the intake box of the 12-inch pressure line on U.S. Government land. A great quantity of water was observed passing through the fine gravel at that depth and work was discontinued and resumed a mile downstream, again in Furnace Creek Wash but this time within the boundaries of the Furnace Creek Inn property.

In 1937, two shafts were put down there near the present annex building of the inn. No. 1 shaft was located in the middle of the wash and hit water at 16 feet and bottomed in running gravel at 44 feet where our sinking pump, handling 425 gallons per minute was incapable of holding the water low enough for the miners to work. No. 2 shaft was placed 150 feet west of No. 1 and 30 feet from the vertical wall of the canyon. Here we got into water at 14 feet and were not able to get below 24 feet on account of the fine gravel which came up under the bottom of the cribbed box faster than we could shovel it up and hoist it out. We pumped 800 gallons per minute of water there and maintained that rate for a 12-hour period. These various test pits in the wash must have cost us $3,500 although for some reason the cost is shown in my notes as $1,130.

In any event we were inspired by these tests to drive during 1937 and 1938 a 900-foot tunnel through the spur which forms the west bank of the wash to tap the water at 30 feet below the wash level. Water was taken out from No. 2 shaft into tunnel by means of a 12-inch siphon at the rate of 1.04 gallons per minute as needed, run through the inn garden and for the irrigation of 150 palms planted outside the inn gardens. The surplus was dumped into the main ditch leading from the Furnace Creek Springs to the ranch. The siphon was eventually discontinued and water now comes through some perforated pipes driven from the face of the tunnel 10 feet into the sands of the wash. Valves on these pipes provide a regulated flow with an average maximum at present of 0.3 second-foot. Cost of the tunnel job including settling boxes and 900 feet of 14-inch pipe was $12,476.95.

At a later date, perhaps 1954, an electric pump set up on the settling box in the tunnel was connected by 3-inch galvanized steel pipe to the inn storage tank on the hillside 100 feet above. The pump is capable of providing all the water needed at the inn, is pumped occasionally and is held in readiness for instant service.

In 1933 following a cloudburst which took out the thicket of mesquite which at one time covered the canyon floor at the Furnace Creek Springs and lowered

the level of the wash a foot or two, it was noted that the South Travertine Spring at that point was again flowing, after long intermission, at about the rate (0.5 second-foot) which Valjean had reported in 1926. We proceeded to cut a trench there with the bulldozer, put in a screening box and 12-inch pipe leading across the wash to the intake of the 12-inch pelton wheel line and thereby brought the flow up to 1.01 second-foot which has been maintained ever since. Occasionally a flood will bury the spring under 6 feet of gravel but a half day's work with the bulldozer puts it back in operation again. The cost of the cut, screening box and 12-inch pipe was approximately $900.

In 1941 the recurring thought of a possible sale of our hotels prompted an outside examination and appraisal of our water resources. W. B. Lippencott, a famous water engineer and longtime employee in the Owens Valley and Colorado River water development of the city of Los Angeles, was engaged for this purpose. After considerable study he compiled a history of the system, data on production, and an appraisal of values. Lippencott worked with company Engineer Seal in his survey and confirmed and used the Seal measurements approximately in his estimate of our reserves. The following brief chart gives the record for 1926, 1941, and 1959, respectively.

Record of production at various sources at Furnace Creek and Texas Springs

[In cubic feet per second]

Date	Furnace Creek Spring	South Travertine Spring	Texas Springs	Furnace Creek Domestic Springs	Furnace Creek Inn Tunnel	Total
1926 Valjean	1.39	0.51	0.38	0.00	0.00	2.26
1941 Seal	1.84	1.01	.59	.38	1.04	4.86
1960 Brown	1.86	1.37	.50	.43	.31	4.47

That seems to cover briefly the development of water in our two systems. The maintenance through the years and, of course, the replacement of wornout facilities continue year by year. Cloudbursts disrupt the lines in the canyon at times as perhaps can be expected.

Turning now to the political angle we have endeavored to give neighborly cooperation to the Park Service which came into the valley in 1933, and, in fact, to the public in every possible way.

In 1914 beginning on Feburary 6 we began drilling three exploratory holes 6 to 10 miles apart in the floor of Death Valley. These holes went to 100 feet in depth and while not rendering anything of immediate value were of great geological interest and the company made the data available for a USGS bulletin published in 1916. Then in 1955 the bulletin being misplaced and out of print, the USGS was again provided with these logs for incorporation in a geological report covering the Death Valley area then being prepared. Neither has geological information been withheld from the public. Samples of borate ores have always been available and access to our properties in Death Valley has never been denied to anyone. Our cooperation in the matter of realinement of the highway for a mile in the vicinity of Furnace Creek Springs was asked by the monument and State highway officials in 1941. No objection to this improvement was made by the company though considerable expense was entailed in the relocation on long established pipes and water ditches.

In 1935 the monument took over the Texas Spring camp ground which the company had established on public land in 1931, including the various pipelines and small spring developments furnishing 7 gallons per minute of water (about 10,000 gallons per day). They immediately set about conserving this flow and adding to it by tapping additional small springs and seepages, installing new laterals and constructing a 20,000-gallon concerete water storage tank to replace the old iron tank near the campground. Our impression and observation was that the flow had perhaps been doubled by their work. It was later claimed by Goodwin and others that the flow had reached a total of 25 gallons per minute (see letters).

(1) Goodwin to regional director, May 28, 1940.
(2) Goodwin to Gower, June 5, 1940.
(3) Regional atorney to Goodwin, June 19, 1940.

As mentioned above, we decided in 1939 to insure uncontaminated domestic water for our hotel operations by driving a tunnel on our own land into the Texas Spring hill at an elevation of 35 feet below the outlet of the spring. During this operation two upraises to the surface were put in for ventilation and these in some unexplained manner entirely cut off the flow of some of the monument springs and greatly reduced others to a point where total production was only 4 to 5 gallons per minute. The campground needed but little water during the summer but the ranger's cottage and the Indian village were placed in a bad position, so we immediately began furnishing them water as needed from our ranch main. However, we were horrified to hear Goodwin say and to find that he had reported to his superiors that they had suffered a total loss of 35 gallons per minute or just over 50,000 gallons per day.

Though this ridiculous statement caused a lot of argument on the local level, Jenifer, our general manager, smoothed things over and advised the monument that we had always furnished water for the camp and would continue to do so even up to 35 gallons per minute. We helped them hook up their lines to the Texas Spring settling tank and have for 20 years provided all the water needed. We have never metered the water used but doubt if it often comes near the 50,000 gallons per day allowance. The Government long since has adandoned the remaining small springs and seepages. The above arrangement was confirmed in the Drury-Jenifer agreement of February 27, 1941.

Late in 1940 things were further strained in a State filing by the monument of 1.5 feet per second of water to be developed in Furnace Creek Wash. This, of course, they had a perfect right to do if they had any use for the water and could develop it without lessening our supply. The temporary unpleasantness was eliminated on February 27, 1941, by the signing of a document by Mr. Jenifer for the company and Newton Drury for the national park which confirmed and approved a Government application, No. 10119 dated February 17, 1941, for a permit from the State for 0.078 cubic foot (35 gallons per minute) from Texas Spring. Agreement further stated that the Government had no intention of developing more than 1½ feet per second, including the 0.078 foot per second and that Borax had no intention of protesting the granting of the national monument application.

The third paragraph of the agreement stated that "in the event that the Park Service engineer concludes that some more favorable or economical plan than that referred to in the application is possible, the company stated that it would be very glad to discuss and consider such a plan with a view of cooperating with the National Park Service."

This seemed to me a wonderful document setting a plan for the approach to all future water problems between the two parties. Thirty-five gallons per minute have been ample for all their needs over the past 20 years and another 50 gallons or so should, with their presently installed large storage tank, meet their permanent needs. This might be exchanged for all the water we might want to produce at the inn tunnel or elsewhere in Furnace Creek and if so exchanged could solve a lot a problems. Ample reserves of water have, I think, been proven there and it is agreed by Brown and the Government hydrologist that some water is escaping out of the Furnace Creek Canyon. If this amount could be determined or perhaps merely more closely estimated we could safely make the trade and make up any shortage of domestic water by enclosing the South Travertine Spring and diverting a portion of that water into the domestic system. The cost of covering this spring would be nominal, perhaps $2,500 and would make unnecessary the annual cleaning of the spring as at present and the excavating to revive it after our occasional cloudbursts.

The plan did set the approach for the cooperation which has gone along since the document was executed. When the need for a public landing field seemed urgent in 1934 the company, at its own expense, cleared two runways on Government land, erected a hangar and installed suitable gas pumps, and after the war when first-class airports were deemed necessary at inland points in the 1950's, the company made available a mile-long strip of level land below the ranch for this purpose. In this case a mutual exchange was arranged in which the company gave, by deed of December 22, 1954, the 201-acre airport site together with 40 cres at the world-famous Zabriskie Point in exchange for a grant of permanent easements dated July 1, 1955, covering 10-foot-wide easements enclosing water, sewer, and electric lines and conduit inadvertently placed during the years across U.S. Government land. In spite of recent statements by muckrakers, the agreement was open and aboveboard and at the instigation of an act of Congress, H.R. 4515, enacted February 4, 1952.

As a banner of good intentions this exchange document repeated in total the original agreement between Jenifer and Drury. Now it can well be repeated following a law enacted June 30, 1958, H.R. 10349, by Congress, to the effect that another mutual exchange of land is authorized if and when all water problems between the parties are permanently adjusted. The Government has selected 400 acres lying northward from the new headquarters building in our section 16 and we have proposed to accept 200 acres lying east and south of Furnace Creek Ranch. It is possible that responsible agents such as the Drury-Jenifer team of 1941 might settle the whole deal in a few moments without reference to water rights or recourse to the courts.

In conclusion, further evidence comes to mind of our good relations and cooperation with the Federal Government and the local governments in the various areas where our properties are located and can be indicated in part as follows:

Schools: Taxes and assessments for schools have been met with little protest, if any, in many locations. In 1910 the T. & T. Railroad bore in large part the expense of construction of the big school at Thyolite and our last payment toward the bonds was made long after the school was abandoned. In the early days of the mine operation at Ryan and before the country sponsored the school there, a private elementary school was operated at company expense. In 1924 Indian children were carried daily between the ranch and Ryan at company expense and the following year a school was provided and a teacher hired for the Indians at Furnace Creek Ranch. This operation continued off and on until a county school was opened there in a schoolhouse provided for the county at nominal rental and still in use. A two-room school building also was provided by the company at Death Valley Junction at $15 per month from 1915 to 1948. The company was assessed and paid over a period of 30 years a considerable proportion of the expense of erection and operation of the high school at Lone Pine 100 miles away, later duplicating this expense when assessed for the construction of a modern high school at Shoshone, Calif. Boron schools from the one-room school of 1928 until the present two eight-room schools and high school have received substantial assistance from the company in taxes and gifts of lands for school purposes.

In 1957 a gift of 90 acres of land was made to the United States for the establishment of a national monument headquarters, museum, tourist center and camp. Water for this development was to come from development being carried on by the monument in Furnace Creek Wash. As the amount of water developed was of insignificant and uncertain quantity the Borax Co. was asked to and did supply extra water over and above the 35 gallons per minute from Texas Spring to be used during the construction and landscape planting period. J. D. Stern's letter of December 20, 1957, granting use of extra water is attached. As the headquarters are as yet incomplete the permit, at this writing, is still in effect.

The need for a museum in Death Valley had long been felt and in 1955 with the endorsement of the national monument and their donation of certain exhibits the company moved the old Borax Smith office building down from 20 Mule Canyon and established the Death Valley Museum. This institution, along with the auditorium at the inn and ranch where nightly ranger lectures are given, have been used by the monument in the common effort to provide information to the traveling public. As a further cooperation the salary of one ranger engaged in this publicity is advanced by the company.

In two cases at least water and power have been provided free by the company to U.S. ranger station or residence near the hotel property.

If we go slightly afield we find the company at Lone Ranch on the Oregon coast donated on September 7, 1950, free of charge to the Oregon State parks a beautiful shoreline tract of 367 acres stretching 2½ miles along the Pacific. The value of this land to the people of Oregon and the United States as a portion of the Boardman State Park cannot be estimated but shows again the company's cooperation and good will toward Government agencies.

H. P. Gower.

Death Valley Hotel Co., Ltd.,
Los Angeles, Calif., August 29, 1960.

Mr. W. M. Childs,
General Manager, Death Valley Hotel Co., Ltd.,
Los Angeles, Calif.

Dear Mr. Childs: I have read a copy of Mr. Conard Wirth's letter to Mr. Gerstley of August 22, 1960, and wish to submit, herewith, my comments.

Mr. Wirth seems concerned that we may have changed our position by using beneficially or otherwise, more water than was used at the time the legislation was enacted July 2, 1958. There has been no change in our position as evidenced by the fact that no new source of water has been developed and no attempt has been made to increase the yield of the springs furnishing our water supply. Further, we were then, and we are now using beneficially all of the water available to us from the various sources of water supply connected to our domestic, customer, and irrigation system for the Furnace Creek Ranch and Furnace Creek Inn. I have maintained reasonably accurate measurements of the total amount of water produced by the various sources and the amount of waste water discharged since before 1958 and to date my records show that during the spring, summer, and fall months of each year essentially all of the water available has been and is now required for domestic, customer, golf course, date trees, and other plant life use within the ranch and inn property.

What is possibly confusing their fieldmen is that during the spring of 1959, we replaced the 4-inch main ranch pipeline with an 8-inch pipeline of greater water-carrying capacity. This has thereby increased the amount of water available for sprinkling under pressure, but as no additional water was available for this increase it obviously had to come from the amount otherwise used in the open ditches for surface irrigation on the ranch. This in effect has decreased the surface ditch irrigation of the date trees and other plants and increased the sprinkling on the golf course and a new plot of grass discussed below with no increase in total water consumption.

In 1958, the Park Service was diverting 4 to 15 gallons per minute from Texas Springs with an annual daily average use of 9.50 gallons per minute. This has been increased to a maximum daily use of 31 gallons per minute as of August 15, 1960. I understand they are entitled to use up to 35 gallons per minute; however, it should be apparent again that as the source of water available has not increased, the Park Service increase has of necessity come from the amount of water we were using in 1958. The increased Park Service use, together with our net decrease in surface ditch irrigation, has no doubt prompted me on some occasion to remark, and if there is any doubt I will restate the remark, that the ranch could use more water on the existing facilities.

Mr. Wirth apparently challenges my remarks and supports this by stating that the date trees are thriving. This seems odd to me because the criteria for an adequate irrigation of date trees is reflected in the quality and quantity of the date crop which should be harvested sometime this fall. To determine if the trees are adequately irrigated requires a more expert opinion than myself. However, on August 27, 1960, Mr. Geissler, the field representative for the California Date Growers Association, Indio, Calif., visited the ranch for a field inspection and reported to me, by phone, that the trees were looking good, but after examining the soil and trees it was his opinion that they should receive more water.

In December of 1957, Mr. Fred Binnewies, then Superintendent, Death Valley National Monument, requested a temporary water supply to the new museum and campground site to irrigate the mesquite. This water was to be furnished through an irrigation ditch near the present service station. At that time, Mr. Stern advised Mr. Binnewies (December 20, 1957, file 11–0–US) that we make beneficial use of all the available water; however, there were intermittent periods during the winter months when we could release some water on a temporary basis until they were in a position to utilize their 35 gallons per minute. This water, which we made available on a temporary basis was in part, used to maintain the mesquite area between the visitor center and the airport on the 90-acre tract which Mr. Wirth indictes is now in need of irrigation. The water was not taken from waste discharge but was diverted from ranch irrigation system near the head of the ranch upstream from the date trees and golf course and continued into the summer at the expense of an adequate irrigation to the date trees.

They now have available the full capacity of the 35 gallons per minute which should take care of their present needs as stated in paragraph 5 of a letter dated September 18, 1958, to Mr. Gerstley from Mr. E. T. Scoyen, Acting Director, which reads in part, "Our supply of water from Texas Springs will be adequate for the immediate needs of the museum," and confirmed earlier this spring by their engineer. As the ranch is in need of additional irrigation water, reflected by the loss diverted from Texas Springs and from our surface irrigation by the new pipeline sprinkling of the 2-acre grass plot on our property south of the museum site, we have stopped the diversion of our irrigation water to the 90-acre tract. This is per our original letter informing the Park Service this was a

temporary measure and would not be continued after May 1, 1958. However, since then we have, on occasion as I have indicated, released additional water as a friendly gesture to prevent plant loss until their pipeline was installed.

Therefore, in conclusion, I can assure Director Wirth that we have developed no additional water and in view of the increased Park Service use we are actually using less water than in 1958 and if we are to maintain the status quo, we will need to develop additional water to supplement the present supply.

Yours very truly,

RALPH S. BROWN,
Geologist-Hydrologist.

WATER SUPPLY AND WATER USE, FURNACE CREEK RANCH AND FURNACE CREEK INN, DEATH VALLEY, CALIF., AUGUST 30, 1960

CONTENTS

Summary.
Introduction and scope of investigation.
Water use.
    Summer 1958.
    Winter 1958.
    Summer 1959.
    Winter 1959.
    January-August 1960.
    Conclusions.
    National Park Service use.
Water source.
    Texas Spring.
    Furnace Creek Inn water tunnel.
    Travertine Springs.
    South Travertine Springs.
    Furnace Creek Wash 6-inch domestic.

TABLES

1. Summary of water produced and used, Furnace Creek Ranch and Furnace Creek Inn.
2–3. Meter measurements on ranch 4-inch main and 2-inch domestic pipeline.
4. Meter measurements on ranch 6-inch golf course pipeline.
5. Meter measurements on ranch domestic 4-inch pipeline.
6. Meter on Park Service 2-inch diversion pipeline.
7. Texas Spring measurements.
8. Furnace Creek Inn Tunnel measurements.
9. Travertine Springs measurements.
10. South Travertine measurements.
11. Furnace Creek Wash 6-inch domestic measurements.
Illustrations—Plate 1. Schematic sketch of Furnace Creek Ranch and Furnace Creek Inn water system.

SUMMARY

Early in 1956, a water study was initiated in the Furnace Creek Wash area to determine the amount of water available to the Furnace Creek Ranch and Furnace Creek Inn, and report on water use. The data was computed from meter, flume, and weir measurements and interpreted during periodic occasions when meters were inoperative due to mechanical failure.

The findings, summarized in table 1, are reported in terms of water requirement which is the amount discharged by the springs and required to furnish the domestic, customer, and irrigation consumptive water use at the ranch and inn. The water requirement must provide for necessary loss such as evaporation, seepage, pipe loss, and waste runoff. The irrigation efficiency is the percentage of the total water requirement which is made available for consumptive use. These efficiencies are to be compared with standards of irrigation efficiencies of 40 to 70 percent.

During the summer, April 30, to October 21, 1958, the total requirement for the ranch and inn was 4.10 cubic feet per second. The total runoff was 0.1 cubic feet per second, giving a consmptive use of 4 cubic feet per second and an efficiency of 98 percent. Therefore, of the total yield by the springs of 4.10 cubic feet per second only 0.1 cubic feet per second was actually lost as surface waste which could not economically be prevented.

During the winter, January 7, to April 30, 1958, and October 21, 1958, to January 6, 1959, the ranch and inn total requirement was 4.24 cubic feet per second. Measured runoff was 0.84 cubic feet per second giving a consumptive use of 3.40 cubic feet per second or an average efficiency of 80 percent.

During the summer of 1959, May 6 to October 1959, the total flow or requirement to the ranch and inn was 4.14 cubic feet per second with a runoff at 0.34 cubic feet per second giving a consumptive use of 3.80 cubic feet per second and an efficiency of 92 percent.

During the winter of 1959, January 6 to May 6, 1959, and October 29, 1959, to January 12, 1960, the total flow or requirement was 4.24 cubic feet per second. Measured runoff was 0.86 cubic feet per second giving 3.38 cubic feet per second as consumptive use and an efficiency of 80 percent.

From January 12, to August 15, 1960, the total requirement was 4.28 cubic feet per second; a consumptive use of 3.92 cubic feet per second and a runoff measured at 0.36 cubic feet per second with an efficiency of 92 percent. The 1960 measurement cannot be compared on an annual or seasonal basis until the fall and winter data are collected.

The Park Service has been diverting water from Texas Springs in amounts ranging from 6.6 gallons per minute in 1956 with a maximum daily use of 31 gallons per minute reported as of August 15, 1960.

Based on accepted irrigation standards of 40 to 70 percent, the ranch and inn irrigation efficiencies ranging from 80 to 98 percent would indicate maximum beneficial utilization of the available developed water supply.

Details are discussed in the main text of the report and meter and flume and weir measurements are included in the appendix.

RALPH S. BROWN,
Geologist-Hydrologist.

TABLE 1.—*Water supply and water use, Furnace Creek Ranch and Furnace Creek Inn, Death Valley, Calif., 1958–60*

Date	Ranch ditch irrigation		Ranch pipeline—domestic, customer, golf course, sprinkling		Inn pipeline—domestic, customer, sprinkling		Runoff—waste discharge as surface runoff		Total consumptive use, ranch and inn		Total irrigation and domestic requirement from all sources [1]		Percentage irrigation efficiency
	CFS [2]	GPM [3]	CFS	GPM	CFS	GPM	CFS	GPM	CFS	GPM	CFS	GPM	
1958 winter	3.86	1,735	0.27	120	0.11	51	0.84	376	3.40	1,530	4.24	1,906	80
1958, summer	3.66	1,640	.29	133	.15	68	.10	45	4.00	1,795	4.10	1,840	98
1958, annual	3.76	1,688	.28	126	.13	58	.49	220	3.68	1,652	4.17	1,872	89
1959, winter							.86	386	3.38	1,519	4.24	1,905	80
1959, summer							.34	153	3.80	1,707	4.14	1,860	92
1959, annual							.61	273	3.58	1,607	4.19	1,880	86
1960, Jan. 12–Aug. 15	3.29	1,477	.50	225	[4].13	58	.36	157	3.92	1,765	4.28	1,992	92

[1] Combined yield of all available sources.
[2] CFS: Cubic feet per second; 1 cubic foot per second equals approximately 450 gallons per minute.
[3] GPM: Gallons per minute.
[4] Estimated from previous use.

FURNACE CREEK RANCH AND FURNACE CREEK INN, DEATH VALLEY, CALIF.

WATER SUPPLY AND WATER USE

Early in 1956, we initiated a water study to determine the amount of water available and the amount used at Furnace Creek Ranch and Furnace Creek Inn for domestic, customer, and agricultural use.

In addition to providing facilities to the employees and guests, the Furnace Creek Inn and Ranch irrigate 42 acres of golf course turf and greens, 33 acres of dates, 14 acres of pasture and lawn, 28 acres of athol trees, 30 acres of scattered athol trees and shrubbery, or approximately 150 acres of land maintained year round by open-ditch or pipeline irrigation.

The ranch open-ditch irrigation water is supplied by the combined yield of Travertine Springs, South Travertine Springs, the Furnace Creek Inn tunnel, and overflow from the inn reservoir. Domestic water is supplied by Texas Springs and the 6-inch domestic source which empty into the inn reservoir. The ranch obtains all domestic and pipeline sprinkling supply from the inn reservoir through an 8-inch (formerly 4-inch) pipeline. The inn obtains its domestic supply by direct pipeline from the reservoir.

To determine the amount of available water, we have installed measuring equipment at each source and have maintained a continuous measuring program since 1956 as discussed under "Water Source."

To measure the ranch domestic, customer, golf course, and other sprinkling use, meters were installed on the reservoir-to-ranch main lines (tables 2, 3, 4, and 5),

and on the two reservoir overflow pipelines. The inn and other pipeline uses were obtained by difference. We have had considerable mechanical trouble with the meters and as a result, one or more of the meters have been inoperative part of the time.

The surface runoff from the ranch irrigation is measured by a 6-inch Parshall flume with a Stevens water stage recorder which we installed November 6, 1957, on a drainage canal in the lower northwest corner of the ranch.

To measure the amount used by the Park Service, we installed a meter on the Texas Springs 2-inch Park Service diversion line near the intake, and have collected readings to date (table 6).

The actual irrigation requirement needed to produce a crop of dates, maintain the golf course, and other plant life on the ranch and inn property, will include the amount of water which must be supplied for consumptive use of the plants and provide for necessary water loss by evaporation, deep percolation into the ground, and other economically unavoidable wastes. Therefore, the actual consumptive use is less than the amount which must be applied as the water requirement because the water cannot be applied without some loss, regardless of the method used. The percentage of water that is available for consumptive use is expressed as the irrigation efficiency.

Mr. Harry F. Blaney of the U.S. Department of Agriculture, Research Service, reports (1955 Yearbook of Agriculture, "Climate as an Index of Irrigation Needs," p. 35) : "Generally not more than 60 percent of the water delivered at the upper end of the farm is made available for the consumptive use of the crops. The balance is either lost in conveyance to the field, on the field itself through deep percolation, or through surface runoff from the field. Irrigation efficiencies must, therefore, be taken into account in estimating the irrigation water requirement of the crop. Efficiencies for different soil conditions and irrigation distribution systems range from 40 to 70 percent."

To conduct a quantitative study of consumptive water use and irrigation requirement for the ranch and inn property is difficult because of several independent variables which affect the measurements. The amount of water reported as available to the property is of necessity obtained from measurements taken at the water source. This does not provide for seepage loss, evaporation, consumptive plant use surrounding the ditches, and other pipeline and ditch conveyance loss which should be included in the irrigation requirement. Likewise, on the property there are many factors ; such as, these losses due to seepage, deep percolation, soil evaporation, etc., which cannot be measured and are, therefore, not reported in the runoff measurements. Because many of these factors cannot be measured or prevented, we must, as a practical measure, use the measurements taken at the water source as a basis to calculate the amount of irrigation and domestic water supplied. The unmeasured runoff, if any, would tend to offset the conveyance loss from the source; therefore, the total water requirement and the measured runoff data can be compared with reasonable accuracy to obtain consumptive use and irrigation efficiencies.

A major portion of the water supply for the Furnace Creek Ranch and Furnace Creek Inn is used to irrigate the date orchards, athol trees, golf course, pasture, lawn, and shrubbery. Although the domestic and customer water consumption is relatively low, a major portion of these irrigated areas of the ranch and inn are maintained for customer use.

Water use, 1958

To show water distribution, waste discharge, and irrigation requirement within the property, the calendar year 1958 has been selected because the data are more complete for this period. Total consumptive use, waste discharge, and irrigation requirement are reported to August 15, 1960. The yearly measurements have been divided into two major periods to coincide with the winter resort use and the summer months, which represent peak agricultural demand.

All calculations which are expressed in c.f.s.[1] are based on the total water used between meter readings with the exception of the surface runoff recorder which supplies a continuous graphic record. Therefore, the data will indicate the average total requirement over a period of days, but do not indicate the high- and low-water demand which is especially significant during the winter months when several times, in a 24-hour period, the peak demand will equal the total yield of the springs and stored supply in the reservoir. Likewise, the irrigation requirement is based on a 24-hour irrigation period which again does not indicate peak demand within the period covered or within the 24 hours.

Summer water use, 1958

During the summer season from April 30 to October 21, 1958, a total of 4.10 cubic feet per second of water was available and used as the irrigation requirement to the ranch and inn on a 24-hour basis. The ranch used 3.66 cubic feet per second for open-ditch irrigation and 0.29 cubic foot per second for golf course and other pipeline sprinkling use. The graphic recorders on the runoff flume indicate that all the water was required for irrigation with no waste discharge from June 14 to September 25. There was some runoff, during October, resulting in a seasonal daily waste discharge of 0.1 cubic foot per second. The Furnace Creek Inn used 0.15 cubic foot per second for domestic, customer, and sprinkling use through the domestic pipeline system. Part of the open-ditch water on the ranch was diverted to flood irrigate part of the golf course to maintain the turf and greens during the hot summer months. Thus, during the summer season, April 30 to October 2, the total water requirement was 4.10 cubic feet per second with a waste discharge of 0.1 cubic foot per second and a consumptive use of 4 cubic feet per second or an irrigation efficiency of 98 percent which means, for all practical purposes, all the available water was required from April 30 to October 21.

Winter water use, 1958

During the winter season; that is, from January 7 to April 30, 1958, and October 21, 1958, to January 6, 1959, the average combined waterflow available and used as the domestic, customer, and irrigation requirements for the ranch and inn on a 24-hour basis, was 4.24 cubic feet per second. The ranch used 3.86 cubic feet per second for open-ditch irrigation of the date trees, pasture, athol trees, and other plants and shrubbery. A total of 0.27 cubic foot per second from the pipeline distribution system was used for domestic and customer use, and golf course sprinkling. Of this latter 0.27 cubic foot per second, only 0.07 cubic foot per second was used for actual domestic and customer use; such as, cooking, showers, laundry, sewage, etc. To maintain the golf course, approximately 0.13 cubic foot per second was pumped from the irrigation system to the golf greens during the night. The Furnace Creek Inn used approximately 0.11 cubic foot per second for domestic, customer, and sprinkling use. The recorder graphs on the runoff flume indicate waste discharge was extremely variable, ranging from 0 cubic foot per second to 1 cubic foot per second in each 24-hour period with the daily average runoff computed as 0.84 cubic foot per second discharged as necessary waste. Thus, 4.24 cubic feet per second was delivered to the ranch and inn as the irrigation and domestic requirement; 0.84 cubic foot per second was discharged as waste, with a net consumptive use of 3.40 cubic feet per second, or an overall efficiency of 80 percent.

Summer water use, 1959

During the summer months, May 6, 1959, to October 29, 1959, the total flow available and used as the domestic and irrigation requirements for the ranch and inn, over a 24-hour period, was 4.14 cubic feet per second. Runoff data indicate 0.34 cubic foot per second as the daily average runoff over the 6-month period, which includes a 4-month period when all the water was used with no measured waste which would give a summer irrigation efficiency of 92 percent.

[1] C.f.s. = cubic feet per second, approximately 450 gallons per minute.

Winter water use, 1959

During the winter months, January 6, 1959, to May 6, 1959, and October 29, 1959, to January 12, 1960, the total flow available and used as the irrigation, domestic, and customer requirement for the ranch and inn on a 24-hour basis was 4.24 cubic feet per second. The measured waste discharge was 0.86 cubic foot per second, which would indicate 3.38 cubic feet per second as the consumptive use and an irrigation and domestic efficiency of 80 percent.

Water use, 1960

The annual 1960 water use cannot be reported for purposes of comparison until after the fall and winter data are available. However, the average flow or requirement from January 12 to August 15, 1960, for the ranch and inn was 4.28 cubic feet per second with a measured runoff of 0.36 cubic foot per second which would give a consumptive use of 3.92 cubic feet per second with an efficiency of 92 percent. During this time, the metered ranch lines showed a total average daily use of 0.5 cubic foot per second with the remaining 3.42 cubic feet per second distributed through the irrigation system and the inn pipeline use. I would estimate the inn used about 0.13 cubic foot per second leaving 3.29 cubic feet per second as ditch irrigation water which, with the ranch pipeline use of 0.5 cubic foot per second, would equal the total of 3.92 cubic feet per second consumptive use. The inn use can only be estimated because of meter failure.

CONCLUSION

Based on U.S. Department of Agriculture standards of irrigation efficiencies ranging from 40 to 70 percent, the Furnace Creek Ranch and Inn 1958–59 summer irrigation efficiencies of 98 and 92 percent, respectively, and the 1958–59 winter efficiencies of 80 percent would indicate excellent beneficial use of the available water supply. This would indicate a good water conservation practice which is evident by a study of the irrigation and domestic system. As an example, all domestic reservoir overflow and swimming pool drainage is diverted to the irrigation system. Irrigation runoff from the date orchards is diverted to the golf course during the summer months, and, during the winter nights, the ranch swimming pool is drained and pumped into the golf course sprinkling system. Runoff from the pasture and golf course is, for the most part, utilized to irrigate the athol and other shrubbery on the lower end of the ranch.

As they have reached the practical limit of water utilization, any changes of water use within the ranch or inn property will require adjustment within the irrigation and domestic system unless additional water is developed. As an example, if the domestic and sprinkling use is increased, additional irrigation waters will have to be diverted to the reservoir system.

The U.S. Department of Agriculture, and others, have a rule-of-thumb in California which states that each 40 acres requires 1 cubic foot per second. As the ranch and inn have 150± acres more or less under cultivation combined with domestic and customer use and only 4+ cubic feet per second available, then with the irrigation high efficiencies as indicated, full beneficial use of the available supply is certainly indicated.

National Park Service, Texas Spring water use, 1956–60: The National Park Service 2-inch Texas Spring diversion pipeline has been metered (nearly continuously) since March 14, 1956. Estimates based on previous use have been made for periods when the meter was inoperative due to mechanical failure.

From March 14, 1956, to December 10, 1956, the Park Service diverted water from Texas Spring in amounts ranging from 3 to 8 gallons per minute with an average daily use of 6.6 gallons per minute. From December 10, 1956, to December 5, 1957, the rates of water diverted ranges from 6 to 19 gallons per minute, with an average daily use of 11 gallons per minute. From December 5, 1957, to December 9, 1958, the diversion was 4 to 15 gallons per minute with an average daily use of 9.5 gallons per minute. From December 9, 1958, to December 4, 1959, the daily use ranges from 2 to 18 gallons per minute with an average rate of diversion at 10.3 gallons per minute. From December 4, 1959, to August 15, 1960, the Park Service diverted 6 to 31 gallons per minute with an average daily water use of 14 gallons per minute.

I understand most of the 1959–60 use was to irrigate the plants around the new Park Service museum, whereas during the years 1956–59, most of the water was diverted to the Texas Spring public campground and to the Indian village. Therefore, most of 1956–59 water diverted from Texas Spring was for domestic use whereas the present higher use is for plantlife irrigation.

National Park Service: Texas Spring water diversion

Year	Maximum use, gallons per minute	Minimum use, gallons per minute	Daily average use, gallons per minute
1956 (from Mar. 14)	8.0	3.0	6.6
1957	19.0	6.0	11.0
1958	15.0	4.0	9.5
1959	18.0	2.0	10.3
1960 (to Aug. 15)	31.0	6.0	14.0

WATER SOURCE

Domestic, customer, and agricultural water for the Furnace Creek Ranch and Inn is obtained from five different sources, designated as Texas Spring, Furnace Creek Inn water tunnel, Travertine Springs, South Travertine Springs, and Furnace Creek Wash 6-inch domestic.

As a part of our water investigation we started early in 1956 to measure the above sources at their discharge points and continued to collect monthly measurements thereafter (tables 7–11).

The average of the combined discharge of the five sources indicates a total available flow of 4.3 cubic feet per second or 1,930 gallons per minute measured at or near the point of discharge.

Texas Spring

Water from Texas Spring is obtained from a discharge point consisting of a horizontal low-level tunnel driven into the side of the hill to intercept the water-saturated sands and gravels.

The tunnel flow is collected in a covered cement settling box located near the tunnel portal. From the box the water is diverted by a 6-inch pipeline to the Furnace Creek Inn Reservoir and by a 2-inch pipeline from the settling box to the Park Service Reservoir.

The flow from the tunnel is measured in the settling box by an 18-inch rectangular weir. Measurements collected from January 6, 1956, to July 21, 1960 (table 7), indicate an average discharge of 0.501 cubic feet per second or 225 gallons per minute.

Furnace Creek Inn water tunnel

Starting on the west slope of the hill north of Furnace Creek Inn, a low-level tunnel has been driven about 900 feet eastward through the hill to the west side of Furnace Creek Wash. At the tunnel face a concrete bulkhead was constructed and perforated sand points driven through the bulkhead into the water-saturated alluvium in Furnace Creek Wash. Water is discharged through the sand points and carried by a low concrete flume about 50 feet to a large cement settling box. From the box, the water is carried to the tunnel portal by pipe and discharged into a cement ditch which diverts the water through the inn gardens into the ranch agriculture ditch. A pump, installed in the tunnel settling box, can pump the entire flow by pipe up through a vertical access shaft to the inn reservoir in case of an emergency. A 6-inch Parshall flume was installed in the settling box on February 14, 1957, and a Stevens water stage recorder installed March 21, 1957. Continuous graphic water-discharge measurements have been recorded since that date.

Graphic records and monthly measurements (table 8) indicate flows ranging from 0.10 to 0.32 cubic feet per second or 45 to 144 gallons per minute.

Travertine Springs

The discharge point designated as Travertine Springs consists of 10 or more springs located on the north side of Furnace Creek Wash about 1 mile southeast of Furnace Creek Inn. The combined flow is collected by an open cement flume and discharged into a settling pond located south of the highway adjacent to the Furnace Creek Wash channel. The water is diverted from the pond by a 12-inch pipeline through the pelton wheel to the Furnace Creek Inn swimming pool and into the open ranch ditch for agricultural use.

A 9-inch Parshall flume was installed in the settling pond, April 27, 1956, and monthly measurements taken thereafter (table 9). The weighted average of 53 measurements indicate an average daily flow of 1.84 cubic feet per second or 826 gallons per minute.

South Travertine Springs

This discharge point designated by the USGS as "sump in Furnace Creek Wash," is located about 500 feet southeast of the Travertine pond. It consists of an L-shaped trench cut into the alluvial channel at the site of South Travertine Springs. In 1933, after a cloudburst, South Travertine Springs started flowing again and the present trench was bulldozed into the alluvial channel fill to intercept the spring flow.

The water is collected in the cut and diverted by pipe to the Travertine Springs settling pond where the combined Travertine and South Travertine flows are diverted by a 12-inch pipeline to the pelton wheel, swimming pool, and to the ranch ditch for agricultural use.

The flow is measured at the source by an 18-inch rectangular weir installed April 27, 1956, and monthly measurements taken thereafter (table 10); flow measurements range from 1.196 to 1.650 cubic feet per second with an average daily flow of 1.31 cubic feet per second or 587 gallons per minute.

Furnace Creek Wash 6-inch domestic

This source, designated by the USGS as "buried tile in the Furnace Creek Wash," is located about 400 to 500 feet downstream from South Travertine Springs. It consists of a system of tile open joint drainpipes buried about 4 feet below the ground surface in Furnace Creek Wash. The buried tile collects the water at or below the water table and it is then diverted by 6-inch pipe to the inn reservoir for domestic and agricultural use.

The flow is measured by a 12-inch rectangular weir installed February 23, 1956, in a concrete settling box located near the source, and monthly measurements taken thereafter (table 11). The measured discharge ranges from 0.266 to 0.442 cubic feet per second with an average flow of 0.417 cubic feet per second or 187 gallons per minute.

Date	Texas Spring Weir	Inn Tunnel Flume	Traver-tine Flume	6-inch Dom-estic	South Traver-tine Weir	Total
1/6/56	0.501					
1/18/56	0.484					
2/9/56	0.501					
2/23/56	0.501			0.442		
3/8/56	0.501			0.442		
3/25/56	0.501					
3/24/56				0.442		
4/24/56	0.501					
4/27/56					1.196	
4/29/56	0.501		1.88	0.442	1.196	
5/17/56	0.501		1.88	0.442	1.196	
6/21/56	0.501		1.88	0.442	1.196	
7/1/56	0.501		1.88	0.442	1.196	
8/8/56	0.501		1.88	0.437	1.196	
9/7/56	0.501		1.88	0.437	1.196	
10/8/56	0.501		1.88	0.437	1.196	
11/28/56	0.501		1.94	0.437	1.261	
12/1/56			1.94			
12/10/56	0.501					
12/12/56			1.92		1.261	
12/20/56				0.437		
1/10/57	0.501					
1/12/57				0.437		
1/15/57			1.94			
1/19/57					1.261	
2/5/57					1.283	
2/6/57	0.501		1.88	0.442		
2/14/57		0.450				
3/1/57		0.330)	1.90)		1.283)	
3/21/57	0.501)	0.285)	1.88)	0.442)	1.283)	4.391
4/1/57	0.501)			0.442)	1.283)	
4/3/57			1.88)			4.331
6/4/57	0.501	0.260	1.82	0.430	1.280	4.291
7/24/57	0.501	0.160	1.78	0.421	1.239	4.101
8/22/57	0.501	0.148	1.74	0.442	1.239	4.070
9/20/57	0.501	0.150	1.72	0.437	1.305	4.113
10/23/57	0.501	0.160	1.76	0.419	1.417	4.257
11/6/57	0.501	0.174	1.76	0.419	1.462	4.316
12/5/57	0.501	0.180	1.76	0.430	1.462	4.333

Date	Texas Spring Weir	Inn Tunnel Flume	Traver-tine Flume	6-inch Dom-estic	South Traver-tine Weir	Total
1/7/58		0.180)				
1/8/58			1.76)			
1/9/58	0.501)			0.453)	1.462)	4.356
1/27/58		0.180)				
2/4/58	0.501)	0.182)	1.74)	0.453)	1.417)	4.293
3/6/58	0.501	0.185	1.68	0.465	1.439	4.270
4/8/58	0.501	0.220	1.94	0.419	1.327	4.407
4/29/58			1.82		1.327	
4/30/58	0.501					
5/1/58		0.200				
5/27/58	0.501	0.204	1.82	0.373	1.327	4.225
6/25/58	0.501	0.140	1.82	0.373	1.283	4.117
7/25/58	0.501	0.095	1.78	0.266	1.283	3.925
8/26/58	0.501)					
8/27/58		0.110)	1.82)	0.361)	1.283)	4.075
9/25/58	0.501	0.120	1.86	0.373	1.327	4.181
10/21/58	0.501	0.100	1.88	0.373	1.327	4.181
11/13/58	0.501	0.102	1.88	0.373	1.417	4.273
12/9/58	0.501	0.113	1.88	0.373	1.327	4.194
1/6/59	0.468	0.105	1.86	0.373	1.327	4.133
1/28/59		0.110)				
1/29/59	0.501)		1.88)	0.373)	1.372)	4.236
4/6/59		0.120)				
5/6/59	0.501)	0.120)	1.78)	0.384)	1.327)	4.112
6/3/59	0.468	0.120	1.82	0.419	1.239	4.066
7/8/59	0.468)	0.220)				
7/9/59			1.78)	0.368)	1.327)	4.163
8/6/59	0.468	0.183	1.82	0.395	1.239	4.105
10/28/59		0.250				
10/29/59	0.468		1.78	0.419	(1.650)	
11/9/59	0.485	0.255	1.78	0.430	(1.650)	
12/4/59	0.468	0.260	1.82	0.432	1.283	4.263

Date	Texas Spring Weir	Inn Tunnel Flume	Travertine Flume	6-inch Domestic	South Travertine Weir	Total
1/12/60	0.468	0.285	1.82	0.442	1.462	4.477
2/11/60	0.468	0.320	1.94	0.442	1.372	4.542
3/15/60	0.501)	0.310)	1.86)			
3/16/60				0.430)		
3/17/60					1.372)	4.473
4/19/60	0.468	0.290	1.82	0.419	1.283	4.280
5/20/60	0.468	0.280	1.82	0.419	1.239	4.226
6/21/60	0.468	0.280	1.82	0.419	1.239	4.226
7/21/60	0.468	0.260	1.82	0.419	1.239	4.226
8/15/60	0.468	0.260	1.82	0.419	1.239	4.226
9/8/60	0.501	0.255	1.82	0.419	1.239	4.234
10/9/60	0.501	0.264	1.82	0.430		
11/10/60	0.501	0.276	1.82	0.430		
12/9/60	0.501	0.278	1.82	0.430		
1/17/61	0.501	0.280	1.86	0.419	1.196	4.256
1/30/61	0.468	0.280	1.86	0.430	1.239	4.277
2/13/61	0.468	0.280	1.86	0.419	1.196	4.223
2/27/61	0.468	0.280	1.86	0.419	1.196	4.223
3/13/61	0.468	0.280	1.86	0.419	1.196	4.223
3/27/61	0.468	0.280	1.86	0.419	1.196	4.223
4/10/61	0.468	0.280	1.86	0.419	1.196	4.223
4/24/61	0.501	0.280	1.36	0.419	1.196	4.256
5/8/61	0.468	0.280	1.78	0.308	1.196	4.032
5/25/61	0.468	0.28	1.82	0.419	1.239	4.226
6/5/61	0.468	0.26	1.82	0.419	1.239	4.206
6/19/61	0.468	0.26	1.82	0.419	1.239	4.206
7/3/61	0.468	0.255	1.82	0.419	1.239	4.201
7/24/61	0.468	0.26	1.82	0.419	1.239	4.206
8/7/61	0.468	0.26	1.82	0.419	1.239	4.206
8/24/61	0.468	0.255	1.82	0.419	1.283	4.245
1/27/62	0.468	0.29	1.82	0.419	1.239	4.236
2/14/62	0.480	0.29	1.86	0.40	1.33	4.360
3/8/62	0.468	0.29	1.86	0.395	1.327	4.340
3/21/62	0.501	0.34	1.88		1.283	

DATE	TIME IN DAYS	METER READING IN GALLONS	VOLUME IN GALLONS	RATE GPM	REMARKS
3/24/56		00,170,100	00,000,000		2" Neptune meter installed 3/24/56 - Meter #SN12729425.
4/18/56	25	02,536,400	2,366,300	66	
4/29/56	11	03,505,200	968,800	61	
5/17/56	18	05,130,500	1,625,300	63	
6/21/56	35	08,155,500	3,025,000	60	
7/1/56	10	09,051,000	895,500	62	
8/8/56	38	12,535,900	3,484,900	64	
9/7/56	30	14,997,300	2,461,400	56	
9/18/56	11	15,854,300	857,000	54	
10/8/56	20	17,566,700	1,712,400	59	
10/18/56	10	18,679,500	1,112,800	77	
11/1/56	14	19,440,200	760,700	38	
12/10/56	39	23,208,600	3,768,400	67	
1/10/57	31	26,010,600	2,802,000	63	
2/6/57	27	29,186,500	3,175,900	81	
3/21/57	43	33,124,500	3,938,000	64	
5/9/57	49	37,570,500	4,446,000	62	
6/4/57	26	39,921,100	2,350,600	63	
7/24/57	50	44,420,800	4,499,700	62	
8/22/57	29	47,002,300	2,581,500	62	
9/20/57	29	49,621,900	2,619,600	63	
10/23/57	33	52,555,300	2,933,400	62	
11/6/57	14	53,805,700	1,250,400	62	
12/5/57	29	56,348,300	2,542,600	61	

2" METER MEASUREMENT OF RESERVOIR OVERFLOW

R. S. Brown
Death Valley Hotel Co., Ltd.

DATE	TIME IN DAYS	METER READING IN GALLONS	VOLUME USED IN GALLONS	RATE GPM	REMARKS
1/8/58	34	59,431,900	3,083,600	63	
2/4/58	27	61,549,900	2,118,000	54	
3/6/58	30	64,204,700	2,654,800	61	
4/8/58	33	67,250,200	3,045,500	64	
4/30/58	22	69,096,000	1,845,800	58	
5/27/58	27	71,175,500	2,079,500	53	
6/25/58	29	73,708,300	2,532,800	61	
7/26/58	31	76,408,300	2,700,000	60	
8/27/58	32	79,198,500	2,790,200	61	
9/25/58	29	81,702,600	2,504,100	60	
10/21/58	26	83,953,500	2,250,900	60	
11/13/58	23	85,931,500	1,978,000	60	
12/9/58	26	88,004,000	2,072,500	55	
1/6/59	28	90,448,800	2,444,800	61	
1/29/59	23	92,418,200	1,969,400	60	
3/4/59	34	95,374,800	2,956,600	60	
5/6/59	63	00,818,800	5,444,000	60	
6/3/59	28	03,253,900	2,435,100	60	
7/9/59	36	05,110,700	1,856,800	36	
8/6/59	28	06,294,300	1,183,600	30	
10/29/59	84	10,731,700	4,437,400	37	
12/4/59	36	13,729,700	2,998,000	58	
1/12/60	39	17,114,600	3,384,900	60	
1/14/60					Replaced core.
2/11/60	30	19,714,400	2,599,800	60	
3/16/60	34	22,646,600	2,750,200	56	
4/19/60	34	24,698,500	2,233,900	45	
5/20/60	31	26,180,700	1,482,200	33	
6/21/60	32	26,732,200	551,500	12	
7/21/60	30	27,297,600	565,400	13	
8/15/60	25	28,325,500	1,027,900	29	

2" METER MEASUREMENT OF
RESERVOIR OVERFLOW

R. S. Brown
Death Valley Hotel Co., Ltd.

DATE	TIME IN DAYS	METER READING IN GALLONS	VOLUME USED IN GALLONS	RATE gpm	REMARKS
'60 cont.					#12729425
9/8/60	24	29 652 100	1 326 600	38	RSB
10/9/60	31	32 661 500	3 009 400	67	RG
11/10/60	32	34 829 900	2,168 400	47	RG
12/9/60	29	36,998 800	2 168 900	52	RG
1/17/61	39	39 679 000	2 680 200	48	RG 61 gpm
1/30/61	13	40 820 600	1 141 600	61	RG 60 gpm
2/13/61	14	42 033 200	1 212 600	60	RG
2/27/61	14	43 235 300	1 202 100	60	RG
3/13/61	14	44 425 700	1 190 400	59	RG
3/27/61	14	45 522 500	1 096 800	54	RG
4/10/61	14	46 671 600	1 149 100	57	RG
4/24/61	14	47 838 600	1 167 000	58	RG
5/9/61	15	49 118 900	1 280 300	59	(267 days from 8/15/60 to 5/9/61) 54 gpm weighted average 9/8/60 to 5/9/61

R.S. Brown
Death Valley Hotel Co., Ltd.

