



WATER-RIGHT DOCKET

Lake Mead National Recreation Area

Docket No: 34

KATHERINE AREA WELL #2.

Preliminary Docket Information

05-19-1976: water right/source docket information

WATER RESOURCES/WATER RIGHT

DATE: May 19, 1976

WATER RIGHT/SOURCE DOCKET INFORMATION

REGION Western Region AREA Lake Mead National Recreation Area
SITE Katherine Area (Lake Mohave)
STATE Arizona COUNTY Mohave DOCKET NO WR #10
LOCATION SE 1/4, NW 1/4, Sec. 7, T21N, R21W, G&SRB&M
REGIONAL BASIN Colorado River LOCAL BASIN _____
ACQUIRED BY _____
APPLICATION _____ PERMIT _____ CERTIFICATE _____
ACTION DUE _____ PRIORITY _____ RESERVATION _____
QUANTITY 275,000 GPD USE Domestic and irrigation
STATUS Active SOURCE Lake Mohave

REMARKS Hydrology Unit #15010005

NARRATIVE: During 1956, the National Park Service contracted with the Effinger Brothers to drill a well in the Katherine Area of Lake Mead National Recreation Area. The well was drilled to a depth of 90 feet with the principal water bed eight feet below land surface datum. The well was pump tested for 16 hours at approximately 75 gallons per minute.

On October 22, 1958, Mr. A. van V. Dunn sent a memo accompanying Water Right Dockets 9, 10, and 11 for Lake Mead NRA to the Regional Director of Region Three. As a result of Mr. Dunn's testimony in Arizona v. California, he felt it was necessary to expedite the filing of water claims for sources within National Parks, Monuments, etc. Included in the dockets were irrigation studies of Boulder Beach, the Katherine Area, and the Temple Bar Area of Lake Mead NRA. Drawing No. NRA-IM 6980, the irrigation study for the Katherine Area, shows a variety of developments with a total net irrigation area of 27.98 acres. The entire water system depicted in the drawing appeared to be supplied from a single point shown as a pump house adjacent to the shoreline of Lake Mohave near the NPS dock. The drawing is dated August of 1958 and showed an existing 25,000 gallon water tank and a proposed 50,000 gallon reservoir for storage.

On March 23, 1976, Bill Shepard, Maintenance Supervisor of the area, reported that the above well was capped. He reports that the well was never used. Another well was drilled in 1964 or 1965, but is also unused. He reports that wells are not used because of insufficient well yield. The present area consists of 175 campsites, concessionaire, 40 overnight campsites and a motel of 75 rooms. Water usage for 1974 was 101,000,000 gallons. Water is presently taken from the lake by 2 separate intakes, one intake to supply the Katherine Area proper and another intake to supply the Katherine Vacation cabin sites.

Mr. Shepard offered the following information regarding the nearby "Katherine Mines" area. This area is composed of land from patented mining claims. Mining ceased around 1945 when the shafts became flooded. Water is now pumped from the shafts for irrigation and domestic use - the land having now been subdivided and homes built. The amount of water usage is unknown.

Regarding NPS well and/or lake water usage, there is no evidence of any state water right filings.

See also WR Docket #20.

Compiled by Kevin Kidder

Approved by W. Werrell

Page 1 of 1



IN REPLY REFER TO:

United States Department of the Interior

NATIONAL PARK SERVICE
WESTERN REGION
450 GOLDEN GATE AVENUE, BOX 36063
SAN FRANCISCO, CALIFORNIA 94102

RMR

JUN 9 '82

L54 (WR-RNW)

June 4, 1982

Mr. Wesley E. Steiner, Director
Department of Water Resources
99 E. Virginia Avenue
Phoenix, Arizona 85004

Reference: Arizona Groundwater Management Act
(1980), A.R.S. 45-593

Dear Mr. Steiner:

Enclosed are the completed well registration forms for existing wells within the State of Arizona owned by the United States Government, Department of the Interior, National Park Service, Western Region. These forms have been completed for the following areas: Casa Grande National Monument (1 well), Chiricahua National Monument (8 wells), Coronado National Memorial (6 wells), Fort Bowie National Historic Site (1 well), Grand Canyon National Park (no wells), Lake Mead National Recreation Area (14 wells), Montezuma Castle National Monument (3 wells), Organ Pipe Cactus National Monument (21 wells), Petrified Forest National Park (3 wells), Saguaro National Monument (14 wells), Tonto National Monument (1 well), Tumacacori National Monument (3 wells), Tuzigoot National Monument (1 well), and Walnut Canyon National Monument (1 well). The location of these National Park Service areas are shown on the enclosed map (in red).

