



WATER-RIGHT DOCKET

Lake Mead National Recreation Area

Docket No: 13

ECHO BAY WELL.

Preliminary Docket Information

05-09-1979: water right/source docket information

DOCKET (FILE) TITLE _____		DATE: May 9, 1979
REGION Western	AREA Lake Mead National Recreation Area	
SITE Echo Bay Well		
STATE Nevada	COUNTY Clark	DOCKET NO WR #13
LOCATION SW $\frac{1}{4}$ SW $\frac{1}{4}$ Sec.5 T19S R68E		
REGIONAL BASIN _____	LOCAL BASIN _____	
ACQUIRED BY Appropriation		
APPLICATION 19936	PERMIT 19936	CERTIFICATE 5621
ACTION DUE _____	PRIORITY June 23, 1961	RESERVATION October 8, 1964
QUANTITY 0.248 cfs up to 58,505,000 gpy	USE Domestic and quasi-municipal (public supply)	
STATUS Active	SOURCE Well (Water drawn from lake)	
REMARKS Hydrologic Unit #15010005		
NARRATIVE:		
In May of 1958 a water and sewer system was completed at Echo Bay to supply the campground, offices and residences there. A 100,000 gallon steel reservoir collected water from the well and a series of pipelines carried it to the facilities located at the beach. In 1961 a state filing was made on the source by the Park Service, and in 1963 the State of Nevada issued a certificate for the operation. The well is also located on reserved land, though there seems to be no present need to invoke any reserved right. The current status of the well is unknown; since there is no indication another well or diversion exists in the area, it is assumed the system described above is still extant.		
Compiled by T. Kern		
Approved by _____		



STATE OF NEVADA
DEPARTMENT OF CONSERVATION AND NATURAL RESOURCES

HUGH A. SHAMBERGER
Director

ELMO J. DeRICCO
State Engineer

DIVISION OF WATER RESOURCES

STATE OFFICE BUILDING
Carson City, Nevada

In reply refer to No. 19921, 19922 and 19936

December 10, 1963

U.S. Department of the Interior
National Park Service
Lake Mead National Area
P. O. Box 127
Boulder City, Nevada 89005

Gentlemen:

Enclosed are certificates No.s.

5619, 5620, and 5621

issued under the provisions of NRS 533.425, which
certificates have been recorded in the records
of Clark County, Nevada, as required
by law, and the proper notations entered on the
reverse side of the certificate_s.

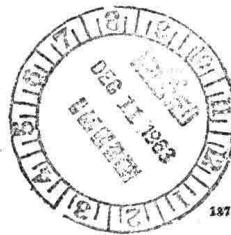
Official receipt No. 61442, issued in
the sum of \$ 3.00 covering the statutory fees
received for recording the certificates is enclosed
herewith.

Very truly yours,

ELMO J. DeRICCO,

State Engineer.

enc: 4
ns



Address all communications to the State Engineer, Division of Water Resources.

1875

(1) CB

390930 Division of Water Resources
 State Office Bldg
 Carson City, Nev.

390930
 2-1

Application No. 19936 Certificate Record No. 5621 Book 17 Page 5621

THE STATE OF NEVADA
 CERTIFICATE OF APPROPRIATION OF WATER

WHEREAS, Gilbert A. Kane - Civil Engineer has presented to the State Engineer of the State of Nevada Proof of Application of Water to Beneficial Use, from an underground source (Echo Bay Well) through drilled well, pump, storage reservoir and distribution system for quasi-municipal (resort) and domestic purposes. The point of diversion of water from the source is as follows: SW $\frac{1}{4}$ SW $\frac{1}{4}$ Sec. 5, T. 19 S., R. 68 E., M.D.B. & M., or at a point from which the N.W. corner of Sec. 1, T. 19 S., R. 67 E., M.D.B. & M. bears N. 68° 53' 42" W., 12,471.09 ft. situated in Clark County, State of Nevada.

Now KNOW YE, That the State Engineer, under the provisions of NRS 533.425, has determined the date, source, purpose, amount of appropriation, and the place where such water is appurtenant, as follows:

Name of appropriator United States of America, National Park Service,
Lake Mead National Recreation Area, Department
of the Interior
 Post-office address Boulder City, Nevada

Amount of appropriation 0.248 c.f.s. but not to exceed 58,505 m.g.
 annually

Period of use, from January 1st to December 31st of each year

Date of priority of appropriation June 23, 1961

Description of works of diversion, manner and place of use:
Water is developed by means of a drilled well and is conveyed by pipe
line to a 100,000 gallon storage reservoir, thence through a distri-
bution system to a utility area, visitor center, comfort stations and
a Lake Mead National Recreation camp area where it is used for quasi-
municipal and domestic purposes. The place of use covers 30 acres in
the North portion of SW $\frac{1}{4}$ SW $\frac{1}{4}$ Section 5, 10 acres in the NE $\frac{1}{4}$ SE $\frac{1}{4}$ SE $\frac{1}{4}$
Section 5, 6 acres in the SW $\frac{1}{4}$ NW $\frac{1}{4}$ SW $\frac{1}{4}$ Section 5, 2 acres in the NW $\frac{1}{4}$
SE $\frac{1}{4}$ SW $\frac{1}{4}$ Section 5, T. 19 S., R. 68 E., M.D.B. & M.

The right to water hereby determined is limited to the amount which can be beneficially used, not to exceed the amount above specified, and the use is restricted to the place and for the purpose as set forth herein.