2" METER MEASUREMENT OF RESERVOIR OVERFLOW

DATE	TIME	METER READING IN GALLONS	VOLUME USED IN GALLONS	RATE GPM	REMARKS
5/17/56					4" Sparling meter
6/21/56	35	12,512,700			installed 6/21/56.
7/1/56	10				
8/8/56	38				
9/7/56	30				
10/8/56	31	40,020,000		175	
11/1/56	24				Out of service.
12/10/56	39				Out of service.
1/10/57	31				Out of service.
2/7/57	28	41,718,200			Out of service.
3/21/57	42	54,164,700		201	Out of service.
5/9/57	49	Repaired & replaced			" " "
6/4/57	26	" " "			" " "
7/24/57	50	" " "			" " "
8/22/57	29	" " "			" " "
9/20/57	29	" " "			" " "
10/23/57	33				" " "
11/6/57	14	62,982,700			" " " - repaired
12/6/57	30				& replaced.
1/8/58	33	71,118,100			
2/4/58	27	79,175,600	8,057,500	215	
3/6/58	30	88,321,200	9,145,600	212	
4/8/58	33	96,942,100	8,620,900	181	
4/10/58		97,421,900			
4/10/58		00,000,000			Installed new meter No.39605, Apr. 10.

4" METER MEASUREMENTS OF RESERVOIR OVERFLOW

R. S. Brown
Death Valley Hotel Co., Ltd.

DATE	TIME	METER READING IN GALLONS	VOLUME USED IN GALLONS	RATE GPM	REMARKS
'58 cont.					
4/30/58	22	04,819,500	5,299,300	167	
5/27/58	27	08,869,800	4,050,300	108	
6/25/58	29	15,203,600	6,333,800	152	
7/26/58	31	20,997,600	5,794,000	130	
8/27/58	32	26,592,000	5,594,400	125	
9/24/58	28	29,939,400	3,347,700	86?	
10/21/58	27	34,779,800	4,840,400	125	
11/13/58	23	40,097,100	5,317,300	161	
12/9/58	26	46,651,100	6,554,000	175	
1/6/59	28	53,549,300	6,898,200	171	
1/29/59	23	59,363,100	5,813,800	176	Meter #39605 removed.
1/29/59		28,947,400			Meter #32546 Installed.
3/4/59	34	38,185,500	9,238,100	189	
5/6/59	63	51,992,600	13,807,100	152	
6/3/59	28	53,393,400	1,400,800	34	
7/9/59	36	53,393,400		0	Start new 8" pipe line
8/6/59	28	53,393,400		0	July 8, 1959.
10/29/59	84	53,393,400		0	
					Meter #32546 out
1/14/60	41	53,393,400		0	Change meter
1/14/60		59,367,700		0	Meter #39605 in.
2/11/60	28	64,240,100	4,872,400	121	
3/16/60	34	67,521,000	3,280,900	69	
4/19/60	34				Out of order.
5/20/60	31				" " "
6/21/60	32				" " "
7/21/60	30				" " "
8/15/60	25	69,277,300	1,756,300	8	

4" METER MEASUREMENTS OF
RESERVOIR OVERFLOW

R. S. Brown
Death Valley Hotel Co., Ltd.

DATE	TIME IN DAYS	METER READING IN GALLONS	VOLUME USED IN GALLONS	RATE gpm	REMARKS
'60 cont.					
9/8/60	24	69 426 800			#39605 RSB
10/9/60	31	69 889 300			Out of order
11/10/60	32	70 197 100			" " "
12/9/60	29	70 502 600			" " "
1/20/61	39	53 310 800			Meter #32546 installed Jan. 20.
1/30/61	10	55 106 000	1 795 200	125	
2/13/61	14	57 061 000	1 955 000	97	RG
2/27/61	14	58 488 700	1 427 700	71	RG
3/13/61	14	59 753,800	1 265 100	63	RG
3/27/61	14	60 555 900	802 100	40	Out of order
4/10/61	14	61 534 200	978 300	49	RG
4/24/61	14	62 613 000	1 078 800	54	RG
5/9/61	15	63 804 600	1 191 600	55	RG
					67 gpm weighted average 1/20 to 5/9/61

R.S. Brown
Death Valley Hotel Co., Ltd.

4" METER MEASUREMENT OF RESERVOIR OVERFLOW

DATE	TIME IN DAYS	METER READING IN GALLONS	VOLUME USED IN GALLONS	RATE G.P.M.	REMARKS
2/24/56		00,000,000	00,000,000	0	4" Sparling mainline meter installed on Ranch.
3/8/56		02,077,200			
4/29/56		09,711,400			
5/17/56	18	13,096,700			
6/22/56	36	19,898,800			
7/1/56	9	21,599,400			
8/8/56	38	28,470,300			
9/7/56	30	32,588,500		116	
9/18/56	11				Out of service.
10/8/56	20				Out of service.
11/1/56	24				Out of service.
12/10/56	39				Out of service.
1/10/57	31				Out of service.
2/7/57	28	32,607,100			Repaired & reinstalled.
3/21/57	42	39,579,600			
5/9/57	49	47,367,800			
6/4/57	26	51,621,000		113	
7/24/57	50	60,211,200		119	
8/21/57	28	65,057,400			
9/20/57	30	71,078,600			
10/23/57	33	77,399,700			
10/24/57		77,632,700			Removed for repair.
11/6/57	14	77,632,900			Replaced 11/6/57.
12/6/57	30				Out of service - removed for repair.

Ralph S. Brown
Death Valley Hotel Co., ltd.

FURNACE CREEK RANCH 4" METER
ON 4" WATER MAIN FROM RESERVOIR
TABLE 3

DATE	TIME IN DAYS	METER READING IN GALLONS	VOLUME USED IN GALLONS	RATE GPM	REMARKS
1/8/58	33	82,289,600			
2/4/58	27	86,951,500	4,661,900	120	
3/6/58	30	91,531,300	4,579,800	106	
4/8/58	33	96,906,600	5,375,300	113	
4/30/58	22	00,534,700	3,628,100	115	
5/27/58	27	05,233,500	4,698,800	121	
6/25/58	29	10,884,400	5,650,900	140	
7/26/58	31	16,768,000	5,883,600	132	
8/27/58	32	23,184,000	6,416,000	139	
9/24/58	28	28,947,000	5,763,000	154	Replaced with Meter No. 33284.
9/24/58		97,000,000			
10/21/58	27	01,541,600	4,541,600	117	
11/13/58		05,388,600	3,847,000	116	
12/9/58	26	09,695,000	4,306,400	115	
1/6/59	28	14,391,800	4,696,800	116	
1/29/59	23	18,233,900	3,842,100	116	
3/4/59	34	23,902,800	5,668,900	116	
5/6/59	63	34,349,300	10,446,500	115	
6/3/59	28	38,999,900	4,650,600	115	
					4" Ranch main discontinued 7/8/59 when new 8" line placed in service.

R. S. Brown
Death Valley Hotel Co., Ltd.

FURNACE CREEK RANCH 4" METER ON
4" WATER MAIN FROM RESERVOIR
TABLE 2

DATE	TIME IN DAYS	METER READING IN GALLONS	VOLUME USED IN GALLONS	RATE IN GPM	REMARKS
2/8/56	0	00,000,000	00,000,000	0	2" Neptune meter installed on Ranch 2" domestic line, Ser.# SM-12489552, 2/8/56.
3/25/56	46	02,855,100	2,855,100	43	
4/29/56	35	05,573,500	2,718,400	54	
5/17/56	18	06,613,200	1,039,700	40	
6/22/56	36	08,013,400	1,400,200	27	
7/1/56	9	08,297,700	284,300	22	
8/8/56	38	09,439,900	1,142,200	21	
9/7/56	30	10,353,900	914,000	21	
9/18/56	11	10,700,600	346,700	22	
10/8/56	20	11,331,000	630,400	22	
10/18/56	10	11,645,900	314,900	22	
11/1/56	14	12,105,900	460,000	22	
12/10/56	39	13,946,000	1,840,100	33	
1/10/57	31	15,326,100	1,380,100	31	
2/7/57	28	16,779,900	1,453,800	36	
3/1/57	22	17,929,900	1,150,000	36	
3/21/57	42	19,059,400	1,129,500	19	
5/9/57	49	21,685,500	2,626,100	37	
6/4/57	26	22,424,200	738,700	20	
7/24/57	50	24,005,800	1,581,600	22	
8/20/57	27	24,846,100	840,300	22	
9/20/57	31	26,093,600	1,247,500	28	
10/23/57	33	27,702,200	1,608,600	34	
11/6/57	14	28,339,800	637,600	32	

R. S. Brown
Death Valley Hotel Co., Ltd.

2" METER MEASUREMENT
ON 2" DOMESTIC RANCH LINE
TABLE 3

DATE	TIME IN DAYS	METER READING IN GALLONS	VOLUME USED IN GALLONS	RATE IN GPM	REMARKS
1/8/58	63	31,159,700	2,819,900	31	
2/4/58	27	32,374,900	1,215,200	31	
3/6/58	30	33,933,800	1,558,900	36	
4/8/58	33	35,859,900	1,926,100	41	
4/30/58	22	37,343,600	1,483,700	47	
5/27/58	27	39,026,500	1,682,900	43	
6/25/58	29	40,625,700	1,599,200	38	
7/26/58	31	42,198,700	1,573,000	35	
8/27/58	32	43,725,400	1,526,700	33	
9/24/58	28	45,188,400	1,463,000	36	
10/21/58	27	46,911,200	1,722,800	44	
11/13/58	23	48,456,000	1,544,400	47	
12/9/58	26	49,693,100	1,237,100	33	
1/6/59	28	50,828,000	1,134,900	28	
1/29/59	23	51,784,300	956,300	29	
3/4/59	34	53,340,900	1,556,600	32	
5/6/59	63	56,749,000	3,408,100	38	
6/3/59	28	58,091,400	1,342,400	33	

Discontinued July 8, 1959 when new 8" line placed in service.

Ralph S. Brown
Death Valley Hotel Co., Ltd.

2" METER MEASUREMENT ON
2" DOMESTIC RANCH LINE
TABLE 3

DATE	TIME IN DAYS	METER READING IN GALLONS	VOLUME USED IN GALLONS	RATE IN GPM	REMARKS
7/8/59		00 000 000	00 000 000	00	6" masterflow meter
8/6/59	27	03 327 700	03 327 700	86	no. SN 43062 installed
10/29/59	84	17 937 400	14 609 700	121	on golf course 6" line,
12/4/59	36	24 046 400	6 109 000	118	started operations 7/8/59.
1/12/60	39	29 744 300	5 697 900	101	Meter no. 43062 replaced
1/14/60		00 000 000	00 000 000		with no. 43102 1/14/60
2/11/60	28	02 642 100	02 642 100	66	
3/16/60	34	07 834 200	5 192 100	106	
4/19/60	34	18 088 100	10 253 900	209	
5/20/60	31	21 395 300	3 307 200	74	
6/21/60	32	29 232 400	7 837 100	171	
7/21/60	30	36 265 500	6 983 100	161	
8/15/60	25	41 902 000	5 636 500	157	
9/8/60	24	47 635 000	5 733 000	166	RSB
10/9/60	31	52 780 800	5 145 800	115	RG
11/10/60	32	58 453 200	5 672 400	123	RG
12/9/60	29	64 424 500	5 971 300	143	RG
1/17/61	39	70 913 400	6 488 900	116	RSB
1/30/61	13	72 804 800	1 891 400	101	RG
2/13/61	14	75 077 600	2 272 800	113	#43102
2/27/61	14	77 530 900	2 453 300	122	RG
3/13/61	14	79 982 100	2 451 200	122	RG
3/27/61	14	82 582 200	2 600 100	129	RG
4/10/61	14	84 281 200	1 699 000	84	RG
4/24/61	14	86 426 900	2 145 700	106	RG
5/9/61	15	89 081 140	2 654 240	123	122 gpm weighted average 9/8/60 - 5/9/61

6" MASTERFLOW METER
RANCH GOLF COURSE 6" LINE
FROM 8" RESERVOIR LINE

TABLE 4

R. S. Brown
Death Valley Hotel Co., Ltd.

DATE	TIME IN DAYS	METER READING IN GALLONS	VOLUME USED IN GALLONS	RATE IN GPM	REMARKS
7/8/59		00 000 000	00 000 000	00	4" masterflow meter
8/6/59	27	02 971 700	2 971 700	76	no. SN 43063 -installed
10/29/59	84	12 622 500	9 650 800	80	on ranch 4" domestic
12/4/59	36	16 287 000	3 664 500	71	line and started operation 7/8/59
1/12/60	39	20 023 200	3 736 200	67	
2/11/60	30	23 167 700	3 144 500	73	
3/16/60	34	26 640 300	3 472 600	71	
4/19/60	34	32 922 500	6 282 200	128	
5/20/60	31	34 829 400	1 906 900	43	
6/21/60	32	39 039 900	4 210 500	91	
7/21/60	30	43 711 300	4 671 400	108	
8/15/60	25	47 917 200	4 205 900	116	
9/8/60	24	52 152 100	4 234 900	123	RSB
10/9/60	31	55 328 600	3 176 500	71	RG
11/10/60	32	59 291 100	3 962 500	86	RG
12/9/60	29	63 681 200	4 390 100	105	RG
1/17/61	39	68 472 400	4 791 200	85	RSB
1/30/61	13	69 897 600	1 425 200	76	RG
2/13/61	14	71 637 800	1 740 200	86	RG
2/27/61	14	73 551 400	1 913 600	95	RG
3/13/61	14	75 713 100	2 161 700	107	RG
3/27/61	14	78 295 100	2 582 000	128	RG
4/10/61	14	80 168 300	1 873 200	93	RG
4/24/61	14	83 830 500	3 662 200	182	RG
5/9/61	15	86 508 900	2 678 400	124	RG

100 gpm weighted average 9/8/60 to 5/9/61

4" MASTERFLOW METER
RANCH DOMESTIC LINE
FROM 8" RESERVOIR LINE
TABLE 5

R. S. Brown
Death Valley Hotel Co., Ltd.

2" NATIONAL PARK SERVICE, TEXAS SPRING LINE
METER MEASUREMENTS

TABLE 6

DATE	TIME IN DAYS	METER READING IN GALLONS	VOLUME USED IN GALLONS	RATE IN GPM	REMARKS
3/14/56		00 000 000	00 000 000	0	2" meter installed March
4/29/56	46	00 406 400	00 406 400	5.0	14, 1956, on 2" govnt. line
5/17/56	18	00 495 200	00 88 800	3.00	at Texas Spring stilling
6/21/56	35	00 676 700	00 181 500	4.0	box ahead of weir.
8/8/56	48	01 246 500	00 569 800	8.0	
9/7/56	30	01 586 000	00 339 500	8.0	Meter no. SN 12489558.
10/8/56	30	01 948 800	00 362 800	8.0	
11/1/56	24	02 232 600	00 238 800	8.0	
12/10/56	39	02 688 800	00 456 200	8.0	
1/10/57	31	03 048 800	00 360 000	8.0	
2/6/57	27	03 515 500	00 466 700	12.0	
3/21/57	43	04 133 300	00 617 800	10.0	
5/9/57	50	04 984 400	00 851 100	12.0	
6/4/57	26	05 342 100	00 357 700	10.00	
7/24/57	50	06 276 700	00 934 600	13.0	
8/20/57	27	06 984 200	00 707 500	19.0	
10/22/57	64	07 978 000	00 993 800	11.0	
12/5/57	43	08 328 700	00 350 700	6.0	
1/8/58	34	08 623 900	00 295 100	6.0	
2/4/58	27	08 786 000	00 162 200	4.0	
3/6/58	30	09 230 000	00 444 000	11.0	Out of order 3/29-4/8/58.
4/8/58	33	09 632 400*	00 522 720*	11.0*	Repaired and replaced 4/8/58.
4/30/58	22	09 985 100	00 352 700	12.0	
6/25/58	56	10 368 200	00 049 320*	11.00*	Out of order 5/27/58.Repaired
7/26/58	31	10 984 500	00 616 300	14.00	and replaced 6/25/58.
8/27/58	32	11 662 500	00 678 000	15.00	
9/25/58	29	11 917 800	00 225 300	6.0	
10/21/58	26	12 230 300	00 312 500	8.0	
11/13/58	23	12 403 000	00 173 500	5.0	
12/9/58	26	12 734 000	00 331 000	9.0	
1/6/59	28	13 022 300	00 287 500	7.00	
1/29/59	23	13 186 100	00 163 800	5.00	
3/4/59	34	13 561 100	00 375 000	8.00	
5/6/59	63	15 730 200	00 169 100	2.00	
6/3/59	28	16 454 200	00 724 000	18.00	Down for repair 6/3/59.
7/8/59	35	16 454 200	00 856 600*	13.00*	Meter reinstalled 7/8/59.
9/6/59	29	17 127 900	00 673 700	16.00	
10/29/59	84	18 970 000	01 842 100	16.00	
12/4/59	36	Out of service for repair		6.00*	

R. S. Brown
Death Valley Hotel Co.,Ltd.

* estimated for period when meter was out of order.

DATE	TIME IN DAYS	METER READING IN GALLONS	VOLUME USED IN GALLONS	RATE IN GPM	REMARKS
1/14/60	41	19 867 600		6.00*	Repaired and installed.
2/11/60	28	20 186 500	00 318 900	8.00	
3/15/60	33			10.00*	Out of service, removed for repair.
4/19/60	35	20 805 800			Moved to new location on pipe line.
5/20/60	31	21 128 000	00 322 200	7.0	
6/21/60	32	22 042 800	00 914 800	20.00	
7/21/60	30	22 994 700	00 951 900	22.00	
8/15/60	25	24 096 400	1 101 700	31.00	
9/8/60	24	24 527 700	00 431 300	12	RSB
10/9/60	31	25 746 300	1 218 600	27	RG
11/10/60	32	26 680 700	00 934 400	20	RG
12/9/60	29	27 646 200	00 965 500	23	RG
1/17/61	39	28 710 300	1 064 100	19	RSB
1/30/61	13	29 098 100	387 800	21	RG
2/13/61	14	29 536 300	00 438 200	22	RG
2/27/61	14	29 961 600	00 425 300	21	RG
3/13/61	14	30 416 000	00 454 400	23	RG
3/27/61	14	30 891 100	00 475 100	24	RG
4/10/61	14	31 368 100	00 477 000	24	RG
4/24/61	14	31 786 700	00 418 600	21	RG
5/8/61	14	32 255 700	00 469 000	23	RG
					21 gpm weighted average 9/8/60 to 5/8/61

2" NATIONAL PARK SERVICE, TEXAS SPRING LINE

TABLE 6

R. S. Brown
Death Valley Hotel Co., Ltd.

* estimated for period when meter was out of order.

TEXAS SPRING WEIR
Death Valley, Calif.
TABLE 7

DATE	CREST (Ft.)	HEAD (Ft.)	FLOW CFS	FLOW GPM	MEAS. BY	REMARKS
1/6/56	1.5'	0.190	0.404	181.32	RSB	Gov't. line open. Weir previously installed, Measuring Point- bottom nail at crest level 3' upstream E. side of stilling box.
		0.220	0.501	224.86	RSB	" " closed.
1/18/56	1.5'	0.205	0.451	202.42	RSB	" " open.
		0.215	0.484	217.13	"	" " closed.
2/9/56	1.5'	0.220	0.501	224.86	"	" " closed.
2/23/56	1.5'	0.220	0.501	224.86	"	" " "
3/8/56	1.5'	0.220	0.501	224.86	"	" " "
3/25/56	1.5'	0.220	0.501	224.86	"	" " "
4/24/56	1.5'	0.220	0.501	224.86	"	" " "
4/29/56	1.5'	0.220	0.501	224.86	"	" " "
5/17/56	1.5'	0.220	0.501	224.86	"	New M.P. east side top horizontal nail near head.
6/21/56	1.5'	0.220	0.501	224.86	"	
7/1/56	1.5'	0.220	0.501	224.86	R.G.	
8/8/56	1.5'	0.220	0.501	224.86	R.G.	Govt. line closed.
9/7/56	1.5'	0.220	0.501	224.86	R.G.	" " "
10/8/56	1.5'	0.220	0.501	224.86	R.G.	" " "
11/28/56	1.5'	0.220	0.501	224.86	RSB	" " "
12/10/56	1.5'	0.220	0.501	224.86	R.G.	" " "
1/10/57	1.5'	0.220	0.501	224.86	R.G.	" " "
2/6/57	1.5'	0.220	0.501	224.86	RSB	" " "
3/21/57	1.5'	0.220	0.501	224.86	RSB	" " "
4/1/57	1.5'	0.220	0.501	224.86	R.G.	" " "
5/9/57	1.5'	0.220	0.501	224.86	RSB	" " "
6/4/57	1.5'	0.220	0.501	224.86	"	" " "
7/24/57	1.5'	0.220	0.501	224.86	"	" " "
8/22/57	1.5'	0.220	0.501	224.86	"	" " "
9/20/57	1.5'	0.220	0.501	224.86	"	" " "
10/23/57	1.5'	0.220	0.501	224.86	"	" " "
11/6/57	1.5'	0.220	0.501	224.86	"	" " "
12/5/57	1.5'	0.220	0.501	224.86	"	" " "

KG
36

DATE	CREST (Ft.)	HEAD (Ft.)	FLOW CFS	FLOW GPM	MEAS. BY	REMARKS
1/9/58	1.5'	0.220	0.501	224.86	RSB	Govt. line closed.
2/4/58	1.5'	0.220	0.501	224.86	"	" " "
3/6/58	1.5'	0.220	0.501	224.86	"	" " "
4/8/58	1.5'	0.220	0.501	224.86	"	" " "
4/30/58	1.5'	0.220	0.501	224.86	"	" " "
5/27/58	1.5'	0.220	0.501	224.86	"	" " "
6/25/58	1.5'	0.220	0.501	224.86	"	" " "
7/25/58	1.5'	0.220	0.501	224.86	"	" " "
8/26/58	1.5'	0.220	0.501	224.86	"	" " "
9/25/58	1.5'	0.220	0.501	224.86	"	" " "
10/21/58	1.5'	0.220	0.501	224.86	"	" " "
11/13/58	1.5'	0.220	0.501	224.86	"	" " "
12/9/58	1.5'	0.220	0.501	224.86	"	" " "
1/6/59	1.5'	0.210	0.468	210.05	RSB	" " "
1/29/59	1.5'	0.220	0.501	224.86	"	" " "
3/4/59	1.5'	0.220	0.501	224.86	"	" " "
5/6/59	1.5'	0.220	0.501	224.86	"	" " "
6/3/59	1.5'	0.210	0.468	210.05	"	" " "
7/8/59	1.5'	0.210	0.468	210.05	"	" " "
8/6/59	1.5'	0.210	0.468	210.05	"	" " "
10/29/59	1.5'	0.210	0.468	210.05	"	" " "
11/9/59	1.5'	0.215	0.485	217.62	USGS	" " "
12/4/59	1.5'	0.210	0.468	210.05	R.G.	" " "
1/12/60	1.5'	0.210	0.468	210.05	RSB	" " "
2/11/60	1.5'	0.210	0.468	210.05	R.G.	" " "
3/15/60	1.5'	0.220	0.501	224.86	RSB	" " "
4/19/60	1.5'	0.210	0.468	210.05	R.G.	" " "
5/20/60	1.5'	0.210	0.468	210.05	R.G.	" " "
6/21/60	1.5'	0.210	0.468	210.05	R.G.	" " "
7/21/60	1.5'	0.210	0.468	210.05	"	" " "

R. S. Brown
Death Valley Hotel Co.,Ltd.

TEXAS SPRING WEIR
Death Valley, Calif.
TABLE 7

USGS 27/1-23B1

DATE	CREST (FT)	HEAD (FT)	FLOW CFS	FLOW GPM	MEAS. BY	TIME	REMARK
1960 cont.							
8/15/60	1.5'	0.21	0.468	210	R.G.		Govt. line closed
9/8/60	1.5'	0.22	0.501	224.86	R.G.		" " "
10/9/60	1.5'	0.22	0.501	224.86	R.S.B.		" " "
11/10/60	1.5'	0.22	0.501	224.86	R.S.B.		" " "
12/9/60	1.5'	0.22	0.501	224.86	R.G.		" " "
1961							
1/17/61	1.5'	0.22	0.501	224.86	R.S.B.		Govt. line closed
1/30/61	1.5'	0.21	0.468	210.05	R.G.		" " "
2/13/61	1.5'	0.21	0.468	210.05	R.G.		" " "
2/27/61	1.5'	0.21	0.468	210.05	R.G.		" " "
3/13/61	1.5'	0.21	0.468	210.05	R.G.		" " "
3/27/61	1.5'	0.21	0.468	210.05	R.G.		" " "
4/10/61	1.5'	0.21	0.468	210.05	R.G.		" " "
4/24/61	1.5'	0.22	0.501	224.86	R.G.		" " "
5/8/61	1.5'	0.21	0.468	210.05	R.G.		" " "
5/25/61	1.5'	0.21	0.468	210.05	R.G.		" " "
6/5/61	1.5'	0.21	0.468	210.05	R.G.	5:30PM	" " "
6/19/61	1.5'	0.21	0.468	210.05	R.G.		Work being done in tunnel
7/3/61	1.5'	0.21	0.468	210.05	R.G.	5:10PM	
7/24/61	1.5'	0.21	0.468	210.05	R.G.	6:25PM 3:30PM	
8/7/61	1.5'	0.21	0.468	210.05	R.G.	11:00AM	
8/24/61	1.5'	0.21	0.468	210.05	R.G.	4:10PM	Dr. Mann present
							No measurements taken
1/27/62	1.5'	0.21	0.468	210.05	R.G.	10:45AM	
2/14/62	1.5'	0.215	0.48	215	R.G.	8:20AM	
3/8/62	1.5'	0.21	0.468	210.05	R.G.	5:20PM	
3/21/62	1.5'	0.22	0.501	224.86	R.G.	3:05PM	Dr. Mann and E. Smith

R.S. Brown
Death Valley Hotel Co., Ltd.

TEXAS SPRING WEIR
Death Valley, Calif.
TABLE 7

USGS 27/1-23B1

FURNACE CREEK INN TUNNEL FLUME
Furnace Creek Wash, Death Valley, California
TABLE 8

DATE	TIME	THROAT WIDTH	HEAD FT.	FLOW CFS	FLOW GPM	MEAS. BY	REMARKS
1957							
2/14/57	-	-	-	-	-	-	Installed 6" Parshall flume in tunnel Feb. 14, 1957.
2/18/57		6"	0.38	0.45	201.97	RSB	
3/1/57		"	0.315	0.330	148.11	"	
3/21/57		"	0.285	0.285	127.91	"	Installed recorder March 21, 1957.
4/5/57		"	0.285	0.285	127.91	"	
5/9/57		"	0.285	0.285	127.91	"	
6/4/57		"	0.270	0.260	116.7	"	
7/24/57		"	0.200	0.160	71.7	"	
8/22/57		"	0.188	0.148	66.42	"	
9/20/57		"	0.190	0.150	67.32	"	
10/23/57		"	0.200	0.160	71.81	"	
11/6/57	8:00A	"	0.207	0.174	78.09	"	
12/5/57		"	0.210	0.180	80.78	"	
1958							
1/7/58	10:30A	"	0.210	0.180	80.78	RSB	
1/27/58		"	0.210	0.180	80.78	"	
2/4/58	10:30A	"	0.212	0.182	81.68	"	
3/6/58	10:10A	"	0.215	0.185	83.03	"	
4/8/58	3:15P	"	0.240	0.220	98.74	"	
5/1/58	8:30A	"	0.230	0.200	89.76	"	
5/27/58	3:30P	"	0.232	0.204	91.56	"	
6/25/58	1:00P	"	0.180	0.140	62.83	"	
7/25/58	3:15P	"	0.145	0.095	42.64	"	
8/27/58	10:45A	"	0.160	0.110	49.37	"	
9/25/58	7:30A	"	0.170	0.120	53.85	"	
10/21/58	4:00P	"	0.150	0.10	44.88	"	
11/13/58	11:00A	"	0.152	0.102	45.78	"	
11/9/58		"	0.163	0.113	50.71	"	

FURNACE CREEK INN TUNNEL FLUME
Furnace Creek Wash, Death Valley, California
TABLE 8

R. S. Brown
Death Valley Hotel Company, Ltd.

USGS 27/1-22H1

DATE	TIME	THROAT WIDTH	HEAD FT.	FLOW CFS	FLOW GPM	MEAS. BY	REMARKS
1961							
1/17/61		6"	0.280	0.280	125.67	RSB	
1/30/61		"	0.280	0.280	125.67	RSB	
2/13/61		"	0.280	0.280	125.67	R.G.	
2/27/61		"	0.280	0.280	125.67	R.G.	
3/13/61		"	0.280	0.280	125.67	R.G.	
3/27/61		"	0.280	0.280	125.67	"	
4/10/61		"	0.280	0.280	125.67	"	
4/24/61		"	0.280	0.280	125.67	"	
5/8/61		"	0.280	0.280	125.67	"	
5/25/61		"	0.28	0.28	125.67	"	
6/5/61	8:15 PM	"	0.27	0.26	116.7	"	
6/19/61	4:45 PM	"	0.268	0.26	116.7	"	
7/3/61	7:15 PM	"	0.265	0.255	114.45	"	
7/24/61	6:45 PM	"	0.268	0.26	116.70	"	
8/7/61	3:15 PM	"	0.268	0.26	116.70	"	
8/24/61	10:45 AM	"	0.265	0.355	114.45	R.G. & Dr.Mann	
						_____	No measurements
1/27/62	3:30 PM	"	0.29	0.29	130.16	R.G.	
2/14/62	9:10 AM	"	0.29	0.29	130.16	R.G.	
3/8/62	4:50 PM	"	0.29	0.29	130.16	R.G.	
3/21/62	4:05 PM	"	*0.32	0.34		R.G.,Dr.Mann & E.Smith * Leak in line up the Wash	

FURNACE CREEK INN TUNNEL FLUME
Furnace Crk. Wash, Death Valley, California

R.S. Brown
Death Valley Hotel Company, Ltd.

TABLE 8

USGS 27/1-22H1

DATE	TIME	THROAT WIDTH	HEAD FT.	FLOW CFS	FLOW GPM	MEAS. BY	REMARKS
1959							
1/6/59		6"	0.155	0.105	47.12	RSB	
1/28/59	5:00P	"	0.160	0.110	49.37	"	
3/4/59	10:30A	"	0.163	0.113	50.71	"	
4/6/59	2:30P	"	0.170	0.120	53.86	"	
5/6/59	9:00A	"	0.170	0.120	53.86	"	
6/3/59	11:50A	"	0.170	0.120	53.86	R.G.	
7/8/59	1:00P	"	0.240	0.220	98.74	RSB	
8/6/59	11:00A	"	0.213	0.183	82.14	RSB	
10/28/59	1:30P	"	0.260	0.250	112.21	"	
11/9/59	11:11A	"	0.265	0.255	114.45	USGS	
12/4/59		"	0.270	0.260	116.70	R.G.	
1960							
1/12/60	9:00A	6"	0.285	0.285	127.91	RSB	
2/11/60		"	0.310	0.320	143.62	R.G.	
3/15/60		"	0.300	0.310	139.13	RSB	
4/19/60		"	0.290	0.290	130.16	R.G.	
5/20/60		"	0.279	0.280	125.67	R.G.	
6/21/60		"	0.280	0.280	125.67	R.G.	
7/21/60		"	0.270	0.260	116.70	R.G.	
8/15/60		"	0.270	0.260	116.70	RSB	
9/8/60		"	0.265	0.255	114.45	RSB	
10/9/60		"	0.272	0.264	118.49	R.G.	
11/10/60		"	0.278	0.276	123.88	R.G.	
12/9/60		"	0.279	0.278	124.77	R.G.	

FURNACE CREEK INN TUNNEL FLUME
Furnace Creek Wash, Death Valley, California
TABLE 8

R.S. Brown
Death Valley Hotel Company, Ltd.

USGS 27/1-22H1

TRAVERTINE FLUME
Furnace Creek Wash
Death Valley, Calif.

TABLE 9

DATE	TIME	THROAT WIDTH	HEAD (ft.)	FLOW CFS	FLOW G.P.M.	MEAS. BY	REMARKS
4/27/56							Installed Parshall Flume with 9" throat.
4/29/56	9:40A	9"	0.725	1.88	843.8	RSB	
5/17/56	1:15P	"	0.725	1.88	843.8	"	
6/21/56	9:20P	"	0.725	1.88	843.8	"	
7/1/56	11:20A	"	0.725	1.88	843.8	R.G.	
8/8/56		"	0.725	1.88	843.8	R.G.	
9/7/56		"	0.725	1.88	843.8	"	
10/8/56		"	0.725	1.88	843.8	"	
11/28/56		"	0.740	1.94	870.73	RSB	
12/1/56		"	0.740	1.94	870.73	USGS	
12/12/56		"	0.735	1.92	861.75	USGS	
1/15/57		9"	0.740	1.94	870.73	"	
2/6/57		"	0.725	1.88	843.8	RSB	
3/1/57		"	0.730	1.90	852.77	USGS	
3/21/57		"	0.725	1.88	843.8	RSB	
4/3/57		"	0.725	1.88	843.8	USGS	
5/9/57		"	0.710	1.82	816.87	RSB	
6/4/57		"	0.710	1.82	816.87	"	
7/24/57		"	0.700	1.78	797.50	R.G.	
8/22/57		"	0.690	1.74	780.96	RSB	
9/20/57	1:30P	"	0.685	1.72	771.98	"	
10/23/57	8:43A	"	0.695	1.76	789.94	"	
11/6/57	9:00A	"	0.695	1.76	789.94	"	
12/5/57	9:40A	"	0.695	1.76	789.94	"	

R. S. Brown
Death Valley Hotel Co., Ltd.

TRAVERTINE FLUME
Furnace Creek Wash
Death Valley, Calif.
TABLE 9

Combined flow of USGS No's 27/1-23R1, 25D1, 25D2, 26A1-7

DATE	TIME	THROAT WIDTH	HEAD (ft.)	FLOW CFS	FLOW GPM	MEAS. BY	REMARKS
1/8/58		9"	0.695	1.76	789.94	RSB	
2/4/58	9:20A	9"	0.690	1.74	780.96	"	
3/6/58	11:00A	"	0.675	1.68	754.03	"	
4/8/58	10:00A	"	0.740	1.94	870.73	"	
4/29/58		"	0.710	1.82	816.87	"	
5/27/58		"	0.710	1.82	816.87	"	
6/25/58	7:20P	"	0.710	1.82	816.87	"	
7/25/58	4:27P	"	0.700	1.78	798.91	"	
8/27/58	11:25A	"	0.710	1.82	816.87	"	
9/25/58	8:35A	"	0.720	1.86	834.82	"	
10/21/58	9:15A	"	0.725	1.88	843.80	"	
11/13/58	1:20P	"	0.725	1.88	843.80	"	
12/9/58	3:14P	"	0.725	1.88	843.80	"	
1/6/59	4:38P	9"	0.720	1.86	834.82	R.G.	
1/29/59	10:05A	"	0.725	1.88	843.80	RSB	
3/5/59	9:10A	"	0.720	1.86	834.82	"	
5/6/59	10:00A	"	0.700	1.78	798.90	"	
6/3/59	7:15A	"	0.710	1.82	816.87	R.G.	
7/9/59	10:00A	"	0.700	1.78	798.90	RSB	
8/6/59	11:40A	"	0.710	1.82	816.87	R.G.	
10/29	11:40A	"	0.700	1.78	798.92	RSB	
11/9/59		"	0.700	1.78	798.92	USGS	
12/4/59	7:15A	"	0.710	1.82	816.87	R.G.	
1/12/60	11:25A	9"	0.710	1.82	816.87	RSB	
2/11/60	10:40A	"	0.740	1.94	870.73	R.G.	
3/15/60	10:00A	"	0.720	1.86	834.82	RSB	
4/19/60	11:30A	"	0.710	1.82	816.87	R.G.	
5/20/60	12:00P	"	0.710	1.82	816.87	R.G.	
6/21/60		"	0.710	1.82	816.87	"	
7/21/60		"	0.710	1.82	816.87	"	

R. S. Brown
Death Valley Hotel Co., Ltd.

TRAVERTINE FLUME
Furnace Creek Wash
Death Valley, Calif.

TABLE 9

Combined flow of USGS 27/1-23R1,25D1,25D2, 26A1-7

DATE	TIME	THROAT WIDTH	HEAD (FT)	FLOW CFS	FLOW GPM	MEAS. BY	REMARKS
1960 cont.							
8/15/60		9"	0.71	1.82	816.87	R.G.	
9/8/60		"	0.71	1.82	816.87	RSB	
10/9/60		"	0.71	1.82	"	R.G.	
11/10/60		"	0.71	1.82	"	R.G.	
12/9/60		"	0.71	1.82	"	R.G.	
1961							
1/17/61		9"	0.72	1.86	834.82	RSB	
1/30/61		9"	0.72	1.86	834.82	R.G.	
2/13/61		"	0.72	1.86	834.82	R.G.	
2/27/61		"	0.72	1.86	834.82	R.G.	
3/13/61		"	0.72	1.86	834.82	R.G.	
3/27/61		"	0.72	1.86	834.82	R.G.	
4/10/61		"	0.72	1.86	834.82	R.G.	
4/24/61		"	0.72	1.86	834.82	R.G.	
5/8/61		"	0.70	1.78	798.91	R.G.	
5/25/61		"	0.71	1.82	816.87	R.G.	Cleaning Springs w/bull-dozer
6/5/61	1:00 PM	"	0.71	1.82	816.87	R.G.	
6/19/61	10:50 AM	"	0.71	1.82	816.87	R.G.	
7/3/61	8:40 AM	"	0.71	1.82	816.87	R.G.	
7/24/61	2:00 PM	"	0.71	1.82	816.87	R.G.	
8/7/61	4:15 PM	"	0.71	1.82	816.87	R.G.	
8/24/61	3:30 PM	"	0.71	1.82	816.87		
							No measurements
1/27/62	10:30 AM	"	0.71	1.82	816.87	R.G.	
2/14/62	10:30 AM	"	0.72	1.86	834.82	R.G.	
3/8/62	3:30 PM	"	0.72	1.86	834.82	R.G.	
3/21/62	4:27 PM	"	0.725	1.88	843.8	R.G.	Dr.Mann & E.Smith

R. S. Brown
Death Valley Hotel Co., Ltd.

TRAVERTINE FLUME
Furnace Creek Wash
Death Valley, Calif.

Combined flow of USGS 27/1-23RL,25D1,25D2, 26A1-7

TABLE 9

SOUTH TRAVERTINE WEIR
Furnace Creek Wash
Death Valley, Calif.

TABLE 10

DATE	CREST (ft.)	HEAD (ft.)	FLOW CFS	FLOW GPM	MEAS. BY	REMARKS
4/27/56	INSTALLED RECTANGULAR WEIR WITH END CONTRACTIONS - NEW M.P. TOP GALV. NAIL WEST SIDE 18" SOUTH OF NW CORNER OF BOX.					
4/[illegible]/56	1.5'	0.40	1.196	536.8	RSB	
4/29/56	1.5'	0.40	1.196	536.8	"	
5/17/56	1.5'	0.40	1.196	536.8	"	
6/21/56	1.5'	0.40	1.196	536.8	"	
7/1/56	1.5'	0.40	1.196	536.8	R.G.	
8/8/56	1.5'	0.40	1.196	536.8	"	
9/7/56	1.5'	0.40	1.196	536.8	"	
10/8/56	1.5'	0.40	1.196	536.8	"	
11/28/56	1.5'	0.415	1.261	565.97	RSB	
12/12/56	1.5'	0.415	1.261	565.97	USGS	
1/19/57	1.5'	0.415	1.261	565.97	USGS	
2/5/57	1.5'	0.420	1.283	575.84	R.G.	
3/1/57	1.5'	0.420	1.283	575.84	R.G.	
3/21/57	1.5'	0.420	1.283	575.84	RSB	
4/1/57	1.5'	0.420	1.283	575.84	R.G.	
5/9/57	1.5'	0.420	1.283	575.84	RSB	
6/4/57	1.5'	0.418	1.280	574.56	"	
7/24/57	1.5'	0.410	1.239	556.10	R.G.	
8/22/57	1.5'	0.410	1.239	556.10	RSB	
9/20/57	1.5'	0.425	1.305	585.72	"	Sump cleaned 9/1/57.
10/23/57	1.5'	0.450	1.417	635.99	"	
11/6/57	1.5'	0.460	1.462	656.18	"	
12/5/57	1.5'	0.460	1.462	656.19	"	

R. S. Brown
Death Valley Hotel Co., Ltd.

SOUTH TRAVERTINE WEIR
Furnace Creek Wash
Death Valley, Calif.

TABLE 10

USGS 27/1-2681

(sump in Wash)

DATE	CREST (ft.)	HEAD (ft.)	FLOW CFS	FLOW GPM	MEAS. BY	REMARKS
1/9/58	1.5'	0.460	1.462	656.19	RSB	
2/4/58	1.5'	0.450	1.417	635.99	"	
3/6/58	1.5'	0.455	1.439	645.86	"	
4/8/58	1.5'	0.430	1.327	595.59	"	
4/29/58	1.5'	0.430	1.327	595.59	"	
5/27/58	1.5'	0.430	1.327	595.59	"	
6/25/58	1.5'	0.420	1.283	575.85	"	
7/25/58	1.5'	0.420	1.283	575.85	"	
8/27/58	1.5'	0.420	1.283	575.85	"	
9/25/58	1.5'	0.430	1.327	595.59	"	
10/21/58	1.5'	0.430	1.327	595.59	"	
11/13/58	1.5'	0.450	1.417	635.99	"	
12/9/58	1.5'	0.430	1.327	595.60	"	
1/6/59	1.5'	0.430	1.327	595.59	R.G.	
1/29/59	1.5'	0.440	1.372	615.79	RSB	
3/5/59	1.5'	0.440	1.372	615.79	"	
5/6/59	1.5'	0.430	1.327	595.59	"	
6/3/59	1.5'	.410	1.239	556.10	"	
7/9/59	1.5'	0.430	1.327	595.60	"	
8/6/59	1.5'	0.410	1.239	556.10	R.G.	
10/29/59	1.5'	0.500	1.650	740.57	RSB	Too high-Weir needs cleaning.
11/9/59	1.5'	0.500	1.650	740.57	USGS	" " " " "
12/4/59	1.5'	0.420	1.283	575.85	R.G.	
1/12/60	1.5'	0.460	1.462	656.19	RSB	
2/11/60	1.5'	0.440	1.372	615.79	R.G.	
3/17/60	1.5'	0.440	1.372	615.79	RSB	
4/19/60	1.5'	0.420	1.283	575.85	R.G.	
5/20/60	1.5'	0.410	1.239	556.10	R.G.	
6/21/60	1.5'	0.410	1.239	556.10	"	
7/21/60	1.5'	0.410	1.239	556.10	"	

R. S. Brown
Death Valley Hotel Co., Ltd.

SOUTH TRAVERTINE WEIR
Furnace Creek Wash
Death Valley, Calif.
TABLE 10

USGS 27/1-26B1
(sump in Wash)

DATE	CREST (FT)	HEAD (FT)	FLOW CPS	FLOW GPM	MEAS. BY	TIME	REMARKS
1960 cont.							
8/15/60	1.5'	0.410	1.239	556.10	R.G.		
9/8/60	1.5'	0.410	1.239	556.10	RSB		
10/9/60	M.P. destroyed				RSB		
1961							
1/17/61	1.5'	0.40	1.196	536.8	RSB GMH		(USGS) M. P. Replaced
1/30/61	1.5'	0.41	1.239	556.10	R.G.		
2/13/61	1.5'	0.40	1.196	536.8	R.G.		
2/27/61	1.5'	0.40	1.196	536.8	R.G.		
3/13/61	1.5'	0.40	1.196	536.8	R.G.		
3/27/61	1.5'	0.40	1.196	536.8	R.G.		
4/10/61	1.5'	0.40	1.196	536.8	R.G.		
4/24/61	1.5'	0.40	1.196	536.8	R.G.		
5/8/61	1.5'	0.40	1.196	536.8	R.G.		
5/25/61	1.5'	0.41	1.239	556.1	R.G.		Cleaning Spr. w/bulldozer
6/5/61	1.5'	0.41	1.239	556.1	R.G.	1:30 PM	
6/19/61	1.5'	0.41	1.239	556.1	R.G.	10:30 AM	
7/3/61	1.5'	0.41	1.239	556.1	R.G.	8:55 AM	
7/24/61	1.5'	0.41	1.239	556.1	R.G.	2:15 PM	
8/7/61	1.5'	0.41	1.239	556.1	R.G.	3:55 PM	
8/24/61	1.5'	0.42	1.283	575.84	R.G. & Dr.Mann	3:10 PM	
							No measurements
1/27/62	1.5'	0.41	1.239	556.1	R.G.	10:15 AM	
2/14/62	1.5'	0.43	1.327	595.60	R.G.	10:40 AM	
3/8/62	1.5'	0.43	1.327	595.60	R.G.	3:20 PM	
3/21/62	1.5'	0.42	1.283	575.84	R.G.,Dr.Mann & E.Smith		

R. S. Brown
Death Valley Hotel Co., Ltd.

SOUTH TRAVERTINE WEIR
Furnace Creek Wash
Death Valley, Calif.

USGS 27/1-26B1
(sump in Wash)

TABLE 10

6" DOMESTIC
Furnace Creek Wash
Death Valley, Calif.

TABLE 11

DATE	CREST (ft.)	HEAD (ft.)	FLOW CFS	FLOW GPM	MEAS. BY	REMARKS
2/23/56	INSTALLED RECTANGULAR WEIR WITH END CONTRACTIONS - M.P. TOP VERTICAL GALV. NAIL SOUTH SIDE.					
2/23/56	1.0'	0.270	0.442	198.40	RSB	
3/8/56	1.0'	0.270	0.442	198.40	"	
3/24/56	1.0'	0.270	0.442	198.40	"	
4/29/56	1.0'	NEW M.P. TOP GALV. NAIL SOUTH SIDE 35" W. OF SE CORNER BOX.				
4/29/56	1.0'	0.270	0.442	198.4	RSB	
5/17/56	1.0'	0.270	0.442	198.4	"	
6/21/56	1.0'	0.270	0.442	198.4	"	
7/1/56	1.0'	0.270	0.442	198.4	R.G.	
8/8/56	1.0'	0.268	0.437	196.1	RSB	
9/7.56	1.0'	0.268	0.437	196.1	R.G.	
10/8/56	1.0'	0.268	0.437	196.1	R.G.	
11/28/56	1.0'	0.268	0.437	196.1	RSB	
12/20/56	1.0'	0.268	0.437	196.1	R.G.	
1/12/57	1.0'	0.268	0.437	196.1	R.G.	
2/6/57	1.0'	0.270	0.442	198.4	RSB	
3/21/57	1.0'	0.270	0.442	198.4	RSB	
4/1/57	1.0'	0.270	0.442	198.4	R.G.	
5/9/57	1.0'	0.270	0.442	198.4	R.G.	
6/4/57	1.0'	0.265	0.430	193.0	"	
7/24/57	1.0'	0.261	0.421	188.95	"	
8/22/57	1.0'	0.270	0.442	198.4	RSB	
9/20/57	1.0'	0.268	0.437	196.13	RSB	
10/23/57	1.0'	0.260	0.419	188.05	"	
11/6/57	1.0'	0.260	0.419	188.05	"	
12/5/57	1.0'	0.265'	0.430	192.99	"	

R. S. Brown
Death Valley Hotel Co. Ltd.

6" DOMESTIC
Furnace Creek Wash
Death Valley, Calif.