Of the total 77 wells being registered, 12 wells have a pump capacity exceeding 35 gallons per minute and therefore payment in the amount of \$120.00 (\$10.00 X 12) will be forwarded to your office by the U.S. Treasury Department under separate cover as the registration fee for these non-exempt wells.

If there are any questions with regards to this matter, or if we can be of further assistance, please contact Gerard S. Witucki, Chief, Division of Water Resources, (415) 556-8660, of this Office.

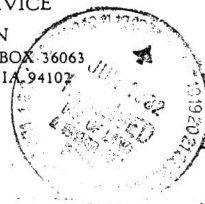
Sincerely yours,

FOR *[Signature]*

Howard H. Chapman
Regional Director, Western Region

Enclosures

See attached sheet for bcc's



Rocky Mountain	INDEX
Regional Office	8 7 1982
Administrative	
Park Operations	ML
Plan & Recreation	
Geology	
Conservation	
Education	
Other	
Arizona Taken	

*See Dockets for
SAGO, CORO*

bcc's sent to:

Superintendent, Casa Grande, w/respective encls., w/blank form & w/o map
Superintendent, Chiricahua/Fort Bowie, w/respective encls., w/blank form & w/o map
Superintendent, Coronado, w/respective encls., w/blank form & w/o map
Superintendent, Grand Canyon, w/o encls.
Superintendent, Lake Mead, w/respective encls., w/blank form & w/o map
Superintendent, Montezuma Castle/Tuzigoot, w/respective encls., w/blank form & w/o map
Superintendent, Organ Pipe Cactus, w/respective encls., w/blank form & w/o map
Superintendent, Petrified Forest, w/respective encls., w/blank form & w/o map
Superintendent, Saguaro, w/respective encls., w/blank form & w/o map
Superintendent, Tonto, w/respective encls., w/blank form & w/o map
Superintendent, Tumacacori, w/respective encls., w/blank form & w/o map
Superintendent, Walnut Canyon, w/respective encls., w/blank form & w/o map
General Superintendent, Southern Arizona Group, w/respective encls., w/blank form & w/o map
Field Solicitor, San Francisco Office - Attn: J. Burke, w/encls. & w/blank form
Field Solicitor, Phoenix Office - Attn: W. Swan, w/map, w/blank form & w/example of
completed form
Regional Director, Rocky Mountain Region - Attn: W. McKeel, w/map, w/blank form &
w/example of completed form
Regional Director, Southwest Region - Attn: G. Moore, w/map, w/blank form & w/example
of completed form
(WR)AF, w/SF 1034, w/o encls.



DEPARTMENT OF WATER RESOURCES
99 EAST VIRGINIA AVENUE
PHOENIX, ARIZONA 85004

REGISTRATION OF EXISTING WELLS

PRINT OR TYPE - FILE IN DUPLICATE

Declaration: The United States gives
jurisdiction to the State in the interest
of comity, and does not concede that the
State has power to regulate the rights of
the United States to the use of water.

REGISTRATION FEE (CHECK ONE)	
EXEMPT WELL (NO CHARGE)	☒
NON-EXEMPT WELL - \$10.00	☐

FOR OFFICE USE ONLY	
REGISTRATION NO. 55-	629130
FILE NO.	B(21-21) 76db
FILED	6-9-82 AT 1:30
	(DATE) (TIME)
INA	
AMA	

- Name of Registrant:
National Park Service, Western Region, Division of Water Resources
450 Golden Gate Ave., Box 36063, San Francisco CA 94102
(Address) (City) (State) (Zip)
- File and/or Control Number under previous groundwater law:
35-
(File Number) (Control Number)
- The well is located within the NW $\frac{1}{4}$ SE $\frac{1}{4}$ NW $\frac{1}{4}$, Section 7, of Township 21 N N/S, Range 21 W E/W, G & SRB & M, in the County of Mohave.
 - If in a subdivision: Name of subdivision _____, Lot No. _____, Address _____.
- The principal use(s) of water (Examples: irrigation - stockwater - domestic - municipal - industrial)
Unused
- If for irrigation use, number of acres irrigated from well _____.
- Owner of land on which well is located. If same as Item 1, check this box ☒