USGS 27/1-26B2
(Buried Tile)

TABLE 11

DATE	CREST (ft.)	HEAD (ft.)	FLOW CFS	FLOW G.P.M.	MEAS. BY.	REMARKS
1/9/58	1.00'	0.275	0.453	203.32	RSB	
2/4/58	1.00'	0.275	0.453	203.32	"	
3/6/58	1.00'	0.280	0.465	208.70	"	
4/8/58	1.00'	0.260	0.419	188.06	"	
5/1/58	UNABLE TO MEASURE					N.P.A. encountered 6" buried pipe in wash during construction 4/29/58 - pipe leaking.
5/27/58	1.00'	0.240	0.373	167.41	RSB	6" line leaking at joint installed by Park Service.
6/25/58	1.00'	0.240	0.373	167.41	"	
7/25/58	1.00'	0.190	0.266	119.39	"	
8/27/58	1.00'	0.235	0.361	162.03	"	Leak repaired by Ray Coe after 7/25 reading.
9/25/58	1.00'	0.240	0.373	167.41	"	
10/21/58	1.00'	0.240	0.373	167.41	"	
11/13/58	1.00'	0.240	0.373	167.41	"	
12/9/58	1.00'	0.240	0.373	167.41	"	
1/6/59	1.00'	0.240	0.373	167.41	RSB	
1/29/59	1.00'	0.240	0.373	167.41	"	
3/5/59	1.00'	0.255	0.407	182.67	"	
5/6/59	1.00'	0.245	0.384	172.35	"	
6/3/59	1.00'	0.260	0.419	188.05	"	
7/9/59	1.00'	0.238	0.368	165.17	"	
8/6/59	1.00'	0.250	0.395	177.29	"	
10/29/59	1.00'	0.260	0.419	188.06	"	estimated.
11/9/59	1.00'	0.265	0.430	193.00	USGS	
12/4/59	1.00'	0.266	0.432	193.90	R.G.	

R. S. Brown
Death Valley Hotel Co., Ltd.

6" DOMESTIC
FURNACE CREEK WASH
DEATH VALLEY, CALIF.
TABLE 11

USGS 27/1-26B2
(Buried Tile)

DATE	GAGE HT. (ft.)	HEAD (ft.)	FLOW CFS	FLOW G.P.M.	MEAS. BY.	REMARKS
1/12/60	1.00'	0.270	0.442	198.38	RSB	
2/11/60	1.00'	0.270	0.442	198.38	R.G.	
3/16/60	1.00'	0.265	0.430	193.00	RSB	
4/19/60	1.00'	0.260	0.419	188.06	R.G.	
5/20/60	1.00'	0.261	0.419	188.06	R.G.	
6/21/60	1.00'	0.260	0.419	188.06	R.G.	
7/21/60	1.00'	0.260	0.419	188.06	R.G.	
8/15/60	1.00'	0.260	0.419	188.05	R.G.	
9/8/60	1.00'	0.260	0.419	188.05	RSB	
10/9/60	1.00'	0.265	0.430	192.99	R.G.	
11/10/60	1.00'	0.265	0.430	192.99	R.G.	
12/9/60	1.00'	0.265	0.430	192.99	R.G.	
1961						
1/17/61	1.0	0.260	0.419	188.05	RSB	
1/30/61	1.0	0.265	0.430	192.99	R.G.	
2/13/61	1.0	0.260	0.419	188.05	R.G.	
2/27/61	1.0	0.260	0.419	188.05	R.G.	
3/13/61	1.0	0.260	0.419	188.05	R.G.	
3/27/61	1.0	0.260	0.419	188.05	R.G.	
4/10/61	1.0	0.260	0.419	188.05	R.G.	
4/24/61	1.0	0.260	0.419	188.05	R.G.	
5/8/61	1.0	0.210	0.308	138.00	R.G.	

R. S. Brown
Death Valley Hotel Co., Ltd.

6" DOMESTIC
FURNACE CREEK WASH
DEATH VALLEY, CALIF.

USGS 27/1-26B2

TABLE 11

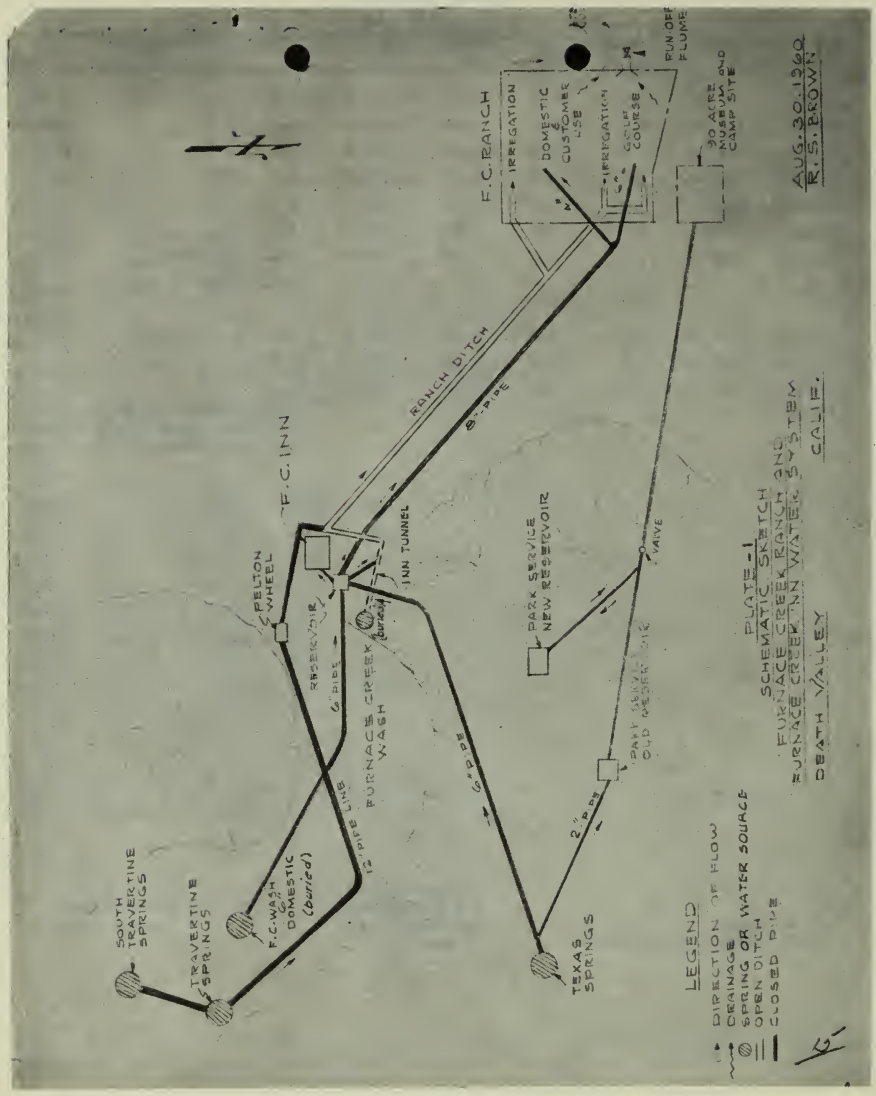
6" DOMESTIC
Furnace Creek Wash
Death Valley, Calif.
TABLE 11

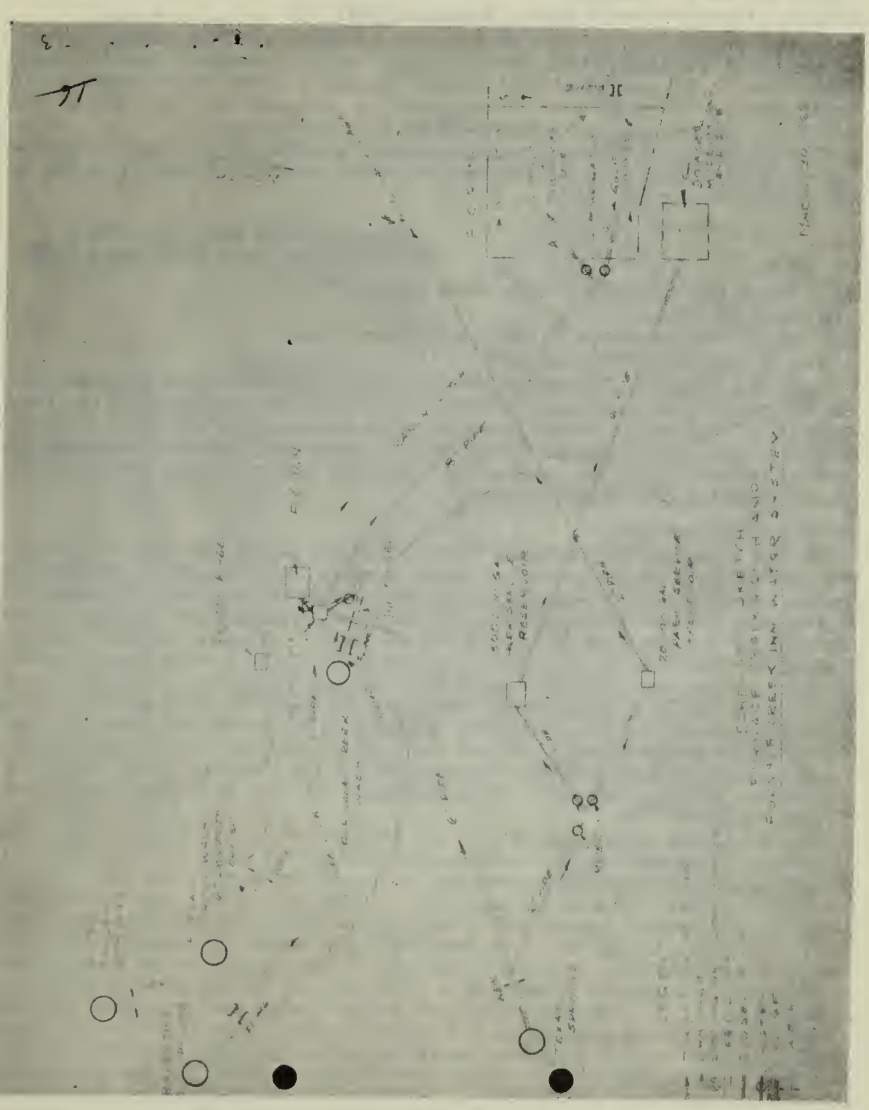
DATE	TIME	CREST (ft.)	HEAD (ft.)	FLOW CFS	FLOW GPM	MEAS. BY	REMARKS
5/25/61		1.0	0.26	0.419	188.05	R.G.	
6/5/61	2:15 PM	1.0	0.26	0.419	188.05	R.G.	
6/19/61	9:30 AM	1.0	0.26	0.419	188.05	R.G.	
7/3/61	9:20 AM	1.0	0.26	0.419	188.05	R.G.	
7/24/61	2:45 PM	1.0	0.26	0.419	188.05	R.G.	
8/7/61	4:45 PM	1.0	0.26	0.419	188.05	R.G.	
8/24/61	2:30 PM	1.0	0.26	0.419	188.05	R.G. & Dr. Mann	
						No measurements taken	
1/27/62	9:30 AM	1.0	0.26	0.419	188.05	R.G.	
2/14/62	10:15 AM	1.0	0.25	0.395	177.29	R.G.	
3/8/62	3:00 PM	1.0	0.25	0.395	177.29	R.G.	
3/21/62						R.G.,Dr.Mann and E.Smith replaced wood plug; couldn't take measurement until leaking stops.	

R. S. Brown
Death Valley Hotel Co., Ltd.

6" DOMESTIC
FURNACE CREEK WASH
DEATH VALLEY,CALIF.
TABLE 11

USGS 27/1-26B2
(Buried Tile)


F.C. RANCH
IRRIGATION
DOMESTIC & CUSTOMER USE
IRRIGATION
GOLF COURSE
RUN OFF FLUME
90 ACRE MUSEUM AND CAMP SITE
AUG. 30. 1960
R. S. BROWN
RANCH DITCH
8" PIPE
F.C. INN
PELTON WHEEL
RESERVOIR
6" PIPE
FURNACE CREEK WASH
INN TUNNEL
PARK SERVICE NEW RESERVOIR
VALVE
6" PIPE
2" PIPE
PARK SERVICE OLD RESERVOIR
TEXAS SPRINGS
SOUTH TRAVERTINE SPRINGS
TRAVERTINE SPRINGS
F.C. WASH DOMESTIC (buried)
1½" PIPE LINE
PLATE-1
SCHEMATIC SKETCH
FURNACE CREEK RANCH AND
FURNACE CREEK INN WATER SYSTEM
DEATH VALLEY
CALIF.
LEGEND
DIRECTION OF FLOW
DRAINAGE
SPRING OR WATER SOURCE
OPEN DITCH
CLOSED PIPE



[Interoffice correspondence]

LOS ANGELES, *January 3, 1963.*

To: Mr. J. M. Gerstley.
From: Mr. W. A. Ackerman.
Subject: Greenland ranch survey, September 1921.

In searching the survey field note books I found the attached interior survey[1] of parts of Furnace Creek Ranch (then called Greenland Ranch) dated September 12, 13, and 14 of 1921, which includes a water measurement of 1.7 cubic feet per second. This measurement is unsigned and Mr. Gower was unable to definitely determine who recorded the measurement.

This appears to be the measurement referred to in the extract from the annual report of the Ryan Mine superintendent dated October 27, 1921, provided to Mr. Indritz and Mr. McClellan.

DEATH VALLEY HOTEL CO., LTD.,
Los Angeles, Calif., February 4, 1963.

In re Death Valley Hotel Co., Ltd., water rights.

Mr. PHINEAS INDRITZ,
Counsel, House Committee on Goverment Operations,
House of Representatives, Washington D.C.

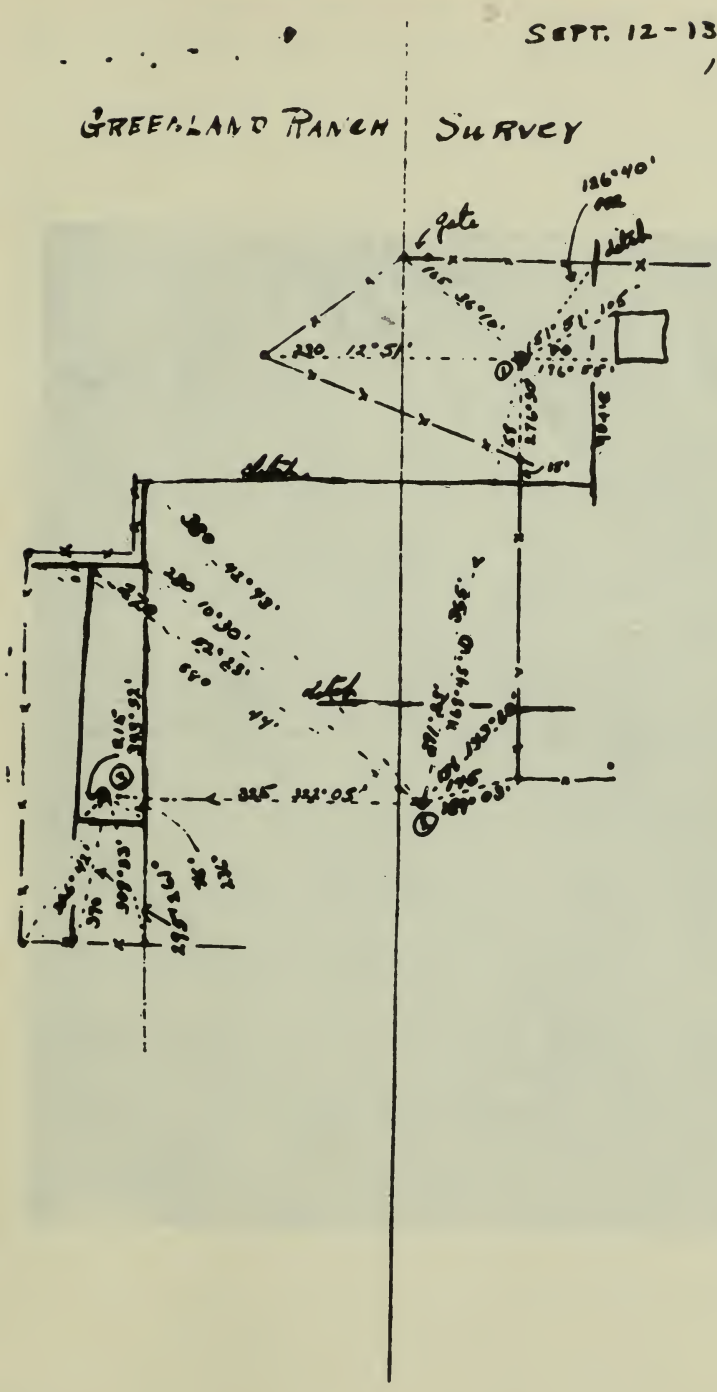
DEAR MR. INDRITZ: You have asked on behalf of the Special Subcommittee on Assigned Power and Land Problems for a summary statement of the legal position of the Death Valley Hotel Co. with reference to its water rights in Death Valley. Since you have reviewed the company's records presenting the factual picture, I will not restate the facts here except as they may relate to the statement of the a legal principle.

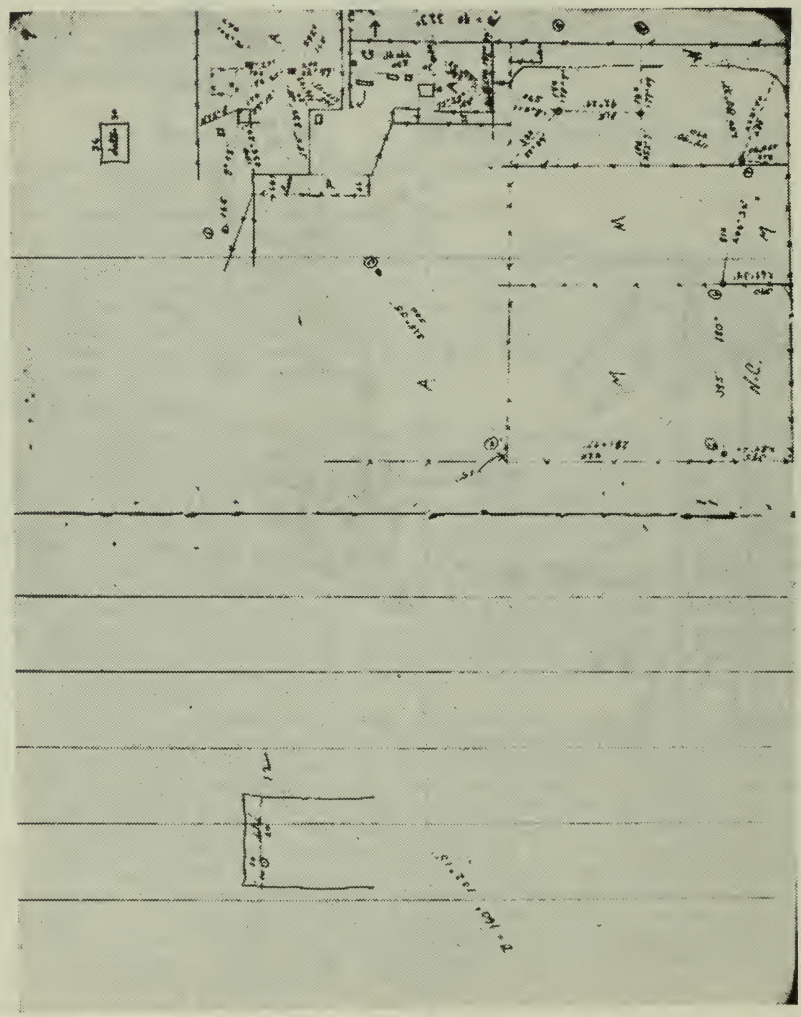
Notices of appropriation

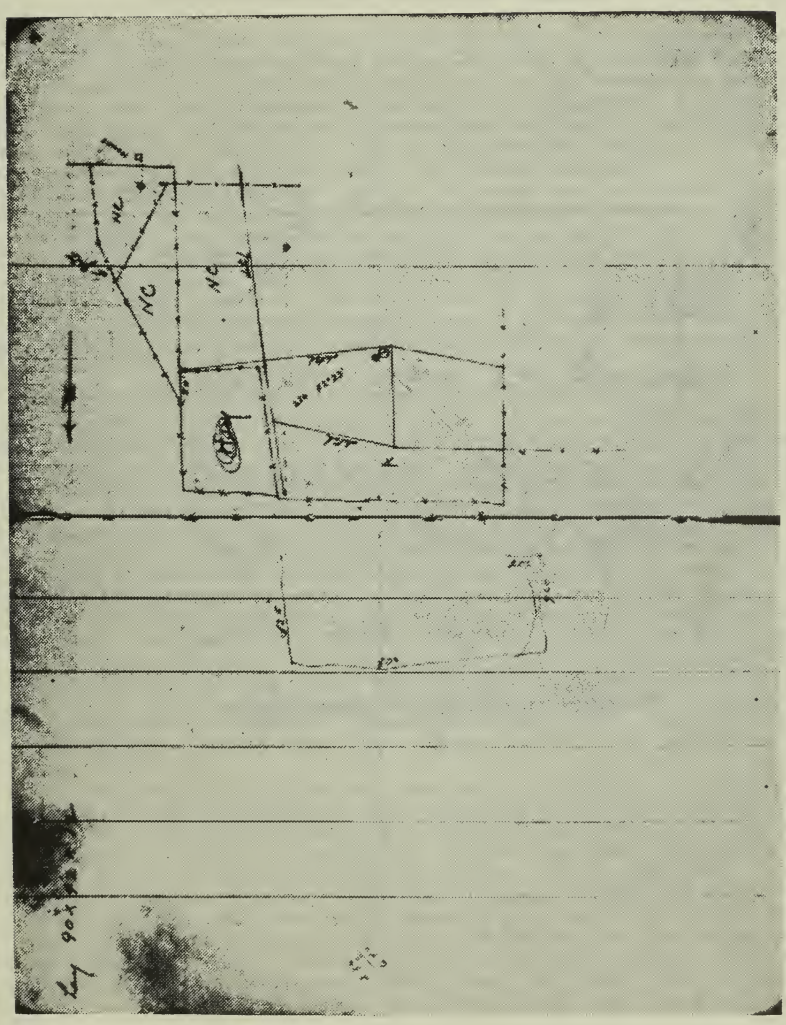
In 1885 a predecessor of Death Valley Hotel Co. posted and recorded notices of appropriation of the waters of Texas Springs to the extent of 300 miner's inches and of the waters flowing down Furnace Creek Canyon to the extent of 500 miner's inches. These notices were stated to be relocations of water rights claimed by notices previously recorded in 1882. Although provided for by California Civil Code section 1415 adopted in 1872, the posting and recording of these notices were not requisite to the valid appropriation of the water (see 51 Cal. Jur. 2d 761). Compliance with the civil code cut off only those rights accruing between the date of posting notices and the actual diversion of water for beneficial purposes, and if no such rights intervened, the actual appropriation could be made without following the code method (51 Cal. Jur. 2d 764; *Haight* v. *Costanich*, 184 Cal. 426, 431). The following pertinent statement appears at 51 Cal. Jur. 2d 757–758:

"Since the first recognition of the right to appropriate water, there have been three distinct procedures for appropriation, though the fundamental purpose of diverting water for useful purposes has remained constant. First, before adoption of the civil code, it was sufficient that the water be actually appropriated and used for the intended purpose before anyone else intervened and claimed a right to it. No notice of the claim was required to be posted or recorded, although notice of appropriation was sometimes posted, and in some cases the priority of the appropriation was dated back to such notice as an act showing an intent to appropriate. The second method was initiated when the legislature first enacted a statute providing a procedure for appropriating water, at the time of adoption of the civil code in 1872, and providing that as between appropriators the one first in time was first in right. This statute provided for the posting of notice in a conspicuous place at the point of intended diversion, stating the amount of water flow claimed, the purpose for which it was claimed, the place of intended use, and the means by which the appropriator intended to divert the water. The procedure set forth was not exclusive and did not do away with the former nonstatutory appropriation. The two methods existed side by side until the effective date of the Water Commission Act in 1914. The third procedure was that set forth in the Water Commission Act, and this method of appropriation is presently the only accepted method."

[1] The survey material referred to is on pp. 565–568.


SEPT. 12-13-14
1921
7
GREENLAND RANCH SURVEY
Gate
126°40'
220
12°51'
105
105
330
22°30'
330
10°30'
22°45'
335
122°05'
189°03'





Sept 13 Weir Measurements
Greenland Ranch



Sept. 13

Length of weir 2 ft.

H = 5 inches = .4166 ft.

Vel. of approach .003 ft

Q = 1.7 cu ft. per sec.

~~= 85 Calif. inches~~

The third procedure prescribed by the Water Commission Act requires the filing with the proper State authorities of an application to appropriate. Whether this method became exclusive as of the effective date of that act (Dec. 19, 1914) or when the method was expressly made exclusive by amendment of the act in 1923 has not been finally determined. In *United States* v. *Fallbrook Public Utility District*, 165 Fed. Supp. 806, 830, the court said:

"If this procedure was not the exclusive method of appropriating water after 1914, it became so in 1923 when this method of appropriation was made *exclusive* by amendment to the Water Commission Act (Stat. 1923, c. 87). Appropriation by preemption or self-help was thus terminated at least by 1923." [Emphasis by court.]

But whether the effective date was in 1914 or 1923 is of no significance with reference to the legal rights of Death Valley Hotel Co. Its appropriative rights to use the water it is presently using, and will use in the future, were acquired, and became vested as to subsequent claimants, before either date. In a pamphlet copy of the "Rules, Regulations, and Information Pertaining To Appropriation of Water in California," published in 1952 by the California Division of Water Resources (now State water rights board), it is stated at page 36:

"While another and additional right to use water may be initiated through the filing of an application by one who claims a riparian or vested appropriative right it should be understood that *a valid* riparian or *appropriative right will not in itself be strengthened or impaired by the filing of an application* (*Barr* v. *Branstetter*, 42 Cal. App. 725, 184 Pac. 409). If there remains unappropriated water in the source a right to a portion thereof, up to but not in excess of that reasonably needed for beneficial purposes, may be initiated by the filing of an application, *but* riparian *or vested appropriative rights will remain unaffected.*" [Emphasis ours.]

Doctrine of relation and rights of gradual water development

Although the 1885 notices of appropriation were not requisite to the valid appropriation of the waters of Texas and Furnace Creek Springs by the predecessors of Death Valley Hotel Co., they nevertheless serve as indisputable evidence of the intent of the appropriators as to the quantity of water which they intended to appropriate. This was 300 miner's inches from Texas Spring and 500 miner's inches from the springs in Furnace Creek Wash. Waters of this magnitude were not initially developed or used from either source, but under the doctrine of relation the priority rights of the hotel company relate back to the time of the posting of the notices of appropriation (51 Cal. Jur. 2d 761—762, 799–800). And wholly independent of this doctrine, the rule is well established in California that the quantity of water to which a person becomes entitled by appropriative diversion is not limited to the quantity of water actually used at the time of the original diversion, but includes such additional quantity as is intended to be applied to future needs at the time of the original diversion (see *Haight* v. *Costanich*, 184 Cal. 426; *Senior* v. *Anderson*, 115 Cal. 496, 504; *Trimble* v. *Hellar*, 23 Cal. App. 436, 443; *Akin* v. *Spencer*, 21 Cal. App. 2d 325; 51 Cal. Jur. 2d 804–805).

Under the method of appropriation provided by the civil code of 1872, the priority of the appropriation as between conflicting claims dates from the posting of the notice in the form prescribed by the statute provided that the claimant has diligently prosecuted to completion the work that was necessary to the diversion and beneficial use of the water (51 Cal. Jur. 2d 763, 800). But no question of diligence on the part of the hotel company is presented for the reason, if no other, that this issue can be raised only by, and to the extent of, the intervening claim of a subsequent claimant, and here no such intervening claim has been asserted (except perhaps to the extent of the 35 gallons per minute supplied to the Government from Texas Spring by Death Valley Hotel Co. under the arrangement evidenced by the Drury-Jenifer memo of February 27, 1941).

In the California law of water rights, the rule is stated at page 116 as follows:

"It is necessary to the validity of an appropriation of water *as against intervening rights* that the appropriation be completed within a reasonable time with the exercise of due diligence." [Emphasis ours.]

In *Merritt* v. *City of Los Angeles*, 162 Cal. 47, 49, the court said:

"The plaintiff on July 18, 1905, filed in the U.S. land office a declaratory statement under the Desert Land Act to obtain patent for a half section of land situated several miles distant from the place of diversion of the water in question. On July 20, 1905, he posted a notice of appropriation on Haiwee Creek

claiming 500 miner's inches of the water for use on said land. Nothing further was done in pursuance of this notice and, under section 1419 of the civil code, it lapsed after 60 days, *so far as subsequent bona fide claimants under valid notices were concerned.*" [Emphasis ours.]

In *De Necochea* v. *Curtis*, 80 Cal. 397, 403, the court said:

"We concede the force, the conclusiveness even, of the argument that if the preemptioner cannot, in view of section 1419 of the civil code, take advantage of the failure of an appropriator to post a notice he cannot, for the same reason, take advantage of his failure to commence and prosecute the work of diversion with diligence, as provided in section 1416. But of what consequence is this? We decide nothing, except that *a diversion of water, without compliance with the statute, gives a right to continue the diversion against a preemptioner whose right of purchase vests after the diversion is fully completed*, and then only to the extent and in the manner of such actual and completed diversion. We do not hold that an incompleted diversion without compliance with the statute gives any right to complete or continue the diversion as against an intervening right of preemption." [Emphasis ours.]

But wholly aside from the doctrine of relation, the quantity of water to which the hotel company and its predecessors became entitled by the initial appropriative diversion was not limited to the quantity used initially, but as previously noted included such additional quantity as was intended to be applied to future needs at the time of the original diversion.

In *Haight* v. *Costanich*, 184 Cal. at pages 433 and 432, respectively, the court said:

"It follows that the quantity of water to which plaintiff is entitled by right of diversion is the quantity actually used for beneficial purposes at the time of the original diversion, and which was reasonably necessary for such purposes, plus any additional quantity intended to be applied to future needs at the time of the original diversion, which has been actually put to use within a reasonable time, measured by all the circumstances of the case, after the original diversion, and which was reasonably necessary therefor."

"This right to take an additional amount of water reasonably necessary to meet increasing needs is not unrestricted; the new use must have been within the scope of the original intent, and additional water must be taken and put to a beneficial use in keeping with the original intent, 'within a reasonable time by the use of reasonable diligence,' or the right to the additional water is subject to intervening claims. (*Senior* v. *Anderson*, 115 Cal. 496, 504 (47 Pac. 454, 456); *Inyo Cons. Water Co.* v. *Jess, supra.*)"

In *Akin* v. *Spencer*, 21 Cal. App. 2d 325, 330–331, the court, after citing the *Haight* case, said:

"It is the rule that even though all of the water at the time of the origin of the diversion is not then applied to beneficial use, still if the appropriator within a reasonable time makes improvements upon his land and sufficiently increases his cultivated acreage to beneficially use all of the water diverted, the original diversion may be justified. If, however, for an unreasonable time no additional cultivation is made, this fact should be construed as an abandonment of the original claim to divert a sufficient quantity of water to irrigate the entire tract. In the case before us we have no testimony to show that Adams increased his irrigable lands within a reasonable time after the defendants' predecessors acquired riparian rights upon the stream. (*Senior* v. *Anderson*, 115 Cal. 496 (47 Pac. 454).)"

In determining diligence, consideration must be given to surrounding circumstances, such as the nature of the country, climate, and the difficulty of procuring labor and materials (*Kimball* v. *Gearhart*, 12 Cal. 27, 30). Hence, when measured by the circumstances here applicable, we submit that Death Valley Hotel Co. and its predecessors have proceeded "within a reasonable time by the use of reasonable diligence" to put to use the additional quantities of water developed by them from the two sources[1] here involved over the period of years following the original diversions.

---

[1] Since the subsurface flow and all of the springs in Furnace Creek Wash are directly interrelated (each with all of the others), they are treated as one water source, the place or places of diversion being optional and subject to change at the election of the appropriator (see *Perry* v. *Calkins*, 159 Cal. 175, 179; *Peoples Ditch Co.* v. *Foothill Irr. Dist.*, 112 Cal. App. 273, 277–278; 51 Cal. Jur. 2d 786–788). California Water Code, sec. 1706, provides that "The person entitled to the use of water by virtue of an appropriation other than under the Water Commission Act or this code may change the point of diversion, place of use, or purpose of use if others are not injured by such change, and may extend the ditch, flume, pipe, or aqueduct by which the diversion is made to places beyond that where the first use was made." In *Peoples Ditch Co.* v. *Foothill Irr. Dist., supra*, the court said:

But, in any event, the question whether such additional water was put to use within a reasonable time by the use of reasonable diligence, like the question of diligence essential to preserve priority under the doctrine of relation, is one that can be raised only by, and to the extent of, the intervening claim of a subsequent claimant and, in the absence of such an intervening claim—and here as noted before there has been none—there is no time limitation on the additional use. As noted previously, the court in *Haight* v. *Costanich*, 184 Cal. 426, 432, said that the "additional water must be taken and put to a beneficial use in keeping with the original intent, 'within a reasonable time by the use of reasonable diligence,' or the right to the additional water is subject to intervening claims."

In *Senior* v. *Anderson*, 115 Cal. 496, 504, the court stated the rule similarly as follows:

"* * * but it is not intended that, because a prior appropriator is entitled to a given quantity of water necessary to irrigate the lands he intends to cultivate, he can suspend his improvements an unreasonable time, and then, by adding to the area of his cultivated land, be restored to his original intentional diversion, *when subsequent appropriators have acquired rights upon the stream.*" [Emphasis ours.]

Again in *Trimble* v. *Hellar*, 23 Cal. App. 2d 436, 444, the loss of the right to enlarge the water use was conditioned on an intervening appropriation. There the court said:

"But this right to enlarge the use may be lost by nonuser for a long period of time *and the appropriation of the water meantime by another appropriator.*" [Emphasis ours.]

Also in *Akin* v. *Spencer*, 21 Cal. App. 2d 325, 330–331, as will be noted from the above quotation, the court held that the right to enlarge the water use was lost because "In the case before us we have no testimony to show that (the prior appropriator) increased his irrigable lands within a reasonable time after the defendants' predecessors acquired riparian rights upon the stream."

Indeed, the U.S. Government has itself acknowledged the rule to be as stated in these cases. Jackson E. Price as Acting Assistant Director of the National Park Service, in his memorandum of July 8, 1953, to the regional director of region four, said:

"3. We also recognize that *no conflicting claims* to the waters were initiated between December 19, 1914, and the date the monument was established by proclamation of February 11, 1933. Accordingly, although the company has not complied with the appropriative code adopted in 1914, or filed claims in the county for use before 1914, we will recognize its right to establish rights under the water code to the extent of additional actual beneficial use between 1914 and 1933, subject to the limitations imposed by the establishment of Public Water Reserve No. 107, as approved by the Assistant Secretary on February 7, 1928, or imposed by aforesaid Public Water Reserve No. 13." [Emphasis ours.]

As Mr. Price has thus acknowledged, the Government itself was not an intervening claimant (except perhaps to the extent of the 35 gallons per minute supplied from Texas Springs by Death Valley Hotel Co. under the arrangement evidenced by the Drury-Jenifer memorandum of February 27, 1941), nor were there any other conflicting claimants. The company's right to increase the quantity of water used by it was therefore without time limitation unless, as suggested by Mr. Price, this right was in some way curtailed by Public Water Reserve No. 13, California No. 1 of December 1, 1913, Public Water Reserve

---

"There is no holding by the court that there may not be a change in the point of diversion by an appropriator of water of a portion of the water to whose use he is entitled. In the case of *Perry* v. *Calkins*, 159 Cal. 175 (113 Pac. 136, 138), the trial court found that the city of Yreka was entitled to take 50 inches of water through a certain ditch ½ mile above the ditch of plaintiffs. The court also found that the city had a right to take 35 inches from the creek by reason of a submerged dam built by it about 2 miles above plaintiffs' ditch. In its decision the Supreme Court says: 'If this 35 inches was claimed as a part of the 50 inches which the city had acquired the right to divert by means of the Scheld drain, it would be a mere change of the place of diversion which the city might make if it caused no injury to plaintiffs (*Barton* v. *Riverside Water Co.*, 155 Cal. 517 (23 L.R.A. (N.S.) 331, 101 Pac. 7900)).'

"In this case therefore the Supreme Court recognizes the right of an appropriator to divide an appropriation. We fail to discover any sound reason why an appropriator of water from a stream may not divide the appropriation provided it does not appear that by such diversion injury will result to others who have vested rights in such water."

No. 107 of April 17, 1926 (51 L.D. 457; 43 CFR § 292.1 et seq.), or by the establishment of Death Valley National Monument on February 11, 1933 (47 Stat. 2554; 50 Stat. 1823; 48 Stat. 139; 16 USCA § 447). The clear answer is that there was no such curtailment.

Public Water Reserve No. 13 California No. 1

Public Water Reserve No. 13, California No. 1, was created by Executive order of December 1, 1913, withdrawing "from settlement, location, sale or entry" some 36,330 acres in the desert portion of eastern California under the authority of the act of Congress of June 25, 1910 (36 Stat. 847; 43 USCA §§ 141–143; 43 CFR § 295.1), commonly known as the Pickett Act, as amended by the act of Congress of August 24, 1912 (37 Stat. 497; 43 USCA § 142).

This withdrawal had no effect on the water rights of the Death Valley Hotel Co. for the conclusive reason that none of the springs from which its water was derived was situated on withdrawn lands. Even if such had been the case, however, the company's rights would not have been affected for the reasons mentioned below with reference to Public Water Reserve No. 107 and the establishment of the Death Valley National Monument.

Public Water Reserve No. 107—Establishment of Death Valley National Monument

Public Water Reserve No. 107 was established by Executive order of April 17, 1926, ordering, under the authority of the aforementioned Pickett Act (see citations supra under heading "Public Water Reserve No. 13"), "that every smallest legal subdivision of the public-land surveys which is vacant, unappropriated, unreserved, public land and containing a spring or water hole * * * be * * * withdrawn from settlement, location, sale or entry * * *" (43 CFR § 292.1 et seq.; 51 L.D. 457).

Section 1 of the Pickett Act (43 USCA § 141) provides that the President may temporarily withdraw from settlement, location, sale, or entry any of the public lands of the United States and reserve the same for water-power sites, irrigation, classification, or other public purposes to be specified in the Orders of Withdrawal.

Section 2 of the Pickett Act (43 USCA § 142) contains further provisions to the effect that there shall be excepted from the force and effect of any withdrawal any lands which, on the date of withdrawal, are "embraced in any lawful homestead or desert-land entry theretofore made, or upon which any valid settlement has been made" and is at that time being maintained and perfected pursuant to law. Consistently the regulations of the Bureau of Land Management have at all times provided, in effect, that the Executive order of April 17, 1926, had no application to "grants which have been determined to be 'grants in praesenti,' and to have attached and become effective prior to April 17, 1926, or to valid settlement claims initiated prior to said date and thereafter maintained in accordance with the law applicable thereto" (43 CFR § 292.4(b); 51 L.D. 457).

Death Valley National Monument was established by Executive proclamation of February 11, 1933, under the authority of the Antiquities Act of June 8, 1906 (43 USCA §§ 431–433). The proclamation establishing the monument was expressly made "subject to all valid existing rights." In Unpublished Opinion No. M–31817 of June 15, 1942, the Acting Solicitor of the Department of Interior, expressed the view that the establishment of Death Valley National Monument "supersede(d) and render(ed) ineffective as to the area included in the national monument the Executive orders of December 1, 1913, and April 17, 1926."

The Pickett Act expressly limits the authority of the President to make withdrawals for the purpose therein set forth to "public lands" of the United States. And public lands do not include lands to which rights have attached and become vested; in other words, a withdrawal cannot destroy or interfere with valid existing claims or rights (*State of Wyoming* v. *United States*, 255 U.S. 489; *Payne* v. *Central Pacific Ry.*, 255 U.S. 228, 237–238; *Utah Light & Traction Co.* v. *United States*, 230 Fed. at 345; *Thomas Morgan*, 52 L.D. 735, 737; *Death Valley National Monument—Appropriation of Water*, 55 I.D. 371, 377; *A. T. West & Sons*, 56 I.D. 387; *State of Arizona*, 59 I.D. 14, 18).

In *Thomas Morgan*, 52 L.D. 735, 737, the following statement is made:

"It is, therefore, ordered that the Executive order of April 17, 1926, to be held not applicable, if and when it shall appear to the satisfaction of the Commissioner of the General Land Office that the applicant has a subsisting vested right to the waters of the spring in question."

Not only are prior vested rights unaffected by withdrawals, but the withdrawals themselves, whether accomplished by statute, executive order or public-land orders, almost invariably purport to protect and preserve from the effect of the withdrawal all valid existing rights or claims upon the public domain under the public land laws of the United States. Thus, all national parks acts (see 16 U.S.C.A. 21d) provide that nothing therein contained shall affect any valid existing claim, and the statute authorizing the President to establish national monuments (see 16 U.S.C.A. 431) impliedly protects tracts "covered by a bona fide unperfected claim or held in private ownership." Executive Proclamation No. 2027 of February 11, 1933, establishing the Death Valley National Monument, did so "subject to all valid existing rights" and the Pickett Act, as noted previously, expressly provides that withdrawals made thereunder shall not affect any land "upon which any valid settlement has been made and is at said date being maintained and perfected pursuant to law" (43 U.S.C.A. 142).

The "valid existing rights" thus protected by the proclamation creating the Death Valley National Monument and the "valid settlement" excepted from the application of the Pickett Act obviously refer to something less than a vested right. The Supreme Court has expressly so held in *Stockley* v. *United States*, 260 U.S. 532, 544, 67 L. Ed. 390, 395, stating that this must necessarily be true because a vested right would require no exception to insure its preservation. The Court said:

"* * * there is excepted from the operation of the order 'existing valid claims.' Obviously this means something less than a vested right, such as would follow from a completed final entry, since such a right would require no exception to insure its preservation. The purpose of the exception evidently was to save from the operation of the order claims which had been lawfully initiated, and which, upon full compliance with the land laws, would ripen into a title."

In *United States* v. *Hurlburt*, 72 Fed. 2d 427, 428–429, it was held that a settlor upon the public domain had made a "valid settlement" within the meaning of the exception clause of the Pickett Act even though he did not possess "a vested right or claim to the land."

The courts have further held that since the Pickett Act is remedial, it should be liberally construed to effect its purpose (*United States* v. *Rock Oil Co.*, 257 Fed. 331; *United States* v. *Standard Oil Co.*, 265 Fed. 751).

The Supreme Court has further held that an "appropriation of mineral lands by location and development" was akin to a "settlement and entry" of the lands within the meaning of the statute withdrawing certain lands from "settlement, entry or other form of appropriation" (*Mason* v. *U.S.*, 260 U.S. 245, 553–554, 67 L. Ed. 396, 399). The Court in the *Mason case* said:

"The words 'settlement and entry,' it is said, apply only to the act of settling upon the soil and making entry at a land office; as, for example, under the homestead laws; that mining lands are acquired, not by settlement or entry, but by location and development; and that this process is not covered by the words 'other form of appropriation,' limited, as they must be, by the associated specific words, to those forms of appropriation which are akin to a settlement and entry. * * *

"If the appropriation of mineral lands by location and development be not akin to settlement and entry, what other form of appropriation can be so characterized? None has been suggested, and we can think of none."

Thus, if the appropriation of mineral lands by location and development is akin to "settlement," so also is the appropriation of water by use and development. Indeed, if this were not true, the Executive order of April 17, 1926, would not have precluded the appropriation of water at all. The order withdrew the designated lands from "settlement, location, sale or entry" and nothing more. Hence, if the appropriation of water is to be precluded by the order, such activity must necessarily fall within the meaning of the words "settlement, location, sale or entry."

It follows, therefore, that the exception from the force and effect of any withdrawal under the Pickett Act of any lands "upon which any valid settlement has been made and is at said date being maintained and perfected pursuant to law" includes any lands "upon which any valid (appropriation of water) has been made and is at said date being maintained and perfected pursuant to law." And, as noted previously, the valid settlement or appropriation thus excepted need not constitute a vested right. It makes no difference, therefore, whether or not the company's right gradually to develop and increase the quantity of water used by it is a vested right as against the Government. In any event, the right was

excepted from both withdrawals and also from the proclamation establishing the monument and, by virtue of such exception, the right in effect became a vested one insofar, at least, as the withdrawals and establishment of the monument are concerned. It is this fact which distinguishes this case from *Silver Lake Power & Irrigation Co.* v. *Los Angeles*, 176 Cal. 96, in which it was held that the conditional right to the future use of appropriated water did not as against the Federal Government survive a withdrawal of the lands and the subsequent enactment by Congress, while said withdrawals were still in effect, of an act granting the lands to the city of Los Angeles. Such conditional water right, the court said, was not vested as against the Federal Government and hence was extinguished by the withdrawals, but in that case, as distinguished from this one, there was no exception in the orders of withdrawal of valid settlements and valid existing rights. In any event, the rulings of the U.S. Supreme Court in the *Stockley* and *Mason cases, supra*, would take precedence over the earlier *Silver Lake* decision.

Not only was the company's right gradually to develop and increase the quantity of water used by it unaffected by the withdrawals and the monument proclamation, but the Federal Government was not by virtue thereof given the status of a private intervening appropriator or claimant having the right to assert, as against the company, that its right of gradual development had not been pursued within a reasonable time by the use of reasonable diligence. While a decision of the Department of the Interior in 1924 was to the effect that a withdrawal order would attach to lands comprising a mining claim upon which the locator had failed to perform annual assessment work (*Interstate Oil Corp. and Frank O. Chittenden*, 50 L.D. 262), this view was overruled by later decisions of the Supreme Court (*Wilbur* v. *United States ex rel. Krushnic*, 280 U.S. 306, 317; 74 L. Ed. 445, 449–450; see also *Ickes* v. *Virginia-Colorado Development Corp.*, 295 U.S. 639, and *Challenge to Validity of Mining Claims in National Parks*, 53 I.D. 491). These decisions point out that failure to do assessment work is a matter which can be taken advantage of under the mining laws only by a relocator rather than the Federal Government. In *Proceedings Against Mining Claims Within the Area of the Boulder Dam Project*, 53 I.D. 228, 229, Secretary Wilbur issued the following instructions:

"'* * * under the doctrine recently announced in *Wilbur* v. *Krushnic* (280 U.S. 306, 315), defaults in the doing of assessment work in such claims, no matter how long continued or whether occurring before or after the withdrawal mentioned is no concern of the Government, and cannot be made the subject of adverse proceedings and a basis for an adjudication by the department of forfeiture. For the Court said (p. 317)—

" '* * * While he is required to perform labor of the value of $100 annually, a failure to do so does not ipso facto forfeit the claim, but only renders it subject to loss by relocation. And the law is clear that no relocation can be made if work be resumed after default and before such relocation.

" 'Prior to the passage of the Leasing Act, annual performance of labor was not necessary to preserve the possessory right, with all the incidents of ownership above stated, as against the United States, but only as against subsequent relocators. So far as the Government was concerned, failure to do assessment work for any year was without effect.' "

Thus, even if it be conceded, which we do not, that there was undue delay on the company's part in the development and use of additional water, this delay did not ipso facto forfeit the company's right but only rendered it subject to the claims of intervening claimants (see pp. 4–5, 7–8, supra). So far as the Federal Government is concerned, any delay, assuming there was any, was without effect. Only to the extent that the Government itself appropriates and uses the water can it curtail the future exercise by the company of its gradual development rights.

And there is still another string to the company's bow insofar as the effect of the 1926 withdrawal is concerned, and that applies as well to the 1913 withdrawal. All of the waters naturally flowing from Texas Springs and from the springs located in Furnace Creek Wash were being beneficially used by the company at the time of each of these withdrawals. The company accordingly had a vested right to the water then flowing from these springs which was in no way affected by the withdrawals (see p. 10, supra). And the waters of these springs which the company has subsequently developed were likewise not affected by the withdrawals because they withdrew only springs, watering places, or waterholes in their natural condition, or if developed by human agency, then only on the abandonment thereof, and there has been no such abandonment.

In *A. T. West & Sons*, 56 I.D. 387, 389, the basic rule is stated as follows:

"It is significant that the water is not a spring or waterhole in its natural condition, but on the contrary appears to have been *developed* and maintained

entirely through West's efforts, and it is therefore not of a type similar to that contemplated by the withdrawal of April 17, 1926, supra. In *Santa Fe Pacific Railroad Co.* (53 I.D. 210, 211), the Department said:

"'It is not believed that said order contemplated the withdrawal of tracts containing mere dry depressions or draws which do not, in their natural condition, furnish or retain a supply of water available for public use. Such a tract is not land which "contains a spring or waterhole" in its *natural* condition, and it was not intended to withhold such land from acquisition by a person who has, by his own efforts, provided artificial means for collecting floodwaters thereon'." [Emphasis ours.]

In *Lee J. Esplin, et al.*, 56 I.D. 325, 328, the following statement is made:

"The withdrawal would attach to land containing the waters developed by human agency if the waters are abandoned by those who originally developed and conserved them."

Although not pertinent to the present subject matter, it is interesting to note that *A. T. West & Sons*, 56 I.D. 387, 390, is also authority for the doctrine that: "* * * once a water right has been obtained the continued use of the water is insured by the provisions of section 2340, Revised Statutes, embodying section 17 of the act of July 9, 1870 (16 Stat. 218), which reads as follows:

"'*Rights subject to vested and accrued water rights.* All patents granted, or preemption or homesteads allowed, shall be subject to any vested and accrued water rights or rights to ditches and reservoirs used in connection with such water rights, as may have been acquired under or recognized by section 51 (sec. 2339, Rev. Stat.) of this title.' [Parenthetical matter supplied.]

"Under these provisions, *a subsequent disposal or withdrawal by the Government of the land on which the water is located would be subject to an easement sufficient to permit of the continued use of the water. Barnes* v. *Sabron*, 10 Nev. 217; *Oliver* v. *Agasse*, 132 Calif. 297, 64 Pac. 410." [Emphasis ours.]

This same principle was stated in *State of Arizona*, 59 I.D. 14, 18, as follows:

"Under section 2340, Revised Statutes, subsequent disposal or withdrawal of lands containing waters the rights to which have vested or accrued is subject to an easement sufficient to permit the continued use of the water."

Here the vested or accrued rights of the company, as noted before, included the right gradually to develop and increase the quantity of water used by it. Thus the subsequent withdrawal of the lands and their later inclusion in the national monument was "subject to an easement sufficient to permit" of the use of the additional water as and when developed. And under the provisions of California Water Code, § 1706 (quoted in the footnote on p. 6, supra), the rights of the company included as well the right to change the point of diversion, place or purpose of use of the water, and to extend ditches, flumes, pipes, and aqueducts to places beyond that where first use of the water was made.

Riparian and appropriative water rights at Furnace Creek Inn parcel

Upon acquisition from the U.S. Government of title to the inn parcel, Death Valley Hotel Co. acquired a riparian right to use thereon the waters (the subsurface flow) of the Furnace Creek Wash (51 Cal. Jur. 2d 536, 537; California Law of Water Rights, pp. 179–180). Concerning the nature and extent of the riparian water right, the following statements are made in 51 Cal. Jur. 2d at pages 537–538, 622, and 623:

At pages 537–538:

"Use does not create the riparian right, and disuse cannot destroy or suspend it. The right vests with the title to the land, and remains therewith unless lost through prescription, by grant, by condemnation, by losing contact with the stream through avulsion, or from some other cause not connected with use. * * * Persons who have land on a flowing stream have, by nature, certain rights to the use of the stream whether they exercise them or not, and they may begin to exercise them whenever they will. And the right exists whether it is claimed or not.

"The right of a riparian proprietor is limited to beneficial use of the water on which the riparian right is based. It carries no right to use water either on other riparian lands or on nonriparian lands. But the rights of a riparian proprietor, as such, are not tested by the uses to which he puts the riparian waters or whether or not he uses them at all."

At page 622:

"As between riparian proprietors, the owner of riparian land has no right to a definite amount of water. All owners on the watercourse have a common, correlative, and reciprocal interest therein, and the rights of each must be exercised with due regard to the rights of the others."

At page 623:

"As between riparian proprietors the right of each against the other is restricted to the amount of water reasonably necessary for useful and beneficial riparian purposes. This rule includes both surface and subsurface flow * * *."

Concerning underground flow, the following statement is made in 51 Cal. Jur. 2d at page 552:

"Lands overlying subterranean streams or watercourses are governed by the same rules as though they abutted a surface stream of water, and their owners are entitled to make the same use of the water as though it flowed on the surface."

At all times since the acquisition of the inn parcel in 1927, this riparian right of the hotel company has been a vested property right (51 Cal. Jur. 2d 538, 539, 542–543). It was not affected, therefore, by the subsequent establishment of the national monument in 1933 not only because the right was then a vested one, but because the monument was established "subject to all valid existing rights" (see pp. 10–11 supra). The inn parcel was excluded from the 1913 withdrawal by act of the President in 1927, and since no spring or water hole was located thereon, it was not affected by the 1926 withdrawal (see pp. 14–15 supra). But the riparian right was nevertheless subject to the prior appropriative rights in Furnace Creek Wash then held by Borax Consolidated, Ltd. (now Borax (Holdings) Ltd.), the parent corporation of the hotel company (51 Cal. Jur. 2d 534, 832–833; 52 Cal. Jur. 2d 38–39), the appropriative right not having been transferred by Borax (Holdings) Ltd., to the hotel company until 1956. The applicable rule is stated in 51 Cal. Jur. 2d at page 534 as follows:

"An important modification of the riparian doctrine resulted from the congressional acts of 1866 and 1870 recognizing appropriations of water on the public domain and granting rights-of-way for water conduits over the public lands, and from State statutes conferring the right of appropriation. These enactments gave to appropriative rights a status superior to the riparian rights in lands acquired from State and Federal Governments."

A more elaborate statement of the rule appears in 51 Cal. Jur. 2d at pages 832–833 as follows:

"Following the act of Congress of 1866 and its amendment in 1870, a question arose concerning the relative rights of those who had appropriated water from the public domain and constructed diversion works and conduits thereon, and those who later acquired lands reparian to the stream or other land on which the conduits and diversion works were located. It was held that an appropriator on the public domain is a licensee of the Federal Government, he holds his rights against the land under an express grant of Congress, and when the land on which these works are constructed passes into the hands of private owners the land is burdened by the easement granted by the United States to the prior appropriator. The appropriator's right constitutes a possessory title under the act, and requires no further or other record title to support it. Once that easement is acquired, it cannot be changed or enlarged after the lands affected are in private ownership. As against subsequent homestead settlers on the public lands, the owner of the appropriative right is not justified in shifting the point of diversion or the line of his ditch *without consent* of a homestead settler on riparian lands who has a certificate of entry." [Emphasis ours.]

From the italicized portion of the above quotation it is apparent that although the appropriative rights of Borax Consolidated, Ltd., in Furnace Creek Wash were superior to the riparian rights acquired by the hotel company in 1927, nevertheless, Borax Consolidated, Ltd., after the acquisition of the inn parcel by the hotel company, could not exercise its appropriative rights by diverting water from the wash on the inn parcel without the consent of the hotel company. This consent, however, was given with the result that not only did the hotel company exercise its riparian rights by diverting water from the wash on the inn parcel, but Borax Consolidated, Ltd., exercised its appropriative rights by also diverting water from the wash on the inn parcel for use at Furnace Creek Ranch. The water thus diverted by Borax Consolidated, Ltd., was in addition to that which it had previously diverted from upstream in the wash. But, as previously noted (see pp. 3–8 supra), it had the right, by virtue of its original appropriation, to increase the quantity of water used by it. It also had the right, as stated previously (see footnote at pp. 6–7 supra), to change or increase the points of diversion even though the points of diversion be a mile or more apart.

There also exists at least the possibility that Furnace Creek Ranch, on which the waters of Furnace Creek Wash are used, is itself riparian to the subsurface flow of the wash. If it is, then the owner thereof has at all times had riparian

rights at the ranch and also has at all times had the right, with the consent of the owner of the inn parcel, to go upstream and divert the ranch's riparian share of the subsurface flow from the inn parcel (51 Cal. Jur. 2d 577, 614, 616). The rule is stated in 51 Cal. Jur. 2d at page 614 as follows:

"The owner of riparian land has a right to go to a point on the stream above his land, with the consent of the abutting and intervening owners, and there take out the water and conduct it to his land. So long as he takes in this manner only his reasonable share of the water and uses it only on his riparian land, he is exercising riparian rights and nothing more."

Beneficial use

It is a well-established general rule of law that the appropriate right is limited by the quantity of water which is actually put to use for a beneficial purpose (51 Cal. Jur. 2d 806–809; The California Law of Water Rights, p. 135). But this rule is qualified by the equally well established doctrine that waters may be appropriated for a prospective or contemplated use as well as for an existing one, provided the appropriation is consummated with reasonable diligence (51 Cal. Jur. 2d 822; The California Law of Water Rights, pp. 137–138). Thus, in *Akin* v. *Spencer*, 21 Cal. App. 2d 325, 330 (see pp. 5–6 supra), it is stated that:

"It is the rule that even though all of the water at the time of the origin of the diversion is not then applied to beneficial use, still if the appropriator within a reasonable time makes improvements upon his land and sufficiently increases his cultivated acreage to beneficially use all of the water diverted, the original diversion may be justified."

And, as we have previously noted, the question of diligence is one that can be raised only by, and to the extent of, an intervening conflicting claim. It is only against intervening rights that the appropriation must be completed within a reasonable time with the exercise of due diligence and, for the reasons previously stated, the Federal Government was not, by virtue of the withdrawals and the moument proclamation, given the status of a private intervening appropriator or claimant.

Conveyance losses

An appropriator is entitled to the quantity of water needed for reasonable beneficial use at the place of use, plus a reasonable conveyance loss under a reasonable method of diversion (The California Law of Water Rights, pp. 138–139; 51 Cal. Jur. 2d 814). The rule is stated in 51 Cal. Jur. 2d at page 814 as follows:

"An appropriator is not limited to taking at his point of diversion only the amount of water he will need at the place of use. He has a right to divert from the stream enough water to yield the quantity required at the place of use after loss by absorption, and after the evaporation of so much thereof as is necessarily so lost in a ditch or flume that is well constructed and kept in good condition. He cannot be compelled to divert according to the most scientific method known, and although he has been diverting for years through ditches where the water loss is comparatively great he cannot be compelled to construct more efficient conduits in order to save water for later appropriators. * * *

"An appropriator is entitled to the amount of flow he has actually appropriated and used, and if some of it is lost in conducting it to his premises he may install devices and more efficient conduits that will save conveyance losses, and then use the amount of water saved."

Conclusion

I believe that the foregoing statement gives to you the summary statement of the legal position of the Death Valley Hotel Co. that you wanted, but if perchance it does not and there are any respects in which we can be of further assistance to the special subcommittee in stating the legal position of the hotel company, please let us know.

Incidentally, you will have noted that we have written to you on the stationery of Death Valley Hotel Co., Ltd. The reason for this is that, since you were here in Los Angeles, our firm has been employed exclusively by United States Borax & Chemical Corp. as its legal department and that company, as you may also know, renders administrative and legal services for the hotel company for a fee. I am now an employee of United States Borax, acting in this instance on behalf of Death Valley Hotel Co., Ltd. In April our offices will be moved to the new building of the company, but for the time being we are maintaining our present offices at 650 South Grand Avenue, Room 902, Los Angeles 17, Calif.

Very truly yours,

RAY J. COLEMAN.

WATER DEVELOPMENTS OF DEATH VALLEY HOTEL CO., LTD.

(AND ITS PREDECESSORS IN INTEREST)

At Furnace Creek Area, Death Valley, Calif.—Diversions, Developments, and Increase Thereof

(By W. A. Ackerman, Secretary, Death Valley Hotel Co., Ltd., February 13, 1963)

Subcommittee note:

1. A draft summary of "Water Developments of Death Valley Hotel Co., Ltd.," prepared by Phineas Indritz, subcommittee counsel, is reprinted in appendix 2, page 649.
2. A memorandum by subcommittee staff commenting on some portions of W. A. Ackerman's summary of February 13, 1963, is printed in appendix 2, page 648.

COMMENT

Diversions, developments, and increase thereof

The original water diversion and appropriation was made by Tex Bennett in starting the ranch about 1870. Manly's record indicates that in the natural state Furnace Creek went into a sink close to the springs.

DOCUMENT REFERENCE

Book, William Lewis Manly, "Death Valley in 49," published 1894

Page 138, December 26, 1849: "* * * Here on the north side of the canon were some rolling hills and some small weak springs, the water of which when gathered together made a small stream which ran a few yards down the canon before it lost itself in the rocks and sand. * * *"

December 27, 1849: "* * * Around in these small hills and damp places was some coarse grass and other growths, but those who had gone before devoured the best, so our oxen had a hard time to get anything to eat.

"Next morning I shouldered my gun and followed down the canon, keeping the wagon road, and when half a mile down, at the sink of the sickly stream, I killed a wild goose. * * *"

Book, W. A. Chalfant, "Death Valley, the Facts," copyright 1930

Page 50: "* * * One 'Bellerin' Teck was so taken with Furnace Creek in 1870 that he decided to locate there. He took water out through a ditch from Furnace Creek and started a little oasis. * * *"

Book, William Caruthers, "Loafing Along Death Valley Trails," copyright 1951

Page 23: "* * * The first white man known to have settled in Death Valley was a person of some cunning and no conscience, known as Bellerin' Teck, Bellowing Tex Bennett, and Bellowin' Teck. He settled at Furnace Creek in 1870 and erected a shanty alongside the water where the Bennett-Arcane party had camped. * * *"

"* * * Teck claimed title to all the country in sight. Little is known of his past, but whites later understood that he chose the forbidding region to outsmart a sheriff. He brought water through an open ditch from its source in the nearby foothills and grew alfalfa and grain. He named his place Greenland Ranch and it was the beginning of the present Furnace Creek Ranch. * * *"

Page 27: "* * * Writers have had to draw their imagination for what happened," a descendant of the Winters once told me. "They say Uncle Aaron exclaimed, 'Rosie, she burns green!' or 'Rosie, we're rich!' but Aunt Rosie said they were so excited they couldn't

35-429 O—65——38

remember, but she knew what they did! They went over to the ditch that Bellerin' Teck had dug to water the ranch and in its warm water soaked their bunioned feet. * * *"

Book, Edwin Corle, "Desert Country," copyright 1941

" * * * Then came the first citizen. His name was Teck Bennett (no relation to Asabel Bennett), and he was better known as Bellerin' Teck, which gives some indication of his vocal powers and that he made use of them.

"Bellerin' came into the valley all by himself in 1870 * * *. Bellerin' started what is now Furnace Creek Ranch. He called it simply My Ranch and looked about for any to contest it. As yet there was none.

"The first citizen tapped the water of Furnace Creek and irrigated his property. He found the desert soil surprisingly rich, and he grew alfalfa and barley and was very well satisfied with the project. * * *

" * * * Bellerin' stuck at ranching for a few years, and then his interest began to flag. Perhaps the summer heat discouraged him. At any rate he departed from the valley and took his talents to pastures new.

"Four brothers, all slightly mad and totally uninhibited, are next identified with the scene. Their surname was Lee. The first of these was generally known as Cub, but his given name was Leander. His brothers were Philander, Meander, and Salamander.

"The Lees began by running cattle at Furnance Creek about 1875. * * *"

The Lee brothers succeeded Bennett at the ranch and began raising cattle about 1875.

Winter's '81 notice

"NOTICE OF LOCATION

"I the undersigned claim the water of *thease* Springs (100) one hundred inches more or less for Farming and Mining purposes and intend using them according to the Laws of the United States, Known as Furnace Creek and Lex Springs Situated on East Side of Death Valley Inyo County

"STATE OF CALIFORNIA
"*Furnace Creek*
"*October 20th 1881*

Locator
A WINTERS

"Recorded at request of R E Spear January 30th 1882 at 45 min past 2 oclock P.M.

"JOHN CROUGH, *County Recorder*"

In 1882 Aaron Winters, the original borax locator, recorded claim to the water of the springs dated October 20, 1881.

The map recorded January 28, 1882, indicates flow of water from the springs to the ranch, which is labeled "Winters Ranch."

William T. Coleman's agents, Robertson and Neuenschwander, recorded notices of appropriation March 11, 1882. The flows claimed were 500 inches (10 cubic feet per second) at Furnace Creek and 300 inches (6 cubic feet per second) at Texas Springs. Section references appear to be according to the official township plat (Henry Washington's). The place of use of the Furnace Creek water was to be southwest of the canyon mouth, whereas the ranch is northwest. It appears from the notice that they proposed to take waters of the springs from the mouth of the canyon rather than from the headwaters.

Map of Death Valley Marsh—Recorded at request of Wells Fargo & Co. January 28, 1882 by John Crough, County Recorder.

Furnace Creek '82 notice

"NOTICE

"Death Valley Inyo County Cal.
"March 1st 1882

"I hereby claim the waters flowing down this Cannon known as Furnace Creek Cannon to the extent of 500 inches measured under a four inch pressure, to be diverted by a ditch of sufficient capacity to carry 500 inches commencing at or near this notice and stake on the north side of the mouth of said Cannon opening into Death Valley in Inyo County, California, near the South line of the Southeast quarter of Sec 11 T 27. N. R. 1 E. San Bernardino Meridian and thence to be conducted by natural channels and ditches to land situated about one and one quarter miles South westerly from the point of diversion, thence to be used for irrigating domestic and all other purposes incidental to agricultural pursuits.

"WM. B. ROBERTSON Jr

"Recorded at request of Wells Fargo & Co March 11th 1882 at 45 min past 7 oclock PM

"JOHN CROUGH, County Recorder."

Texas '82 notice

"NOTICE

"Death Valley, Inyo County, California
"March 1st 1882

"I hereby claim these Springs situated in Inyo County California near the center of the South West quarter of the North East quarter of Sec. 12 T. 27 N R 1 E San Bernardino Meridian and about one and one quarter miles N. 55° 55′ E from the northerly side of the mouth of Furnace Creek, together with the Waters flowing therefrom to the extent of 300 inches, measured under a 4 inch pressure, for irrigating, manufacturing, milling, mining, drinking, cooking, washing and other usefull purposes said waters to be collected in a ditch of sufficient capacity to carry 300 inches of water measured under a 4 inch pressure, and cross cutting the course of the streams flowing from said springs commencing at a

point 440 feet S. 89° W. from this notice and monument and running thence about 240 feet S. 33° 10′ W. and to be conducted thence by ditches and natural Channels to the mouth of a Gulch situated about five eights of a mile northerly from Furnace Creek, and there to be distributed for all or any of the purposes above set forth.—And I also claim 5 acres of Land surrounding these Springs, for grazing, agriculture and gardening purposes bounded as follows, commencing at a Stake and Monument 132 feet East of the Notice and Stake and Monument and running thence North 66 feet, thence West 660 feet, thence South 330 feet, thence East 660 feet and thence North 264 feet to the point of beginning.

"R. NEUENSCHWANDER

"Recorded at request of Wells Fargo & Co March 11th 1882 at 45 min past 7 oclock PM, in Book C of Land Water and Mining Claims page 369 John Crough County Recorder Fee $1.25 pd Inyo Co Cal"

Furnace Creek '85 notice

"NOTICE OF THE APPROPRIATION OF WATER

May 13, 1885, Coleman recorded a revised description of the water appropriations. Flows claimed are the same. Section references are changes to relate to the actual meridian survey stakes. The Furnace Creek notice gives the ranch as the place of use but continues to give the mouth of the canyon as the place of diversion. The Texas Springs notice states that part of the water is conveyed by pipe to location 12, Desert Borate Deposit, and the balance by natural channel and ditch to the ranch.

"Notice is hereby given that I claim the Water Flowing down this Furnace Creek Canon to the extent of 500 inches, measured under a four inch pressure. That the purposes for which I claim said water are as follows to wit: for irrigating, domestic and all other purposes incidental to agricultural pursuits and for Mining, Milling and Manufacturing purposes and for selling the same for any or all the foresaid purposes.

"That the place of intended use is at and upon the East half of Section No. 16 Township No 27 North Range No 1 East, San Bernardino Meridian, Inyo County, California.

"That the means by which I intend to divert said water consists of a Ditch 2 feet wide and 1½ feet deep and 4752 feet long, with a fall of about 2½ to 100 feet length and running to the said place of use.

"That the point at which said water is to be diverted is at the place where this Notice is posted, to wit: on the North Bank of said Furnace Creek Canon at the point where it opens into Death Valley, Inyo County, California, which point bears on Telescope Peak in the Panamint Range S. 19°45′ W.

"The foregoing claim is a relocation of that certain Water right claimed by Wm. B. Robertson on the 1st day of March 1882, a copy of the Notice of said claim being recorded in the Office of the County Recorder of Inyo County, California, on the 11th day of March 1882 at page 370 of Book C. of Land, Water & Mining claims, and which was conveyed by said Robertson by a certain Deed dated June 30th 1882 & recorded in the Office of the County Recorder of the aforesaid Inyo County July 10th 1882 in Book M. This relocation being made for the purpose of more particularly defining said claim and the means by which said water has been diverted and by which it will continue to be diverted.

"Dated May 5th 1885 WM. T. COLEMAN

"Recorded at request of Wells, Fargo & Co. May 13th A.D. 1885 at 2 mins. past 5 o'clock P.M., in Liber E of Land water & Mining Claims at page 160. W. L. Hunter County Recorder"

Texas '85 notice

"NOTICE OF THE APPROPRIATION OF WATER.

"Notice is hereby given that I claim the Water flowing from these springs Known as Texas Springs to the extent of 300 inches measured under a four inch pressure, said Springs are situated in the West half of the North West ¼ of the North East ¼ of Sec. 23 T. 27 N.R. 1 E. San Bernardino Meridian, Inyo County California. That the purpose for which I claim said Water are as follows to wit: for irrigating domestic and all other purposes incidental to agricultural pursuits and for Mining, Milling and Manufacturing purposes and for selling the same for any or all the aforesaid purposes. That the place of intended use is at and upon the East half of Section 16 T 27 N.R. 1 E. San Bernardino Meridian and Locations No. 12 of the Desert Borate Deposit and Location No. 1 of the Ancient Lake Borate Deposit all situated in Inyo County, California.

"That the means by which I intend to divert said water consists of a Ditch about one foot wide and about one Foot deep and running as follows to wit: S. 57° 40′ W 5 chains and 52 Links, thence S. 86° 39′ W. 5 chains, thence N. 65° W. 20½ chains leading into a Reservoir 33 x 33 feet and about 3 feet deep, from thence Water is conveyed by a line of 2 inch Pipe (Iron) a distance of 11560 feet to aforesaid Location No 12 Desert Borate Deposit, the

balance of water is conducted through a natural channel in a course nearly West to the base of the Hills and thence by a Ditch about one foot wide and six inches deep in a Westerly course to aforesaid E ½ of Sec. 16 T 27 N. R. 1 E San Bernardino Meridian.

"That the point at which said water is to be diverted is at the place where this Notice is posted, to wit: about 9 chains Westerly of the Springs, from which point Telescope Peak in the Panamint Range bears S 20′ W.

"The foregoing claim is a relocation of that certain Water right claimed by R. Neuenschwander March 1st 1882, a copy of the Notice of said claim being recorded at the office of the County Recorder of Inyo County California on the 11th of March 1882 in Book of Land. Water and Mining Claims on page 369, and which was conveyed to me by said R. Neuenschwander by a certain Deed dated May 12th 1882, recorded at the Office of the County Recorder of Inyo County, California, May 15th 1882, at 45 Minutes past 8. A.M. in Book M of Deeds page 199.

"This relocation being made for the purpose of more particularly defining said claim and the means by which said water has been diverted and by which it will continue to be diverted.

"Dated May 5th 1885.

"WM. T. COLEMAN

"Recorded at request of Wells Fargo & Co May 13th A.D. 1885 at 4 mins. past 5 o'clock P.M. in Liber E of Land Water and Mining Claims at page 161 W. L. Hunter"

Book, John R. Spears, "Illustrated Sketches of Death Valley," copyright 1892

Page 27: "* * * Anyhow, a green spot was, and is, the ranch in Death Valley, with its half-acre pond, its thirty acres of alfalfa and trees, its 'dobe house with a wide veranda and its running water on all sides. * * *

Pages 74–75: * * * All the migratory birds pass that way in their flight, and since the ranch was established in Death Valley they have made it a stopping-place. And no wonder they do, for it is a most inviting oasis. The waters of the little brook called Furnace Creek have been carefully conducted by a ditch and pipes out of the canyon down to a fairly level stretch of ground, and there turned into a double pond a half acre or more in extend. From this pond the water runs through ditches over about thirty acres of

Reporting in 1892, John R. Spears states the ranch had a half acre pond, 30 acres in alfalfa, and that waters were carefully conducted by ditch and pipes out of the canyon. The flow is estimated 100 to 200 inches.

Frederick I. Monsen, a travel lecturer, visited the ranch in 1892 and took pictures showing the ponds, livestock, and fields of the ranch.

C. M. Rasor, company engineer and onetime U.S. Deputy Mineral Surveyor, by his letter of February 4, 1927, records that the Furnace Creek point of diversion was located at the headwaters by at least 1904, when he first went to Death Valley.

Writing about 1941, Mr. Rasor reported conditions at the time of his first visit, in 1904. He indicates about 80 acres were cultivated, the principal crop being alfalfa, and that water from Texas Springs originally piped to Harmony Works was then piped to the ranch.

land, the most of which has been sown to alfalfa seed. What with the imported trees and native grasses and plants, that flourish under the inspiring influences of moisture and heat, the oasis must seem particularly attractive to the passing wild fowl. * * *"

Page 145 "* * * Furnace Creek rises in a host of springs well down toward the lower end of the canon. It was marked, from its source until it spreads out fanshaped at the mouth of the canon, with an abundant growth of mesquite, the Indian arrow-reed, and other plants. The water is warm and slightly alkaline. It has been estimated to run from 100 to 200 miner's inches of water, but if one may judge by the proportion of it used in irrigating the thirty-acre ranch down in the valley, it would irrigate at least 160 more. * * *"

6 photographs of Furnace Creek Ranch, Frederick I. Monsen, 1892

Letter, C. M. Rasor to C. B. Zabriskie, February 4, 1927

"* * * I have outlined in pencil, on the Valjean map, the S ½ N.E. ¼ and N. ½ S.E. ¼ Sec. 22 of this Township, and marked the same Hotel Site. There are no springs on this land and no raising water within a half mile of it. There is no natural stream of water over or across it. There is an open ditch which conveys all of the waters from Furnace Springs to Furnace Creek Ranch. This is the same ditch or canal that was carrying waters to Furnace Creek Ranch in 1904, the date of my first visit. At that time, 1904, foliage along the ditch seemed to be of twenty years or more growth. I have passed the ditch nearly every year since, and know that it has been there carrying all of the water all of the time."

Handwritten document (unsigned) by C. M. Rasor, labeled "Greenland Ranch" and written about 1941

"* * * Alongside of the north end of the building, distart about 30 feet, was a ditch, about five feet wide, which carried the waters of Furnace Creek: Furnace Creek being the stream that has its source in and alongside of Furnace Creek Wash, about 2½ miles to the southeast. This ditch was almost 3½ feet wide, and about one foot deep at center.* * *"

"* * * There was a pressure pipe, about 2½ inches in diameter, leading from Texas Spring, about two miles easterly, to the Ranch House. The water carried in this pipe was used for domestic purposes. It also propelled a four-foot homemade fan, located about midway between the Ditch and north end of veranda. This fan created a draft, along the porch. Surplus water from Texas Springs, and water used in propelling fan was diverted into main irrigating ditch. A system of pipes from the Texas Spring pipeline, carried water under pressure to hydrants around the door-yard, and to a truck garden to northeast of Ranch House. There was a standpipe outside of fence where tanks, barrels and other containers could be filled with water, and hauled away to various mining operations in the District.* * *"

"* * * In all, the Ranch House and door yard was a very comfortable place, even in Summertime. Prospectors and miners from desert properties many miles away made frequent visits to the place to 'rest up.'

"To the West of the Ranch House, beginning about 100 feet away, was quite a group of buildings, consisting of blacksmith shop, wagon sheds, grain sheds etc., followed by large corrals and feed yards. Also a fenced area still farther west, in which were haystacks and a hay baling machine.

"To the west and north-west of Ranch House were fields of cultivated lands—about 80 acres in extent. Alfalfa was the main crop, and alfalfa grew luxuriantly. * * *

"* * * Judging from the size of old cotton-wood trees along the south-boundary of the Ranch, and some large trees about the Ranch in 1904, one might conclude that the Ranch had been cultivated ten or fifteen years prior to the discovery of borate by Aaron Winters in 1880 * * *."

U.S. Geological Survey Furnace Creek Quadrangle Map—Edition of April 1910

The Edition of April 1910 of the Furnace Creek Quadrangle, surveyed in 1905–6 shows water ditches from Texas Springs and Warm (Furnace Creek) Springs going to the ranch. Thus water delivery from Texas Springs was both by pipe and ditch.

In 1911 plans to expand and develop the Ranch were approved by F. M. Smith, the head of the company.

The intention to expand and upgrade the agricultural activities of the ranch was recorded by considerable correspondence in 1911 with agricultural research authorities. The letters quoted illustrate this and the difficulty of the problem.

Letter, W. L. Locke to Fred Corkill, dated April 28, 1911

"On April 10th last I wrote to Mr. Smith then in the East, sending copies to you, in regard to Greenland Ranch.

"We wrote to him for the reason that you had suggested that a little money might be invested to good advantage in Greenland Ranch to put it in shape: bend our energies toward raising more cattle and hay, any way to the extent that cattle and hay could be used by us: fence in more land, and experiment a little toward raising fruit and vegetables, and if necessary, give Mr. Muncy a little more assistance than he is getting at present, so that he could cultivate the ground a bit.

"Mr. Smith has considered this matter, and thinks it is good: approves of the suggestions made in your letter of April 6th, and wishes you to proceed judiciously and carefully, of course, but as Greenland Ranch has probably been a profitable investment for us as a farm, and as it probably can be increased and expanded, and still be profitable to us, it is well to do so.

"Therefore, will thank you to advise us as to what you propose to do, and how you propose to do it."

Letter, W. L. Locke to Dept. of Botanical Research, University of California, May 22, 1911

"We maintain a Farm in Death Valley Sink, some 178 feet below the sea level. The heat of course in summer is intense, and fruits containing large percentage of water will not mature. We have plenty of good water, and the soil appears to be good.

"Would it be consistent with your policy to give us information as to what fruits, vegetables, cereals, and trees will grow well in this climate, for we are desirous of experimenting somewhat to learn what we can raise there profitably."

Letter, Agricultural Experiment Station, College of Agriculture, University of California, to Pacific Coast Borax Co., May 25, 1911

"As you know, you are working on the edge of the unknown in planting under the new conditions which prevail in the Death Valley sink. The nearest I can come to making suggestions to you at this moment is by sending a copy of our last publication on the Imperial Valley. You might also get other data by sending to

the Tucson Experiment Station, Tucson, Arizona, for their publications on the fruits which do best in their district. Beyond this, of course, you will have to try many things and hold fast to that which is good. I shall always be glad to be useful to you with any information at my command."

Pacific Coast Borax Company Auditors General Report, dated April 13, 1912

"* * * There are about 100 acres of ground cleared, 75 acres in alfalfa, three acres in field corn and Kaffir corn, one patch cabbage, small vineyard and considerable fruit and garden truck.

"There are 103 head of cattle at the present time, including calves, cows and steers. Osborn harvests his alfalfa five times a season and expects to get about three hundred tons this year. It is quite difficult to get help at the ranch during the summer months while the harvesting is in progress. Indians are employed whenever available at $1.75 per day; white men are paid $2.00. The ranch is fairly well equipped with live stock and farming implements.

"The present supply of water from Furnace Creek and Texas Springs is amply sufficient to irrigate all the land under cultivation. The supply could be doubled or trebled, if desired, by going to the expense of collecting up the water now running to waste and scattering over the desert near the head waters of Furnace Creek.

"The ranch is well fenced and in good shape. The present foreman, Thos. Osborne, has cleared about ten acres and is engaged in clearing more."

Letter, Fred Corkill to W. L. Locke, March 14, 1913

"Regarding spineless cactus, will state that I have studied Burbanks booklet regarding same, also instructions in your favor of the 5th., as to how to plant, and care for them.

"It appears to me that they should thrive in the Valley, and if this is true, which our experiment will determine, it would enable us to raise an unlimited amount of cattle on the ranch. As it is now, our supply is limited for we have to depend on alfalfa for feed, and the amount of alfalfa we raise depends on our water supply. At present we cannot plant any more for during the hot summer months, it requires all the water we have to properly

The auditors report of 1912 indicates the scope of the ranch activity but the comment as to how much or how easily the water production could be increased is undoubtedly a comment the auditor was not technically qualified to make. The best evidence of how readily the water production could have been increased is the difficulties and results in eventually accomplishing this.

Corkill stated "* * * it requires all the water we have to properly irrigate the alfalfa fields. As a result * * * our herd of cattle has to be limited. * * *"

irrigate the alfalfa fields. As a result of the above our herd of cattle has to be limited. For instance, this winter we were forced to do considerable butchering in order to bring our herd down to the proper size, for figuring the increase, our hay crops that will be put up during the coming summer, would not carry them through the year.

"While the assessment crew were in the Valley, they used 2941 pounds of beef from the ranch, and during the months of Dec. Jan. Feby. and March, we have hauled in 9522 pounds to the mine, making a total of 12463 pounds we have disposed of, to date.

"If our experiment with spineless cactus proves successful, within a few years we could have enough growing to feed at least 3 or 4 hundred head of cattle, and with the proposed railroad within fifteen miles of the ranch, we could easily market them. "As yet the plants have not arrived, but when they do, I will take them to the ranch and see that they get a proper start, also keep a record of them in order to determine which variety does best in that climate."

Water measurements made in July of 1912 show:

	Cubic feet per second	Miners inches	Gallons per minute	Percent lost in delivery to ranch
Flow at Furnace Creek Headwaters	1.843	92.1	827	31
Flow at Texas Springs (estimate)	.500	25.0	224	76
Total at source measuring points	2.343	117.1	1,051	41
Less:				
Loss in Furnace Creek ditch	.580	29.0	260	
Loss in Texas Spring ditch to tank	.300	15.0	135	
Loss at Texas Spring tank	.080	4.0	36	
Total loss	.960	48.0	431	
Flow at ranch delivery	1.383	69.1	620	

The Texas Spring overflow at the tank originally went to the ranch by ditch so the wastage at the tank due to the condition of the overflow ditch to the ranch and/or the condition of the pipes was a temporary wastage.

Letter, W. L. Locke to F. M. Smith, March 26, 1913

"Furnace Creek Ranch. This ranch is going to be an asset some day and it seems to me that if we can develop it, without great expense, we should do so.

"Mr. Fred Corkill was in today and makes the suggestion that if we propose to plant any more alfalfa or spineless cactus to raise beef, and if we want more land for vegetables or fruit—that it might not be a bad idea to have someone survey the water course from its source to the ranch, showing the elevation and the fall—measure the water at the source and at the discharge, to ascertain the loss by evaporation in hot weather.

"The idea is to put ourselves into a position where we know, first, how much water we can depend upon for irrigation and other purposes, how much power we could get out of that water if we control it under a head, and how much it would cost to prevent loss by evaporation if we enclose the water in a hydrant or concrete trough—the iron pipe for power or a concrete trough if only used for irrigation similar to those used in Southern California.

"We can work in any direction you want, if we only know what way is wanted."

Note attached to above letter

"WmLL Get particulars from Jno Ryan & report again FMS"

Letter, W. L. Locke to John Ryan, April 8, 1913

"Will you please furnish Mr. Locke with particulars about Furnace Creek Ranch—

"The quantity of water available.

"The elevation of the water at its source—whether the supply could be increased,—what the supply at the present discharge amounts to,—the loss by evaporation—

"What area of land is now tillable, and is there adjacent to this land a further area that could be procured?

"What would be the cost of a concrete trough in which to bring down the water, and what water power could be procured? * * *"

The comment of John Ryan on the possibility of increasing the water production one-fourth or one-third by a subterranean dam—"although impossible to tell"—is quite different than the auditors concept of increasing production.

Letter, John Ryan to W. L. Locke, April 9, 1913

"Your letter of April 8th received, asking for particulars about Furnace Creek Ranch.

"The quantity of water available is about 100 inches—the elevation of the water at its source is 600 ft. above the level of the ranch, and will develope about 75 H.P. The distance, a little over one and one-half miles.

"The supply could be increased by putting in a subterranean dam in the canyon. How much it is impossible to tell—possibly the increase would be one-quarter or one-third.

"We have a smaller spring called Texas Spring that brings water in a pipe to the ranch. This spring will give a supply in the neighborhood of 25 inches. I do not know if it has been accurately measured. I am making this statement by judging the amount from recollection.

"Regarding the area of land tillable, will say that the land we are working is in the vicinity of 40 acres. I think our records show that we own about 160 acres—if I am not correct you can get the exact amount from your files in the office. I do not think we can get any land outside of our boundaries as the land adjoining us has been taken up by scrip. In fact a little of our fence on the side of the ranch, where we have our entrance going into the yard, overlaps this land that is taken up by scrip.

"Regarding the loss by evaporation, I cannot recollect anything about this. It has been measured and reported on but we are unable to find the data in this office. However, I have written

to Fred Corkill to get this information for us the next visit he makes to the ranch.

"Regarding the concrete trough—it would be difficult to estimate, as we would have to carry the water in an iron pipe along the hillside to bring it out beyond the mouth of the canyon to avoid being washed out. It requires at least an inch of water to irrigate an acre of land, and in order to utilize the whole of our 160 acres it would take all the water we can develope."

Letter, Fred Corkill to W. L. Locke, April 11, 1913

"Replying to your favor of recent date relative to fertile land available in the Valley, will state that in my opinion we could take up another 160 acres of good ground, and possibly a great deal more that would do for spineless cactus, providing it does well in the Valley.

"If cactus proves a success, we could greatly reduce our alfalfa acerage, in fact just raise enough for our horses, and by doing so, we would then have enough available water to raise any thing that might do well in the Valley, and plenty of it. In other words, we could broaden out, but as it is at present, during the hot summer months our alfalfa fields require all the water we have.

"In my letter to Mr. Ryan today, I gave him measurements of our water supply, and in case you would like to have them, you can get same from him.

"I received the soil analysis today, and wish to thank you for them. I will study them out and see what they have determined for us."

Ryan stated "It requires at least an inch of water to irrigate an acre of land."

It is of interest to compare this statement with the consumptive water use requirements stated in exhibit 12 of the report of April 23, 1962, by Messrs. Gerstley, Smith & Mann to the Park Service. (See p. 26 hereof.) Daily consumptive use in July is therein determined to be (before considering irrigation efficiency):

	In acre-inches per acre per day		Miner's inches AIAD=2.1 MI	
	Average	Peak	Average	Peak
Landscaping—athel miscellaneous trees and shrubs (grapefruit)	0.226	0.276	0.475	0.580
Recreation—grass, pasture	.316	.454	.664	.953
Agriculture—dates	.273	.348	.573	.731

If we then apply a range of irrigation efficiency of 40 to 70 percent (per Harry F. Blaney p. 344 of the 1955 Yearbook of Agriculture) we have a range of required water at the ranch headgate of 2.383 miner's inches (0.953/40 percent) to 0.679 miner's inches (0.475/70 percent) per acre cultivated. To supply the average July daily consumptive use of one acre of alfalfa at 65 percent efficiency would require 1.022 miner's inches (0.664/65 percent). This confirms Mr. Ryan's statement rather exactly.

During the 1912–26 period the water delivered to the ranch varied from 68 miner's inches to about 112 miner's inches (2.25 cubic feet per second). The area under cultivation was approximately 70 acres, principally in alfalfa, with possibly some temporary variations. A peak requirement of 2.383 miner's inches times 70 acres would call for 167 miner's inches, more than the amount available, so it would appear that during this period the maximum available was reasonably required for the area cultivated.

Letter, John Ryan to W. L. Locke, April 14, 1913

"Supplementing my letter a few days ago, regarding the flow of water in Furnace Creek Ranch, will state that nine months ago both Mr. Corkill and Mr. Rasor measured the flow of water from the head of Furnace Creek, and also measured the amount of water that was lost by evaporation and seepage.

"Furnace Creek waters and Texas Springs combined were measured in the yard at Greenland Ranch at one P.M. about nine months ago, and the measurements showed that there were 69.1 miner's inches, equal to 1.383 cubic ft. per second.

"The measurement of waters at the head of Furnace Creek was taken at 2:45 P.M., and the measurements showed that there were 92.1 miner's inches, equal to 1.843 cubic ft. per second.

"The Texas Spring is a separate flow of water coming from a canyon East of the ranch, and the flow of the Texas Spring was estimated at 6 miner's inches.

"The two measurements of Furnace Creek show a loss in seepage and evaporation of 29.0 miner's inches, or 31 percent in the passing of the waters from the head waters to the ranch.

"The above measurements were made over rectangular weirs set under favorable conditions.

"They do not take all of the water from Texas Springs for the pipe line that conveys it to the ranch will not carry all of it. There are about 4 miner's inches that are running to waste.

"If we had a pipe line sufficiently large to carry all the water from Texas Springs, there would be in the neighborhood of 10 inches.

"At present there are two two-inch pipes running from the tank to the spring to within a half-mile of the ranch, and from there down a two inch single pipe carries the water to the house.

"Regarding the amount of land tillable—there are 50 acres in alfalfa at present. They also have about 20 acres more under fence, that is good ground. Some of these 20 acres are in wheat, corn, cactus, stock beets, and melons—the rest of the land is idle.

"As I have already stated the elevation from the head waters of Furnace Creek to the Ranch is 600 ft—distance about one and three-quarters miles.

"I cannot answer the question of the cost of putting in a concrete pipe or trough until I can communicate with someone who does this kind of work.

The transmission efficiency of 59 percent (62 percent early in 1914) to 90 percent from the springs to the ranch considering the time, place, and circumstance was also reasonable.

Corkill's letter of November 13, 1913, indicates that the Furnace Creek water ditch went clear to the headwaters and required continuing maintenance.

Corkill's letter of January 30, 1914, indicates the wastage due to the Texas Springs pipe was remedied early in 1914.

"Mr. Corkill states that there is possibly another 160 acres of ground that could be taken in and cultivated, but I think he is not aware of the fact that the tillable land, outside of our own property, is held by scrip by other parties—therefore we could not utilize it.

"The present area of the ranch that we have fenced in according to Mr. Corkill is 70 acres. Your records will show you how much more land we own there, and how much outside of the fence could be cultivated."

Letter, Fred Corkill to Garner-Smith (Luther Burbank Co.), June 22, 1913

" * * * Regarding our alfalfa, will state that we irregate by flooding with a stream that measures 69 miners inches. Our fields are divided into sections or blocks of about three acres each, and these block are flooded in rotation, each block receiving a thorough flooding twice per month.

"The yield of alfalfa is as follows:

"The first crop, which this season, we started harvesting April 22nd., averaged approximately two tons per acre. The succeeding crops which follow thirty days apart, yield from one and one-half to one and three-quarters tons per acre.

"This season, we will harvest six crops. * * * "

Letter, Fred Corkill to W. L. Locke, November 13, 1913

"Replying to your favor of recent date relative to spineless cactus, will state that while at the Ranch a few days ago, I found enough old rabbit wire to surround the cactus patch, and Mr. Denton will fence it in at his first opportunity. At present he is busily engaged in cleaning out the water ditch, for a heavy rain filled it up with sand and gravel from the head-waters clear down to the ranch, a few days ago."

Letter, Fred Corkill to W. L. Locke, January 30, 1914

"* * * At present all of the water from Texas Springs does not run to the ranch, as the old pipe line will not take it, in fact it has been this way for some time. Recently Mr. Ryan purchased enough 4'' pipe for a new line, but on account of using all our stock to keep the drill rig going, we have been unable to get it to the ranch, and from present indications, we will be unable to get it all out until the drilling is finished. In as much as there is

35–429—65——39

The reduction of ground cultivated to 40 acres in 1920 was undoubtedly a temporary reduction. The flow at the ranch is now reported at 85 inches.

In 1925 Mine Superintendent Boyd indicated 90 miner's inches of water production at Furnace Creek, slightly less than the 1912 measurement of 92.1 inches.

Furnace Creek is a water production area, and to maintain the flow it is necessary to continually clean the springs and ditches of plant growth and the deposit of travertine rock, and occasionally to change the collecting places. This produces fluctuation in flow between cleanup times and there is some natural variation in flow.

room for a dispute over this water that we cannot carry in our present pipe line, it looks to me the sooner we get our new line in, the better, and it might pay us to hire outside teams to take the pipe from Ryan to the ranch. We could probably contract it, and get it hauled cheaper, than paying for an outfit by the day.* * *"

1920–21 Annual Report of the Ryan Mine Superintendent, October 27, 1921

"* * * During this year a considerable amount of labor was spent in cleaning out the springs, rebuilding the irrigation ditch for a length of one mile and erecting substantial breakwaters to prevent the ditch from being washed out by cloud bursts as in previous years. Experiments were made in planting vegetables and date seeds. The vegetables were planted in March, which proved to be a month too late. The small date palms are growing well. A start was made in the clearing of an additional 10 acres. The amount of alfalfa hay cropped was about the same as last year.

"The amount of ground under cultivation was erroneously given last year as 70 acres. The ranch was surveyed in September 1921 (a plan accompanies this report) and the amount of land under cultivation was found to be only 40 acres. The amount of water arriving at the ranch was measured and found to be 85 miner's inches, sufficient to irrigate 70 acres easily. * * *"

Letter, J. Boyd to Professor Le Conte, February 25, 1925

"* * * In Furnace Creek we have a flow of 90 miner's inches (equivalent to a flow of 135 cubic feet per minute or 2¼ cubic feet per second) at a point which is 350 feet above sea level. We wish to convey this stream of water in an enclosed pipe to Greenland Ranch which is situated 178 feet below sea level in Death Valley, a distance of 2½ miles. * * *"

Letter, F. M. Jenifer to C. B. Zabriskie, September 15, 1925

"* * * It was very apparent to all of us that we are not getting all the water by any means and that measures should be immediately taken to establish our rights by usage and otherwise to the springs and waters that we do not now control the exclusive right to. * * *

"* * * The springs and ditches feeding into the main ditch to the ranch have not been kept open and in such condition as to assure

us the full water production. There is considerable wastage and seepage from those springs that are tapped and a number of springs that we are not getting the benefit of at all.

"* * * In the most Southerly canyon or draw leading out of the Furnace Creek there are a large number of springs which apparently have never been opened up or ditched in a manner to determine the full production and no effort has ever been made to divert such waters into the ranch ditch, which leaves such springs entirely detached from our water system and probably subject to appropriation by others. The waters from the springs in this canyon sink before reaching Furnace Creek wash and it is the assumption of Mr. Rasor and Mr. Gower that such water rises again on the West side of the wash opposite the swimming pool in springs which are connected with our main ditch, but this is only theory and of course it would be difficult to establish same as a fact. The diversion of the water from the canyon springs before reaching the point where they disappear to our main ditch might through a drying up process of the lower springs conclusively demonstrate that their theory as to the source of the lower spring production is correct. It is obvious that the appropriation or location of these springs in the Southerly canyon would involve a considerable expense on our part to establish our rights and prove that those waters are being used by us after sinking and rising again in a lower spring. It is my recommendation that these waters be diverted before sinking under the wash into our main ditch, as the expense of such diversion will not be large. * * *

"* * * After going over the ground the other day I remarked that we must have seen thirty or forty springs which were not connected with our ditch, but Harry thought we had seen at least a hundred. Whatever the number you will have some idea of the extent of the water area that we have not under control and to which I believe we should at once establish our positive right.

"With regard to the waters rising in the Southerly canyon referred to, the volume is so substantial and the connection through the lower spring with our ditch so uncertain that I believe we should immediately divert the water from these springs into our ditch. * * *"

In his letter of September 19, 1925, Mr. Gower states that the inches of water shown on the sketch of that date are "nothing more than my guess."

The Furnace Creek water measurements made by Valjean in May 1926 show 1.980 cubic feet per second (excluding loss to point of measurement) of water production flowing into the ditches. The 1912 measurement was 1.843 cubic feet per second, but probably at a lower point of measurement with greater loss before the point of measurement. In any event the 7½ percent increase is not significant considering normal variation of flow and error in measurement. Water production activities up to the time of the Valjean measurements were maintenance work, although not always correctly described as such in internal company correspondence.

The Texas Springs water measurements made by Valjean in May 1926 show 0.280 cubic feet per second (excluding loss to point of measurement) flowing into the ditches. Mr. Ryan's estimate of this in 1912 was 0.500 cubic feet per second, considerably more. By letter of June 6, 1936, Gower stated Texas Springs to be flowing at 0.457 cubic feet per second, which suggests that with maintenance the spring flowed at agreater rate than the Valjean measurement. Mr. Gower states today that the springs were not cleaned before the Valjean measurements, as proposed in Mr. Jenifer's letter of January 8, 1926.

These facts indicate that total water production for the period 1912–26 was approximately 2½ cubic feet per second.

Letter, H. P. Gower to F. M. Jenifer, September 19, 1925

"I was down to the Head waters yesterday morning and made a rough sketch of the Springs from which the Ranch supply is obtained, and also those from which you wish to obtain an additional supply. I enclose two copies of this sketch.

"I believe that we will be able to get ten inches of water from the Canyon, where we found the springs which soak into the ground before reaching the ditch. I also believe that by digging trenches, where shown in the sketch, and connecting these with an open ditch, we can get the water down to the main ditch. I should think that an expenditure of $200 would be ample to collect this water. Of course, as we would get ten inches of water, we might have to enlarge the main ditch in several places, but then we can attend to that when we find out whether catching this ten inches up in the Canyon reduces the flow of the spring down in the wash by ten inches.

"I have marked the number of inches coming from each spring. This is nothing more than my guess, but probably gives a relative amount. We await your further orders."