(Address) (City) (State) (Zip)
- Well data (If data not available, write N/A)
 - Depth of Well 147 feet
 - Diameter of casing 14 inches
 - Depth of casing 30 feet
 - Type of casing steel
 - Maximum pump capacity N/A gallons per minute.
 - Depth to water 18.5 feet below land surface.
 - Date well completed (Month) December (Day) 1964 (Year)
- The place(s) of use of water. If same as Item 3, check this box ☐

Lake Mead National Recreation Area - Katherine Well #2
Attach additional sheet if necessary.
- DATE JUN 3 1982 SIGNATURE OF REGISTRANT (Sgd) Gerard S. Witucki
GERARD S. WITUCKI
CHIEF, DIVISION OF WATER RESOURCES

CHANGE OF WELL INFORMATION

Registration Number 55 629130

I request the following information be changed in Well File Number B(21-21)76db

Date _____, 19____ Signature of Well Owner _____

STATEMENT OF CHANGE OF WELL OWNERSHIP

I, _____, state that I am (no longer) the (new) owner of the well described below:

Township _____ Range _____ Section _____, _____ $\frac{1}{4}$ _____ $\frac{1}{4}$ _____ $\frac{1}{4}$

Registration #55-_____ File No. _____

Previous Owner _____ New Owner _____

Address _____ Address _____

City _____ State _____ Zip _____ City _____ State _____ Zip _____

NOTE: ARS 45-593 requires that the Department be notified of change of well ownership and that the well owner is required to keep the Department's Well Registration records current and accurate. Well data and ownership changes must be submitted within 30 days after changes take place.

NOTE: SAVE THIS FORM TO REPORT FUTURE
CHANGES IN OWNERSHIP OR WELL
DATA SUCH AS PUMP CAPACITY, ETC.

State of Arizona
DEPARTMENT OF WATER RESOURCES
99 E. Virginia Avenue, Phoenix, Arizona 85004

27-24

RECEIVED	
NPS STATEMENT REGIONAL OFFICE	
JAN 25 1982	
By	Date
D	
BRUCE BABBITT, Governor	
WESLEY E. STEINER, Director	
January 4, 1982	
PA	
SA	
SB	
SC	
SD	
SE	
SF	
SG	
SH	
SI	
SJ	
SK	
SL	
SM	
SN	
SO	
SP	
SQ	
SR	
SS	
ST	
SV	
SW	
SX	
SY	
SZ	

Dear Well Owner:

Arizona's new Groundwater Management Act requires that all existing wells, regardless of size, be registered with the Department of Water Resources by June 14, 1982. An existing well is one that was drilled prior to June 12, 1980, and which has not been abandoned or sealed. Included are wells which were not completed by June 12, 1980, even though a Notice of Intent to Drill was filed with the Department.

For your convenience, enclosed are the registration forms and the information from your well file. If the information is still correct, simply transfer it to the new form. If the information needs to be updated, please do so on these forms. Be sure to file all forms in duplicate so we can return one copy to you.

There is no fee to register "exempt" wells with a pump capacity not exceeding 35 gallons per minute. "Non-exempt" wells, those with a pump capacity greater than 35 gallons per minute, cost \$10 each to register.

If you own additional wells for which we did not provide data, we probably do not have those wells in our records, or they are filed under another name. In the event you no longer own the well, please forward this information to the new owner.

If you have any questions about well registration, feel free to call us at 255-1546. The toll free number in Arizona is 1-800-352-5464.

Thank you for your cooperation.

Sincerely,

W. Don Maughan
W. Don Maughan
Deputy Director

WDM/CLL/
Enclosure

Think Conservation!