Sketch of Headwater Springs by H. P. Gower, September 25, 1925

Letter, H. P. Gower to F. M. Jenifer, November 6, 1925

"* * * We have collected most of the water in the most southerly canyon at the headwaters. This is now running into the main ditch, increasing the flow from 88 inches to 95 inches. These measurements are taken from a weir on the ditch just below the swimming hole. We spent $134.50 in collecting the water as planned on the sketch which we sent you some time ago.* * *"

35–429—65——40

Letter, F. M. Jenifer to C. B. Zabriskie, January 8, 1926

"I went over the Furnace Creek water situation with Gower very fully and it was decided that all the springs intermediate to Furnace Creek and Texas Springs should be cleaned out and ditched, so that a determination could be made as to how much water is available and then later on such waters can be collected at central points in the various canyons and taken by pipe to the main ditch if the volume justified such expense. The initial expense of cleaning out the Springs and making such ditches will be nominal and Harry will proceed with the work as fast as possible. After this is done another map will be made and also a full report giving an approximation of the amount of water that can be obtained with the expense of doing so."

Maps 65 & 66, Topography and Water Supply of Furance Creek Ranch, Surveyed (By Valjean) May 8–14–1926

Letter, F. M. Jenifer to C. B. Zabriske, October 30, 1928

"I took up last week with Gower the question of the protection of our water at Furnace Creek and he is now fencing all the springs, ditches, etc. In running a trench for pipe line below the swimming pool it was developed that there was considerable water, perhaps as much as 10 or 12 inches, which was flowing down under the wash and lost entirely. I therefore arranged for Gower to fence in that area also on both sides of the road and run deep trenches in order to recover all of that additional water. After that is done and all the other known supplies under full control it will be advisable, in my opinion, to go still further below and sink a shaft bed rock if possible to determine whether or not there are still other waters that we are not getting benefit of. Mr. Rasor and Mr. Gower agree that this is advisable but we will not undertake it until we have all the known supply in our ditch and pipe line.

"The pipe line from the present intake at the head of the power line put in last year will be installed up to a point just opposite the swimming pool within another week. By that time the fencing will probably be near completion so we can then feel pretty sure that we have the water all well under control with the exception of whatever might be going out under the wash and which the proposed shaft will demonstrate. * * *"

This records completion of the 12-inch pressure line in 1928 rather than 1931 as stated in Gower's history.

Twelve to fifteen inches is 0.24 to 0.30 cubic feet per second.

Letter, F. M. Jenifer to C. B. Zabriskie, November 14, 1928

"The water development work at Furnace Creek has shown that we have been losing a good deal of water and the trenching already done has increased our flow fully 12 to 15 inches. It is apparent there is a good deal more getting away from us under the wash and the shaft I wrote you about recently will be sunk at the narrowest point below the Springs as soon as the fencing is completed. * * *"

History of water production at Furnace Creek, by H. P. Gower, May 2, 1960

Page 3: "As stated above from Valjean map and record, we were delivering 1.7 sec. ft. of water to the ranch in 1926 from a developed supply of 1.9 sec. ft. We got busy and cleaned up the ditches and got production up to 2.08 sec. ft. in 1928 and into a 3000 ft. line of 12 inch pipe to generate 25 KW of power at the Inn. * * *"

Page 4: "* * * In 1931" (error—should be 1928) "the 12 inch pressure line was lengthened 3000 ft. to a new intake and screening box at the springs. Power output was raised to 40 KW and by cleaning out the South Travertine Springs raised the volume going through the wheel to 2.25 cu. ft. per sec. * * * From the wheel the water proceeded as needed through the Inn swimming pool and gardens to the ranch a mile away * * * to alfalfa fields, the growing date gardens, the patches of athel woods being grown for firewood and windbreaks and in the winter season to the duck ponds below the ranch * * *."

Page 2–3: "* * * In 1930 * * * Camping space, running water and sanitary facilities were made available to the public at no charge. As this service put something of a strain on our domestic water supply, we moved a lot of 1½ and 2 inch steel pipe down from the abandoned mines at Ryan and connected up several springs and water seepages outside the Texas Spring 40 acres to the public camp ground. This gave a supply of seven gallons per minute, or about 10,000 gallons per 24 hour day which took care of the public camp needs. * * *"

Page 5: "* * * In 1933 following a cloudburst which took out the thicket of mesquit which at one time covered the canyon floor at the Furnace Creek Springs and lowered the level of the wash a foot or two, it was noted that the South Travertine Spring at that point was again flowing, after long intermission, at about

the rate (.5 sec. ft.) which Valjean had reported in 1926. We proceeded to cut a trench there with the bulldozer, put in a screening box and 12 inch pipe leading across the wash to the intake of the 12 inch pelton wheel line and thereby brought the flow up to 1.01 sec. ft. which has been maintained ever since.* * *"

Letter, H. P. Gower to F. M. Jenifer, July 10, 1935

This involved exploration for water, not an increase in production of water.

"* * * Pump * * * installed * * * in the pit which we had begun in the wash about a thousand feet below the intake box at the springs. * * *"

"* * * No sign of bed rock yet and indications are that there will be plenty of water. * * *"

Letter, F. M. Jenifer to H. P. Gower, July 18, 1935

"I have your letter of July 10th regarding the Furnace Creek water development and note that you are evidently faced with a very difficult undertaking to control the overflow waters. From your outline of the situation I am still inclined to the opinion that possibly a better job can be done and our purposes served to better advantage if we can recover such waters on our own land east of the hotel, particularly if you do not hit bedrock where a more or less complete damming of the waters can be effected in the immediate vicinity of the springs. Even though you could make a cut-off at the point of your present attempt you would still have to contend with the percolating waters originating between the Warm and Texas Springs. * * *"

Letter, H. P. Gower to F. M. Jenifer, August 4, 1935

Exploration only.

"* * * The well up near the spring was completed to bedrock at 22 feet. The pump makes ten inches of water from there constantly. We have started another pit about 100 feet south of the completed one. The plan is to have three pits in a row across the wash. * * *"

Letter, H. P. Gower to F. M. Jenifer, April 19, 1936

"During the past month we have noticed that our springs at Furnace Creek are 10 percent below the usual flow for this time of the year. This has hit us hard in our drinking water system as, with the increase of business and the addition of rooms and facilities at the Inn and Camp, our requirements are constantly increasing. The garden at the Inn, the golf course, and new plantings * * * all draw so heavily on this same system that this

The increase of 247 gallons per minute (0.550 cubic feet per second) to the Furnace Creek domestic supply was measured at 0.380 cubic feet per second in 1941 by Seal. This is the production referred to by Gower on page 3 of his history of May 2, 1960.

week I have set to work to gather into the domestic system all the water below the intake box of the hydro-electric system. This now is collected by open ditch or open joint tile and brought to the ditch. * * * we will get this into a tight pipe and carry it to the Inn reservoir doubling, we hope, the supply now furnished by Texas Spring. This will not be the developing of new waters on the public domain but merely the more sanitary gathering of the supplies which already go into our ditches. * * *"

Letter, H. P. Gower to F. M. Jenifer, June 6, 1936

"As planned, we have cleaned the ditches and have redeveloped the two springs on the left of the road and the one on the right (north) of the road which have been tapped for a number of years by open red tile drains. These springs were gathered in a series of concrete sand boxes with tile drains. From the final sand box a line of 6'' pipe was instilled 3 ft. underground for a distance of 6600 ft. to the Inn reservoir. There a direct connection was made to the ranch line with by-passes to the reservoir for use if and when the supply from Texas Spring should prove inadequate for the Inn. By this development we have placed 247 gallons per minute additional domestic water in the system, increasing the flow of 205 gals from Texas Spring by 120% and giving a supply ample for a long time for all uses of the INN, Camp, gardens and golf course.

"In the wash, on the property of the Death Valley Hotel Co., just north of the old help's quarters we have put down two shafts. No. 1 in the middle of the wash went to 44 ft where we were unable to continue on account of the weight of the sand pressing against the box we were driving down as we hoisted out the muck. Here we were pumping 425 gallons per minute in order to hold the water down to where the miner could work.

"No. 2 Shaft was started 150 ft. to the west of No. 1 and some 30 feet from the west wall of the canyon. We got into water at 14 ft. and must be right in the main stream as we were only able to continue to 24 feet after two weeks work. The gravel and sand came in under the box in spite of all that we could do so that we were taking out many buckets of muck for every inch of progress. We only quit however, when the pump would not keep the water below the miner's knees and shoveling had become hopeless. The

capacity of the pump was 864 gals. per min. and held that rate for a twelve hour test.

"Pumping in shaft No. 2 only lowered the level in shaft No. 1 by a few inches so it is safe to say that both shafts could be pumped simultaneously making 120 gallons per minute or better. For comparison; the normal flow of water from the springs which we run to the water wheel is about 900 gals. per min.

"A nice permanent and inexpensive way to get this water out would be with a tunnel, which I have computed to be 565 ft. long, driven from a point in the gulch just north of the north wing of the inn. This tunnel would hit the canyon 6 ft. below the bottom of No. 2 shaft and would get the 864 gals per min. which we pumped and a lot more if continued further across the wash. Of course, before any such tunnel is started it would be well to bring in a drilling rig and sound for bed rock. Possibly a few feet deeper would get all the water and it would be much easier to tunnel in the bed rock and later drill into the back of the tunnel.

"Temporarily we are installing a 6" siphon out of No. 2 Shaft, carrying it down the wash to a point below the level of the bottom of the shaft. If we can get this started to work we will be able to run out several hundred gallons per minute at no expense and with a welcome addition to the irrigation water supply at the ranch.* * *"

History of water production at Furnace Creek, by H. P. Gower, May 2, 1960

Page 3: "* * * In 1932 the Furnace Creek Camp at the ranch was opened and its rapid growth indicated that an additional or rather an auxiliary source of domestic water should be made available, and" * * * (in 1936) * * * "we turned our attention to the several springs and seepages below the main spring in Furnace Creek Wash which, though directed toward the main ditch, usually settled in the sand and never reached it. A system of cuts in the gravel, tile open joint drains with concrete settling boxes was installed four feet below the ground and connected by 7000 feet of 6 inch steel pipe to the Inn tank from which, as before mentioned, the ranch also got its domestic supply. This improvement added at least .2 sec. ft. of water * * *."

Mr. Rasor's notes indicate Texas Springs were flowing 0.406 to 0.439 cubic foot per second before the tunnel work to which should be added the 0.078 cubic foot per second claimed by the Park Service for a maximum flow before the tunnel of 0.517. This is practically identical to the present flow of 0.500 cubic foot per second and also Mr. Ryan's report of April 9, 1913, of 0.500 cubic foot per second. The temporary increase of Texas Springs flow after the tunnel completion to 0.590 cubic foot per second was probably only at the expense of lowering the water table.

To summarize it would appear that the increase from 1912–26 water production of approximately 2.48 cubic foot per second to the 1960 measurement of 4.28 cubic foot per second can be accounted for by present additional flow approximately as follows:

[In cubic feet per second]

	Furnace Creek	South Travertine	Texas	Furnace Creek domestic	Inn	Total
Production: 1912–26	1.47	0.51	0.50			2.48
Increase:						
1928	.37	.17				.54
1933		.33				.33
1936				0.42	0.51	.93
1941–60		.30			(.30)	
Total, 1960 (Brown)	1.84	1.31	.50	.42	.21	4.28

The report of April 23, 1962, by Messrs. Gerstley, Smith, and Mann to the Park Service indicates a present water need and beneficial use of 4.50 cubic feet per second for 138 acres cultivated, or 0.0326 cubic feet per second per acre. It would appear that the increased production since 1926 has similarly been put to reasonable beneficial use as produced although records of acreages by year are apparently not available. The inn made beneficial use of additional water beginning in 1927 for landscaping, power gen-

Page 4: "* * * during 1937 and 1938" * * * (the Company constructed) * * * "a 900 ft. tunnel through the spur which forms the west bank of the wash to tap the water at 30 ft. below the wash level. Water was taken out from No. 2 shaft into tunnel by means of a 12 inch siphon at the rate of 1.04 gmp as needed, run through the Inn garden and for the irrigation of 150 palms planted outside the Inn gardens. The surplus was dumped into the main ditch leading from the Furnace Creek Springs to the ranch. The siphon was eventually discontinued and water now comes through some perforated pipes driven from the face of the tunnel 10 ft. into the sands of the Wash. Valves on these pipes provide a regulated flow with an average maximum at present of .3 sec. ft. * * *"

Page 3: "* * * In 1940 to quiet the occasional complaint of organic contamination of our domestic water supply we drove a tunnel into the Texas Spring area at an elevation 35 ft. below the spring, and installed a settling box underground connected to the existing domestic supply line. Complaints were eliminated and the water supply increased from .35 sec. ft. to a total of .6 cu. ft. per sec., which in time settled back to approximately .5 sec. ft. * * *"

Report, Water Supply and Water Use Furnace Creek Ranch and Furnace Creek Inn, Death Valley, California, by Ralph S. Brown, August 30, 1960

Vaulation of the Water Rights of the Pacific Coast Borax Company in Death Valley National Monument, by J. B. Lippincott, October 1941

Report of Messrs. Gerstley, Smith, and Mann to the National Park Service, dated April 23, 1962—exhibit 12

"Peak Consumptive Use Requirements—Peak daily consumptive use requirements occur during hot periods in July, and in calculating minimum required flow, it must be assumed that the peak requirements are supplied on an average daily basis. This does not mean that irrigation is required every day. Even in peak transpiration periods, the soil zones can store several days' supply of water. Most efficient use of the available flow requires a rotation schedule for irrigating various portions of the entire acreage.

eration, and domestic use. About 1931 the athel groves and golf course were added at the ranch. In 1932 Furnace Creek (Auto) Camp at the ranch began and grew rapidly. In 1941 Mr. Rasor reported 183 acres cultivated plus a 15-acre bird refuge as follows:

	Acres
Auto camp	30.5
Date gardens	33.5
Golf course	44.0
Golf course annex	40.0
Miscellaneous planting	35.0
	183.0

It would thus appear that water production can be taken as reasonable beneficial use in total for all periods.

"Landscaping—The landscaping consists of athel, and miscellaneous trees and shrubs, with an average volume density of 50%. This mixture is assumed to have consumptive use requirements at least as high as Arizona grapefruit, for which extensive studies have been made. Average daily consumptive use in July is determined to be 0.226 acre-inches per acre. Peak daily consumptive use in July is 0.276 acre-inches per acre and is based on the following assumptions:

1. Available moisture of 1.25 inches per foot.
2. Root zone depth of 6 feet.
3. Extraction pattern: first foot—25%; second foot—20%; third foot—20%; fourth foot—15%; fifth foot—10%; sixth foot—10%.
4. Depth of water to be stored at each irrigation is 3.0 inches.

"To supply this peak daily consumptive use on the present and future 39 landscaped acres, with 25% transmission losses and an irrigation efficiency of 65%, the required flow at the source is 0.93 cubic feet per second.

"Recreation—The present recreational area is taken as 62 acres of grass; the future recreational area as 110 acres of grass. Monthly consumptive use was determined using 'k' factors transferred from studies at Pasadena, California. Average daily consumptive use in July is 0.316 acre-inches per acre. Peak daily consumptive use in July is 0.454 acre-inches per acre and is based on the following assumptions:

1. Available moisture of 1.25 inches per foot.
2. Root zone depth of 3 feet.
3. Extraction pattern: first foot—45%; second foot—35%; third foot—20%.
4. Depth of water to be stored at each irrigation is 1.65 inches.

"To supply this peak daily consumptive use on the present 62 recreational acres, with 25% transmission losses and an irrigation efficiency of 65%, the required flow at the source is 2.43 cubic feet per second. For the future 110 recreational acres, with the same assumptions, the required flow at the source will be 4.31 cubic feet per second.

"Agriculture—The present agricultural area consists of 33 acres of dates and 4 acres of pasture, and the future agricultural area is taken as 31 acres of dates. Monthly consumptive use for dates was based on studies made near Mesa and Tempe, Arizona, and in Coachella Valley, California. Average daily consumptive use in July is 0.273 acre-inches per acre. Peak daily consumptive use in July is 0.348 acre-inches per acre, and is based on the following assumptions:

1. Available moisture of 1.25 inches per foot.
2. Root zone depth of 6 feet.
3. Extraction pattern: first foot—28%; second foot—28%; third food—20%; fourth foot—12%; fifth foot—9%; sixth foot—3%.
4. Irrigation required when 60% of available moisture has been removed from the first (or second) foot.
5. Depth of water to be stored at each irrigation is 1.65 inches.

"This pasture is assumed to have a July peak daily consumptive use of 0.454 acre-inches per acre, the same as for grass.

"To supply the peak daily consumptive use on the present 37 irrigated acres, with 25% transmission losses and an irrigation efficiency of 65%, the required flow at the source is 1.14 cubic feet per second. With the same assumptions, the future 31 acres will require a flow at the source of 0.92 cubic feet per second."

Memorandum, History of Furnace Creek Ranch & Water Rights, by C. M. Rasor, about Oct '41–P.3

DEATH VALLEY HOTEL CO., LTD.

Furnace Creek Inn and Ranch Water System by E. D. Smith, January 1, 1963

The following is a history of structures to divert, store, or convey water which was gathered from a review of the files of the Death Valley Hotel Co. For ease of interpretation the history has been broken down into the following main categories:

I. Warm Springs ditch or ditch from Travertine Springs to Furnace Creek Ranch.

II. Texas Springs ditch or ditch from Texas Springs to Greenland Ranch or Furnace Creek Ranch.

III. Pelton wheel and 12-inch penstock.

IV. Furnace Creek domestic line.

V. Furnace Creek Wash wells and inn water tunnel.

Name of structures which divert, store, or convey water	Date of Construction	Date of Reconstruction	Date of Abandonment
I Ditch from Travertine Springs to Furnace Creek Ranch	1870 Re: Death Valley, The Facts by W.A.Chalfant, page 50 1/ Loafing along Death Valley Trails by William Caruthers, page 23 2/ and page 27 3/. Additional references at later dates: W.B.Robertson,Jr.'s notice of appropriation of water which was recorded March 11, 1882 4/ W.T.Coleman's relocated notice of appropriation recorded May 13, 1885 5/ The U.S.G.S. 1910 edition of Furnace Creek quadrangle surveyed in 1905-06. Ryan to Locke, Sept. 25, 1908 6/ Rasor to Zabriskie, Feb.4, 1927 7/	The ditch has been subject to damage from heavy rains and reconstruction or repairs have been necessary. The dates of all this work are not known; however, repairs were necessary: Nov. 13, 1913 Re: Corkill to Locke Nov. 13, 1913 8/ 1921 Re: Boyd's annual mine report, Oct. 27, 1921 9/ Nov. 1925 About this time work was completed on the reconstruction of ditches to the most easterly springs (map ref. no. 1) Note: Some of this may have been new construction. Re: Jenifer to Zabriskie, Sept. 15, 1925 10/ Gower to Jenifer, Sept. 19, 1925 11/ Boyd to Jenifer, Sept. 28, 1925 12/ Gower to Jenifer, Nov. 6, 1925 13/ Nov. 1927 Jenifer to Zabriskie, Nov. 10, 1927 14/ reports in part on flood damage to Travertine Springs ditch.	

Name of structures which divert, store, or convey water	Date of Construction	Date of Reconstruction	Date of Abandonment
Additions to ditch	1928 — in 1928 a ditch, diversion box, and pipeline were constructed to divert water from main ditch to southeast corner of Furnace Creek Ranch (map ref. no. 2). Re: Mr. H. P. Gower		
Conversion to pipe in area of Inn	1931 During or about 1931 a portion of ditch in area of Inn (map ref.no.3) was converted to pipe so that water could be diverted to and from Inn swimming pool. Re: Mr. H. P. Gower		1931 The ditch, per se, replaced by pipe described under construction was abandoned.
South Travertine cut and pipeline to main ditch	1933 In 1933 South Travertine Springs was opened up* and connected to ditch by pipe (map ref.no.4) Re: Gower's water history, May 2, 1960 15/	1933 * the opening of So. Travertine Springs noted under construction was reconstruction Re: Gower's water history, May 2, 1960 15/ 1939 Additional work to So. Travertine Springs consisted of opening up with a trench. Re: Domestic and Irrigation Water History, no date or author 16/	
Alterations for highway		Jan. 1941 — Some time after Jan. 24, 1941, in accordance with the request of Park Supt. Goodwin, certain ditches were abandoned and reconstructed in the Travertine Springs area to allow for the realignment of highway. Re: Gower to Jenifer, Jan. 24, 1941 17/.	

Name of Structure	Date of Construction	Date of Reconstruction	Date of Abandonment
II			
Texas Springs ditch from Texas Springs to Greenland Ranch or Furnace Creek Ranch	March 1, 1882 It is assumed ditch was in use on said date or constructed shortly after date of appropriation. Re: R.Neuschwander's notice of appropriation recorded Mar. 11, 1882 18/. Later references: W.T.Coleman's relocated notice of appropriation recorded May 13, 1885 19/. The U.S.G.S. 1910 edition of Furnace Creek quadrangle surveyed in 1905-06.		Prior to 1926 the ditch from tank to Ranch abandoned. Re: Valjean's map of F. C. water system, May 1926. 1929-1933 Some time between 1929 and 1933 when 4" line moved to connect Ranch to Inn reservoir the remainder of the ditch was abandoned. Re: Gower's water history, May 2, 1960 25/.
Reservoir and pipeline to Harmony Borax Works reservoir of earth construction	1885 About this date an earthen reservoir was constructed half way between Springs and Ranch from which some water was diverted by pipe to Harmony Borax Works. The balance went by ditch to Ranch. Re: W.T.Coleman's relocated notice of appropriation 19/.		1889 The Harmony line was abandoned some time about 1889. Re: Mr. H. P. Gower
Tank reservoir connected to Ranch by pipelines	Prior to 1904 A tank was installed about half way between Springs and Ranch from which two 2"-lines were laid to within a half mile of Ranch and one 2"-line the remainder. Re: Ryan to Locke, April 14, 1913 20/. Rasor's letter on Greenland Ranch, about 1941 39/.	1914 The 2" pipeline from tank to Ranch replaced with a 4" pipeline. Re: Corkill to Locke, Jan. 30, 1914 21/.	

Inn reservoir and connecting pipeline to Texas Springs	Jan. 1927 About this date a reservoir was constructed at Inn site and connected to Texas Springs by a 2" pipeline. Re: Gower to Jenifer, Jan.20,1927 22/. Bliss report, Jan. 22, 1927 23/.	1930 About 1930 or earlier the 2"-pipeline replaced with a 6" pipeline. Re: Gower's water history, May 2, 1960 25/.	
Texas Springs Camp Ground Water System	1930 Several springs outside the Texas Springs property were connected up by pipe to supply Texas Springs camp ground. Re: Gower's water history,May 2,1960 24/.		
Line from Inn reservoir to Furnace Creek Ranch		1929-33 Some time between 1929-1933 a 4" line between Texas Springs Tank and Ranch was moved to connect Inn reservoir to Ranch. Re: Gower's water history, May 2, 1960 25/. 1959 This 4" line was increased to an 8" line which was placed in 40-foot easement. Re: Brown to Childs,Aug.29,1960 28/	1959 The 4" line abandoned in place when 8" line replaced it.
Texas Springs adit	1939-1940 It is believed the Texas Springs adit was started in 1939 and completed in 1940. It was driven to provide a better collection system. Re: H. P. Gower Gower to Jenifer, May 16, 1940 26/.		
National Park Service's connection to Texas Springs Water System	October 1940 Re: Rasor to Jenifer, Oct.21,1940 27/.		

Name of Structure	Date of Construction	Date of Reconstruction	Date of Abandonment
III Pelton Wheel and 12" Penstock	1927 In the winter of 1927 a pelton wheel for generating electric power was installed on Inn track (map ref.no. 5) and about 3000 feet of 12" penstock laid up Furnace Creek Wash at the upper terminus of which a collection box was constructed. Water was diverted from ditch into pipe. 1928 About November 1928 an additional 3200 feet of 12" pipe was added to penstock. A new collection box was constructed at terminus (map ref.no. 6). Re: Jenifer to Zabriskie, Oct. 30, 1928 29/. (Mr. Gower, in his history of water dated May 2, 1960, states that the additional penstock was installed in 1931. The above noted letter from Jenifer to Zabriskie is the only early reference found, and we have accepted it as being correct.)	The penstock has no doubt required repairs throughout its existence. One reference noted indicated portions of it had to be replaced after flood damage in August 1942. Re: Gower to Jenifer, Aug. 12, 1942 30/.	

Name of Structure	Date of Construction	Date of Reconstruction	Date of Abandonment
IV Furnace Creek Domestic Line	June 1936 About said date a 6" pipeline was laid between Inn reservoir and a point just below 12" penstock collection box (map ref.no.7) to connect to an underground domestic water collecting system which was also constructed about this time. Re: Gower to Jenifer, Apr.19, 1936 31/. Gower to Jenifer, June 6, 1936 32/. The files indicated these waters were previously collected by open ditch or open joint title in Wash (map ref.no.8) and brought to main ditch. Re: Jenifer to Zabriskie, Oct.30,1928 33/. Jenifer to Zabriskie, Nov.14,1928 34/. Gower to Jenifer, April 19, 1936 31/.	This pipeline has required repairs and has been replaced when washed out by flood waters. One reference noted: Gower's letter to Jenifer, Aug. 12, 1942 30/.	

Name of Structure	Date of Construction	Date of Reconstruction	Date of Abandonment
V			
Furnace Creek Wash Wells and Inn Water Tunnel			
Travertine Springs			
Wells in Wash near Travertine Springs	July 1935 A test well was begun in Furnace Creek Wash about 1000 feet below intake box at Springs. I believe this is the penstock collection box (map ref.no.8). Re: Gower to Jenifer, July 10, 1935 35/. August 1935 The first well was completed to bed rock (22 feet) and a second well shaft was started 100 feet south of the first shaft. Note: It was planned there would be 3 shafts across Wash in this area but files do not indicate whether the third was sunk or not. Re: Gower to Jenifer, Aug. 4, 1935 36/.		All the test wells sunk in Wash (map ref.no. 8) during 1935 have been abandoned. They were probably abandoned during 1935.
Wells in Wash on Inn Tract	June 1936 Two well shafts sunk on Inn track in Furnace Creek Wash just north of old help's quarters (map ref.no.9). Re: Gower to Jenifer, June 6, 1936 37/.		
Inn Water Tunnel	1938 Between June 1936 and Feb. 1938 the Inn water tunnel (map ref.no. 10) was driven to tap Furnace Creek Wash water. Re: Jenifer to B.C.L., Feb. 3, 1938 38/.		

35-429—65——41

Abstract of References

1/ **Death Valley, The Facts, by W. A. Chalfant**
Page 50

"One 'Bellerin' Teck was so taken with Furnace Creek in 1870 that he decided to locate there. He took water out through a ditch from Furnace Creek and started a little oasis."

2/ **Loafing along Death Valley Trails, by William Caruthers**
Page 23

"The first white man known to have settled in Death Valley was a person of some cunning and no conscience, known as Bellerin' Teck, Bellowing Tex Bennett, and Bellowin' Teck. He settled at Furnace Creek in 1870 and erected a shanty alongside the water where the Bennett-Arcane party had camped when driven from Ash Meadows by Indians whose gardens they had raided and whose squaws they had abused, according to a legend of the Indians and referred to with scant attention to details, by Manly. (Panamint Tom, famed Indian of the region, in speaking of this raid by the whites, told me that the head man of his tribe sent runners to Ash Meadows for reinforcements and that the recruits were marched in circles around boulders and in and out of ravines to give the impression of superior strength. This strategy deceived the whites, who then went on their way.)

"Teck claimed title to all the country in sight. Little is known of his past, but whites later understood that he chose the forbidding region to outsmart a sheriff. He brought water through an open ditch from its source in the nearby foothills and grew alfalfa and grain. He named his place Greenland Ranch and it was the beginning of the present Furnace Creek Ranch."

3/ **Loafing along Death Valley Trails, by William Caruthers**
Page 27

"Writers have had to draw on their imagination for what happened," a descendant of the Winters once told me. "They say Uncle Aaron exclaimed, 'Rosie, she burns green!' or 'Rosie, we're rich! But Aunt Rosie said they were so excited they couldn't remember, but she knew what they did! They went over to the ditch that Bellerin' Teck had dug to water the ranch and in its warm water soaked their bunioned feet."

4/ **W. B. Robertson, Jr.'s notice to appropriate water in Furnace Creek Wash. Filed Mar. 1, 1882, recorded Mar. 11, 1882, Book C, page 370.**

".....to be diverted by a ditch of sufficient capacity to carry 500 inches commencing at or near this notice and stake on the north side of the mouth of said cannon opening into Death Valley in Inyo County, California near the south line of the southeast quarter of the southeast quarter of Sec. 13, T. 27 N. R. 1E. San Bernardino Meridian and thence to be conducted by natural channels and ditches to land situated about one and one quarter miles southwesterly from the point of diversion....."

5/ W. T. Coleman's relocated notice of appropriation of waters appropriated by Robertson. Filed May 5, 1885, recorded May 13, 1885, Book E, page 160.

"That the means by which I intend to divert said water consists of a ditch 2 feet wide and 1-1/2 feet deep and 4752 feet long, with a fall of about 2-1/2 to 100 feet length and running to the said place of use. That the point at which said water is to be diverted is at the place where this Notice is posted, to wit: on the North Bank of said Furnace Creek Canon at the point where it opens into Death Valley, Inyo County, California, which point bears on Telescope Peak in the Panamint Range S. 19° 45' W."

6/ Ryan to Locke, Sept. 25, 1908.

"The two water locations are not on ranch; one is what is called Furnace Creek and is about 1½ miles from the ranch; this runs in a ditch to the ranch. The other water location is called Texas Springs and would be in the neighborhood of about 3/4 miles from the ranch. Texas Springs is piped to Ranch."

7/ Mazor to Zabriskie, Feb. 4, 1927.

"There is an open ditch which conveys all of the waters from Furnace Springs to Furnace Creek Ranch. This is the same ditch or canal that was carrying water to Furnace Creek Ranch in 1904, the date of my first visit. At that time 1904, foliage along the ditch seemed to be of twenty years or more growth."

8/ Corkill to Locke, Nov. 13, 1913.

"At present he is busily engaged in cleaning out the water ditch, for a heavy rain filled it up with sand and gravel from the head-waters clear down to the ranch, a few days ago."

9/ Boyd's annual mine report Sept.30, 1920, to Sept.30, 1921 - Oct. 27, 1921.

"During this year a considerable amount of labor was spent in cleaning out the springs, rebuilding the irrigation ditch for a length of one mile and erecting substantial breakwaters to prevent the ditch from being washed out by cloud bursts as in previous years."

10/ Jenifer to Zabriskie, Sept. 15, 1925.

Letter which discusses ditches in F. C. Wash area being in poor condition and need of repair. Also mentions springs now not being utilized. Instructs Gower to survey.

11/ Gower to Jenifer, Sept. 19, 1925.

Gower submitted rough sketch of spring area and proposed ditches.

12/ Boyd to Jenifer, Sept. 28, 1925.

".....will arrange to have work of digging trenches at Furnace Creek Springs done as soon as possible."
Note: These are ditches Gower recommended.

13/ *Gower to Jenifer, Nov. 6, 1925.

"We have collected most of the water in the most southerly canyon at the headwaters. This is now running into the main ditch, increasing the flow from 88 inches to 95 inches. These measurements taken from weir on the ditch just below the swimming hole."

14/ *Jenifer to Zabriskie, Nov. 10, 1927.

Reports in part on flood damage to Travertine Springs ditch.

15/ *Gower's history of water production at Furnace Creek, May 2, 1960, page 5.

"In 1933 following a cloudburst which took out the thicket of mesquite which at one time covered the canyon floor at the Furnace Creek Springs and lowered the level of the wash a foot or two, it was noted that the South Travertine Spring at that point was again flowing, after long intermission, at about the rate (.5 sec. ft.) which Valjean had reported in 1926. We proceeded to cut a trench there with the bulldozer, put in a screening box and 12 inch pipe leading across the wash to the intake of the 12 inch pelton wheel line and thereby brought the flow up to 1.01 sec. ft. which has been maintained ever since. Occasionally a flood will bury the spring under six ft. of gravel but a half day's work with the bulldozer puts it back in operation again. The cost of the cut, screening box and 12 inch pipe was approximately $900.00."

16/ *Domestic and Irrigation Water History, no date or author.

"1939. Springs on south of road was opened up with a trench, increasing the total flow through the water wheel to a constant 3.02 sec. feet, which, with out-put of tunnel gives (3.02 plus 1.04) 4.06 cu. ft. per sec. in irrigation water."

17/ Gower to Jenifer, Jan. 24, 1941.

Mr. Goodwin notified Gower they would shortly begin the grading of road in Warm Springs area. Mr. Gower explained alterations to collection system necessary for new road alignment.

18/ R. Neuschwander's notice of appropriation of water at Texas Springs. Filed March 1, 1882, and recorded March 11, 1882.

"..... said waters to be collected in a ditch of sufficient capacity to carry 300 inches of water measured under a 4 inch pressure, and crosscutting the course of the streams flowing from said springs commencing at a point 440 feet S. 89° W. from this notice and monument and running thence about 240 feet S. 33° 10' W. and to be conducted thence by ditches and natural channels to the mouth of a Gulch situated about five eighths of a mile northerly from Furnace Creek, ..."

19/ W. T. Coleman's relocated notice of appropriation of waters appropriated by Neuschwander. Filed May 5, 1885, and recorded May 13, 1885, Book E, page 161.

"That the means by which I intend to divert said water consists of a ditch about one foot wide and about one foot deep and running as follows to wit: S. 57° 40' W 5 chains and 52 links, thence S. 86° 39' W. 5 chains, thence N. 65° W. 20-1/2 chains leading into a Reservoir 33 x 34 feet and about 3 feet deep, from thence Water is conveyed by a line of 2 inch Pipe (Iron) a distance of 11560 feet to aforesaid location No. 12 Desert Borate Deposit, the balance of water is conducted through a natural channel in a course nearly West to the base of the Hills and thence by a Ditch about one foot wide and six inches deep in a Westerly course to aforesaid E 1/2 Sec. 16 T. 27. N. R. 1 E San Bernardino Meridian.

20/ *Ryan to Locke, April 14, 1913.

"They do not take all of the water from Texas Springs for the pipe line that conveys it to the ranch will not carry all of it. There are about 4 Miner's inches that are running to waste.
"At present there are two 2-inch pipes running from the tank to the springs to within a half-mile of the ranch, and from there down a two inch single pipe carries the water to the house."

21/ *Corkill to Locke, Jan. 30, 1914.

"At present all the water from Texas Springs does not run to the ranch, as the old pipe line will not take it, in fact it has been this way for some time. Recently Mr. Ryan purchased enough 4" pipe for a new line, ———"

22/ *Gower to Jenifer, Jan. 20, 1927.

"The pipeline from the springs is all completed."
Note: This is line from Texas springs to Inn Reservoir.

23/ *Bliss Report, Jan. 23, 1927.

"Pack trains have all cement and gravel on mountain for water tank."

24/ *Gower's history of water production at Furnace Creek, May 2, 1960, pages 2 and 3

"In 1930 the demand by travelers for camping space with water was growing rapidly and to guard against contamination of water at our springs and along our ditches, the company established a public camp ground on Government land in the gulch just north of the Inn property and just below the Texas Spring water storage tank serving the ranch. Camping space, running water and sanitary facilities were made available to the public at no charge. As this service put something of a strain on our domestic water supply, we moved a lot of 1½ and 2 inch steel pipe down from the abandoned mines at Ryan and connected up several springs and water seepages outside the Texas Spring 40 acres to the public camp ground. This gave a supply of seven gallons per minute, or about 10,000 gallons per 24 hour day which took care of the public camp needs. This improvement cost the company $4,000 including pipe, trucking, installing, etc."

25/ Page 3, Gower's history of water production at Furnace Creek, May 2, 1960.

"By 1930 additional buildings, the palm garden and increasing patronage of the public rendered the water supply inadequate at that point, and a 6 inch line was run from Texas Springs to Inn tank, replacing the 2 inch line. To supply the Ranch we moved its former 4 inch supply line to connect the Ranch from the Inn tank, ..."

26/ *Gower to Jenifer, May 16, 1940.

"We are again at work on the Texas Spring Tunnel job, after shutting down there for a time so as not to disturb the Inn water supply."
Note: Work must have been discontinued during period facilities were open.

27/ *Razor to Jenifer, Oct. 21, 1940.

"A crew of Government (Park) men were engaged in cutting a deep trench ——. This is for laying a pipe which will tap the company's line, below mouth of tunnel."

28/ *Brown to Childs, August 29, 1960.

"What is possibly confusing their field men is that during the spring of 1959, we replaced the 4-inch main Ranch pipeline with an 8-inch pipeline of greater water carrying capacity."

29/ *Jenifer to Zabriskie, Oct. 30, 1928.

"The pipe line from the present intake at the head of the power line put in last year will be installed up to a point just opposite the swimming pool within another week."

30/ *Gower to Jenifer, August 12, 1942.

Reports extensive flood damage.
Damage to 12" line and 6" line and collection system in wash.
A portion of 6" line from Texas springs that lies in wash was washed out.

31/ *Gower to Jenifer, April 19, 1936.
Letter expresses need for more domestic water and action taken.

".....I have set to work to gather into the domestic system all the water below the intake box of the hydro-electric system. This now is collected by open ditch or open joint tile and brought to the ditch. With your permission, we will get this into tight pipe and carry it to the Inn reservoir doubling, we hope, the supply now furnished by Texas Springs. This will not be the developing of new waters on the public domain but merely the more sanitary gathering of the supplies which already go into ditches."

32/ *Gower to Jenifer, June 6, 1936.

"As planned, we have cleaned the ditches and have redeveloped the two springs on the left of the road and the one the right (north) of the road

which have been tapped for a number of years by open red tile drains. These springs were gathered in a series of concrete sand boxes with tile drains. From the final sand box a line of 6" pipe was installed 3 ft. underground for a distance of 6600 ft. to Inn reservoir." "By this development we have placed 247 gallons per minute additional domestic water in the system,——"

33/ *Jenifer to Zabriskie, Oct. 30, 1928.

"In running a trench for pipe line below the swimming pool it was developed that there was considerable water, perhaps as much as 10 or 12 inches, which was flowing down under the wash and lost entirely. I therefore arranged for Gower to fence in that area also on both sides of the road and run deep trenches in order to recover all of that additional water."

34/ *Jenifer to Zabriskie, Nov. 14, 1928.

"The water development work at Furnace Creek has shown that we have been losing a good deal of water and the trucking already done has increased our flow fully 12 to 15 inches. It is apparent there is a good deal more getting away from us under the wash....."

35/ *Gower to Jenifer, July 10, 1935.

Letter states that on June 20th rented a turbine sinking pump and installed in pit which was begun in wash about 1000 feet below intake box at springs. Hole now down 20 feet.

36/ *Gower to Jenifer, Aug. 4, 1935.

1st well near springs completed to bed rock (22'). A second pit (well) has been started 100 feet south of 1st pit (well).
Plan three pits in all across wash. (Note: nothing in file to confirm third pit.)

37/ *Gower to Jenifer, June 6, 1936.

"In the wash, on the property of the Death Valley Hotel Co., just north of the old help's quarters we have put down two shafts. No. 1 in middle of the wash went down to 44 ft. ——"

"No. 2 shaft was started 150 ft. to the west of No. 1 and some 30 feet from the west wall of the canyon. We got into water at 14 ft. and must be right in the main stream as we were only able to continue to 24 feet after two weeks work."
Letter suggests Inn water tunnel to tap water in wash.

38/ *Jenifer to Borax Consolidated, Ltd., Feb. 3, 1938.

"As you know we have within last year or so by means of a tunnel driven under the hill from a point adjacent to the north end of the Furnace Creek Inn tapped a new water supply in the canyon to the east and back of the Inn."
Note: Inn tunnel driven between June 1936 and Feb. 1938.

* Copy provided Messrs. Indritz and McClellan.

39/ *Rasor's comments on his first visit to Greenland Ranch in 1904, about 1941.
"There was a pressure pipe, about 2½ inches in diameter, leading from Texas Spring, about two miles easterly, to the Ranch House."

DEATH VALLEY HOTEL CO., LTD.,
Los Angeles, Calif., February 20, 1964.

Mr. PHINEAS INDRITZ,
Chief Counsel, Special Subcommittee on Death Valley National Monument, 1501 Longworth Office Building, Washington, D.C.

DEAR MR. INDRITZ: Enclosed herewith is a copy of pages 203 to 219 of the recorder's book of the Death Valley Borax and Salt Mining District as established by a group of miners at a meeting held at the mouth of Furnace Creek, November 21, 1881. Copies of pages 1, 2, and 3 give the minutes of this meeting and are enclosed. You will note that these pages were altered March 10, 1900.

Said pages 203 to 219 cover the recording in said recorder's book of nine 5-acre millsites claiming all the springs thereon and the water flowing therefrom. The nine claims were made by the following individuals:

1. John F. O'Brien
2. N. M. Bell
3. Wm. B. Robertson
4. Frank L. Perkins
5. Chas. D. Wheat
6. C. C. Thorn
7. George Straut
8. John W. Curtis
9. Wm. M. Brison

With the exception of the Perkins notice, we have not found these notices in the official records of the Inyo County recorder, although our search was not such as to enable us to say they are not there.

Also enclosed are copies of the enclosures to the letter of Mr. Ray J. Coleman dated January 17, 1964, to the Director, National Park Service in re Death Valley National Monument—Tout Dependent Resurvey.

Yours very truly,

By W. A. ACKERMAN, *Secretary.*

[Pp. 202–203]

NOTICE OF LOCATION

Notice is hereby given that John F. O'Brien a citizen of the United States has this day located under the U.S. mining laws 5 acres of this ground for a millsite with all the springs thereon and the waters flowing therefrom and more particularly described as follows: commencing at this notice and stake marked D. No. 1, situated on the east side and about 1½ miles above the mouth of Furnace Creek, from which Winters Peak bears N38°30'E. a sharp black peak N57°15'E. mineral monument No. 40 S. 33° E. running thence east 10 chains to a stake marked D. No. 2, thence south 5 chains to a stake marked D. No. 3, thence west 10 chains to a stake marked D. No. 4, and thence north 5 chains to the point of beginning situated in Death Valley Borax and Salt Mining District, Inyo County, Calif., being the S½ of the N.E.¼ of the N.W.¼ of the N.W.¼ of Sec. 25, T. 27, N., R. 1E., S.B.M. as established by a traverse line, commencing at this notice and running thence north 5 chains, thence west 10 chains, thence north 80 chains and thence west 240 chains to stake No. 58 on location No. 18 Desert Borax Deposit.

Dated May 13, 1886.

JOHN F. O'BRIEN.

Recorded May 14, 1886. R. NEUENSCHWANDER, *Recorder.*

[Pp. 204–205]

NOTICE OF LOCATION

Notice is hereby given that N. M. Bell, a citizen of the United States, has this day located under the U.S. mining laws 5 acres of this ground for a millsite with all the springs thereon and the waters flowing therefrom and more particularly described as follows: commencing at this notice and stake marked A No. 1, situated on the east side and about 1½ miles above the mouth of Furnace Creek from which mineral monument N. 40 bears S. 34° E. a white capped peak S. 70°30′ E. a white capped peak S. 82°30′ E. running thence west 10 chains to a stake marked A No. 2, thence north 5 chains to a stake marked A No. 3, thence east 10 chains to a stake marked A No. 4 and thence south 5 chains to the point of beginning situated in Death Valley Borax and Salt Mining District Inyo County, Calif., being the S.½ of the S.E.¼ of the S.E.¼ of the S.E.¼ of Sec. 23, T. 27 N.R. 1E. S.B.M. as established by a traverse line commencing at this notice and running thence north 80 chains thence west 240 chains to stake No. 58 on location No. 18 Desert Borax Deposit.

Dated May 13, 1886.

N. M. BELL.

Recorded May 14, 1886. R. NEUENSCHWANDER, *Recorder.*

[Pp. 206–207]

NOTICE OF LOCATION

Notice is hereby given that Wm. B. Robertson a citizen of the United States has this day located under the U.S. mining laws 5 acres of this ground for a millsite with all the springs thereon and the waters flowing therefrom and more particularly described as follows: commencing at this notice and stake marked B, No. 1, situated on the east side and about 1½ miles above the mouth of Furnace Creek, from which mineral monument No. 40 bears S.34°E. a white capped peak S.70°30′E. white capped peak S.82°30′E. and running thence east 5 chains to a stake marked B. No. 2, thence south 10 chains to a stake marked B. No. 3, thence west 5 chains to a stake marked B. No. 4 and thence north 10 chains to the place of beginnnig, situated in Death Valley Borax and Salt Mining District, Inyo County, Calif., and being the W.½ of the N.W.¼ of the N.W.¼ of the N.W.¼ of Sec. 25, T. 27N., R. 1E, S.B.M. as established by a traverse line commencing at this notice and running thence north 80 chains thence west 240 chains to stake No. 58 on location No. 18 Desert Borax Deposit.

Dated May 13, 1886.

WM. B. ROBERTSON.

Recorded May 14, 1886. R. NEUENSCHWANDER, *Recorder.*

[Pp. 208–209]

NOTICE OF LOCATION

Notice is hereby given that Frank L. Perkins a citizen of the United States has this day located under the U.S. mining laws 5 acres of this ground for a millsite with all the springs thereon and waters flowing therefrom and more particularly described as follows: commencing at this notice and stake marked C. No. 1, situated on the east side and about 1½ miles above the mouth of Furnace Creek, from which Winters Peak bears N.39°E. a sharp black peak N.59°E. a sharp topped butte near mouth of Furnace Creek N.81° W. running thence east 5 chains to a stake marked C. No. 2, thence south 10 chains to a stake marked C. No. 3, thence west 5 chains to a stake marked C. No. 4 and thence north 10 chains to the point of beginning situated in Death Valley Borax and Salt Mining District, Inyo County, Calif., being the E½ of the N.W.¼ of the N.W.¼ of the N.W.¼ of Sec. 25, T. 27N., R. 1E. S.B.M. as established by a traverse line commencing at this notice and running thence west 5 chains, thence north 80 chains thence west 240 chains to stake No. 58 on location No. 18 Desert Borax Deposit.

Dated May 13, 1886.

FRANK L. PERKINS.

Recorded May 14, 1886. R. NEUENSCHWANDER, *Recorder.*

[Pp. 210–211]

NOTICE OF LOCATION

Notice is hereby given that Chas. D. Wheat, a citizen of the United States has this day located under the U.S. mining laws 5 acres of this ground for a millsite with all the springs thereon and waters flowing therefrom and more particularly described as follows: commencing at this notice and stake marked E. No. 1, situated on the east side and about 1¼ miles above the mouth of Furnace Creek from which Winters Peak bears N39°45′E. a sharp black peak N59°E. a white capped peak S.83°45′E running thence north 5 chains to a stake marked E.No. 2 thence west 10 chains to a stake marked E. no. 3, thence south 5 chains to a stake marked E. No. 4 and thence east 10 chains to the point of beginning, siuated in Death Valley Borax and Salt Mining District, Inyo County, Calif. and in the N.E.¼ of Sec. 26 T. 27 N.R.I.E.S.B.M. as established by traverse line commencing at this notice running thence east 15 chains thence north 90 chains thence west 240 chains to stake No. 58 on location No. 18 Desert Borax Deposit.

Dated May 13, 1886.

CHAS. D. WHEAT.

Recorded May 14, 1886. R. NEUENSCHWANDER, *Recorder.*

[Pp. 212–213]

NOTICE OF LOCATION

Notice is hereby given that C. C. Thorn a citizen of the United States has this day located under the U.S. mining laws 5 acres of this ground for a millsite with all the springs thereon and waters flowing therefrom and more particularly described as follows: commencing at this notice and stake marked E. No. 1, situated on the east side and about 1¼ mile above the mouth of Furnace Creek, which Winters Peak bears N. 39°45′E a sharp black peak N59°E a white capped peak S.83°45′E running thence south 5 chains to a stake marked F. No. 2, thence west 10 chains to a stake marked F. N. 3, thence north 5 chains to a stake marked F. No. 4 and thence east 10 chains to the point of beginning situated in Death Valley Borax and Salt Mining District, Inyo County, Calif., and in the N.E.¼ of Sec. 26, T. 27N., R. 1 E., S.B.M. as established by a traverse line commencing at this notice running thence east 15 chains thence north 90 chains, thenc west 240 chains to stake No. 58 on location No. 18; Desert Borax Deposit.

Dated May 13, 1886.