Office of Director 255-1554

Administration 255-1550, Water Resources and Flood Control Planning 255-1566, Dam Safety 255-1541,
Flood Warning Office 255-1548, Water Rights Administration 255-1581, Hydrology 255-1586.

255-1541 SWC

Supporting Hydro Data

FORM 9-1042B
(DEC. 68)

Well No. (B-21-21) 76db

WELL SCHEDULE

U. S. DEPT. OF THE INTERIOR

GEOLOGICAL SURVEY

WATER RESOURCES DIVISION

MASTER CARD

Record by C. Bentley Source of data Nat. Park Serv. & G.S. Date 5-23-69 Map Davis Dam 1:62500

State Ariz. County Mohave (or town) Mohave Sequential number 0.8

Latitude: 35° 13' 18" N Longitude: 114° 33' 50" W

Local use: Water Well number: B-21-21-017B10B Other number: Retaining wall no. 2

Local use: Water Owner or name: National Park Service Address: Lake Mead Nat'l Rec. Area

Ownership: County, Fed Gov't, City, Corp or Co, Private, State Agency, Water Dist F

Use of: Air cond, Bottling, Comm, Devater, Power, Fire, Dom, Irr, Mad, Ind, P S, Rec, U

Water: Stock, Instit, Unused, Repressure, Recharge, Desal-P S, Desal-other, Other U

Use of: (A) (B) (C) (D) (E) (F) (G) (H) (I) (J) (K) (L) (M) (N) (O) (P) (Q) (R) (S) (T) (U) (V) (W) (X) (Y) (Z) U

Well: Anode, Drain, Seismic, Heat Res, Obs, Oil-gas, Recharge, Test, Unused, Withdraw, Waste, Destroyed U

DATA AVAILABLE: Well data 1 Freq. W/L meas.: Reported only Field aquifer char. 1

Hyd. lab. data: 1

Qual. water data; type: 1

Freq. sampling: 1 Pumpage inventory: 1 yes 1 no 1 period: 1

Aperture cards: 1 yes 1 no 1

Log data: Davis Dam 1

WELL-DESCRIPTION CARD

SAME AS ON MASTER CARD Depth well: 147 ft. 147 Meas. 3

Depth cased: 30 ft. 30 Casing type: 5/16 in. steel Diam. 14 in. 14

Finish: porous gravel w. concrete, (perf.), (screen), gallery, end, P

Method: (A) (B) (C) (D) (E) (F) (G) (H) (I) (J) (K) (L) (M) (N) (O) (P) (Q) (R) (S) (T) (U) (V) (W) (X) (Y) (Z) C

Date: 12-64 9-6-4 Pump intake setting: none (see remarks) ft. 34

Driller: D.M. Gullard Drilling Co. Lts Vegas Nevada Address 1 Deep 1 Shallow 1

Lift: (A) (B) (C) (D) (E) (F) (G) (H) (I) (J) (K) (L) (M) (N) (O) (P) (Q) (R) (S) (T) (U) (V) (W) (X) (Y) (Z) 1

Power: (type): diesel, elec, gas, gasoline, hand, gas, wind; H.P. 1 Trans. or meter no. 1

Descrip. MP 1 above 1 ft below LSD, Alt. MP 1

Alt. LSD: 970 970 Accuracy: Topo-40 ft. Cont. Int. 4

Water Level: 10.5 ft above MP; Ft below LSD 1.8 Accuracy: Difference 1

Date: 12-18-64 12-18-64 Yield: 70-100 gpm 70 Method determined 1

Drawdown: 108 ft. 108 Accuracy: Difference 3 Pumping period 24 hrs 24

QUALITY OF WATER DATA: Iron 1 Sulfate 1 Chloride 1 Hard. 1

Sp. Conduct 1 K x 10⁶ 1 Temp. 1 Date sampled 1

Taste, color, etc. 1

Well No. (B-21-21) 76db

Well No. (B-21-21) 7 bdbLatitude-longitude 35° 13' 18" N 114° 33' 50" W

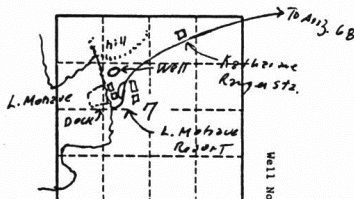
HYDROGEOLOGIC CARD

SAME AS ON MASTER CARD
 Physiographic Province: Basin & Range Section: Mexican
 Highland: D Drainage Basin: B:11N:1110ms Subbasin: Cola. Abu. Base W.
 (D) (C) (E) (F) (H) (K) (L)
 Top of depression, (stream channel), dunes, flat, hilltop, sink, swamp,
 well site: (Q) (P) (S) (T) (U) (V)
 offshore, pediment, hillside, terrace, undulating, valley flat C
 MAJOR
 AQUIFER: Test. Quaternary Plio-Pleistocene A:Q Alluvium O:A
 system series aquifer, formation, group
 Lithology: Sand gravel, sandy clay B:R Origin: fluvial 2 Aquifer Thickness: 80 ft
 Length of well open to: 65 ft 6.5 Depth to top of: 18 ft 1.8
 MINOR
 AQUIFER: Textury Mio-Pleistocene T:F Alluvium O:A
 system series aquifer, formation, group
 Lithology: Sandstone & conglomerate B:C Origin: fluvial 2 Aquifer Thickness: 99 ft
 Length of well open to: 44 ft 4.4 Depth to top of: 99 ft 9.9
 Intervals Screened: Perforated 30-95 ft. 1/8 x 2 1/2 in. slots; open hole 103-147 ft.
 Depth to consolidated rock: 99 ft 9.9 Source of data: Driller's log D
 Depth to basement: 200 ft. 200 Source of data: Estimated G
 Surficial material: Sandy clay B:P Infiltration Characteristics: Probably good G
 Coefficient Trans: --- gpd/ft --- Coefficient Storage: ---
 Perm: --- gpd/ft²; Spec cap: 0.6 gpm/ft; Number of geologic cards: ---

Remarks: Well abandoned - too small yield.

Pump removed & well capped.

Driller's log & pump test data enclosed



WELL LOG AND REPORT TO THE STATE ENGINEER OF NEVADA

PLEASE COMPLETE THIS FORM IN ITS ENTIRETY

Log No. _____
 Rec. _____ 19____
 Well No. 2
 Permit No. _____

Do not fill in

U.S. DEPT. OF THE INTERIOR
 Owner NATIONAL PARK SERVICE Driller O.M. CHILARD
 Address P.O. BOX 127, BOULDER CITY, NEV. Address 6044 Euclid, LV, Nev. Lic. No. 115
 Location of well: 1/4 1/4 Sec. _____, T. N/S, R. E, in _____ Count _____
 or Mathine, Lake Mead Recreation Area, Arizona
 Water will be used for Domestic and Irrigation Total depth of well 147 ft.
 Size of drilled hole 14" Weight of casing per linear foot _____
 Thickness of casing 5/16 wall Temp. of water 78 degrees
 Diameter and length of casing 12" 165'
 (Casing 12" in diameter and under give inside diameter; casing 12" in diameter give outside diameter.)
 If flowing well give flow in c.f.s. or g.p.m. and pressure _____
 If nonflowing well give depth of standing water from surface 18 1/2 ft.
 If flowing well describe control works _____
 (Type and size of valve, etc.) _____
 Date of commencement of well 11-22-64 Date of completion of well 12-18-64
 Type of well rig Cable tool

LOG OF FORMATIONS

From feet	To feet	Thickness feet	Type of material
0	19	19	Sandy clay <i>yellowish, silty</i>
19	22	3	Large stones & gravel, 1st water
22	27	5	Sandy red clay
27	31	4	Sharp coarse sand
31	34	3	Sandy red clay
34	40	6	Sharp coarse sand
40	60	20	fine black sand, red clay
60	68	8	Sharp coarse sand
68	99	31	Sandy red clay
99	108	9	red sandstone (very hard)
108	125	17	Hard conglomerate (quartz)
125	147	22	Conglomerate with small fractures yielding black sand

Water-bearing Formation, Casing Perforations, Etc.