C. C. THORN.

Recorded May 14, 1886. R. NEUENSCHWANDER, *Recorder.*

[Pp. 214–215]

NOTICE OF LOCATION

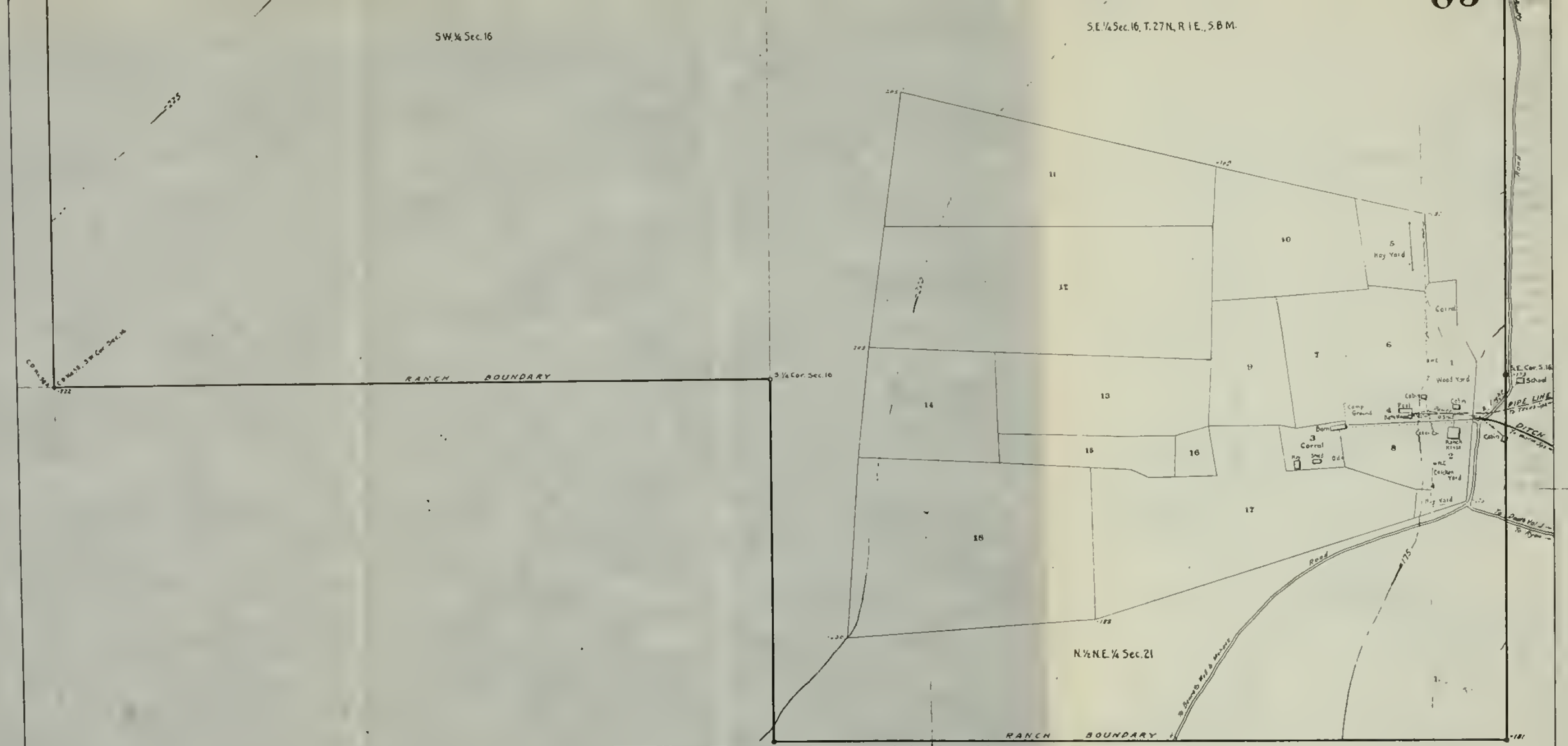
Notice is hereby given that George Straut a citizen of the United States has this day located under the U.S. mining laws 5 acres of this ground for a millsite with all springs thereon and waters flowing therefrom and more particularly described as follows: connencing at this notice and stake marked G. No. 1, situated in Furnace Creek wash about 1¼ miles above its mouth, from which a high sharp peak bears N48°E, a sharp black peak bears N59°15′E a white capped peak S74°30′E running thence north 10 chains to a stake marked G. No. 2 thence west 5 chains to a stake marked G. No. 3 thence south 10 chains to a stake marked G. No. 4 and thence east 5 chains to the point of beginning, situated in Death Valley Borax Salt Mining District, Inyo County, Calif., and being a portion of the NE¼ of sec. 26, T. 27 N., R. 1 E., San Bernardino meridian, as established by a traverse line commencing at this notice and running north 5 chains east 25 chains, north 90 chains thence west 240 chains to stake No. 58 on location No. 18 Desert Borax Deposit.

Dated May 13, 1886.

GEORGE STRAUT.

Recorded May 14, 1886. R. NEUENSCHWANDER, *Recorder.*





WATER SUPPLY

Average flow of Warm Spg. Ditch at Ranch May 14, 1926,	1.68	Sec. Ft.
" " Texas " Pipe " " " "	.14	" "
Combined flow of Ditch & Pipe	1.82	" "
Saving possible by maintaining ditch from Texas Spg. in good condition	.12	" "
" " " short connecting ditch at Warm Spg.	.07	" "
Total available at Ranch under above conditions	2.01	" "
Total supply available at Ranch if piped from Springs	2.26	" "

CULTURE

LOT	IN USE, MAY 1926, FOR	ACRES	LOT	IN USE, MAY 1926, FOR	ACRES
1	Corral, Woodyard, Buildings	1.73	10	Alfalfa	4.86
2	Yard, Buildings, Chicken Yard, Hay Yard	1.08	11	Alfalfa 6.22, West 3.26 unplanted	9.48
3	Corral, Barnyard, Barn, Sheds	.80	12	Hay field	12.87
4	Palm Grove, Camp Ground, Swimming Pool, Buildings, Road	.65	13	Pasture	4.96
5	Hay Yard, Stack & Boiler	1.52	14	Melons .98, Corn 1.00, Sweetpotatoes .52, unplanted 1.98	4.48
6	Seedling Dates	2.63	15	Potatoes .56, Corn .54, Cabbage .69	1.81
7	Dates	2.30	16	Date plants, Onions, Corn. U.S. Experimental plot	.50
8	Dates	1.45	17	Alfalfa	10.13
9	Wheat	2.81	18	Alfalfa	12.13

Total Area Lots 1 to 18, inclusive, is 76.17 Acres.

Elevations are in slanting figures and refer to Sea Level.

SCALE OF FEET

100 0 500 1000

PACIFIC COAST BORAX CO.

FURNACE CREEK RANCH

INYO COUNTY, CALIFORNIA

SURVEYED MAY 14, 1926.

65

PACIFIC COAST BORAX CO.

FURNACE CREEK RANCH

INYO COUNTY, CALIFORNIA

T.27N., R.1E., S.B.M.

FURNACE CREEK RANCH

P.C.B. CO. TEXAS SPRINGS

P.C.B. CO. WARM SPRINGS

Cultivated Area

Dunes Cleared

Sand & Gravel Soil

Dunes

Coarse Gravel & Sands

Ditch

Road

Pipe

Vegetation

Dense Growth of Mesquite

Scattering Mesquite

Soil

Gravel & Sand

Boiler

Arrowweed

Mesquite

Grass

Patches of Mesquite

Strongly Alkaline Limit of

Dense Growth of Mesquite

Mesquite

Arrowweed

Saltbush

Grass

Scattering

Silty Sand

Soil

LAKE BED DEPOSIT

Mesquite — Limit of

8 9 16 17 15 14 20 21 22 23 24 29 28 27 26 25

WATER MEASUREMENTS

No.	Date 1926 May	Time	Temp	Elt.	Sec Ft	Remarks
1	14	7:30 am	85	-.173	1.780	Main Ditch at entrance to Furnace Creek Ranch.
	14	11:15 am	99		1.680	Larger flows measured thru 12" rectangular weir and
	14	5:30 pm	88		1.860	smaller flows thru 90° V-notch.
2	11	1:30 pm	98	13	.002	Stream from gully ¼ mi. N. of Texas Sp. Alkaline. N.G.
3	11	2:00 pm	98	37	.140	Ditch from Texas Sps. Station 200' above tank.
4	12	5:00 pm	87	340	.280	Only 50% of flow of Texas Sp (No. 4) reaching tank
5	12	4:30 pm	88	346	.001	at upper end of pipe line. High velocity of water
6	12	4:10 pm	89	365	.001	cuts banks of ditch allowing water to spread and
7	12	3:50 pm	90	342	.002	waste
8	12	3:30 pm	91	346	.002	Springs 5, 6, 7, 8 drain into Furnace Creek, but all water sinks below surface within 1000 ft. from source.
9	11	11:30 am	96	238	.006	Measurements 9 to 18 inclusive, omitting 13, give a
10	11	10:45 am	94	237	.008	total of 1.899 Sec Ft. below the last spring,
11	11	10:00 am	92	256	.515	neglecting losses between that point and the
12	11	9:00 am	88	319	.002	several points of measurement. The loss be-
13	11	8:30 am	86	311	.056	tween here and the ranch is about 10%, the
14	11	8:00 am	84	302	.492	distance being 2¼ miles.
15	10	4:45 pm	87	303	.018	
16	10	4:30 pm	88	298	.006	
17	10	3:00 pm	92	306	.286	
18	10	2:00 pm	95	306	.566	
19	10	1:00 pm	96	310	.103	
20	10	11:00 am	94	325	.044	
21	10	9:20 am	89	397	.090	.08 Sec Ft of the flow at this point (21) sinks in the marsh
22	10	9:00 am	88	385	.050	below, only .01 Sec Ft of it reaching the ditch. Ditch
23	10	10:00 am	91	394	.002	at 21 should be connected with the ditch running
						S.E. to 22. This would increase flow in main ditch
						.081 Sec Ft making total of 1.38 Sec Ft at mouth of
						lowest feeder.

Scale of Feet

0 1320 2640 5280 7920 10560

NOTE:- Elevations are in slanting figures and refer to Sea Level, being marked — where below

Corner indicated thus ⊕ is marked by 4"x4" post.

Corner indicated thus ⊙ is marked by stake, 4' long, scribed with letter shown hereon and set in a mound of earth or stone, 2' high

PACIFIC COAST BORAX CO.

TOPOGRAPHY AND WATER SUPPLY OF FURNACE CREEK RANCH

INYO COUNTY, CALIFORNIA.

SURVEYED MAY 8 TO 14, 1926.

[Pp. 216–217]

NOTICE OF LOCATION

Notice is hereby given that John M. Curtis a citizen of the United States has this day located under the U.S. mining laws 5 acres of this ground for a millsite with all the springs thereon and waters flowing therefrom, and more particularly described as follows: commencing at this notice stake marked H. No. 1, situated on the east side and about 1¼ miles above the mouth of Furnace Creek, from which Winters Peak bears N41°45'E a sharp black peak N62°E a sharp topped butte near the mouth of Furnace Creek N73°30'W running thence north 5 chains to a stake marked H. No. 2, thence west 10 chains to stake H. No. 3, thence south 5 chains to a stake marked H. No. 4, and thence east 10 chains to the point of beginning, situated in Death Valley Borax Salt Mining District, Inyo County, Calif., being the S½ of the SW¼ of the SW¼ of the SW¼ of sec. 23, T. 27 N., R. 1 E., San Bernardino meridian, as established by a traverse line commencing at this notice, running east 30 chains, north 80 chains, west 240 chains to stake No. 58 on location No. 18 Desert Borax Deposit.

Dated May 13, 1886.

JOHN M. CURTIS.

Recorded May 14, 1886. R. NEUENSCHWANDER, *Recorder.*

[Pp. 218–219]

NOTICE OF LOCATION

Notice is hereby given that Wm. M. Brison, a citizen of the United States, has this day located under the U.S. mining laws, 5 acres of this ground for a millsite with all the springs thereon, and waters flowing therefrom, and more particularly described as follows: commencing at this notice stake marked T. No. 1 situated on a high level mesa about 1½ mile easterly of Coleman Borax Works from which stake Winters Peak bears N. 48° E. mineral monument No. 40, S. 32° E. Telescope Peak S. 35°30'W. running thence south 10 chains to a stake marked T. No. 2, thence west 5 chains to a stake marked T. No. 3, thence north 10 chains to a stake marked T. No. 4 and thence east 5 chains to the point of beginning, situated in Death Valley Borax and Salt Mining District, Inyo County, Calif., being a portion of the N.W. ¼ of Sec. 23, T. 27N., R. 1 E., S.B.M. as established by a traverse line commencing at this notice running west 100 chains to stake No. 58 on location No. 18, Desert Borax Deposit.

Dated May 13, 1886.

WM. M. BRISON.

Recorded May 14, 1886. R. NEUENSCHWANDER, *Recorder.*

APPENDIX 2—OTHER DOCUMENTS RELEVANT TO DEATH VALLEY NATIONAL MONUMENT

A Proclamation

(No. 2028, Feb. 11, 1933, 47 Stat. 2554)

Whereas it appears that the public interest would be promoted by including certain lands known as Death Valley, in California, within a national monument for the preservation of the unusual features of scenic, scientific, and educational interest therein contined:

Now, therefore, I Herbert Hoover, President of the United States of America, by virtue of the power in me vested by section 2 of the act of Congress entitled "An act for the preservation of American antiquities," approved June 8, 1906 (34 Stat. 225), do proclaim and establish the Death Valley National Monument and that, subject to all valid existing rights, the area indicated on the diagram hereto annexed and forming a part hereof be, and the same is hereby, included within the said national monument.

Warning is hereby expressly given to all unauthorized persons not to appropriate, injure, destroy, or remove any feature of this monument and not to locate or settle upon any of the lands thereof.

The Director of the National Park Service, under the direction of the Secretary of the Interior, shall have the supervision, management, and control of this monument as provided in the act of Congress entitled "An act to establish a National Park Service, and for other purposes," approved August 25, 1916 (39 Stat. 535–536), and acts additional thereto or amendatory thereof.

In witness whereof, I have hereunto set my hand and caused the seal of the United States to be affixed.

Done at the city of Washington this 11th day of February, in the year of our Lord nineteen hundred and thirty-three, and of the independence of the United States of America the one hundred and fifty-seventh.

[SEAL] HERBERT HOOVER.

By the President:

HENRY L. STIMSON,
Secretary of State.



35-429 O - 65 (Face p. 624)

Park Village
Nevares Spring
Nevares Peak
PIPE LINE
Cow Creek
Reservoir
National Park Service Hdqrs
Salt Springs
Mustard Canyon
Harmony Borax Works (Ruins)
SEA LEVEL
90 ACRE TRACT U.S. Deeded 1958
Museum Site
Texas Spring Camp Ground
Texas Spr.
Water Tank
DEATH VALLEY HOTEL CO. Patent 1908
Furnace Creek Ranch
Indian Village
Furnace Creek
DITCH
Point of diversion Robertson & Coleman County Water Right Filing
DEATH VALLEY HOTEL CO. Patent 1927
Point of Diversion U.S. Water Right Applications Nos. 10,001 10,002 10,018
Abandoned NPS Residential and Utility Area Site
Site of Proposed Test Well
NPS Test Trench
Buried Tile DV Hotel Co
Sump DV Hotel Co
DEATH VALLEY HOTEL CO. Patent 1908
Travertine Springs
Breakfast Canyon
Furnace Creek
Golden Canyon
Zabriskie Pt.
Gower Gulch
Desolation Canyon
Mushroom Rock
JEEP TRAIL
BM 199
BM 394
BM 568
BM 756
BM 945

LEGEND

- Death Valley Hotel Co.
- Tracts desired by Death Valley Hotel Co. in exchange for Tracts F, G and H
- Pacific Coast Borax Co.
- Portion of Public Water Reserve restored to entry by Executive Order of Feb 21, 1927
- Public Water Reserve — Approximate as established 1913
- Public Water Reserve added by Executive Order of April 7, 1926

1000 0 1000 2000 3000 4000 5000 6000 7000 FEET

ORDER OF WITHDRAWAL (Excerpts)

Public Water Reserve No. 13, California No. 1

Under and pursuant to the provisions of the act of Congress approved June 25, 10 (36 Stat., 847), entitled "An act to authorize the President of the United ates to make withdrawals of public lands in certain cases," as amended by act Congress approved August 24, 1912 (37 Stat., 497), it is hereby ordered that e following described lands be, and the same are hereby, withdrawn from ttlement, location, sale, or entry, and reserved for public use:

* * * * * * *

SAN BERNARDINO MERIDIAN

T. 27 N., R. 1 E., Secs. 13 and 14, all;
Sec. 15, E½;
Sec. 22, E½;
Sec. 23, E½ of NE¼, SW¼ of NE¼, W½, SE¼;
Sec. 24, N½, N½ of SW½, SE¼ of SW¼, SE¼.

* * * * * * *

(Signed) WOODROW WILSON,
President.

DECEMBER 1, 1913.

ORDER OF WITHDRAWAL—PUBLIC WATER RESERVE NO. 107

Under and pursuant to the provisions of the act of Congress approved June 25, 910 (36 Stat., 847), entitled "An act to authorize the President of the United tates to make withdrawals of public lands in certain cases," as amended by ct of Congress approved August 24, 1912 (37 Stat., 497), it is hereby ordered at every smallest legal subdivision of the public land surveys which is vacant appropriated unreserved public land and contains a spring or water hole, and l land within one-quarter of a mile of every spring or water hole located on surveyed public land be, and the same is hereby, withdrawn from settlement, cation, sale, or entry, and reserved for public use in accordance with the pro- sions of section 10 of the act of December 29, 1916 (39 Stat., 862), and in aid of nding legislation.

(Signed) CALVIN COOLIDGE,
President.

APRIL 17, 1926.

EXCERPT FROM INTERPRETATION NO. 131 OF PUBLIC WATER RESERVE NO. 107

It is hereby ordered that the order of withdrawal of April 17, 1926, creating blic Water Reserve No. 107, be construed in part to describe the following acts;

* * * * * * *

CALIFORNIA

San Bernardino Meridian

T. 27 N., R. 1 E.,
Sec. 25, NW¼ of NW¼;
Sec. 26, N½ of NE¼.

* * * * * * *

(Signed) RAY LYMAN WILBUR,
Secretary.

JUNE 5, 1930.

DEPARTMENT OF THE INTERIOR,
Washington, January 21, 1927.

Re "K"—Visalia 019433:
Application under act of January 27, 1922.
Rejected.
THOMAS LOWE.

SUBMITTED BY THE GENERAL LAND OFFICE—DECISION PROMULGATED, JANUARY 25, 1927

There has been submitted to the Department the application of Thomas Lowe, filed December 24, 1926, under the act of January 27, 1922 (42 Stat. 359), to change his commuted homestead entry from SW¼, sec. 21, T. 3 N., R. 20 E, Cimarron meridian, Oklahoma, to S½ NE¼ and N½ SE¼ Sec. 22, T. 27 N., R. 1 E., San Bernardino meridian, California.

The application of Lowe is junior to a like application (Visalia 016166) filed by Luke Feeley on November 26, 1926.

Without considering whether Lowe is entitled to the benefit of the act of January 27, 1922, supra, the application is rejected for the reason that the tract applied for is embraced in Public Water Reserve No. 13, created by Executive order of December 1, 1913, and therefore not subject to entry.

(Signed) E. C. FINNEY,
First Assistant Secretary.

DEPARTMENT OF THE INTERIOR,
Washington, February 18, 1927.

Memorandum in re S½NE¼, N½SE¼, sec. 22, T. 27 N., R. 1E., Visalia 016166, 019433.

The SECRETARY OF THE INTERIOR:

Mr. C. B. Zabriskie, representing parties in interest in the above-entitled selections, was given an oral hearing February 17, 1927, and states that the land in question is desired as a tourist hotel site, being located at sea level on the edge of Death Valley, Calif. He states there is no water whatever upon the land unless it is carried there artificially. Messrs. Stephen Mather, Director, National Park Service, and Horace Albright, Field Director, Park Service, have both visited this site and state that Mr. Zabriskie's statement of fact is correct in this particular. There are some springs nearby which furnish excellent water and which are also included in the limits of the waterhole withdrawal, but Mr. Zabriskie states that his company appropriated those waters more than 42 years ago and have beneficially used all of said water since that time. Under these circumstances, it seems that there is no justification for the continued reservation of the lands above described, and that the equities of the hotel company (the hotel having already been constructed) required consideration.

(Signed) FINNEY.

THE SECRETARY OF THE INTERIOR,
Washington, February 21, 1927.

THE PRESIDENT,
The White House.

MY DEAR MR. PRESIDENT: Herewith is a draft of order releasing the S½NE¼, and N½SE¼, sec. 22, T. 27 N., R. 1E., S.BM, California, from withdrawal made by Executive order of December 1, 1913, including these with other lands in Public Water Reserve No 13, California No. 1.

It is represented that there are no springs, waterholes, or other bodies of water on the lands proposed to be released, but that the tract is occupied by a hotel used by tourists. There are some springs on other portions of water reserve No. 13, but the company which erected the hotel is alleged to have appropriated the waters more than 42 years ago and to have beneficially used same since that time.

The Director and other officials of the National Park Service have visited this tract, and advise me that the foregoing statements are correct.

I recommend that you sign the order, thus making it possible for the company which erected the hotel to acquire title to the 160 acres described.

Very truly yours,

(Signed) HUBERT WORK.

DEPARTMENT OF THE INTERIOR BEFORE THE GENERAL LAND OFFICE

Petition of the Pacific Coast Borax Co., for the vacation of certain land embraced in public water reserve No. 13, created by Executive order of December 1, 1913, Act of June 25, 1910 (36 Stat. 847)

DECEMBER 11, 1928.

Hon. WILLIAM SPRY,
Commissioner, General Land Office,
Washington, D.C.

DEAR SIR: The Pacific Coast Borax Co., a corporation, organized and existing under and by virtue of the laws of the State of Nevada, and duly authorized to do business in the State of California, whose principal place of business in the State of California and post office address is Central Building, Los Angeles, Calif., respectfully petitions that public water reserve No. 13, created by Executive order of December 1, 1913, under the act of Congress of June 25, 1910 (36 Stat. 847), be vacated as to the following described land, situated in the county of San Bernardino, State of California, to wit:

The SW¼ of SE¼ of section 23, T. 27 N., R. 1 E., San Bernardino meridian, and for grounds for said petition begs to respectfully state as follows:

That there are springs upon the above-described land; that upon information and belief all of the water in said springs was appropriated about the year 1882; that upon information and belief during the same year lateral ditches were constructed by said appropriators for the purpose of conducting all the water from said springs to a main ditch, and from thence over and across certain public lands to the S½ of section 16 and the N½ of NE¼ of section 21, township 27 north, range 1 east, San Bernardino meridian, commonly known and called the Furnace Creek Ranch, the property of the said appropriators; that through mesne conveyances the title to said Furnace Creek Ranch, the water flowing from said springs so appropriated and the ditches so constructed, was conveyed by deed to and is now owned by the Borax Consolidated, Ltd., a foreign corporation, and with which corporation the Pacific Coast Borax Co., is affiliated; that all the water from said springs and so conducted by means of said ditches has been since the date of said appropriation down to the present time beneficially utilized continuously and uninterruptedly for irrigation purposes upon the said land in sections 16 and 21, T. 27 N., R. 1 E., San Bernardino meridian, by the said appropriators and their successors in interest;

That in addition to the utilization of the water from said springs for irrigation purposes upon the Furnace Creek Ranch, the water is now being used for domestic purposes in a hotel, the property of the Death Valley Hotel Co., situated in section 22, township 27 north, range 1 east, San Bernardino meridian;

That no notice of appropriation of the water from said springs was ever made or recorded; that the water from said springs, having been so appropriated and beneficially used down to the present time and long prior to the creation of said Public Water Reserve No. 13, the Borax Consolidated, Ltd., under the provisions of sections 2339 and 2340 of the Revised Statutes of the United States has a vested and accrued possessory right to the use of the water so appropriated and beneficially used, and that the right of way of the aforesaid ditches so constructed and operated by the said corporation and its predecessors in interest is acknowledged and confirmed, subject to the continous beneficial use of said water and ditches, and that all patents granted, or preemption or homestead or other locations, entries, selections or filings allowed, under the public land laws of the United States, subsequent to the appropriation and beneficial use of the water

flowing from said springs and the construction of the ditches carrying or conducting said water, shall be subject to such water rights and ditches; that the Pacific Coast Borax Co. is desirous of acquiring the fee-simple title to the SW¼ of SE¼ of section 23; the NW¼ of NW¼ of section 25 and the N½ of NE¼ of section 26, T. 27 N., R. 1 E., San Bernardino meridian, subject to the aforesaid vested and accrued water rights and ditches, and files with this petition the application of Samuel W. Brown to select the SW¼ of SE¼ of section 23; the NW¼ of NW¼ of section 25 and the N½ of NE¼ of section 26, Township 27 north, range 1 east, San Bernardino meridian, under the provisions of the act of Congress, approved May 21, 1926 (Public No. 262), entitled: "An Act to repeal the Act approved January 27, 1922, providing for change of entry, and for other purposes."

That in addition to the springs upon the SW¼ of SE¼ of section 23, T. 27 N., R. 1 E., San Bernardino meridian, there are springs upon the NW¼ of NW¼ of section 25, and the N½ of NE¼ of section 26, T. 27 N., R. 1 E., San Bernardino meridian;

That the statements herein made as to the appropriation of the water flowing from the springs in the SW¼ of SE¼ of section 23, T. 27 N., R. 1 E., San Bernardino meridian, the conducting of the water therefrom by means of ditches, the beneficial and uninterrupted use of said water and the possession and ownership of same, are identically the same with reference to the water flowing from the springs in the NW¼ of NW¼ of section 25, and the N½ of NE¼ of section 26, T. 27 N., R. 1 E., San Bernardino meridian. The location of the said springs and the estimate of the amount of water therefrom is shown upon the plat hereto attached, marked exhibit "A".

Reference is respectfully made to departmental decision M–21467, of February 28, 1927, in the matter of Application Visalia 019433 of Thomas Lowe, under the act of January 27, 1922 (42 Stat., 359) to change his commuted homestead entry from the SW¼ of section 21, T. 3 N., R. 20 E., C. M., Oklahoma, to S½ of NE¼ and N½ of SE¼ of section 22, T. 27 N., R. 1 E., M. D. M., a copy of said decision is hereto attached, marked exhibit "B".

Respectfully submitted.

PACIFIC COAST BORAX CO.,
C. B. ZABRISKIE,
Vice President and General Manager.

STATE OF CALIFORNIA, *County of Los Angeles, ss:*

C. B. Zabriskie, being duly sworn, deposes and says:

That he is the vice president and general manager of the Pacific Coast Borax Co.; that he has read the foregoing petition and knows the contents thereof; that the statements therein made are true of his own knowledge, except as to those matters which are therein stated on his information and belief, and as to those matters, that he believes them to be true.

C. B. ZABRISKIE.

Subscribed and sworn to before me this 13th day of December 1928.

MARSHALL T. MCCOMB,
Notary Public in and for the County of Los Angeles, State of California.

My commission expires June 7, 1931.

EXCHANGE APPLICATION HELD FOR REJECTION

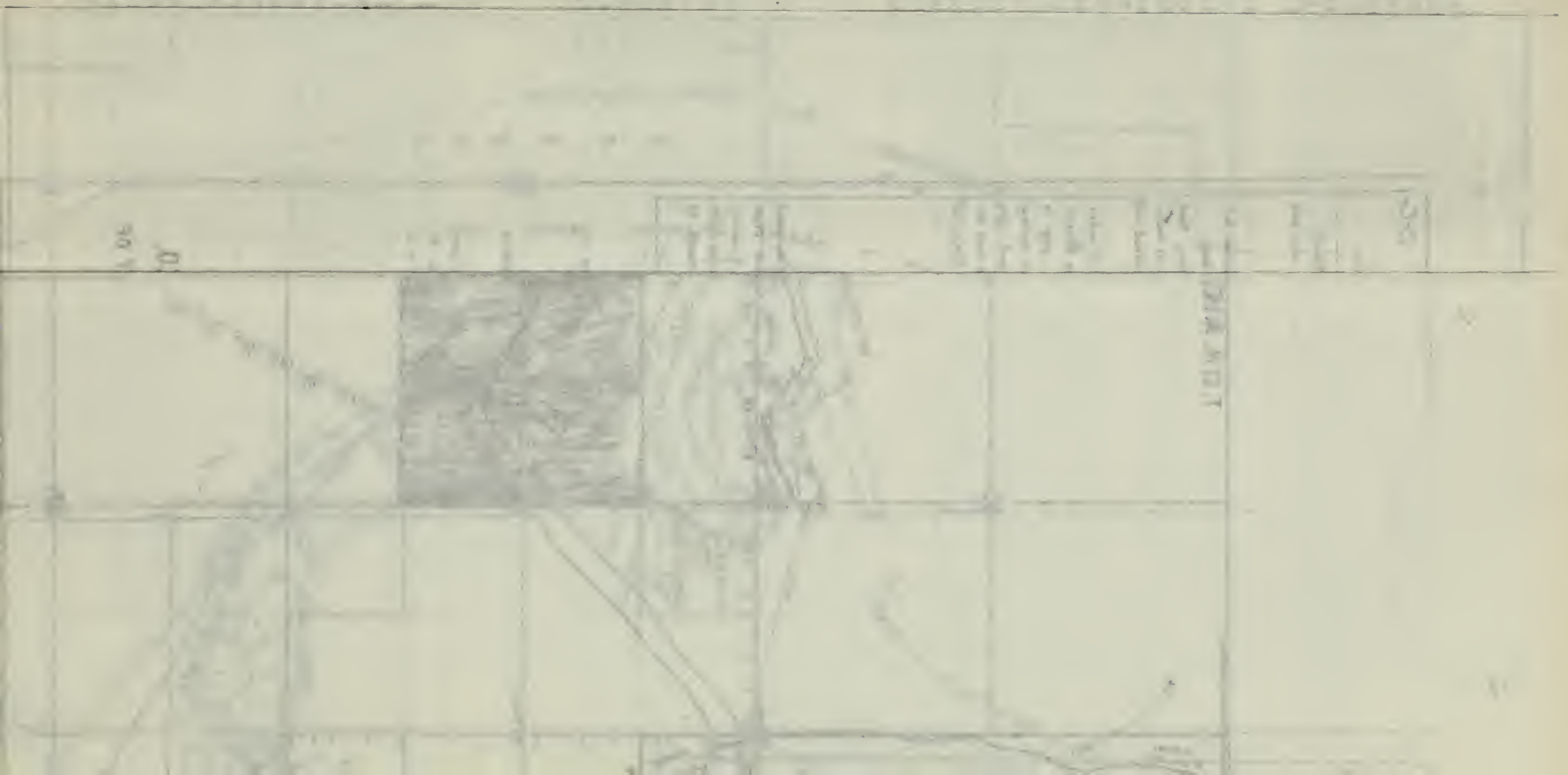
JUNE 24, 1930.

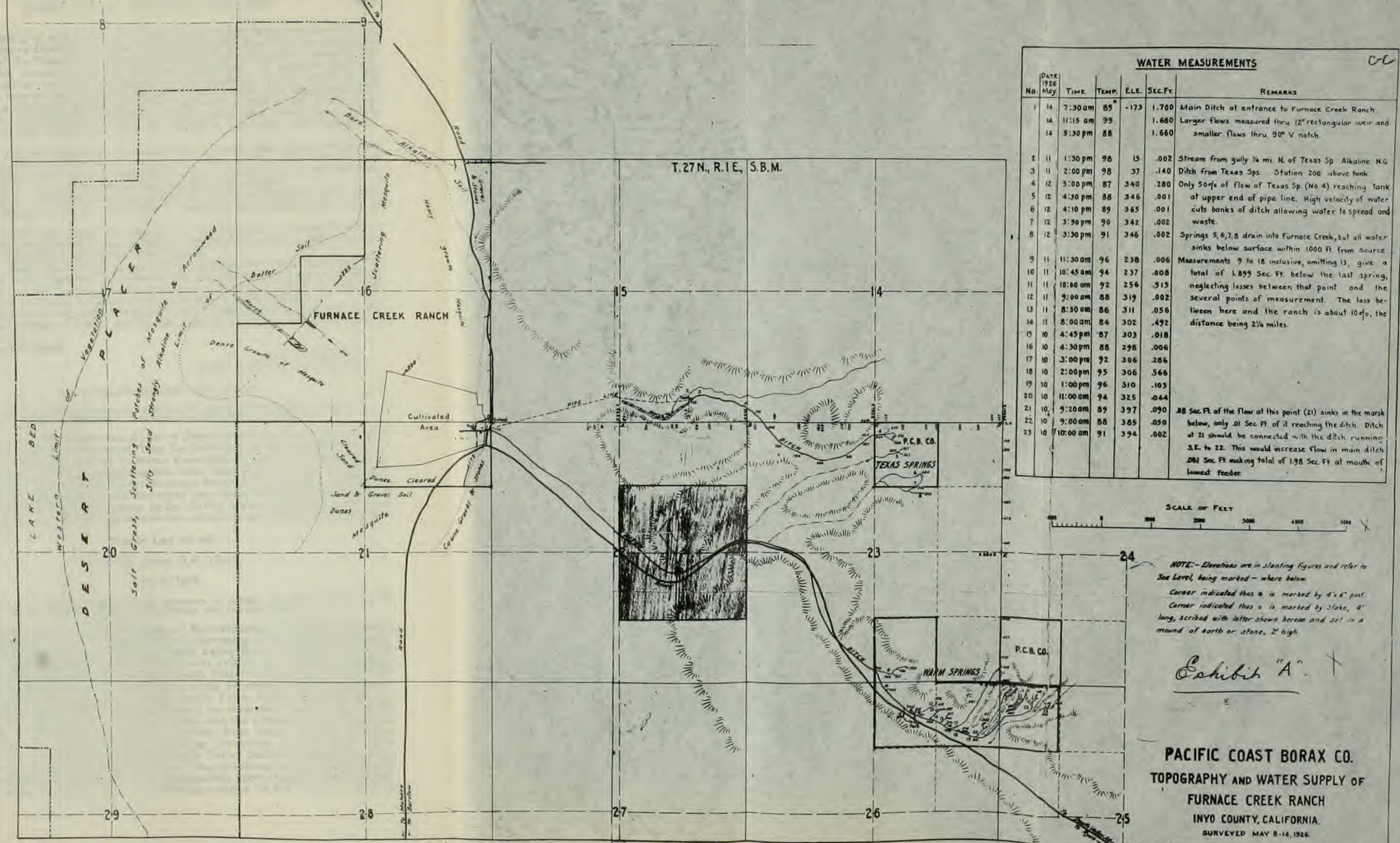
Sacramento 023752 "K" WOH
REGISTER,
Sacramento, Calif.

SIR: Reference is had to the application of Samuel W. Brown under the act of January 27, 1922 (42 Stat. 359), as amended by the act of May 21, 1926 (44 Stat. 591), for the SW¼ SE¼ section 23, NW¼ NW¼ section 25, and N½ NE¼ section 26, T. 27 N., R. 1 E., S.B.M., California.

The NW¼ NW¼ said section 25, and N½ NE¼ said section 26, were interpreted as having been included in Public Water Reserve No. 107, Executive order of April 17, 1926, by the Secretary June 5, 1930.

35-429 O - 64 (Facep. 628)





WATER MEASUREMENTS

No.	Date 1926 May	Time	Temp.	Ele.	Sec. Ft.	Remarks
1	14	7:30 am	85°	-173	1.700	Main Ditch at entrance to Furnace Creek Ranch
	14	11:15 am	99		1.680	Larger flows measured thru 12" rectangular weir and
	14	5:30 pm	88		1.660	smaller flows thru 90° V notch
2	11	1:30 pm	98	13	.002	Stream from gully ¼ mi. N. of Texas Sp. Alkaline. N.G.
3	11	2:00 pm	98	37	.140	Ditch from Texas Sps. Station 200 above tank
4	12	5:00 pm	87	340	.280	Only 50% of flow of Texas Sp. (No. 4) reaching tank
5	12	4:30 pm	88	346	.001	at upper end of pipe line. High velocity of water
6	12	4:10 pm	89	365	.001	cuts banks of ditch allowing water to spread and
7	12	3:50 pm	90	342	.002	waste.
8	12	3:30 pm	91	346	.002	Springs 5, 6, 7, 8 drain into Furnace Creek, but all water sinks below surface within 1000 ft. from source.
9	11	11:30 am	96	238	.006	Measurements 9 to 18 inclusive, omitting 13, give a
10	11	10:45 am	94	237	.808	total of 1.899 Sec. Ft. below the last spring,
11	11	10:00 am	92	256	.515	neglecting losses between that point and the
12	11	9:00 am	88	319	.002	several points of measurement. The loss be-
13	11	8:30 am	86	311	.056	tween here and the ranch is about 10%, the
14	11	8:00 am	84	302	.492	distance being 2¼ miles.
15	10	4:45 pm	87	303	.018	
16	10	4:30 pm	88	298	.006	
17	10	3:00 pm	92	306	.286	
18	10	2:00 pm	95	306	.566	
19	10	1:00 pm	96	310	.103	
20	10	11:00 am	94	325	.044	
21	10	9:20 am	89	397	.090	.08 Sec. Ft. of the flow at this point (21) sinks in the marsh
22	10	9:00 am	88	385	.050	below, only .01 Sec. Ft. of it reaching the ditch. Ditch
23	10	10:00 am	91	394	.002	at 21 should be connected with the ditch running
						S.E. to 22. This would increase flow in main ditch
						.081 Sec. Ft. making total of 1.98 Sec. Ft. at mouth of
						lowest feeder.

SCALE OF FEET

NOTE:- Elevations are in slanting figures and refer to Sea Level, being marked – where below.

Corner indicated thus ■ is marked by 4"x4" post.

Corner indicated thus ○ is marked by stake, 4' long, scribed with letter shown hereon and set in a mound of earth or stone, 2' high.

Exhibit "A".

PACIFIC COAST BORAX CO.

TOPOGRAPHY AND WATER SUPPLY OF FURNACE CREEK RANCH

INYO COUNTY, CALIFORNIA.

SURVEYED MAY 8-14, 1926.

35-429 O - 64 (Facep. 628)

The SW¼ SE¼ of said section 23 is included in Public Water Reserve No. 13, Executive order of December 1, 1913. With the application there has been filed the petition of the Pacific Coast Borax Co. to have said Executive order of December 1, 1913, vacated as to the tract last described. It appears that the present application was filed on behalf of said company. It is alleged in the petition that there are springs upon the latter tract which were appropriated in about the year 1882 and that all the water rights are owned by the Borax Consolidated, Ltd., a foreign corporation, with which the Pacific Coast Borax Co. is affiliated. It is also stated that there are springs on the other subdivisions applied for.

The matter was referred to the Geological Survey which office has now reported under date of June 17, 1930, that the source of water on the withdrawn land is clearly of the type intended to be included in a public water reserve and failed to pass favorably on the petition suggesting that the water rights—

"* * * could be recognized and adequately protected by approval of a right-of-way application for the diversion works necessary for the diversion and use of the water * * *."

It is not alleged that either the applicant or the company on behalf of which the application was filed had a vested right to the land under any public land law on the dates of the above mentioned withdrawals.

Therefore, there was nothing to prevent the withdrawals from attaching and becoming effective as against the allowance of any future applications therefor.

Accordingly, without going into the merits of the right to make an exchange, the application of Brown is hereby held for rejection in its entirety.

Advise applicant of his right of appeal to the Secretary of the Interior within 30 days from receipt of notice and in due time make report with evidence of service of notice.

Very respectfully,

D. K. Parrott,
Acting Assistant Commissioner.

Act of March 24, 1952 (66 Stat. 27)

AN ACT To authorize the acquisition by exchange of certain properties within Death Valley National Monument, California, and for other purposes.

Be it enacted by the Senate and House of Representatives of the United States of America in Congress assembled, That the Secretary of the Interior is hereby authorized to grant and convey to Borax Consolidated Limited, perpetual easements for rights-of-way, aggregating not more than twenty acres, for general utility purposes within Death Valley National Monument, California, subject to such terms and conditions as the Secretary may deem desirable, and to accept in exchange therefor the conveyance to the United States of approximately two hundred and thirty acres of land within the exterior boundaries of such National Monument.

Public Law 85–495

85th Congress, H.R. 10349

July 2, 1958

AN ACT To authorize the acquisition by exchange of certain properties within Death Valley National Monument, California, and for other purposes.

Be it enacted by the Senate and House of Representatives of the United States of America in Congress assembled, That the Secretary of the Interior is hereby authorized to grant and convey to the Death Valley Hotel Company, Ltd., or its successors, perpetual easements for rights-of-way and/or title to land aggregating not more than two hundred acres within Death Valley National Monument, California, subject to such terms and conditions as the Secretary may deem desirable, and to enter into an agreement with the Death Valley Hotel Company, Ltd., or its successors, defining, fixing and establishing the respective rights of the Death Valley Hotel Company, Ltd., or its successors, and the United States, as between themselves, to the use of the waters available from Texas Springs, Furnace Creek Wash and its tributaries, including Travertine Springs, and other waters in the vicinity thereof in said Death Valley National Monument, California, and to accept in exchange therefor the conveyance to the United States of parcels designated parcels F, G, H, aggregating approximately four hundred and forty acres, on sheet 1 of 1 of a drawing entitled "N.P.S., reg. IV, drawing

numbered NM–DV–2123, revised March 14, 1958", a copy of which drawing is on file with the Superintendent, Death Valley National Monument, California, said lands lying within the exterior boundaries of Death Valley National Monument. In order to facilitate the making of such exchange, the Secretary of the Interior may enter into an agreement with the Death Valley Hotel Company, Ltd., or its successors, pursuant to which the perpetual easements and land or any part thereof which he is hereby authorized to grant and convey to the Death Valley Hotel Company, Ltd., or its successors, will be conveyed from time to time over a period of time in parcels or portions in accordance with a schedule mutually satisfactory to the parties.

Approved July 2, 1958.

SACRAMENTO REGION,
August 13, 1958.

Memorandum.
To: Field Solicitor, San Francisco.
From: Regional Solicitor.
Subject: Water rights, Furnace Creek area, Death Valley National Monument.

As agreed when you conferred with me Thursday last in respect of the subject water rights, I have studied the matter.

For immediate consideration is the negotiation of the agreement authorized in the act of July 2, 1958 (72 Stat. 295). The directive of the act, as to water, is to enter into an agreement with the Death Valley Hotel Co., Ltd., or its successors.

"* * * defining, fixing and establishing the respective rights of the Death Valley Hotel Company, Ltd., or its successors, and the United States, *as between themselves*, to the use of the waters available from Texas Springs, Furnace Creek Wash and its tributaries, including Travertine Springs, and other waters in the vicinity thereof in said Death Valley National Monument, California, * * *." [Emphasis supplied.]

The scope of the agreement thus defined is limited to the quantitative factor of the respective rights of the hotel company and of the United States to the use of the waters from the named sources. The qualitative factor of such rights as the same might exist or ultimately be adjudicated under the laws of California as to the company is not involved presently.

The negotiation of the agreement with the company should have for its purpose the protection of the United States from any claim for damages on the theory that the use of the waters from the sources named, by the United States, is an invasion of the vested right of the company. Should it be determined at some later date by a California tribunal having jurisdiction in the premises that the company has no vested rights in the water sources, then, of course, the agreement between the company and the United States would have little effectiveness, but should it be determined otherwise, then, of course, the agreement would protect the United States against claims for damage. This contingency of a right or no right in the company under California law should be covered by an appropriate provision in the agreement.

As to whether the laws of California control the use of the waters by the United States for the purpose of the national parks other than to give the company a cause of action for damages under the Tucker Act on the theory of an implied taking of the company's property, is an open question, but it need not be injected into the negotiations under the July 2, 1958, act.

Because of your intimate acquaintance and knowledge of the relations between the company and the National Park Service, I have every confidence that you can ably assist the regional director, region IV, of the National Park Service, to conduct the negotiations directed in the memorandum of July 29, 1958, to the director, region IV, from the assistant director. Accordingly, I request you to give such assistance.

(Signed) WILLIAM J. BURKE,
Regional Solicitor.

35-429 O - 65 (Face p. 630)

DRAWN BY	ARCHITECT	REVIEWED			LANDS	
PETERSON, LT June 1951	REGIONAL OFFICE WASHINGTON OFFICE	FORESTRY	REGIONAL OFFICE WASHINGTON OFFICE	NATURAL HISTORY	REGIONAL OFFICE WASHINGTON OFFICE	REGIONAL OFFICE WASHINGTON OFFICE
CHECKED BY	LANDSCAPE ARCHITECT REGIONAL OFFICE WASHINGTON OFFICE				SAFETY	REGIONAL OFFICE WASHINGTON OFFICE

PARCEL "F" = 164 ac.±
PARCEL "G" = 246 ac.±
PARCEL "H" = 30 ac.±
Total (3 Parcels) = 440 ac.±

PARCEL "F"
164 ac.±

PARCEL "G"
246 ac.±

PARCEL "H"
30 ac.±

90 ACRE TRACT
(To be donated)
Not part of Parcel "F"

MUSEUM SITE

See Detail "A"

FURNACE CREEK RANCH

DETAIL "A"
Scale 1 Inch = 100 Feet

Approx. 1.24 ac.

N.E. Cor. 16

AP 17

Mon. 10

POB

Fire Line

NOTES

The bearing of North being the line between Mineral Monument № 34 and the stone monument m'k'd "201, 2154" as per Survey № 2854, Desert Borate Deposit Mine, by J.J. McGillivray, U.S. Deputy Mineral Surveyor, dated June 1893, was taken as the basis of bearings.

Pertinent corners of the above mentioned survey are shown thus: *
A 2"x 2" hub with tack is set at each point marked thus ⊙.
A brass capped monument is set at points marked thus ⊕.
Points marked thus ⊙ are presumed section and 1/4 section corners, but their origin is not fully known.
Boundary lines of Federal Land shown thus ———
Coordinates are assumed

BASIC DATA: FIELD BOOK DEATH VALLEY 1891
U.S.G.L.O. PLATS OF AREA

AS REVISED Mar. 14, 1958

SCALE - FEET

RECOMMENDED	DATE
RECOMMENDED	DATE
RECOMMENDED	DATE
APPROVED	DATE

UNITED STATES
DEPARTMENT OF THE INTERIOR
NATIONAL PARK SERVICE
ENGINEERING DIVISION
REGIONAL OFFICE

REGION IV
SHEET 1 OF 1
DRAWING NO. NM-DV 2123

FURNACE CREEK AIRPORT SITE
FURNACE CREEK AREA
DEATH VALLEY NATIONAL MONUMENT

DRAWN BY: PETERSON/LY
CHECKED BY:

REVIEWED

ARCHITECT	REGIONAL OFFICE WASHINGTON OFFICE	LANDS	REGIONAL OFFICE WASHINGTON OFFICE
LANDSCAPE ARCHITECT	REGIONAL OFFICE WASHINGTON OFFICE	FORESTRY	REGIONAL OFFICE WASHINGTON OFFICE
ENGINEER	REGIONAL OFFICE WASHINGTON OFFICE	HISTORY	REGIONAL OFFICE WASHINGTON OFFICE
		NATURAL HISTORY	REGIONAL OFFICE WASHINGTON OFFICE
		CONCESSIONS	REGIONAL OFFICE WASHINGTON OFFICE
		SAFETY	REGIONAL OFFICE WASHINGTON OFFICE
		U.S. PUBLIC HEALTH SERVICE	

[Address only the Commissioner of the General Land Office]

U.S. DEPARTMENT OF THE INTERIOR,
GENERAL LAND OFFICE,
Washington, February 7, 1928.

Re Springs on public water reserves not subject to appropriation after establishment of the reserve.

The Honorable, the SECRETARY OF THE INTERIOR.

MY DEAR MR. SECRETARY. November 29, 1927, there was received in this office a letter, dated November 26, 1927, from Mr. J. Arthur Moore, Division Inspector, Salt Lake City, Utah, transmitting a report by Inspector Safley, relative to certain protests filed with him against the action of the State Engineer of Utah, in granting water permits covering or involving springs upon certain lands (unsurveyed) in that State, withdrawn as public watering places by Executive order of April 17, 1926.

It appears from the report of the Inspector that the involved springs consist of water flowing out of the ground by natural forces; are wholly within the reserved areas; are tributary to no stream; are valuable as stock water supply, and were not appropriated prior to April 17, 1926, the date of the Executive Order aforesaid.

The said springs are needed or used by the public and come clearly within that part of the instructions of May 25, 1926 (51 L. D. 457), wherein it is stated that the "above order was designed to preserve for *general public use and benefit* unreserved public lands containing water holes or other bodies of water needed or used by the public for watering purposes."

The Executive order is general in its terms, i.e., does not contain a specific description of the land withdrawn. This does not detract from its validity. The order is effective in all instances whenever it appears that the land involved was public land at the date of the order, "contains water holes or other bodies of water needed or used by the public for watering purposes," and which water had not been appropriated and pursuant to the appropriation put to a beneficial use at the date of the Executive order.

No easement application, pursuant to the regulations of August 27, 1925 (51 L. D. 186), has been filed.