Chief aquifer (water-bearing formation)

from _____ to _____ ft.

Other aquifers _____

First water at 10 feet.

Casing perforated

from 301 to 641 ft.

Size of perforations

1/8 x 2 1/2

(OVER)

219

Diam. casing	From feet	To feet	Length	"Remarks"—Seals, Grouting, Etc.
14"	0	105	105	(2 ft. above ground) Case hardened drive shoe.

See attched sheet for pump test.

WELL DRILLER'S STATEMENT

O. N. GUARD DRILLING CO.
Signed On Lee Clark
Owner-- Well Driller

By

License No. 775

ed ~~12-19~~....., 19-64.

(Not to be filled in by Driller)

[illegible]

NO. 2.

C.D. THOMAS COMPANY, INC.

PUMPING TEST ON WELL AT KATHERINE,

Set turbine pump with 98 ft. of column, and 8 inch 1000 GPM bowls.
Test pumped for a period of 12 hours---surging as well would not
hold up.

TEST # 2

Set turbine pump with 130 ft. of column and 8" 1000 GPM bowls.
Surging to clean well for 8 hours.
Pumped for 24 hours with water standing at 126 ft, pumping approx-
imately 70 GPM.

TEST # 3

Set turbine pump with 140 ft. of column, and 8" 1000 GPM bowls.
Surging for $4\frac{1}{2}$ hours.
Test pumped for 24 hours at 150 GPM.

Due to the rapidity of the drawdown, we were unable to keep a close
5 minute record.


Omer L. Driller



United States Department of the Interior

NATIONAL PARK SERVICE

WESTERN REGION

450 GOLDEN GATE AVENUE, BOX 36063
SAN FRANCISCO, CALIFORNIA 94102

IN REPLY REFER TO:

L54 (RNW)

April 20, 1982

Memorandum

To: All Superintendents, Arizona Areas, Western Region

From: ~~ACTING~~ Regional Director, Western Region

Subject: Arizona Groundwater Management Act, required filings

In compliance with the Arizona Groundwater Management Act of 1980, we are required to register all existing wells within the State on or before June 12, 1982, see enclosure.

The Field Solicitor's Office has advised us that registration of existing wells on National Park Service lands should be made either as a matter of comity, in the case of Federal reserved water rights, or as a matter of compliance with Arizona State law, in the case of Federal non-reserved water rights.

The Division of Water Resources has begun to compile the necessary information for the filings, and in the process may be contacting your offices for further information. They will submit this material to the State.

Information which you feel the Division of Water Resources may not have, concerning recently changed well conditions, pump capacities, etc., should be relayed as soon as possible to the Division of Water Resources at 556-8660.

If you have any questions concerning the well registration requirements, please do not hesitate to contact Mr. Witucki and his staff.

W. Bruce White

Enclosure

cc:
General Superintendent, SOAR

L54
(WR)RNW

September 21, 1981

Witucki
Mills 9/21
Kilgore 9/21

Davis 9/22
Reg. Dir.

Memorandum

To: Field Solicitor, San Francisco
From: **ACTING** Regional Director, Western Region
Subject: Arizona Groundwater Management Act: Registration of Inactive Wells;
Filing for "Grandfathered Rights"

The Division of Water Resources has received inquiries from the affected National Park Service areas concerning certain provisions of the Arizona Groundwater Management Act of 1980, and we are still awaiting a response from your Office regarding our June 11, 1981 memorandum to you. As required by the Act, all wells in the State must be registered with the Arizona Department of Water Resources by June 12, 1982. However, it is not clear whether it is appropriate to register the inactive wells located in the parks within the State of Arizona. Since registration of these inactive wells may have a bearing on the Service's right to drill new or replacement wells in the future, we have tentatively planned to register all wells located within the affected parks. With these concerns in mind, we would appreciate a legal determination and your recommendations as to the registration of inactive wells pursuant to the Arizona Groundwater Management Act.

Through field investigations conducted by the Division of Water Resources staff, telephone conversations with the field areas, and communication with your staff, we determined that it was not necessary to file for "Grandfathered Rights" for any of the wells located in the parks within the designated Active Management Areas since none of the wells in question has a pumping capacity greater than 35 gallons per minute. Under the provisions of the Act, such wells were exempt from filing for "Grandfathered Rights."