Subsequent to the date of the Executive order application was made to the State Engineer of the State of Utah to appropriate the waters of said springs for stock watering purposes, which applications were approved. The State officials and the permittees aforesaid appear to be proceeding upon the theory that said springs and the waters thereof are public waters of the State, and that said permits carry with them such rights of ingress and egress as are necessary to their proper enjoyment. The thought seems to be that permittees, in putting the waters of the springs to beneficial use thereby acquire the right exclusively to use the same, such right to continue as long as the waters are put to beneficial use and such use is not abandoned.

The issue is not new. It was present in the case of *State of Utah* (45 L.D. 51). That case involved a tract of land embraced in a school indemnity list filed July 16, 1909, which tract was embraced in a public water reserve by Executive order of March 29, 1912, under the act of June 25, 1910. The selection was rejected on the theory then prevailing in the Department and before the Supreme Court rendered its decision in the "Ridgely" case, *Wyoming, et al.*, v. *United States* (255 U.S. 489). The decision of the Department carries in full the report made to the Department by the Geological Survey. On the part of the Geological Survey it is contended that the right of ingress and egress over the reserved lands to the spring waters thereon is a matter of Federal control. The Supreme Court has so decided. See case of *United States* v. *Utah Power and Light Co.*, (243 U.S. 389). But, of the withdrawal order, establishing the water reserve, the Geological Survey, in its aforesaid report, said:

"There is, in the withdrawal of these lands nothing which prevents any person filing such an appropriation under the laws of Utah at any time."

The authority of the Government to withdraw or reserve the public domain, even though there be no specific statute in the premises, was set at rest by the Supreme Court in the case of *United States* v. *Midwest Oil Co.* (236 U.S. 459). The public land, reserved by the Government, and containing therein and thereon an unappropriated spring of the type contemplated by the order of April 17, 1926, would seem to be entitled to as much protection as lands in private ownership containing an unappropriated spring. Concerning privately owned lands

having an unappropriated spring, Kinney on Irrigation and Water Rights states the rules as follows (Section 648);

"The waters from *springs* arising upon lands, *after they have been segregated from the public domain*, and the title thereto has passed into private ownership, cannot be appropriated by a person other than the owner of the land."

Among other cases, *Willow Creek Irrigation Co.* v. *Michaelson* (21 Utah 248) and *Gill* v. *Malan* (29 Utah 431), are cited. Later decisions of the Supreme Court of the State of Utah are to the same effect. For a list of such cases, reference is made to the Supreme Court decision in the case of *Snake Creek Co.* v. *Midway Co.* (260 U.S. 596, 606). The rule announced by Kinney and quoted above met with the approval of the Supreme Court in the case last cited.

It is provided by section 2339 U.S. Revised Statutes, that:

"Whenever, by priority of possession, rights to the use of water for mining, agricultural, manufacturing, or other purposes, have vested and accrued, and the same are recognized and acknowledged by the local customs, laws, and the decisions of courts, the possessors and owners of such vested rights shall be maintained and protected in the same; and the right of way for the construction of ditches and canals for the purposes herein specified is acknowledged and confirmed; but whenever any person, in the construction of any ditch or canal, injures or damages the possession of any settler on the public domain, the party committing such injury or damage shall be liable to the party injured for such injury or damage."

Under section 2340 U.S. Revised Statutes:

"All patents granted, or preemption or homesteads allowed, shall be subject to any vested and accrued water-rights, or rights to ditches and reservoirs used in connection with such water rights, as may have been acquired under or recognized by the preceding section."

Discussing these last mentioned provisions of statute law in the case of *Bear Lake Irrigation Co.* v. *Garland* (164 U.S. 1, 18, 19), on appeal from the Supreme Court of the Territory of Utah, the Supreme Court said:

"So far as the public land is concerned, over or through which these ditches for the canal were dug, the statutes above cited create no title, legal or equitable, in the individual or company that simply takes possession of the land. The Government enacts that any one may go upon its public lands for the purpose of procuring water, digging ditches or canals, etc., and when rights have become vested and accrued which are recognized and acknowledged by the local customs, laws and decisions of courts, such rights are acknowledged and confirmed. Under this statute no right or title to the land, or to a right of way over or through it, *or to the use of water from a well thereafter to be dug, vests, as against the Government, in the party entering upon possession from the mere fact of such possession unaccompanied by the performance of any labor thereon.*

* * * * * * *

"Until the completion of this work, or, in other words, until the performance of the condition upon which the right to forever maintain possession is based, the person taking possession has no title, legal or equitable, as against the Government."

"This clearly claims that the title to the water is in the Government". *Kinney*, section 639, page 1121.

In the case of *United States* v. *Rio Grande Dam and Irrigation Company* (174 U.S. 690), the Supreme Court said, syllabus:

"The unquestioned rule of the common law was that every riparian owner was entitled to the continued natural flow of the *stream;* but every State has the power, within its dominion, to change this rule; and permit the appropriation of the *flowing waters* for such purposes as it deems wise. * * *

"By acts of Congress referred to in the opinion, Congress recognized and assented to the appropriation of water in contravention of the common law rules; *but it is not to be inferred that Congress thereby meant to confer on any State the right to appropriate all the waters of the tributary streams which unite into a navigable water course, and so destroy the navigability of that water course in derogation of the interests of all the people of the United States.*"

The rule of law that the waters from *springs* arising upon lands after they have been segregated from the public domain and the title thereto has passed into private ownership cannot be appropriated by a person other than the owner of the land is analogous to the rule with reference to the use of waters from streams in a reservation for the benefit of Indians. See in this connection *Winters* v. *United States* (207 U.S. 564), wherein the court said:

"The power of the Government to reserve the waters and exempt them from appropriation under the State laws is not denied and could not be."

See also *United States* v. *Parkins* (18 Fed. 2nd. 642), wherein it is stated, syllabus:

"Where the United States has not specifically granted to a State any right in the waters of streams within an Indian reservation, created by treaty before the State was admitted, it has the exclusive right to use such waters for the benefit of the Indians of the reservation."

Congress has authorized the President to reserve as part of the property of the United States springs on lands owned by it where such springs have not theretofore been appropriated, has authorized the Secretary to make regulations with reference to the use of such reserved springs by the general public and has empowered the Secretary to protect the same for use by the public generally. Expressed power to make such withdrawals is found in the act of August 21, 1916 (39 Stat. 518), and in section 10 of the act of December 29, 1916 (39 Stat. 862), the pertinent part of which reads:

"That lands containing water holes or other bodies of water needed or used by the public for watering purposes shall not be designated under this Act but may be reserved under the provisions of the Act of June twenty-fifth, nineteen hundred and ten, and such lands heretofore or hereafter reserved shall, while so reserved, be kept and held open to the public use for such purposes under such general rules and regulations as the Secretary of the Interior may describe."

August 27, 1925, a circular was promulgated (see 51 I.D. 186), relative to the use of lands withdrawn as public water reserves. The circular refers to the reserved springs as "the waters of the State" and requires one seeking a permit to use such waters to obtain a certificate of appropriation from the proper State authority. It is, however, very clear by its provisions that there was no intent to grant an exclusive right to the use of such waters to the possessor of such certificate, for among the conditions prescribed in the form of the permit therein set forth, the permittee stipulates that the system "has been kept in repair and water sufficient for public need has been kept therein", etc., and "that the same has been kept open to the public at all times," etc. In law, however, such springs are the waters of the United States, and are not the "waters of the State". In legal effect said circular of August 27, 1925, simply makes the water rights laws of the State in the matter of the use of reserved springs, the property of the United States, a part of the regulations of the Secretary of the Interior in the matter of the administration, on his part, of the reserved springs and reserved land surrounding the same. The declarations in said circular are not admissions that the property of the United States is likewise the property of the State. The situation in this respect is very much like that in *United States* v. *Parkins*, wherein the court said:

"It is not apparent that the waters in the streams within the Indian reservation were ever specifically granted by the United States to the State of Wyoming, *although it is apparently the fact that the Indian service, in promulgating its irrigation project and the officials of the State of Wyoming for the purpose of protecting all landowners who may acquire water rights, have cooperated along the line of taking out water for irrigation purposes with the consent of the State.* It must be assumed, however, in the absence of any specific grant, that the Government has reserved whatever rights may be necessary for the beneficial use of the Government in carrying out its previous treaty rights; those rights having become fixed and established before the act of admission which made Wyoming a sovereign State. The treaty in this case, like all other treaties with the Indians creating reservations, contemplates the use and benefit of the lands within the reservation to its wards, the Indians, which likewise includes the irrigation of those lands, they being arid in character. * * * So far as the issues here are concerned, it would appear that the Government, in the establishment of its irrigation project, had a right to the use of the present waters in Mill Creek for its Indian wards."

The effect of the foregoing in the said Parkins case is that the United States has the right to use the waters therein mentioned, for the Indians, without the consent of the State, although in fact the State did consent.

In the case of springs owned by the Government on land owned and reserved by it, the issuance by the State officials of a permit to appropriate the waters of the springs subsequent to the reservation of the springs and the Government-owned land on which the springs are situated, does not have the legal effect of admitting that the State Engineer was within his rights in issuing the permit

for the waters of the springs, but constitutes, at the most a mere cooperative act on the part of the State officials whilst the lands and the springs thereon are reserved. The mere fact that, under the circumstances, a permit to appropriate the waters of the springs within the reservation and subsequent to the establishment of the reservation does not condition the power of the Government to administer the springs and the surrounding reserved and unreserved public domain to the use and benefit of the public generally.

Schmutz Bros. filed on "Bumble Bee" spring July 27, 1926. "Quaking Asp" spring July 30, 1926, and "Maple Spring" on August 24, 1926, it being required by the State Engineer that the said several appropriations shall be fully completed by December 10, 1927, November 20, 1927, and November 20, 1927, respectively.

According to the report of a field inspector of this Department, copy of which accompanies this resport, Schmutz Brothers, whose filings under the State law have been duly approved, have pursuant to the pretended rights granted under such filings, performed certain work to conserve and appropriate to their own use the waters of the Bumble Bee and Quaking Asp springs and have laid down planking presumably in contemplation of the construction of a system of appropriation of the waters of the Maple Spring. While, so far as it appears, there was not at the time of examination by the inspector, any attempt made to exclude the general public from the use of said waters, it will be observed from the recital in said report, that Albert P. Mathis, and Henry A. Price filed a protest with the State engineer for the State of Utah, setting forth the prior Federal withdrawal, and that an appeal was taken by them to the District Court of Iron County, Utah, from the dismissal of their protest, in which action Schmutz Brothers and the State engineer were made defendants and which action is still pending and undetermined; that the State engineer for answer to the bill of complaint, admitted knowledge of the said withdrawal of April 17, 1926, and further alleged in regard thereto as follows:

"That this defendant, as State Engineer, asserts now and declares that he has not in the past nor does he intend to in the future pay any attention to such Executive orders of the President of the United States, insofar as the same may tend to affect the waters and water rights in the State of Utah, for the reason that he assumes and takes the position that all public waters in the State of Utah are property of the State and subject to appropriation under and by virtue of the laws of the State, and not in any manner subject to any control whatever of the Federal Government. Other than this, this defendant has no interest whatever, as above stated, in the issues involved in said action and therefore hereby disclaims any interest."

The Department believes that the answer of the State engineer, the duly constituted officer having authority to determine rights to waters under appropriations made under the State law, constitutes a declaration of exclusive right, title and possession of and to such waters in the State of Utah, open, hostile, and adverse to the right, title and possession of the United States, and is conclusive evidence that the approval of the filings made by Schmutz Brothers were not made in order that the applicants for the same might satisfy the conditions for a grant of a water permit under the departmental regulations, *supra*, but in defiance and disregard thereof, and to confer upon the applicant the exclusive right to the use of such waters: that the acts of the State engineer, in approving such applications, and the acts of the applicant pursuant to such pretended authority in exercising acts of possession and control over said waters, constitutes a threatened and impending injury to the property of the United States, and to the rights of the public who have been accustomed to the use of such waters, and operates also to obstruct this Department from exercising its powers and discharging its duties conferred and imposed by the acts of Congress aforesaid.

It is, therefore, believed that the Government has a right of action to quiet title in it to said lands and the waters thereof against the State of Utah and those claiming rights to said waters under the authority of any law of the State or regulation thereunder; that the Government may also ask for a preventive injunction restraining any person who undertakes or threatens to undertake under any permission, license or grant from the State, to enter upon said lands and exercise the exclusive right to the use of such waters without the permission of the United States.

Accordingly permission is requested to recommend to the Department, that it call upon the Attorney General to instruct the local United States attorney to intervene in the pending action and suggest a Federal question and have the

same transferred to the appropriate Federal tribunal, or if this measure is not deemed advisable to institute such other proceedings in the courts in the premises as the Department of Justice may deem proper.

Very respectfully,

THOS. C. HAVELL,
Acting Commissioner.

Approved February 7, 1928:

(Signed) E. C. FINNEY,
First Assistant Secretary.

DEPARTMENT OF THE INTERIOR,
NATIONAL PARK SERVICE,
Death Valley National Monument, Calif., October 9, 1940.

Copies made for Manbey, Crowley & Davidson. BFM 10–22–40.
Memorandum for the Director.

Reference is made to Washington memorandum to Associate Attorney Johnson dated September 30, 1940, and the reply by air mail dated October 4, 1940, enclosing copy of a report by Hydraulic Engineer Dunn.

We are somewhat surprised at the apparent lack of information in the Washington Office on this subject as it was a matter which former Regional Director Kittredge considered of prime importance, and investigations were made at Mr. Kittredge's suggestion by Regional Geologist Volney Lewis, Park Naturalist Curry, and by Mr. Earl Traeger and Regional Attorney Taylor, and immediate action was recommended to preserve future needed water supplies vital to Death Valley National Monument.

Plans were prepared by Transitman Grunigen, who accompanied the technicians on their investigation, and from these plans Hydraulic Engineer Dunn prepared the water applications.

I can see no reason for any thought on the part of the Pacific Coast Borax Co. that their interests are jeopardized; in fact, the reverse is the case: It is the future interests of Death Valley National Monument that are at stake, as it is obvious that their present use will be protected, and it is their action which has imperiled our supply, in fact, actually cut it off from the Texas spring area.

In order that all facts may be before the Director, a short history of the situation is given.

In the fall of 1933, when the Service originally occupied Death Valley National Monument, the Pacific Coast Borax Co. was maintaining a public campground on the same site now occupied by our Texas Springs Public Camp.

An old iron tank served as a reservoir, and possibly 5 gallons per minute from a spring nearby was piped to this tank and from there to the former Indian settlement north of Furnace Creek Ranch.

The entire setup was turned over to the Service and was so unsatisfactory as campers increased that immediate steps had to be taken to improve the conditions. About one-half mile east of the campground a travertine hill furnished water from the fault line on both sides of the hill. On the north side were numerous undeveloped seeps, including the small spring already furnishing drinking water for Furnace Creek Inn by an open ditch.

Our investigations on our own side of the hill led to development of 35 gallons per minute, which was piped to a newly constructed 20,000 gallon reservoir, from which it was distributed.

During our development work, Mr. Harry P. Gower, general superintendent of the Pacific Coast Borax Co., visited the work and expressed concern that our operations might affect their own supply on the opposite side of the hill.

As we had considerably more water in sight than was then needed, we suspended further work, and the writer suggested to Mr. Gower testing out Furnace Creek Wash itself for a possible permanent flow of such proportions as to make the use of these small springs unnecessary.

In the summer of 1935, Mr. Gower put down a test well on monument lands in Furnace Creek Wash, about three-quarters of a mile southeast of Furnace Creek Inn. A splendid flow of water was encountered as the writer had predicted.

The following winter, presumably on advice of counsel, this well was abandoned and a new hole sunk on their own property directly in the rear of Furnace Creek Inn. Water was again found at about 18 feet. The well was cased and later a tunnel drilled through the cliff on which the inn is located and a pipeline run through this tunnel to connect with the irrigation canal to Furnace Creek Ranch.

The water was siphoned from the well and flowed by gravity. We have never known the exact amount of flow, as apparently the borax company considers it a private well rather than an underground water channel and have not, to our knowledge, made a filing to protect the amount which they use to irrigate the Furnace Creek Ranch.

Frequent observations by the writer have not revealed any lowering of the water table, so it is apparent that the underground flow is considerably more than they had put to use.

In the intervening years use of Texas Springs Campground has grown so fast that two comfort stations have been built, a second unit added, and a third is proposed and needed. A large amount of mesquite restoration has been carried on, both by reviving existing trees and planting nursery stock.

Three years ago the Indian village of 10 houses, a laundry, and a trading post were added to the drain on our Texas Springs supply, and later a district ranger residence. There is now proposed a saddle-horse corral also.

For some time past the regional director has been greatly concerned over failure of the Pacific Coast Borax Co., to provide housing and meals for persons in the low- to medium-income brackets. While it has been the feeling of the writer that they will finally provide these accommodations rather than see an independent concession granted for this purpose, it seemed advisable to the regional director and the superintendent to provide for such a contingency before all available water supplies had been appropriated.

Furthermore, the proposed museum and auditorium site was studied and will undoubtedly have to be located on this same water supply due to lack of sufficient water at Cow Creek or other points.

The entire matter was brought sharply to a head when the Pacific Coast Borax Co., drilled a tunnel into the Texas Spring hill and diverted the entire flow into their own mains, cutting our campground supply from 35 gallons to 4 gallons per minute in May of this year.

As our main was practically dry, I notified Superintendent Gower, who offered to supply us with water. Not wishing to in any way prejudice our rights, I accepted sufficient water for our ranger residence and the Indian village and referred the matter to the regional attorney for advice. During the summer with scarcely any irrigation we have lost much of the planting in the campground as well as at the Indian village.

Our filing is of no value unless funds are provided for the diversion and pipeline, estimated at approximately $10,000 if CCC labor is used. The plans went to the regional office and were passed by Engineer Hohl, but as no funds are at present available no CCC job application was made.

The project was also placed high up in priority on our 6-year construction program. The matter is an extremely important one, second only in importance to purchase of the Nevares water. If we delay too long, undoubtedly good businessmen like the executives of the Pacific Coast Borax Co. will apply and be granted increased supplies until we will be placed in the unenviable position of having to purchase back our own water from them.

Water is absolutely vital to our growth and existence here. Even if we condemn and secure all the Nevares supply, it will barely suffice to operate our residential and utility areas, and we are forced to turn to another source for campground, museum, or public utility expansion.

It is urgently recommended that steps be taken, not only to secure the water, but to procure the materials for the pipeline to validate the filing.

I might further state that the Director inspected both this and the Nevares problems on October 7, and is acquainted with the general situation.

T. R. Goodwin, *Superintendent.*

Department of the Interior,
National Park Service,
Region Four,
San Francisco, Calif., February 27, 1941.

Memorandum for Associate Attorney Albert L. Johnson:

I offer the following memorandum record of my interview with Attorney Ashburn and Superintendent Gower of the Pacific Coast Borax Co. from 1 to 3 p.m. February 26, 1941. Although you and Superintendent Goodwin were present for the first hour, I am addressing you as if not there in order to record the data.

Our instructions have been to be frank with the borax company representatives and provide them with copies of all correspondence. I was frank in the conference and am going to be equally frank in this memorandum.

After our preliminary amenities, I seemed to become the sole spokesman for the Park Service, although the discussion was largely a series of engineering and operating questions by me, counter legal questions by Mr. Ashburn, and my answers to his questions. Your silence suggested concurrence of any legal answers I gave, so I feel that you should offer any corrections you see fit before allowing this to follow the normal courses of the previous correspondence. I was also called upon for some answers which I considered to involve policy, and, although I tried to prevent any suggestion of finality, I believe transmittal of this review should include concurrence or correction by the Director or regional director.

I did obtain considerable valuable information, but I do not feel that I have enough to recommend the start of any final negotiations over the disposition of the waters of Furnace Creek Wash and Texas Springs. Further, we were talking with widely differing fundamental concepts which prevented any final accord. As a matter of fact, I believe Mr. Gower understood my discussion but Mr. Ashburn, really or technically, did not. As a result, every statement of mine which conflicted with the letter's expressed conceptions seemed to be unbelievable to him. The differing concepts appear to be as follows:

1. Mr. Ashburn seems to feel that riparian rights include the right to divert water on one parcel of land riparian to the stream, convey it across intervening alien land and use it on another parcel of his land which is also riparian to the stream. I feel that he has the riparian right to use the water on each of the parcels, but does not have the riparian right to convey it across the alien land—riparian land of another—without permitting the other landowner to use it before it reaches the second parcel. In other words, I consider an appropriative filing necessary to convey water from one riparian parcel to another across another's equally riparian land.

2. Mr. Ashburn feels that by diverting some water from a spring or stream before 1914 the borax company has vested rights to all the waters of that source, regardless of the extent to which they were actually beneficially used in 1914 or are beneficially used now. I feel that the borax company has vested rights to only such waters as it actually applied to beneficial use in 1914 (or 1923 by one interpretation of the code) except insofar as the increased beneficial use since 1914 has been entirely in accordance with the riparian doctrine or under later permits from the State engineer for such increased use.

3. Mr. Ashburn feels that there is not enough water in Furnace Creek and Texas Springs for the ultimate needs of the borax company. I feel that there is more than enough for the beneficial needs of both that company and the National Park Service.

4. Mr. Ashburn feels that the natural sequence to our present applications to appropriate water will be a suit or adjudication with considerable expense. I feel that the perfection of rights will terminate with the issuing of a State license with no adjudication or suit. Of course either conception can be made to apply by deliberate, but probably needless, forcing of a suit by either the borax company or National Park Service.

5. Mr. Ashburn feels that the proposed negotiations should be, or will be, over arrangements to develop more potential water at existing sources rather than to divide the existing supply for the best mutual interest as I anticipated.

It is clear, if I have expressed Mr. Ashburn's ideas correctly, that my desire for physical data has been premature. If any agreement is to be reached between the National Park Service and the Pacific Coast Borax Co., the first requirement is common legal interpretation of the water code and the relative rights of each. If you and the Chief Counsel agree with my conception of points 1, 2, and 4, and cannot reach an agreement with Mr. Ashburn, I suggest that the matter might be settled most easily by a joint conference with Mr. Conkling or the attorney for his office.

After each of my engineering questions on Wednesday, Mr. Ashburn replied with approximately the following:

"Are you people going to help us get more water or try to cut our rights to existing diversions? If it is a matter of cut, we will fight and we will not give the information you want."

These statements are natural as long as he has ideas approximately as I have given them. Unfortunately, neither procedure is correct, and I tried to explain that what we want is merely the right to perfect our claims to not more than

1.5 second-feet or water to the point of State license. I stated that since we felt there was water enough for both, we would be satisfied if they merely withdrew their request for time to protect our filings—we would not even care how much of the rest they believed they owned, or now much of it they used under their present interpretation of the water code.

Mr. Ashburn, of course, feels that our license would be meaningless since there is no unappropriated water as long as he believes they have rights to the full flow. I told him that while I was not speaking for the Director and you, I felt that the Park Service would be satisfied with such a license. I think the whole issue might be closed if the Director were to signify concurrence.

My suggestion brought out the point that ultimate determination of Park Service policy was in the hands of the Director, through the regional director or monument superintendent if he wished to delegate it, while I was doing most of the present negotiating. Mr. Ashburn asked with whom they really should deal. I have not, but might, counter with the same question from the opposite side. The procedure has been quite odd if the following notes are correct:

1. The National Park Service filed applications with the State engineer to appropriate water, and posted required notices at proposed point of diversion.

2. The Pacific Coast Borax Co., instead of consulting the Park Service, referred the matter to Mr. Albright of the United States Potash Co., who made the contact with the Director.

3. The Pacific Coast Borax Co. obtained time to file a protest of the National Park Service applications.

4. The Director requested the facts in the case, which were compiled by the regional staff, monument superintendent, and water rights section. My "Water Use Study in Furnance Creek Area at Death Valley National Monument," revised January 15, 1941, constitutes the composite facts obtained by the Park Service, although individual Park Service officials may take minor exceptions to certain statements. It definitely lacks a presentation of the ideas of the Pacific Coast Borax Co. which are essential to final negotiations.

5. The Director and Mr. Albright agreed to arrange an agreement for the future disposition of the sources of water.

6. The Director instructed his personnel to send copies of all data and correspondence to the Pacific Coast Borax Co., to broaden the scope of data by adding borax company ideas, and to be frank.

7. The regional director and the Water Rights Section requested a conference with Mr. Jenifer and Superintendent Gower to obtain the information.

8. A conference was held between Mr. Jenifer, Attorney Ashburn, Acting Regional Director Maier, you, and me. (Mr. Jenifer advised that Mr. Gower was not available, and that only law and not factual data was needed.)

9. Regional Director White conferred with the Director with the available data.

10. Mr. Jenifer went East to confer with Mr. Albright, and possibly the Director, also with incomplete data.

11. By arrangement with Mr. Jenifer, another conference to obtain factual data was held between Mr. Ashburn, Mr. Gower, Superintendent Goodwin, you. and me. (Some valuable factual data was obtained, but it was limited by:

(*a*) Lack of records.

(*b*) Legal objection to a frank exchange of engineering views by Mr. Gower and me.)

As I told Mr. Ashburn in your presence, we have laid down our hand and asked for theirs, but in 2 months have scarcely seen their "two spot." Further, any two people make a quorum except the engineers and agricultural authorities who might be able to evaluate present and future needs in a common language.

As an example of the present difficulty over a common language, Mr. Ashburn expressed his pleasure over the suggested allocation of the waters of Furnace Creek to the Pacific Coast Borax Co., and those of the Texas Springs, including tunnel, to the Park Service. I pointed out that the Texas Springs with a flow of 0.38 second-foot (Mr. Gower claims 0.6 second-foot were far inadequate for our potential needs of 1.5 second-feet. Mr. Ashburn suggested that by extending the tunnel we could probably get the extra required amount—or we might later have some of their Furnace Creek water. I assured him that just as he did not wish to spend large sums of money for survey and test data, and we mutually wished no expensive lawsuit, the Park Service also could not invest large sums in an experimental tunnel extension which had only remote possibilities of producing the required 2 or 2.5 times as much water. The whole discussion was a confusion of physical water, and water rights; and clearly an attempt to satisfy our present needs while the company strengthens its claims

to all possible water for future needs. Once that company has the right to all water, it will be glad to lend, or sell on unknown terms, to the United States when the latter is in a position to pay dearly or die of drought.

Mr. Ashburn asked for an explanation of our latest filings for irrigation and for the waters of Texas Springs. I assured him that the four applications still constitute a request to divert only 1.5 second-feet or as much thereof (perhaps only 1.2 second-feet) as we can beneficially use. The latest application is only to clarify use and simplify proof of the use of said 1.5 second-feet. Mr. Gower asked why we claimed 0.078 second-foot (35 gallons per minute) from Texas Springs when the National Park Service diversions had never exceeded 25 gallons per minute. I explained that there was a 35 gallons per minute flow at the tunnel which the borax company had agreed to allot to the Park Service according to information from Superintendent Goodwin. Mr. Gower advised that the quantity was correct, but that the agreement was purely verbal between himself and Mr. Goodwin.

Mr. Ashburn asked if we would not be satisfied with the Texas Springs if they produced an adequate supply. We agreed that less pipe would be needed, and the supply would be less subject to pollution, but I stressed the uncertainty as to adequacy and the fact that Furnace Creek seemed to be the only alternate source of supply.

As a supplement I attach the physical data obtained at the conference, together with the additional requirements not available at that time. The point is, however, that we are not ready for a cooperative physical analysis until both parties agree on legal concepts. This is a matter for attorneys, not an engineer, but it may require a State representative (I hope not a court) to arbitrate. If the solution is as I anticipate, the borax company will withdraw its plans to protest the Federal filings, will initiate and perfect similar findings of its own, and both will be granted without more than records of actual use. The Park Service would not need the additional data at all for that procedure.

At the same time, the borax company has certain vested nonriparian rights, and that company and the Park Service both have certain riparian rights. Since none of these come under the present appropriative doctrine and water code, it would be to the mutual interest if each claimant would define them, perhaps by mutually approved county recording.

(Signed) A. VAN V. DUNN,
Hydraulic Engineer.

Cc: Director, with attachment.
Regional director, region IV, with attachment (2).
Superintendent, Death Valley National Monument with attachment.
Regional Attorney Taylor, with attachment.

MAY 17, 1951.

Memorandum.
To: Director.
From: Assistant Regional Director Hill
Subject: Acquisition of land needed by United States for airport site, Death Valley National Monument

Messrs. Peterson and Westley have completed their survey of the land mutually recommended for the above mentioned new airport site. The final selection was made jointly by representatives of the California Aeronautics Commission, the CAA, the Pacific Coast Borax Co., Superintendent Goodwin, and regional office personnel. A report will be transmitted shortly. While a portion of the selected site is on Federal land, the greater part will be on land presently owned by the Pacific Coast Borax Co.

Our representatives were told by officials of the Pacific Coast Borax Co. that that company no longer is contemplating donating their land to the United States for the site. The reason, it was said, is that Mr. Albright discussed the matter with our Washington office at which time an understanding was reached that legislation would be introduced in this session permitting an exchange of lands under which the Pacific Coast Borax Co. would get title to land for their several utility lines. This legislation is, we believe, to be by the addition of a rider to some bill now near the passing stage. We assume that this is the

presently proposed plan of handling the situation. Please inform us if our assumption is correct.

(Signed) SANFORD HILL,
Assistant Regional Director.

Copy to: Superintendent, Death Valley.
Regional director, field.

GRANT OF EASEMENTS

Pursuant to Act of Congress approved March 24, 1952 (66 Stat. 27), and in consideration of the concurrent conveyance by Borax Consolidated, Limited, an English corporation incorporated under the Companies Acts, 1862 to 1898, hereinafter called Grantee, to the United States of America, hereinafter called United States, of approximately 241 acres of land within the exterior boundaries of Death Valley National Monument in the State of California, the United States does hereby grant to Grantee certain perpetual easements for rights-of-way hereinafter referred to and designated, respectively, Easement A, and Alternative Easement X, and Easements B, C, D, E, F, and S. aggregating no more than twenty acres, in so far as the land, on which the easements herein described lie belongs to the United States. Said easements are granted for purposes of construction, reconstruction, maintenance, operation, inspection, repair, and replacement of water pipelines, ditches, flumes, tunnels, canals, telephone, telegraph, electric and power transmission lines, sewer lines, and oil and gas pipelines, located or to be located within said right-of-way easements between separate parcels of the Grantee's lands, and between such parcels of land and certain sources of water supply, together with the right to lay, relay, construct, maintain, and operate all fixtures, devices, and other appurtenances, used, or useful in the construction, maintenance, and operation of the same, including lines for radio, television, and other forms of communications transmission, at any and all points within, through, over, under, and across said right-of-way easements in Township 27 North, Range 1 East, S.B.B. & M., in the County of Inyo, State of California, within the boundaries of Death Valley National Monument.

Description of said easements for rights-of-way is shown upon a map or drawing entitled "NM–DV–6967, Airport and Adjacent Interests of Borax Consolidated, Limited, Death Valley National Monument," consisting of two sheets, recorded on March 30, 1954, by the United States in the Office of the Recorder of Deeds of said County of Inyo, in Book 5 of Surveyors Maps, pages 35 and 36, a copy of which is also on file with the Superintendent, Death Valley National Monument, said recorded map being of the pertinent part of Death Valley National Monument, and is hereby incorporated in this deed by reference and made a part hereof. Courses, distances, and ties shall be as delineated on said drawing, unless at variance with the express wording of this deed, in which case the wording hereof shall govern.

As part of the consideration hereof, the Grantee covenants for itself, its successors and assigns, to use the easements for rights-of-way hereby conveyed in such manner that the natural condition of the terrain shall be as little disturbed as possible, and to restore the natural surface, including landscaping, following completion and refilling of an excavation or opening of the surface for work herein authorized.

It is further understood and agreed by the Grantee, its successors and assigns, that the easements for rights-of-way herein conveyed are granted for the use of designated Federal lands for the designated purposes, but grant no proprietary interests in such lands to which riparian water rights might attach; and nothing herein shall be deemed to grant to or deny either the Grantee or the United States the right to establish, initiate, or perfect water rights in conformity with the appropriative water laws of the State of California in effect when such appropriation is, or has been, initiated.

The grant of easements for rights-of-way herein contained shall include the right of ingress and egress over, upon, and across adjoining lands of the United States, for any and all purposes necessary in the utilization of the easements for rights-of-way hereby granted: *Provided, however,* That the place of exercise of said right of ingress and egress shall be subject to the prior written approval of the United States, which approval shall not be unreasonably withheld.

The United States reserves the right of ingress and egress over, upon, and across said easements for rights-of-way for any and all purposes, including the diversion and conveyance of water, not inconsistent with the full use and enjoy-

ment thereof at all times by the Grantee for the purposes herein set forth. In no event shall said easements for rights-of-way be enclosed by fences or other structures of any kind without the prior written consent of the United States, which consent, however, shall not be unreasonably withheld in any case involving the protection of persons or property.

None of the covenants, conditions, restrictions, and reservations herein set forth relating to the easements hereby granted or the use thereof are intended to have any application to any lands owned by the Grantee, except as hereinafter set forth in connection with Easement D and Tract No. 5.

It is understood and agreed by the parties hereto that the Grantee is the owner of certain tracts of patented land in Death Valley National Monument. For purposes of description of the easements herein granted, and for no other purposes, those tracts traversed by, adjacent to, or in the vicinity of said easements are located approximately where shown on drawing NM–DV–6967. Inasmuch as the corners of said tracts have not been identified or established by the United States as being the true corners of patented land, it is not intended hereby to recognize said tracts as shown on the drawing as other than the approximate areas actually occupied by the Grantee. The tracts shown on the drawing are those occupied by the Grantee purportedly pursuant to the following sources of title:

Tract No. 1 is the Desert Borate Deposit Mine which was located by survey 2154 by J. J. McGillivray, United States Deputy Mineral Surveyor, in June 1883, the plat of which was approved by the United States Surveyor General for California on September 29, 1883, and is on record in the Bureau of Land Management.

Tract No. 2 is Section 16, T. 27 N., R. 1 E., S.B.B. & M., recorded as State School Land, in tract books of the Bureau of Land Management.

Tract No. 3 is the N½ NE¼ of Section 21, T. 27 N., R. 1 E., S.B.B. & M., patented as Soldier's Additional Allotment under Final Certificate No. 588, Independence, dated November 18, 1907.

Tract No. 4 is the S½ NE¼ and N½ SE¼ of Section 22, T. 27 N., R. 1 E., S.B.B. & M., developed as the Furnace Creek Inn Area, patented as Soldier's Additional Allotment under Patent No. 1003913, dated June 10, 1927.

Tract No. 5 is the NW¼ NE¼ of Section 23, T. 27 N., R. 1 E., S.B.B. & M., including part of the Texas Springs Area of Death Valley National Monument, patented as Soldier's Additional Allotment under Final Certificates 589 and 1300, Independence, dated November 18, 1907.

Tract No. 6 is the SW¼ SW¼ of Section 24, T. 27 N., R. 1 E., S.B.B. & M., patented as Soldier's Additional Allotment under Final Certificate No. 587, Independence, dated November 18, 1907.

Wherever necessary for any reason to provide closure, the easements herein conveyed, where shown as beginning or terminating at the boundaries of Tract 1 through 6, inclusive, or the center lines of other easements herein conveyed, or where shown as beginning or terminating with a point on the center line of the same easement, shall be lengthened or shortened, as the case may be, along the same general course to provide such continuous closure: *Provided*, that any extension from Point A–34 of Easement A to the east line of N½ NE¼ of said Section 21 shall be along such reasonably modified alignment as might be necessary to direct a gravity flow to said N½ NE¼ of Section 21. Wherever a traverse of Easements A, B, and E terminate at points other than intended boundaries of patented tracts, with ties not based on closed surveys, such easements are intended to be approximately centered on water conduits or natural channels and terminate at, or 10 feet beyond diversion works or sources of water existing and recognized on October 23, 1952, and the descriptions shall be automatically corrected as to alignment on the basis of any more refined subsequent surveys.

Only Mineral Monument No. 34 and Corners Nos. CD–1 and CD–58 of the Desert Borate Deposit Mine, as shown on said drawing, have been located on the ground and reasonably identified, and serve as the basis for all descriptions herein contained. North, as used as the basis of azimuths for this instrument, is the bearing between said Mineral Monument No. 34 and Corner CD–1, the latter being a stone monument inscribed CD–1–2154.

The easements for rights-of-way hereby granted are subject to the existing rights, if any, of the State of California in and to the lands presently included within the boundaries of State Highway No. 190.

The easements for rights-of-way granted hereby are strips of land centered on the indicated traverses, with widths as designated, so far as they traverse Federal land, as follows:

EASEMENT "A"

"A strip of land, as shown on Sheet 2 of said recorded map or drawing No. NM–DV–6967, along traverse A–1 to A–34, inclusive, including laterals within said series of stations; being 40 feet in width from A–1 to A–5; 10 feet in width from A–5 to A–28, and along laterals from A–2 to A–32 and thence to A–33 and A–34; and 20 feet in width from A–27 to A–30, and A–29 to A–31."

Easement "A" is granted subject to the following special conditions:

1. Said easement and right-of-way shall not be enclosed by fences or other structures of any kind, nor shall any equipment, facility, fixture, or other device hereafter be erected or installed thereon more than three feet high and ten feet in length or width above the surface of the ground without the prior written consent of the Grantor, which consent shall not be unreasonably withheld.

2. Said easement, between points A–10 and A–22, in so far as it lies on Federal land, shall revert to the United States one year after the existing conduit is moved to the alternative alignment, points A–10 through X–1 to X–9, as hereinafter provided in alternative Easement "X."

EASEMENT "X"

"A strip of land, as shown on Sheet 2 of said recorded map or drawing No. NM–DV–6967, from A–10 to X–1 and thence consecutively to X–8, A–22, and X–9, being 10 feet in width."

The area of Easement "A" on Federal land is 4.4 acres, more or less. With substitution of Easement "X" the area will be reduced to 4.25 acres, more or less.

EASEMENT "B"

"A strip of land, as shown on Sheet 2 of said recorded map or drawing No. NM–DV–6967, from A–3 to B–1 and thence consecutively to B–122, including laterals; being 10 feet in width from A–3 to B–2, and from B–3 to B–122; and 150 feet in width from B–2 to B–3, which is traversed by a curving tunnel near the center of Tract 4; and containing 3.17 acres, more or less, on Federal land."

EASEMENT "C"

"A strip of land, as shown on Sheet 2 of said recorded map or drawing No. NM–DV–6967, from C–1 to C–5 at Grantee's reservoir, being 10 feet in width, and containing 0.74 acre, more or less, on Federal land."

Said easement, in so far as it lies on Federal land, shall revert to the United States one year after the existing conduit is moved to the proposed alternative alignment in Easement "A".

EASEMENT "D"

"A strip of land, as shown on Sheet 2 of said recorded map or drawing No. NM–DV–6967, from C–5 at Grantee's reservoir, to D–1 and thence consecutively to D–11 in Grantee's Texas Spring tunnel, being 10 feet in width, and containing 0.70 acre, more or less, on Federal land."

The United States reserves its existing rights to tap the water pipeline or pipelines, as now exercised, for the purpose of procuring the water it has been taking pursuant to conditions set forth in Application No. 10,119; and Permit No. 5755, issued by the California State Engineer under date of February 17, 1941, and in accordance with the following memorandum of understanding relating thereto:

DEPARTMENT OF THE INTERIOR,
NATIONAL PARK SERVICE,
Washington, February 27, 1941.

Memorandum re Conference held at the suggestion of Director Drury in his office on February 27, 1941, for the purpose of clarifying the positions of the National Park Service and the Pacific Coast Borax Company with regard to the pending applications for the appropriation of water from Furnace Creek Wash in Death Valley National Monument.

The conference was attended by Mr. F. M. Jenifer, President of the Pacific Coast Borax Company, Horace M. Albright, Director Drury, Associate Director Demaray, Chief Counsel Moskey, and Attorney Barton of the National Park Service.

It appears that each party had misunderstood the purposes and intentions of the other; the Park Service being under the impression that the Borax Company intended to protest its application for water and in turn the Borax Company believing from certain correspondence and statements made that the application contemplated an adjudication of all water rights at Furnace Creek and vicinity.

In order to clarify the situation:

1. The National Park Service stated that the application and amendments did not contemplate the diversion and use of more than approximately 1.5 second feet, including the 35 gallons per minute applied for from Texas Springs; that the application does not contemplate an adjudication of the waters of Furnace Creek and vicinity.

2. The Company stated that it did not propose to contest the granting of the National Park Service applications.

3. In the event that the Park Service Engineer concludes that some more feasible or economical plan (than that) referred to in the application is possible, the Company stated that it would be very glad to discuss and consider such a plan with a view to cooperating with the National Park Service.

/s/ NEWTON B. DRURY,
Director, National Park Service.

EASEMENT "E"

"A strip of land, as shown on Sheet 2 of said recorded map or drawing No. NM–DV–6987, from C–5, at Grantee's reservoir to E–1 and thence consecutively to E–10, being 10 feet in width, and containing 1.19 acres, more or less, on Federal land.

EASEMENT "F"

"A strip of land, as shown on Sheet 2 of said recorded map or drawing No. NM–DV–6967, from F–1 to F–4, being 30 feet in width, and containing 3.62 acres, more or less, on Federal land.

EASEMENT "S"

"A strip of land, as shown on Sheets 1 and 2 of said recorded map or drawing No. NM–DV–6967, from S–1 to S–9, including intermediate stations AP–4 and AP–7, being 10 feet in width, and containing 1.23 acres, more or less, on Federal land."

Provided, however, that that portion of Easement "S" lying on Federal lands between points S–5 and S–8, or at point of closure with Tract No. 4, as provided in the first paragraph of page 5 of this deed, shall terminate and revert to the United States, its successors and assigns, one year after removal of said sewer line to Easement "A" should said sewer line be so moved.

Provided further, that Easement "S" between points AP–4 and AP–7 shall not be used in such manner as to constitute interference with any use of the land for airport purposes and subject to the following special conditions of use of said Easement "S" in connection with said Airport:

1. All work proposed within the landing strip, that is, within the space 175 feet either side of the runway center line, shall be first coordinated, with activities of the authorities in charge of the Airport, before commencing work;

2. No equipment or materials shall be permitted to stand overnight within the area mentioned in subparagraph 1;

3. Equipment working within the landing strip area during the day shall be properly flagged in accordance with existing CAA requirements;

4. Sewage shall not be permitted to flow into the drainage ditch to be constructed along the easterly side of the field;

5. There shall be no mounds, pits, or discarded materials left within the landing strip after any work is done on the sewer line;

6. The Grantee agrees to indemnify and save harmless the United States, and Airport management, from any claims for damages or personal injury arising from its use of or work upon said sewer line;

7. The United States and Airport administration shall not be held liable for damage to the sewer system resulting from activities connected with normal Airport operation, including accidental landing of planes beyond the limits of the landing strip.

All uranium, thorium, and all other materials determined pursuant to section 5(b)(1) of the Atomic Energy Act of 1946 (60 Stat. 761) to be peculiarly essential to the production of fissionable material contained, in whatever concentration, in deposits in the lands covered by this instrument are hereby reserved for the use of the United States, together with the right of the United States through its authorized agents or representatives at any time to enter upon the land and prospect for, mine, and remove the same, making just compensation for any damage or injury occasioned thereby. However, such land may be used, and any rights otherwise acquired by this disposition may be exercised, as if no reservation of such materials had been made; except that, when such use results in the extraction of any such material from the land in quantities which may not be transferred or delivered without a license under the Atomic Energy Act of 1946, as it now exists or may hereafter be amended, such material shall be the property of the United States Atomic Energy Commission, and the Commission may require delivery of such material to it by any possessor thereof after such material has been separated as such from the ores in which it was contained. If the Commission requires the delivery of such material to it, it shall pay to the person mining or extracting the same, or to such other person as the Commission determines to be entitled thereto, such sums, including profits, as the Commission deems fair and reasonable for the discovery, mining, development, production, extraction, and other services performed with respect to such material prior to such delivery, but such payment shall not include any amount on account of the value of such material before removal from its place of deposit in nature. If the Commission does not require delivery of such material to it, the reservation hereby made shall be of no further force or effect.

In witness whereof, I, Orme Lewis, Asst. Secretary of the Interior, acting pursuant to authority contained in the act of March 24, 1952, supra, have executed this deed on behalf of the United States of America and caused the official seal of the United States Department of the Interior to be affixed hereto this 1st day of July 1955.

UNITED STATES OF AMERICA,
ORME LEWIS,
Assistant Secretary of the Interior.

Witnesses:
(Signed) FRANCIS N. MCDANIEL.
(Signed) BERTHA D. FUSS.

DISTRICT OF COLUMBIA, *ss:*

I hereby certify that on this 1st day of July 1955, before me, the subscriber, a Notary Public in and for the District of Columbia, personally appeared Orme Lewis, to me known and who by me duly sworn, did depose and say that he is the Assistant Secretary of the Interior of the United States of America, the grantor in the foregoing deed dated July 1, 1955, wherein certain perpetual easements and rights-of-way are conveyed to Borax Consolidated, Limited, in exchange for the conveyance from said Company to the United States of a tract of 241 acres, more or less, for use as an airport and other purposes; that he knows the seal of the Department of the Interior of the United States of America and that the seal affixed to said instrument is the official seal of the Department of the Interior and was affixed thereto by his order; that said instrument was signed and sealed on behalf of the United States of America by virtue of the authority contained in the act of March 24, 1952 (66 Stat. 27), and that he acknowledged the said instrument to be the act and deed of the United States of America for the purposes therein expressed.

(Signed) LORIN A. DAVIS,
Notary Public.

My commission expires November 14, 1956.

DEATH VALLEY NATIONAL MONUMENT,
Trona, Calif., July 27, 1955.

Memorandum.
To: Director.
From: Superintendent, Death Valley.
Subject: Mission 66, prospectus.

Attached is the prospectus for the operation, development, and interpretation of Death Valley National Monument, prepared in accordance with Mission 66 memorandum No. 3, June 27, 1955.

Some statistical data, particularly for travel trends, land acquisition, etc., was not readily available but can be furnished at a later date after the move to winter headquarters.

FRED W. BINNEWIES,
Superintendent.

PROSPECTUS, DEATH VALLEY NATIONAL MONUMENT, 1966

U.S. Department of the Interior, National Park Service

SIGNIFICANCE

Death Valley National Monument contains 1,907,000 acres that were set aside to preserve and protect an area of great scenic, geological, biological, and historical values. It is an ideal specimen of typical North American desert with elevations from the lowest point in the Western Hemisphere—282 feet below sea level, to over 11,000 feet above sea level. It is a fault basin that is the result of some of the most dramatic earth movements that ever occurred anywhere in the world. Rocks that represent all five of the great geologic ages are found within the boundaries in complicated faults, folds, overthrusts, intrusions, and chaotic conditions. There are many forms of animals and plants that are found nowhere else in the world and that have adapted themselves to survive under high temperatures that have been surpassed at only one other place. The weather is typified by low humidity, average rainfall of about 2 inches a year, and mild temperatures except during the summer months.

VISITATION

1. Annual trend

Travel to Death Valley National Monument has shown a steady increase, with a few fluctuations, since its establishment in 1933. In 1940 there were 80,000 visitors and in 1941, 95,000. There was a decrease during the war years followed by a steady increase to 162,000 by 1947. Since then there has been a steady increase to 338,000 in 1954. In the absence of unusual influences it is estimated that travel will reach 600,000 by 1966.

2. Seasonal trend

Death Valley has been known for years for its delightful weather during the winter but a place to be avoided in summer months. Within the last few years, however, with improved automobile travel there has been a gradual relaxing of the fear of the high temperatures that might be encountered and a consequent increase from summer travel. In 1954, 92,000 visitors went through Death Valley from May to September. With continuing improvement of automobiles, and the development of air conditioning for them, it is expected that this trend will continue to increase, making Dealth Valley more truly an all year area.

3. Day use

Due to the distance of Dealth Valley from large centers of population and the size of the area there is a tendency for a high percentage of visitors to stay more than 1 day. Peak periods of visitation occur on holidays and during special events such as the Death Valley '49'ers Encampment, Christmas, Washington's Birthday, and Easter. While weekend travel continues to be the heaviest during a weekly period the differential is less than in many areas.

(NOTE.—Statistics to support the travel statements are not readily available but will be prepared at a later date.)

PROPOSALS

1. Establishment of permanent, year-round, headquarters.
2. Operation of checking stations.
3. Development of adequate interpretive program.
4. Completion of interpretive, informational, and traffic control sign program.
5. Legislation to acquire exclusive jurisdiction.
6. Acquire all private lands, particularly those on which commercial enterprises are now operating.
7. Revoke applicable mining laws.
8. Complete road system.
9. Develop trail system.

10. Construct administration-public use building.
11. Develop adequate camping facilities.
12. Establish outlying maintenance stations.
13. Change status from monument to park.
14. Increase accommodations and eating facilities.
15. Construct comfort stations at points of visitor concentration
16. Improve communication facilities.