Your assistance and cooperation in this matter is appreciated.

(SGD) JOHN H. DAVIS

cc:
General Supt., SOAR
Supts., Saguaro, Tumacacori, & Casa Grande

(WR)RNW:Reed:Werrell:Witucki;ms 9/21/81

154-001

September 22, 1960

Memorandum

To: Regional Director, Region Three
From: Chief, Water Resources Section
Subject: Sale of Katherine Mine Properties (Sections 5 and 6)
T 21 N, R 21 W, G&SRM, Lake Mead

We have reviewed Mr. Miller's memorandum to the Director, dated September 2, subject as above, with copy of District Park Ranger Wenger's memorandum to Superintendent, dated August 23, reporting on the subject sale and copy of Drawing LM-NRA-7103. The following supplemental observations are for the record.

The attached sketch has been prepared in order to show the relative location of the Katherine Mine property to the Katherine developed area and Katherine cabin site area in the event a conflict should arise. It appears from the sketch that the Katherine Mill site has been submerged in Lake Mohave, and is no longer of value.

The subdivision and sale of the patented mining claims as 60 cabin sites would create the need for a pump site on the Lake shore and pipeline right-of-way to those sites. An approach road also seems necessary. There would also be the one group of vacation home sites under Federal lease, and the 60 cabin sites to which the occupants would have fee simple title. These observations and the sketch, are only offered for consideration.

The potential pollution problem also appears to be very real and important. I assume that most of the claims drain toward the Katherine developed area, and contribute to the flood flows which Mr. Richey was attempting to divert to the south before they reached the Parking area, when I was there last. The quality of those sediment laden flows might become much more objectionable with either the uncontrolled cabin developments or more active mining.

A. Van V. Dunn
Chief, Water Resources Section

Attachment

Copy to: Superintendent, Lake Mead, w/identical attachment
Chief, WODC, w/identical attachment

L-24

Region Three
Santa Fe, New Mexico

MAY 20 1959

Memorandum

To: Director

From: Acting Regional Chief of Operations

Subject: Water Rights Dockets 12, 13, 14, 15, 16, 17 and 18,
Lake Mead

Mr. Dunn's memorandum of April 10 transmitting the above numbered dockets arrived while Mr. Fields and Mr. Kell were enroute to Lake Mead and for some reason did not arrive in the Regional Office until April 29.

By memorandum of April 24 Park Engineer Blair transmitted copies of the Well Drilling Logs for:

- (a) Katherine, Docket No. 10
- (b) Temple Bar, Docket No. 11
- (c) Willow Beach, Docket No. 14
- (d) Cottonwood Cove, Campground, Docket No. 16

Also supplied was a chemical analysis of the water from each of the above wells.

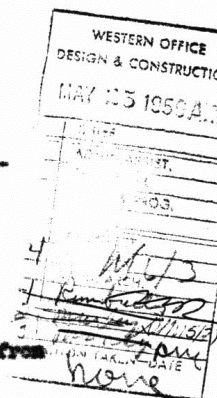
Copies of each log and analysis have been made and placed in our respective dockets. We have attached copies of each log and analysis for your Washington Office dockets and copies are being supplied to the Western Office of Design and Construction for insertion into the proper dockets.

Messrs. Fields and Kell are at Carlsbad Caverns to initiate installations of weirs and recording devices at Rattlesnake Springs. Any additional comments needed in further reply to Mr. Dunn's memorandum of April 10 must wait their return May 25.

Jerome C. Miller
Acting Regional Chief of Operations

In duplicate w/4 sets attachments

Copy to: Supt., Lake Mead w/o attachments
WODC (2) w/4 sets attachments



August 1958

LAKE MEAD - KATHERINE AREA - IRRIGATION STUDY					
Location	Gross Area	Net Irrigation Area	% of Gross Area to be Irrigated	@ 5 AF/A/an	@ 8 AF/A/an
A. Lecture, picnic & parking area	12.19 acres	7.30 acres	60%	36.50	58.40
B. Concessioner trailer area	8.13 acres	3.70 acres	46%	18.50	29.60
C. Public Camp-ground	8.60 acres	6.45 acres	75%	32.25	51.60
D. Multiple guest units	3.98 acres	1.66 acres	42%	8.30	13.28
E. NPS & Concessioner residence area	3.94 acres	2.90 acres	74%	14.50	23.20
F. NPS Utility area	1.36 acres	1.21 acres	88%	6.05	9.68
G. Lodge site	2.67 acres	1.84 acres	69%	9.20	14.72
H. Overnight units	4.04 acres	2.92 acres	72%	14.60	23.36
TOTAL	44.91 acres	27.98 acres	62%	139.90 AF	223.84 AF

W R G
L54-CBL

October 22, 1958

Memorandum

To: Regional Director, Region Three

From: Chief, Water Resources Section

Subject: Water Rights, Dockets 9, 10 and 11, Lake Mead

With copies of this memorandum we are distributing folders for the subject dockets as follows:

Docket No. 9

Boulder Beach

PART I - Domestic Supply
No contents

PART II - Irrigation System

1. Drawing 6979 - Irrigation Study
2. Table with gross and net areas of irrigation and water demand at 5 and 8 AF/Acre/annum

Docket No. 10

Katherine Area

1. Drawing 6980 - Irrigation Study
2. Table with gross and net areas of irrigation and water demand at 5 and 8 AF/Acre/annum
3. Water System Completion Report of 1/24/58

Docket No. 11

Temple Bar Area

1. Drawing 6981 - Irrigation Study
2. Table with gross and net areas of irrigation and water demand at 5 and 8 AF/Acre/annum

Also attached are three extra prints of Drawing 6979, 6980, and 6981. The drawings have been prepared for interim record and study purposes. The extra prints are for you to refer to the office which can supply the corrections and extras needed for water right applications, of which a part will be either in narrative form, or preferably on the standard forms which should be obtained from the State Engineer of Nevada, and Water Division of Arizona Land Department.

As a result of my testimony in Arizona vs. California, we should expedite the filing of water claims. I am also interested in determining the extent to which the ultimate water demand for all areas in each state may agree with or exceed the estimates to which I testified. An unnumbered and undated work order under Account 14X1035 (0343), General Ledger Account 102.4 should be prepared and submitted for approval as soon as engineering personnel can be provided by one of the three offices to whom the dockets are sent.

The first problem is to get the areas located by sections, with ties to section corners, and complete the plans and descriptions of the existing and proposed one or more water systems. These descriptions should include pump units, pump lifts and gradients, and sizes and capacities of the pipelines and any ditches.

We also need the estimated ultimate water demands for domestic, irrigation, and other purposes, with justifications based on permanent and transient population, net irrigated areas and water demand per acres per year of irrigation, and demands for any other purposes which are not included under those two purposes.

The irrigated areas are given by units A, B, C, etc., and the net areas has been determined by deducting roads, buildings and such spaces from the gross outlined areas. I visited the Boulder Beach area just after testifying in May, and decided that I may have been unduly conservative in the irrigation estimates I gave for 1966 and 1975, because I did not realize how much the irrigated area had been developed since my last previous trip. However, the thriving trees also give a deceptive idea of possibly excessive irrigated areas because they hang over the paved areas. If possible, we should tabulate the annual amount of water which has actually been used on the areas which are now under irrigation, and divide the amounts by the portions of net areas which have already been irrigated, to obtain a unit value for the other areas which are not yet developed.

It may be well to have a preliminary exchange of ideas on this program before estimates are completed as work orders. I shall appreciate comments on any other features which come to your mind.

We do not have to consider the municipal supply at Boulder Beach except as the records can supplement the shorter records for the irrigation well.


A. van V. Dunn
Chief, Water Resources Section

Attachments 12

Copy to: Superintendent, Lake Mead, with 3 attachments
Chief, WODC, with 3 attachments

AvVDunn:let

~~Mr. Dunn~~

Docket Information

Number of Documents in Docket 18

Documents Dated from 8/15/1958 to 6/4/1982

Docket Compiled: 6/2/2016