MANAGEMENT AND PROTECTION

1. Monument headquarters

At present two headquarters are maintained, one for winter use at Cow Creek, and one for summer use at Wildrose Canyon. The move twice a year from one headquarters to the other is expensive, causes loss of efficiency, and materially increases maintenance costs. All of the residences and most of the shop and office buildings are of flimsy, temporary construction that are more than 20 years old and must be replaced at an early date.

It is proposed to establish a permanent year-round headquarters at Cow Creek and eliminate the use of Wildrose headquarters except as a maintenance station. This will entail the construction of adequate housing, administration-public use building, and shops with suitable air conditioning to withstand extreme summer temperatures.

Cow Creek is located geographically in the central portion of Death Valley where the greatest number of visitors can be served. It does not encroach on any of the natural features of interest to visitors but is accessible to many of them. There is an adequate water supply that is lacking in other locations that have been considered. It would be more desirable to locate headquarters at an elevation of at least 2,000 feet rather than sea level and below as at Cow Creek, but sufficient water has not been found at the higher elevations.

2. District ranger stations

The monument contains over 1,900,000 acres, and is divided into three ranger districts at present. The southern district contains over 1 million acres and is entirely too large for proper administration and protection. It is proposed to divide this district into two and establish a new district ranger station at Rhodes Spring on the Jubilee Pass Road. The station will be in conjunction with the proposed checking station and outlying maintenance station.

3. Checking stations

During the time that CCC manpower was available, checking stations were operated on main highways into Death Valley. However, with the start of World War II and the resultant decrease in personnel the stations were removed and have not been reestablished. Experience has proven that checking stations are a vital necessity to provide accurate information to 350,000 visitors at present, and an estimated 600,000 by 1966. The information is necessary for public safety due to long distances without habitations, extremes of temperature during the spring, summer, and fall months, and the great variety of points of interest within the monument. In addition to dispensing information it is proposed to collect entrance fees in accordance with Public Law 137.

It is proposed to establish the checking stations at all of the main highway entrances that include:

Grapevine Canyon	Jubilee Pass
Daylight Pass	Wildrose Canyon
Furnace Creek	Towne's Pass

The establishment of checking stations and fees would make it mandatory to transfer the jurisdiction over Highway 190 from the State to the National Park Service.

4. Exclusive jurisdiction

In order to adequately preserve and protect the natural features for the benefit of present and future generations it is necessary to have better authority than is afforded by the present proprietary jurisdiction. The long distance, 225 miles to the nearest U.S. commissioner, and 100 miles to the nearest State court, creates a very difficult problem in enforcing regulations.

It is proposed that legislation should be sponsored to acquire exclusive jurisdiction.

5. Change in status from monument to park

Death Valley was established as a national monument in 1933 because of the very outstanding geology, desert plants and animals, and history that it contains. It is a veritable outdoor museum of features found few other places in the world. The unique desert conditions create unusual scenic values that are becoming more and more important to the visitors. The recent survey of "visitor needs and interpretive services" emphasizes the scenic quality of the area and they are considered to be of equal or greater significance than the scientific values. It is, therefore, proposed that the designation of Death Valley be changed from monument to park.

6. Acquisition of private holdings

There are some 50,000 acres of private lands within the boundaries of Death Valley National Monument. Three of the major holdings contain private enterprises that are Furnace Creek Inn and Ranch, owned by Pacific Coast Borax Co.; Stove Pipe Wells Hotel, owned by Mrs. Margaret Putnam; Scotty's Castle, owned by the Gospel Foundation. All of these private operations are under no control or supervision by the National Park Service and, therefore, create problems that cannot be resolved under these conditions. It is, therefore, proposed to acquire all private holdings with particular attention to those on which there are commercial operations. The balance of the private land consists of mining claims and State-owned school sections.

7. Elimination of mining

The mining laws of the United States were extended to include Death Valley shortly after it was created a national monument in 1933. Since then there has been sporadic prospecting but little mining of commercial value. The only mines operating on a commercial scale at present are four talc mines in the southern end of the monument, two small tungsten mines in Trail and Emigrant Canyon, a lead mine near the Racetrack, and occasional borax mining in Corkscrew Canyon. This activity prior to the establishment of the monument added to its history and legend. Much of the prospecting is now done with bulldozers, jackhammers, and power drills that cause irreparable damage to the primary values. Mining is not in keeping with the basic concept of the National Park Service, and, therefore, it is proposed to request legislation revoking the mining laws as they apply in Death Valley.

8. Boundary survey

There has never been a boundary survey of the monument and at many points it is impossible to determine it without extensive survey. A systematic survey will be conducted and the boundary will be properly posted to prevent encroachment from private sources and aid in general protection.

DEVELOPMENT

1. Outlying mintenance stations

Death Valley has an area of 1,907,000 acres and a road system of nearly 500 miles. Distances are too great to economically maintain the area from a central location and, therefore, maintenance stations will be established in conjunction with district ranger stations. They will be located at Grapevine, Wildrose, and Rhodes Springs, and will be 50, 60, and 55, miles, respectively, from headquarters. The stations will be staffed with sufficient personnel to perform the buildings, utilities, roads, and trail maintenance in the various districts. Major equipment repair will be performed at a central repair shop at headquarters.

2. Campgrounds

The campground facilities at Texas Springs will be expanded to include designated spaces for trailers and additional tent camping.

Additional campgrounds will be developed at Saratoga Springs, Bradbury Well, Warm Springs, Eagle Borax Works, Wildrose Canyon, Midway Well, Mesquite Spring, and Quartz Spring.

3. Concessions

Death Valley is located 100 miles from the nearest towns at which overnight accommodations could be provided, and even with the development of more rapid transportation there remains the need for accommodations and eating facilities within the boundaries of the monument. Existing facilities at Furnace Creek,

Stove Pipe Well, and Scotty's Castle should be expanded to provide for an estimated 600,000 visitors annually. The concession at Wildrose Station should be moved to a more suitable location that will allow for expansion.

In anticipation of increased travel by air a hangar and related services will be provided at the Furnace Creek Airport. A public transportation concession should be established to provide access to the various points of interest for those who arrive by air.

All of the existing commercial operations are in locations that do not encroach on the natural features and, therefore, no consideration need be given to moving them.

4. Roads

With minor realinement and general improvement the existing road system of nearly 500 miles is considered to be adequate. It provides access to all of the major points of interest but leaves a great deal of untouched natural area for the enjoyment of those individuals who have the interest to get off the beaten track.

Gravel roads that should be paved include:

Aguerreberry Point	Sand Dunes Leap
Charcoal Kilns	Natural Bridge
Artist Drive	West Side of Valley
20 Mule Team Canyon	Ashford Mill to Saratoga Springs

A new road is to be constructed from Stove Pipe Wells Hotel to Cottonwood Canyon, a distance of 10 miles.

5. Trails

The only existing trail is the one to Telescope Peak from Mahogany Flat, a distance of 7 miles. There are a number of other locations and points of interest to which trails will be constructed and include such points as north from Dantes View along the crest of the Black Mountains, Hansupah Canyon, Tucki Mountain, and other points to be determined.

Most of the terrain in Death Valley is such that high standard trails are not needed and they will serve as guides to points of interest.

6. Signs

A program to provide necessary directional, interpretive, informational, and traffic control signs is already in progress. This program is to be completed and additional signs installed where desirable.

7. Comfort stations

There are only four permanent, Government-owned, comfort stations in the area, and a few temporary pit toilets. Additional permanent stations will be constructed at campgrounds and points of visitor concentration.

8. Communications

Present telephone communication is by a local system owned by the Pacific Coast Borax Co., and one long-distance phone provided by Pacific Coast Telephone & Telegraph Co. The local system is extremely limited and highly unsatisfactory. It is to be replaced by a Government-owned rural dial system that will provide adequate communication for the headquarters area.

Communication to outlying stations will continue to be by radio.

INTERPRETATION

Death Valley National Monument is an area that cries out for interpretation. It is a great natural museum in which the geology, flora, and fauna are unique in the experience of the average visitor and they are, almost without exception, avid for information. They continually ask, "What, why, where, and how?" For many a visit to the valley is their first experience with desert conditions and they are amazed at the wildlife and vegetation that exists under the extreme climatic conditions here. They want to know about the geology, climate, and other natural phenomena.

In order to satisfy the demands of the visitors an adequate interpretive program must be developed that will include a good public-use building, interpretive talks, guided tours, self-guiding tours, wayside interpretive devices and workshop.

The public-use building will have an auditorium where trained naturalists will have facilities for presenting educational and inspirational talks. There

will be a museum containing exhibits on geology, biology, ethnology, and history. There will also be a library and workshops for the preparation and care of scientific collections. The building will be located at the Cow Creek headquarters and will be open all year.

A series of self-guiding motor tours will be developed. They will start at monument headquarters and will include the following:

Badwater
Dantes View
Sand dunes
Daylight Pass and Titus Canyon
Scotty's Castle and Ubehebe Crater
Charcoal kilns and mines
West Side of Valley

Others will be developed as the need increases.

Campfire circles will be developed at Texas Springs campground and near Stove Pipe Wells Hotel.

Interpretive signs, markers, and wayside exhibits will be installed where desirable and necessary.

Conducted motor tours and the program of interpretive talks will be expanded to meet the increasing need. Full use will be made of mechanical interpretive aids.

THE SECRETARY OF THE INTERIOR,
Washington, April 12, 1960.

Hon. WILLIAM P. ROGERS,
The Attorney General,
Department of Justice,
Washington, D.C.

DEAR MR. ATTORNEY GENERAL: In further reference to the conferences between our Solicitor and members of your staff, there is enclosed a memorandum prepared by the field solicitor, San Francisco field office, to the regional solicitor, Sacramento regional office, dated August 6, 1958, on the subject of "Water Rights, Furnace Creek Area, Death Valley National Monument," with 167 attachments thereto (a list of which is enclosed). Also, we are sending to you subsequent memorandums, dated January 6, 15, 25, and 27, 1960, written by the same field solicitor on this subject.

These documents are submitted to you for whatever action you deem necessary pursuant to the act of August 31, 1954, 5 U.S.C. 311a.

Sincerely,

FRED A. SEATON,
Secretary of the Interior.

APRIL 21, 1960.

Hon. FRED A. SEATON,
Secretary of the Interior,
Department of the Interior,
Washington, D.C.

DEAR MR. SEATON: Your letter dated April 12, 1960, addressed to the Attorney General, forwarding the Department of the Interior administrative file on the subject "Water Rights, Furnace Creek Area, Death Valley National Monument," has been referred to this Division for consideration.

The file is voluminous, consisting of various memorandums prepared by Field Solicitor Sidney McClellan in your San Francisco office with approximately 170 exhibits. The first of these memorandums, written in August 1958, and consisting of 66 pages, is supplemented by four additional documents prepared during January 1960. All are devoted to an extensive résumé of the negotiations between the National Park Service and the United States Borax & Chemical Co., spanning a period of 34 years. They concern proposals, counterproposals, and legislation seeking to effect acquisition of land and water rights connected with Death Valley National Monument. It would also appear that the Special Government Information Subcommittee, Committee on Government Operations, headed by Representative John E. Moss, has requested a copy of Mr. McClellan's memorandum. Your Department has concluded the request should not be granted, since the memorandum not only outlines the basis for a possible legal

position on water rights in Death Valley, but also contains allegations which amount to unevaluated charges against many persons, both living and dead, involving a series of acts commencing in 1926 and culminating in two legislative enactments in 1952 and 1958.

Although the matter was submitted to the Attorney General pursuant to the provisions of 5 U.S.C. 311(a), we observe that Mr. McClellan's lengthy memorandum of August 6, 1958, made no suggestions with reference to possible criminal violations by Government officers and employees or any other persons. The general nature of those charges, that is, a conspiracy to defraud having its inception in 1926, when viewed in the light of Mr. McClellan's memorandum of 1958, seems to establish only that he doubts the wisdom of policies followed within your Department and that he is suspicious of relationships between Department officers and officers of the borax company. The memorandums now establish only that different interpretations and conclusions can be drawn from the same known acts and circumstances. The differing interpretations would affect the legality of the claims of the United States Borax & Chemical Co. to continued enjoyment of land and water rights already exercised over a span of 34 years. In the absence of some evaluation of these claims by your experts, we do not believe all the facts furnished, that the questions involved are appropriate for resolution in a criminal proceeding.

While the Department of Justice is, of course, vitally concerned in the proper enforcement of criminal statutes and can appreciate the responsibility imposed upon you to refer all possible violations of said laws for proper attention here, the unevaluated state of the memorandums presented in this case renders it most difficult to ascertain the precise basis upon which Mr. McClellan predicated his allegations of conspiracy. In the absence of a more definitive statement, specifying the particular areas of suspected criminality, it would be unrealistic to expect us to make an intelligent appraisal of the facts or to formulate an appropriate request for further inquiry to develop a prosecutable offense.

Accordingly, it would be appreciated if your Department would reevaluate the matter in the light of the above comments, in an attempt to correlate those portions of the extensive file which, in your view, delineate the pattern of criminality supposedly evidenced therein. In order to assist you and facilitate that reappraisal I am returning herewith the entire record transmitted with your letter of April 12, 1960. No further action is contemplated by this Division until further advice is received from you in the matter.

Sincerely,

MALCOLM RICHARD WILKEY,
Assistant Attorney General.

NOTES BY SUBCOMMITTEE STAFF RELATING TO THE MEMORANDUM BY W. A. ACKERMAN ENTITLED "WATER DEVELOPMENTS OF DEATH VALLEY HOTEL CO., LTD.", FEBRUARY 13, 1963[1]

1. The Ackerman memorandum quotes from early correspondence by Borax Co. officials referring to "miner's inches." This term was variously understood as one-fiftieth or one-fortieth of a cubic foot per second. See table, "Comparison of Water Volumes" (p. 91).

2. Page 585, left column, paragraph 2: The Statement in Mr. Rasor's letter of February 4, 1927, that the ditch was the "same ditch or canal that was carrying waters to Furnace Creek Ranch in 1904" does not necessarily prove that the point of diversion of Furnace Creek was "located at the headwaters by at least 1904." As late as 1925 (before map 66 was prepared), Gower extended the ditch further up the Furnace Creek Wash, thereby increasing its flow by 7 miner's inches. (See letters, Jenifer to Zabriskie, Sept. 15, 1925, and Gower to Jenifer, Nov. 6, 1925.)

3. Page 585, right column, paragraph in letter of February 4, 1927, Rasor to Zabriskie: Mr. Rasor's statement that the ditch was "there carrying all the water all the time" is not completely accurate. In 1912, the auditor wrote that one-half or more of the water was "running to waste and scattering over the desert near the headwaters of Furnace Creek." Corkill's letter to Locke (November 13,

---

[1] Page references are to the pages in this hearing.

1913) stated that a heavy rain had filled the ditch "with sand and gravel from the headwaters clear down to the ranch." The 1920–21 annual report by the superintendent of Ryan mine indicated that part of the ditch in Furnace Creek Wash was washed out year after year. In 1925, the ditch was extended to increase its flow by 7 miner's inches (letters, Jenifer to Zabriskie, September 15, 1925; Gower to Jenifer, November 6, 1925).

4. Page 586, left column: For further reference to the ditch between Texas Spring and the ranch, see page 590, left column, paragraph 2.

5. Page 594, left column, paragraph 2: Corkill's letter of November 13, 1913, is not necessarily accurate concerning whether or not the ditch went to the headwaters. See comment 2, above.

HOUSE OF REPRESENTATIVES,
COMMITTEE ON GOVERNMENT OPERATIONS,
Washington, D.C., December 21, 1962.

Mr. W. A. ACKERMAN,
Secretary, Death Valley Hotel Co., Ltd.,
Los Angeles, Calif.

DEAR MR. ACKERMAN: You will remember that when you provided us copies of documents concerning the history of the company's development and use of water at Death Valley, we discussed the preparation of a summary of the relevant data, and I said I would send to you a copy of the draft I prepare, so that you may review its accuracy and completeness before it is examined by the committee. It has taken longer that I anticipated; but I have now received a first draft from the typists.

All entries from each document were to appear on the same line across the page. However, when the typists divided the typing, one doing the material concerning water development on the legal-size sheets, and the other typing the material concerning use for animals, crops, etc., on the letter-size sheets, they did not space their respective material so as to enable fastening the sheets side by side.

Mr. Coleman told me, a couple of days ago, that you are working on your summary now. I therefore enclose this draft, despite its inadequacies, to facilitate your work. In addition, I enclose an incomplete list of the water facilities used to convey water from (1) Travertine Springs and (2) Texas Springs.

I would appreciate your making such additions or comments on these summaries as you think necessary to enable the committee to have a full and complete understanding of the company's water facilities and history of water use, and I intend to have these summaries retyped later to depict the total information in proper chronology on larger single sheets.

With best wishes for a merry Christmas and a happy New Year,

Sincerely,

PHINEAS INDRITZ, *Counsel.*

Subcommittee note: A summary of "Water Developments of Death Valley Hotel Co., Ltd.," prepared by W. A. Ackerman, secretary of the Death Valley Hotel Co., and of the United States Borax & Chemical Corp., is reprinted in appendix 1, page 578.

Water Developments of Death Valley Hotel Co. (and Its Predecessors in Interest) at Furnace Creek Area, Death Valley, Calif.

Analysis, part A, prepared by Phineas Indritz, Dec. 21, 1962

Document reference and date (month and year)	Diversions, amount and sources	Place of use of water delivered	Losses of water by evaporation and seepage
Notice of location, dated Mar. 11, 1882	Wm. B. Robertson, Jr., files notice in county recorder's office, Inyo County, Calif., claiming waters flowing in Furnace Creek to extent of "500 inches measured under a 4-inch pressure to be diverted by a ditch * * * commencing at * * * mouth of canyon * * * near the south line of the southeast quarter of sec 11 * * *." (Mouth of canyon is actually in sec. 22.)		
Do	R. Neuenschwander files notice in county recorder's office, Inyo County, Calif., claiming springs "near the center of * * * sec. 12 * * * together with the waters flowing therefrom to the extent of 300 inches, measured under a 4-inch pressure * * *." (Springs are actually in sec. 23.)		
Notice of location, dated May 13, 1885	Wm. T. Coleman, to whom Wm. B. Robertson assigned all rights under his 1882 water right filing, files notice in county recorder's office, Inyo County, Calif., claiming "the water flowing down this Furnace Creek Canyon to the extent of 500 inches, measured under 4-inch pressure * * * for irrigating, domestic, and all other purposes incidental to agricultural pursuits and for mining, milling, and manufacturing purposes and for selling the same * * * place of intended use is at and upon the E½ of sec. 16 * * *" to be diverted by "a ditch 2 feet wide and 1½ feet deep and 4,752 feet long, with a fall of about 2½ to 100 feet length * * *," the place of diversion being "on the north bank of said Furnace Creek Canyon at the point where it opens into Death Valley * * * which point bears on Telescope Peak in the Panamint Range S. 19°45′ W. * * *." "This location being made for the purpose of more particularly defining said claim and the means by which said water has been diverted and by which it will continue to be diverted."		
Do	Wm. T. Coleman, to whom R. Neuenschwander assigned all rights under his 1882 water right filing, files notice in county recorder's office, Inyo County, Calif., claiming "the water flowing from * * * Texas Springs to the extent of 300 inches measured under a four inch pressure * * * situated in W½ NW¼ NE¼, sec. 23 * * * for irrigating, domestic and all other purposes incidental to agricultural pursuits and also for mining, milling, and manufacturing purposes and for selling the same * * * place of intended use is at and upon the E½ of sec. 16 * * *. And locations No. 12 of the Desert Borate Deposit. And location No. 1 of the Ancient Lake Borate Deposit" to be diverted by a "ditch about 1 foot wide and about 1 foot deep * * * leading into a reservoir 33 by 33 feet and about 3 feet deep from thence water is conveyed by a line of 2-inch pipe (iron) a distance of 11,560 feet to aforesaid location No. 12, Desert Borate Deposit. The balance of water is conducted through a natural channel * * * to the base of the hills and thence by a ditch about 1 foot wide and 6 inches deep * * * to aforesaid E½ of sec. 16 * * *," the place of diversion being "about 9 chains westerly of the Springs 594 feet from which point Telescope Peak in the Panamint Range bears S. 20′ W * * * ". "This relocation being made for the purpose of more particularly defining said claim and the means by which said water has been diverted and by which it will continue to be diverted."		
6 photographs; labels affixed to back of photographs state "FCR 1892" (meaning Furnace Creek Ranch, 1892; the name of the ranch at that time was Greenland Ranch).	Photographs show pond of water of undefined size.		
Book, John R. Spears' "Illustrated Sketches of Death Valley," copyright 1892, Rand McNally & Co.	P. 27, refers to ½-acre pond at ranch; p. 145, states that the flow of Furnace Creek amounted to 100 to 200 miner's inches.	----------	
Auditor's general report for March 1912 (dated Apr. 15, 1912) on Greenland Ranch (now Furnace Creek Ranch).	"The present supply of water from Furnace Creek and Texas Springs is amply sufficient to irrigate all the land under cultivation. The supply could be doubled or trebled, if desired, by going to the expense of collecting up the water now running to waste and scattering over the desert near the headwaters of Furnace Creek."	Greenland Ranch (now Furnace Creek Ranch).	½ to ⅔ of water "now running to waste and scattering over the desert near the headwaters of Furnace Creek."

Letter, Corkill to Locke, Mar. 14, 1913	"* * * it requires all the water we have to properly irrigate the alfalfa fields. As a result * * * our herd of cattle has to be limited."	Ranch	
Letter, Ryan to Locke, Apr. 9, 1913	"The quantity of water available is about 100 inches". * * * * *	do	
	"This supply could be increased by putting in a subterranean dam in the canyon. How much it is impossible to tell—possibly the increase would be ¼ or ½."		
	Texas Spring "will give a supply in the neighborhood of 25 inches. I do not know if it has been accurately measured."	do	
Letter, John Ryan to Wm. Locke, Apr. 14, 1913; measurements made "about 9 months ago" (i.e., July 1912).	Furnace Creek waters and Texas Spring combined measured in the yard at Greenland Ranch at 1 p.m. "99.1 miner's inches, equal to 1.383 cubic feet per second."		Furnace Creek waters lost: "29.0 miner's inches or 31 per cent."
	Waters measured at head of Furnace Creek at 2:45 p.m. "92.1 miner's inches, equal to 1.843 cubic feet per second."		Texas Spring waters lost: "4 miner's inches" (pipeline will not carry all Texas Spring water).
	Texas Spring flow "estimated at 6 miner's inches"		
Letter, Corkill to Locke, Apr. 11, 1913	"Our alfalfa fields require all the water we have."		
Letter, Corkill to Garner Smith, June 22, 1913.	"We irregate [sic] by flooding with a stream that measures 60 miner's inches."		
Letter, Corkill to Locke, Jan. 30, 1914	"At present all of the water from Texas Spring does not run to the ranch, as the old pipeline will not take it, in fact it has been this way for some time."		
Annual report (dated Oct. 27, 1921) by Mine Superintendent Boyd for 1920–21.	"The amount of water arriving at the ranch was measured and found to be 85 miner's inches, sufficient to irrigate 70 acres easily."		
Boyd to Professor LeConte, Feb. 25, 1925	"In Furnace Creek we have a flow of 90 miner's inches (equivalent to * * * 2¼ feet per second) at a point which is 350 feet above sea level. We wish to convey this stream of water in an enclosed pipe to Greenland Ranch which is situated 178 feet below sea level in Death Valley, a distance of 2½ miles."		
Jenifer to Zabriskie, Sept. 15, 1925	"* * * we are not getting all the water by any means and * * * measures should be immediately taken to establish our rights by usage and otherwise to the springs and waters that we do not now control * * *"		"* * * considerable wastage and seepage from those springs that are tapped and a number of springs that we are not getting the benefit of at all."
	"* * * no effort has ever been made to divert such waters into the ranch ditch, which leaves such springs entirely detached from our water system and probably subject to appropriation by others * * * we must have seen 30 or 40 springs which were not connected with our ditch, but Harry (Gower) thought we had seen at least a hundred." "* * * the volume is * * * substantial * * *."		
Harry P. Gower to Jenifer, Sept. 19, 1925	"* * * we will be able to get ten inches of water from the canyon, where we found the springs which sank into the ground before reaching the ditch * * *. Of course, as we would get ten inches of water, we might have to enlarge the main ditch in several places * * *."		
Blue print sketch prepared by Gower, Sept. 19, 1925.	Shows various springs from which total of 75 miner's inches of water flow into the existing ditch to Greenland Ranch, plus other springs whose waters could be taken if the proposed additional ditches were constructed.		
Letter, Razor to Zabriskie, Oct. 28, 1925	South line of sec. 16 "ran through the alfalfa field, about 200 feet north of the ditch. This left the ranchhouse and some of the new date planting out or off of company owned land * * * the south boundary of the Ranch * * * may be hundreds of feet farther south * * * it may also be hundreds of feet farther north * * *." (Thus, the water used by the company prior to October 1925 may have been used on substantial acreage not owned by the company which owned land in sec. 16, but did not prior to October 1925 own land in sec. 21.)		

WATER DEVELOPMENTS OF DEATH VALLEY HOTEL CO. (AND ITS PREDECESSORS IN INTEREST) AT FURNACE CREEK AREA, DEATH VALLEY, CALIF.—Continued

Analysis, part A, prepared by Phineas Indritz, Dec. 21, 1962—Continued

Document reference and date (month and year)	Diversions, amount and sources	Place of use of water delivered	Losses of water by evaporation and seepage
Gower to Jenifer, Nov. 6, 1925	"We have collected most of the water in the most southerly canyon at the headwaters. This is now running into the main ditch, increasing the flow from 88 inches to 95 inches. The measurements were taken from a weir on the ditch just below the swimming hole. We spent $134.50 in collecting the water as planned on the sketch which we sent you some time ago."		
Jenifer to Zabriskie, Jan. 8, 1926	"I went over the Furnace Creek water situation with Gower very fully and it was decided that all the springs intermediate to Furnace Creek and Texas Springs should be cleaned out and ditched, so that a determination could be made as to how much water is available and then later on such waters can be collected at central points in the various canyons and taken by pipe to the main ditch if the volume justified such expense. The initial expense of cleaning out the springs and making such ditches will be nominal and Harry will proceed with the work as fast as possible. After this is done another map will be made and also a full report giving an approximation of the amount of water than can be obtained with the expense of doing so."		
Jenifer to Rasor, Apr. 26, 1926; Rasor to Jenifer, May 4, 1926.	Valjean to make survey of waters beginning May 6, 1926.		
Map 66: Water supply of Furnace Creek Ranch (surveyed by Valjean, May 8–14, 1926).	This map shows 23 measurement points, which were measured to determine the waters of (1) the Warm Springs (later known as Travertine Springs, which provide the flow of waters to the ranch through the main Furnace Creek ditch), and (2) Texas Springs. (1) FURNACE CREEK DITCH 3 measurements (made at point 1) were made at entrance to Furnace Creek Ranch. These measurements were 1.66, 1.68, and 1.70 cubic feet per second. Thus, the maximum amount of water reaching the ranch by way of the ditch was 1.7 cubic feet per second. 9 measurements were made at the various springs (at points 9 through 12, and 14 through 18) to measure the water flowing into the ditch. These measurements total 1.899 cubic feet per second. The difference (0.199 cubic feet per second) between this total and the 1.7 reaching the ranch represented 10 percent loss of water between the springs and the ranch entrance. The following measurements of springs did not affect the total of 1.899 cubic feet per second flowing into the ditch: (*a*) The water measured at point 13 (0.056 cubic foot per second) flowed into and became part of the water measured at point 14 (which totals 0.492 cubic foot per second). (*b*) The water measured at point 19 (0.103 cubic foot per second) flowed into and became part of the water measured at point 18 (which totals 0.566 cubic foot per second). (*c*) The water measured at point 20 (0.044 cubic foot per second) flowed into and became part of the water measured at points 19 and 18. (*d*) Of the water measured at point 21 (0.090 cubic foot per second), 0.08 cubic foot per second sank into a marsh, and only 0.01 cubic foot per second reached the ditch where it became part of the water measured at points 19 and 18. (*e*) The water measured at point 22 (0.050 cubic foot per second) flowed into and became part of the water measured at points 19 and 18. (*f*) The water measured at point 23 (0.002 cubic foot per second) sank into the ground and did not reach the ditch. If it did reach the ditch, it would have become part of the water measured at points 19 and 18.		

(*a*) The stream measured at point 2 (0.002 cubic foot per second) was marked "Alkaline. N.G." and flowed into a marsh whose waters were not collected for transmission in the pipe to the ranch.

(*b*) The measurement at point 3 (0.140 cubic foot per second) was of water which flowed in a ditch from Texas Spring to a tank about ¾ mile from the ranch. The measurement was made 200 feet above the tank.

(*c*) The measurement at point 4 (0.280 cubic foot per second) was at the headwaters of the springs whose waters flowed in the ditch to the tank. The remarks on map 66 state: "Only 50 percent of flow of Texas Spring (No. 4) reaching tank at upper end of pipeline. High velocity of water cuts bank of ditch allowing water to spread and waste." (The 50 percent reaching the tank was the 0.140 cubic foot per second measured at point 3.)

(*d*) The water measured at point 5 (0.001 cubic foot per second), point 6 (0.001 cubic foot per second), point 7 (0.002 cubic foot per second), and point 8 (0.002 cubic feet per second) "drain into Furnace Creek, but all water sinks below surface within 1,000 feet from source." If any of this small amount of water (totaling 0.006 cubic foot per second) reached the ditch, it would have become part of the 1.7 cubic foot per second measured at the entrance to the ranch.

Thus, the maximum water being diverted and collected by the company, as shown on map 66, was 1.899 cubic feet per second from Warm Springs plus 0.140 cubic foot per second from Texas Spring, or a total of 2.039 cubic feet per second.

The following facts are relevant in determining whether the company was entitled, in view of the public water reserves of 1913 and 1926, to divert all of the 2.039 cubic feet per second, which the Valjean map 66 of May 8-14, 1926, shows was being diverted and collected.

1st: 2 of the measurements of the Warm Springs—at point 9 (0.006 cubic foot per second) and point 17 (0.286 cubic foot per second)—are of waters from springs located on land covered by Public Water Reserve 13 of Dec. 1, 1912, which precluded the company from developing or acquiring title to any waters from these lands after Dec. 1, 1913. There is no evidence to show that these waters (totaling 0.292 cubic foot per second were developed prior to Dec. 1, 1913. The blue print sketch prepared by H. P. Gower on Sept. 19, 1925, does not show the waters measured by Valjean at point 9 on the May 1926 map 66, although these waters were near the ditch as it existed in September 1925. The waters measured at point 17 are apparently the same as those which Gower's September 1925 blueprint sketch labels 18 inches and shows as flowing into the company's then existing ditch.

2d: The other measurements of the Warm Springs are of waters from springs located on lands covered by Public Water Reserve 107 of Apr. 17, 1926, which precluded the company from developing or acquiring title to any waters from such lands after Apr. 17, 1926. The Gower blueprint sketch of Sept. 19, 1925, shows the following waters as flowing into the company's then existing ditch:

Gower sketch:	*Valjean map*
15 inches	Point 11 (0.515 cubic foot per second).
21 inches	Point 14 (0.492 cubic foot per second).
1 inch	Point 15 (0.018 cubic foot per second).
2 inches	Point 16 (0.006 cubic foot per second).
18 inches	Point 17 (0.286 cubic foot per second).
12 inches	Point 18 (0.566 cubic foot per second) (including point 19).
3 inches 2 inches	Point 20 (0.044 cubic foot per second, which is included in point 18).

Gower's blueprint sketch of Sept. 19, 1925, does not show the waters which were measured at point 9 (0.006 cubic foot per second), at point 10 (0.008 cubic foot per second), and point 12 (0.002 cubic foot per second) on Valjean's May 1926 map. In addition, the Gower sketch shows (as "proposed addition" to the "ditches proposed") the waters shown on the Valjean map at points 21, 22, and 23. (As mentioned above, only 0.01 cubic foot per second of the 0.09 cubic foot per second flow of point 21 actually reached the ditch on the Valjean map. The remaining 0.08 cubic foot per second flow of point 21, and all of the flow of point 23 (0.002 cubic foot per second) sank into the ground.) In determining whether the waters of these points (9, 10, 12, 21, 22, and 23) were developed in the 7-month period between Sept. 19, 1925, and Apr. 17, 1926, or in the approximately 3-week period between Apr. 17, 1926, and May 8, 1926, when Valjean began his survey of the water supply, it should be noted that on Nov. 6, 1925, Harry P. Gower wrote to Frank Jenifer, "We have collected most of the water in the most southerly canyon at the headwaters. This is now running into the main ditch, increasing the flow from 88 inches to 95 inches. The measurements were taken from a weir on the ditch just below the swimming hole." (88 miner's inches equals 1.76 cubic feet per second; 95 miner's inches equals 1.9 cubic feet per second.)

Since the 1.9 cubic feet per second noted by Gower is virtually the same as the 1.899 cubic feet per second which the Valjean map showed as flowing in the main ditch from point 9 upward (point 9 was near the swimming hole), it would appear that the Valjean map shows the progress of the company's water developments substantially as they existed immediately before Apr. 17, 1926.

This map contains following summary statement:

Map 65: Furnace Creek Ranch (surveyed by Valjean May 14, 1926).

WATER DEVELOPMENTS OF DEATH VALLEY HOTEL CO. (AND ITS PREDECESSORS IN INTEREST) AT FURNACE CREEK AREA, DEATH VALLEY, CALIF.—Continued

Analysis, part A, prepared by Phineas Indritz, Dec. 21, 1962—Continued

Document reference and date (month and year)	Diversions, amount and sources	Place of use of water delivered	Losses of water by evaporation and seepage
	WATER SUPPLY		
			Second-feet
	Average flow of Warm Springs ditch at ranch, May 14, 1926		1.68
	Average flow of Texas Springs pipe at ranch, May 14, 1926		.14
	Combined flow of ditch and pipe		1.82
	Saving possible by maintaining ditch from Texas Springs in good condition		.12
	Saving possible by short connecting ditch at Warm Springs		.07
	Total available at ranch under above conditions		2.01
	Total supply available at ranch if piped from springs		2.26
Jenifer to Zabriskie, Oct. 30, 1928	"* * * at Furnace Creek * * * perhaps as much as 10 or 12 inches * * * flowing under the wash and lost entirely. I therefore arranged for Gower to * * * run deep trenches in order to recover all of that additional water."		
Jenifer to Zabriskie, Nov. 14, 1928	"The water development work at Furnace Creek has shown that we have been losing a good deal of water and the trenching already done has increased our flow fully 12 to 15 inches. It is apparent there is a good deal more getting away from us under the wash and the shaft I wrote you about recently will be sunk at the narrowest point below the springs as soon as the fencing is completed."		
Gower statement of May 2, 1960, p. 3	(1928) "As stated above from Valjean map and record, we were delivering 1.7 second-feet of water to the ranch in 1926 from a developed supply of 1.9 second-feet. We got busy and cleaned up the ditches and got production up to 2.08 second-feet in 1928 and into a 3,000-foot line of 12-inch pipe to generate 25 kilowatts of power at the Inn.		
Gower statement dated May 6, 1960, pp. 2–3	"In 1930 * * * we moved a lot of 1½- and 2-inch steel pipe * * * and connected up several springs and water seepages outside the Texas Spring 40 acres to the public campground. This gave a supply of 7 gallons per minute * * *." (Map 66 does not show these springs.)		
Gower statement of May 2, 1960, p. 4	"In 1931, the 12-inch pressure line was lengthened 3,000 feet to a new intake and screening box at the springs. Power was raised to 40 kilowatts and by cleaning out the South Travertine Springs raised the volume going through the wheel to 2.25 cubic feet per second. * * * From the wheel the water proceeded as needed through the Inn swimming pool and gardens to the ranch a mile away * * * to alfalfa fields, the growing date gardens, the patches of athel woods being grown for firewood and windbreaks and in the winter season to the duck ponds below the ranch * * *."		
Gower statement of May 2, 1960, p. 3	"In 1932 * * * we turned our attention to the several springs and seepages below the main spring in Furnace Creek Wash which, though directed toward the main ditch, usually settled in the sand and never reached it. A system of cuts in the gravel, tile open joint drains with concrete settling boxes was installed 4 feet below the ground and connected by 7,000 feet of 6-inch steel pipe to the Inn tank from which * * * the ranch also got its domestic supply. This improvement added at least 0.2 second-foot of water * * *."		
Gower statement of May 2, 1960, p. 5	"In 1933, following a cloudburst which took out the thicket of mesquite which at one time covered the canyon floor at the Furnace Creek Springs and lowered the level of the wash a foot or two, it was noted that the South Travertine Spring at that point was again flowing, after long intermission, at about the rate (0.5 second-foot) which Valjean had reported in 1926. We proceeded to cut a trench with the bulldozer, put in a screening box and 12-inch pipe leading across the wash to the intake of the 12-inch pelton wheel line and thereby brought the flow up to 1.01 second-feet which has been maintained ever since."		
Gower to Jenifer, July 10, 1935	Pump installed "in the pit which we have begun in the wash about a thousand feet below the intake box at the springs * * *. No sign of bedrock yet and indications are that there will be plenty of water."		

Jenifer to Gower, July 18, 1935	"* * * possibly a better job can be done and our purposes served to better advantage if we can recover such waters on our own land east of the hotel * * *."
Gower to Jenifer, Aug. 4, 1935	"We are driving the tunnel under the inn * * * The well up near the spring was completed to bedrock at 22 feet. The pump makes 10 inches of water from there constantly. We have started another pit about 100 feet south of the completed one. The plan is to have three pits in a row across the wash."
Gower to Jenifer, Apr. 19, 1936	"* * * with the increase of business and the addition of rooms and facilities at the inn and camp, our requirements [for drinking water] are constantly increasing. The garden at the inn, the golf course, and new plantings * * * all draw so heavily on this same system that this week I have set to work to gather into the domestic system all the water below the intake box of the hydroelectric system. This now is collected by open ditch or open joint tile and brought to the ditch * * * we will get this into a tight pipe and carry it to the inn reservoir doubling, we hope, the supply now furnished by Texas Spring. This will not be the developing of new waters on the public domain but merely the more sanitary gathering of the supplies which already go into our ditches."
Gower to Jenifer, June 6, 1936	The open red tile drains tapping several of the Travertine Springs are replaced by concrete sand boxes with tile drains, and from the final sand box 6,600 feet of 6-inch pipe are installed 3 feet underground to the inn reservoir. "By this development we have placed 247 gallons per minute additional domestic water in the system, increasing the flow of 295 gallons, from Texas Spring by 120 percent and giving a supply ample for a long time for all uses of the inn, camp, gardens, and golf course."
Gower statement of May 2, 1960, p. 4	2 shafts sunk on hotel property—shaft 1 pumping 425 gallons per minute and shaft 2 pumping 864 gallons per minute. "* * * during 1937 and 1938," the company constructed "a 900-feet tunnel through the spur which forms the west bank of the wash to tap the water at 30 feet below the wash level. Water was taken out from No. 2 shaft into tunnel by means of a 12 inch siphon at the rate of 1.04 gallons per minute as needed, run through the inn garden and for the irrigaton of 150 palms planted outside the inn gardens. The surplus was dumped into the main ditch leading from the Furnace Creek Springs to the ranch. The siphon was eventually discontinued and water now comes through some perforated pipes driven from the face of the tunnel 10 feet into the sands of the wash. Valves on these pipes provide a regulated flow with an average maximum at present of 0.3 second-foot."
Gower statement of May 2, 1960, p. 3	"In 1940 * * * we drove a tunnel into the Texas Spring area at an elevation 35 feet below the spring, and installed a settling box underground connected to the existing domestic supply line * * * and the water supply increased from 0.35 second feet to a total of 0.6 cubic foot per seconds, which in time settled back to approximately 0.5 second-foot."
Memorandum by C. M. Rasor entitled "History of Furnace Creek Ranch and Water Rights" (written October 1941; see p. 3).	Contains an appraisal of the ranch which includes following listing: "Water rights and improvement, Texas Spring, 0.59 second-foot plus water to be developed." * * * * * * "Water rights and improvements at Travertine, irrigation and domestic water springs, 3.83 second-feet plus water to be developed."

	Acres
Auto camp	30.5
Date gardens	33.5
Golf course	44.0
Golf course annex	40.0
Miscellaneous planting	35.0
Bird refuge	15.0

WATER DEVELOPMENTS OF DEATH VALLEY HOTEL CO. (AND ITS PREDECESSORS IN INTEREST) AT FURNACE CREEK AREA, DEATH VALLEY, CALIF.—Continued

Analysis, part B, prepared by Phineas Indritz, Dec. 21, 1962

Document reference and date (month and year)	Uses, number of people and animals	Crops, type and amount	Comments (explanations, etc., including duty of water for respective uses)
6 photographs; label affixed to back of photograph states "FCR 1892" (meaning Furnace Creek Ranch, 1892; the name of the ranch at that time was Greenland Ranch).	Photographs show about 30 horses grazing		
Book, John R. Spears' "Illustrated Sketches of Death Valley," copyright 1892, Rand McNally & Co.		Pp. 27 and 74–75—refer to 30 acres of alfalfa cultivated at ranch.	
Letter, Corkill to Locke, Nov. 3, 1909 (with attached inventory).	Ranch inventory lists: 74 cattle, 5 horses, 8 mules, and 96 chickens.		
Letter, Locke to H. T. Daniell, Dec. 18, 1909 (with attached inventory made "1 year ago").	Ranch inventory lists: 70 cattle, 6 horses, 8 mules, 72 chickens, and 37 acres under cultivation.		
Letter, Corkill to Locke, Apr. 6, 1911	In 1910, the ranch furnished over 5,000 pounds of beef to workers at the mine and assessment camps and about 42 tons of hay. The ranch alfalfa field is "capable" of furnishing up to 200 tons of hay; "75 cattle, chickens, grapevines, few fig trees," but "no vegetable truck, no fruit trees."		
Corkill to Locke, Sept. 4, 1911	200 pounds of watermelons furnished to workers at mine. Also grown were cantaloups and cotton (with but few cotton balls). Winter vegetables will be put in "next month."		
Auditor's general report for March 1912 (dated Apr. 15, 1912) on Greenland Ranch (now Furnace Creek Ranch).		"There are about 100 acres of ground cleared, 75 acres in alfalfa, 3 acres in field corn and Kaffir corn, 1 patch cabbage, small vineyard, and considerable fruit and garden truck." (Alfalfa harvested "5 times a season"; about 300 tons expected "this year").	

Letter, Corkill to Locke, Jan. 27, 1913		A "number of fig trees and date palms." Only 1 fig tree "bears fruit that matures * * *. The fruit is good tasting and fair size, but only the 1st crop matures" on this 1 fig tree. 12 olive trees sent to ranch in 1906 "but none remains today." Half of the palm trees bore fruit, with seeds "large in proportion to the size of the fruit and * * * not enough meat on them * * *. However, the meat that is on them is very sweet, and tastes like a real date." Appendix to letter lists considerable number of trees that were sent to the ranch in 1906, but "the only trees that remain, or grew, out of the entire list: Figs, pepper trees, grapes, palms, dates, and oleander trees."
Letter, Corkill to Locke, Mar. 14, 1913		12,463 pounds of beef provided to miners. Spineless cactus plants being considered, but "as yet the plants have not arrived."
Letter, John Ryan to Wm. Locke, Apr. 9, 1913		40 acres being worked
Letter, John Ryan to Wm. Locke, Apr. 14, 1913.	103 cattle	
Various photographs (2 labeled "FCR 4-28-13"; 6 transmitted by letter of May 13, 1913).		Photos show hayfield, wheatfield, cactus plants in ground, weather observation station.
Letter, Corkill to Garner Smith, June 22, 1913		6 crops: 1st crop averages 2 tons per acre, and succeeding crops (30 days apart) yield from 1½ to 1¾ tons per acre.
Letter, Locke to Corkill, Oct. 28, 1913		80 of the 100 cactus plants were killed by the heat
Letter, Corkill to Locke, Feb. 15, 1914		"2 years ago we raised a small crop of dates, but they were all stone, and very little meat on them."
Annual report (dated Oct. 30, 1920) by Mine Superintendent Boyd for 1919-20.	"* * * Herd of cattle"	"* * * about 70 acres of alfalfa have been cropped."
Annual report (dated Oct. 27, 1921) by Mine Superintendent Boyd for 1920-21.	65 head of cattle maintained	"The vegetables were planted in March, which proved to be a month too late. The small date palms are growing well * * *. The amount of alfalfa hay cropped was about the same as last year." "The amount of ground under cultivation was erroneously given last year as 70 acres. The ranch was surveyed in September 1921 (a plan accompanies this report) and the amount of land under cultivation was found to be only 40 acres."
Annual report (dated Nov. 5, 1923) by Mine Superintendent Boyd for 1922-23.		"The cattle are doing fairly well * * * herd increased by 17 head. In addition, the ranch supplied the boardinghouse with 375 dozen eggs, 4 dozen chickens, and small quantities of miscellaneous vegetables."
Letter, Cook to Jenifer, June 3, 1924; letter, Jenifer to Dudley, June 12, 1924; and contract between Cook and Pacific Coast Borax Co., dated June 15, 1925.		As an "experiment," P.C.B. contracts for 1st purchase of Deglet Noor palm trees (20 trees) for delivery in 1925; and in 1925 purchases 100 additional trees for delivery of 50 in 1926 and 50 in 1927.

WATER DEVELOPMENTS OF DEATH VALLEY HOTEL CO. (AND ITS PREDECESSORS IN INTEREST) AT FURNACE CREEK AREA, DEATH VALLEY, CALIF.—Continued

Analysis, part B, prepared by Phineas Indritz, Dec. 21, 1962—Continued

<table>
<tr><th>Document reference and date (month and year)</th><th>Uses, number of people and animals</th><th>Crops, type and amount</th><th>Comments (explanations, etc., including duty of water for respective uses)</th></tr>
<tr><td>Map 65: Furnace Creek Ranch (surveyed by Valjean, May 14, 1926).</td><td>----------</td><td>Map shows acreage at Ranch devoted to following purposes:
"Culture"
<table><tr><th>Lot</th><th>In use, May 1926, for—</th><th>Acres</th></tr><tr><td>1</td><td>Corral, woodyard, buildings</td><td>1.73</td></tr><tr><td>2</td><td>Yard, buildings, chicken yard, hay yard</td><td>1.06</td></tr><tr><td>3</td><td>Corral, barnyard, barn, sheds</td><td>.80</td></tr><tr><td>4</td><td>Palm grove, camp ground, swimming pool, buildings, road</td><td>.65</td></tr><tr><td>5</td><td>Hay yard, stack and baler</td><td>1.52</td></tr><tr><td>6</td><td>Seedling dates</td><td>2.63</td></tr><tr><td>7</td><td>Dates</td><td>2.30</td></tr><tr><td>8</td><td>Dates</td><td>1.45</td></tr><tr><td>9</td><td>Wheat</td><td>2.81</td></tr><tr><td>10</td><td>Alfalfa</td><td>4.86</td></tr><tr><td>11</td><td>Alfalfa, 6.22; west, 3.26 unplanted</td><td>9.48</td></tr><tr><td>12</td><td>Hayfield</td><td>12.87</td></tr><tr><td>13</td><td>Pasture</td><td>4.96</td></tr><tr><td>14</td><td>Melons, 0.98; corn, 1, sweetpotatoes, 0.52; unplanted, 1.98</td><td>4.48</td></tr><tr><td>15</td><td>Potatoes, 0.56; corn, 0.56; cabbage, 0.69</td><td>1.81</td></tr><tr><td>16</td><td>Date plants, onions, corn; U.S. experimental plot</td><td>.50</td></tr><tr><td>17</td><td>Alfalfa</td><td>10.13</td></tr><tr><td>18</td><td>Alfalfa</td><td>12.13</td></tr></table>The foregoing list indicates following uses:
<table><tr><th></th><th>Acres</th></tr><tr><td>Alfalfa, hayfield, and pasture</td><td>51.17</td></tr><tr><td>Wheat</td><td>2.81</td></tr><tr><td>Dates</td><td>6.38</td></tr><tr><td>Vegetables (melons, corn, potatoes, cabbage, etc.)</td><td>4.81</td></tr><tr><td>Total crops</td><td>65.17</td></tr><tr><td>Miscellaneous (woodyard, buildings, hay yard, corrals, unplanted, etc.)</td><td>11.00</td></tr><tr><td>Total acreage used</td><td>76.17</td></tr><tr><td>Auto camp</td><td>30.5</td></tr><tr><td>Date gardens</td><td>33.5</td></tr><tr><td>Golf course</td><td>44</td></tr><tr><td>Golf course annex</td><td>40</td></tr><tr><td>Miscellaneous planting</td><td>35</td></tr><tr><td>Bird refuge</td><td>15</td></tr></table></td><td></td></tr>
<tr><td>Memorandum by C. M. Rasor, entitled "History of Furnace Creek Ranch and Water Rights" (written October 1941, see p. 3).</td><td>----------</td><td></td><td></td></tr>
</table>

WATER RESOURCES