IN TESTIMONY WHEREOF, I, ELMO J. DeRICCO, State Engineer

Compared ns/hs of Nevada, have hereunto set my hand and the seal of my office, this

Recorded 10/16/63 Bk. 45 Page 5621 10th day of October, A. D. 19 63

Clark County Records.

2515

Assistant State Engineer.

SEAL

AFFIXED

BOOK 485

390930
2-2

STATE OF NEVADA

CERTIFICATE OF
APPROPRIATION OF WATER

Application Number..... 19936
Certificate Number..... 5621
Book..... 17 Page 5621
Received and filed at the request of
Nevada State Engineer
this *16* day of *October*
19 *63* in Book *485*
Page *390930*
Paul E. Hobb
County Recorder

NO 390930
RECORDED AT THE REQUEST OF
Nevada State Engineer
OCT 16 12 44 PM '63
OFFICIAL RECORDS BOOK NO. 485
CLARK COUNTY, NEVADA
PAUL E. HOBBS, RECORDER
FEE \$ 100.00 b4 DEPUTY

7-

DIVISION OF WATER RESOURCES

(1) CB

Permit No. 19936

AMENDED
PROOF OF APPLICATION OF WATER TO BENEFICIAL USE

DEPOSITION OF PERMITTEE

Note—Questions 1 to 12, inclusive, must be answered regardless of the purpose for which your permit for water has been granted. If this proof is made for irrigation purposes, a cultural map showing actual boundaries of land irrigated, together with details of culture, etc., must accompany same, unless such map has already been filed. (See NRS 533.400, NRS 533.405 and NRS 533.410.)

Question 1. What is your name, occupation, and post-office address?

Answer: Gilbert A. Kane / Civil Engineer / Boulder City, Nevada

Question 2. Are you acting in behalf of a corporation? If so, state its name, place of business, and your authority for acting in its behalf.

Answer: No

Question 3. What is the number of the permit under which this proof is made? Answer: 19936

Question 4. From what source do you obtain your water supply?

Answer: 175 ft. well.

Question 5. What is the name of the canal, conduit, or other works by which water is conducted to its place of use?

Answer: 6" C.I. pipe / 2" PVC / 4" C.I. pipe

Question 6. Are you the person to whom the permit was issued? If not, state how you obtained it, giving the succession of title.

Answer: Gilbert A. Kane, for Charles A. Richey, Superintendent, Lake

Mead National Recreation Area, for the United States of America.

(If assignments of title are not on file in the office of the State Engineer, the certificate will issue to the original applicant.)

Question 7. For what purpose are you using the water for which you are now making proof?

Answer: Quasi-Municipal

Question 8. How many cubic feet per second of water, or fraction thereof, have you actually diverted and beneficially used for the purpose for which this proof is made?

(Actual measurement of water shall be given. 40 miners' inches equals 1 cubic foot per second. 1 miners' inch equals 11.21 gallons per minute. 448.83 gallons per minute equals 1 cubic foot per second.)

Answer: 0.248 cfs.

Question 9. State the period during the year when water has been beneficially used.

Answer: January 1 to December 31

Question 10. Do you divert and use more water at periods than granted in the permit for which proof is made? If so, make proper explanation.

Answer: No

Question 11. Give date when water measurements were taken, the point at which such measurements were taken and the name and address of persons who made the measurements.

Answer: Electric meter reading taken once a month for power used by pump. Quantity computed from this figure.

Permit No. 19936**PROOF OF APPLICATION OF WATER TO BENEFICIAL USE****DEPOSITION OF PERMITTEE**

Note—Questions 1 to 12, inclusive, must be answered regardless of the purpose for which your permit for water has been granted. If this proof is made for irrigation purposes, a cultural map showing actual boundaries of land irrigated, together with classes of culture, etc., must accompany same, unless such map has already been filed. (See NRS 533.400, NRS 533.405 and NRS 533.410.)

Question 1. What is your name, occupation, and post-office address?

Answer: Gilbert A. Kane / Civil Engineer / Boulder City, Nevada

Question 2. Are you acting in behalf of a corporation? If so, state its name, place of business, and your authority for acting in its behalf.

Answer: NoQuestion 3. What is the number of the permit under which this proof is made? Answer: 19936

Question 4. From what source do you obtain your water supply?

Answer: 175 ft. well.

Question 5. What is the name of the canal, conduit, or other works by which water is conducted to its place of use?

Answer: 6" C.I. pipe / 2" PVC / 4" C.I. pipe

Question 6. Are you the person to whom the permit was issued? If not, state how you obtained it, giving the succession of title.

Answer: Gilbert A. Kane, for Charles A. Richay, Superintendent, Lake Mead National Recreation Area, for the United States of America.

(If assignments of title are not on file in the office of the State Engineer, the certificate will issue to the original applicant.)

Question 7. For what purpose are you using the water for which you are now making proof?

Answer: Quasi-Municipal

Question 8. How many cubic feet per second of water, or fraction thereof, have you actually diverted and beneficially used for the purpose for which this proof is made?

(Actual measurement of water shall be given. 40 miners' inches equals 1 cubic foot per second. 1 miners' inch equals 11.21 gallons per minute. 448.83 gallons per minute equals 1 cubic foot per second.)

Answer: 0.018 c.f.s. from January 1 to July 1, 1963

Question 9. State the period during the year when water has been beneficially used.

Answer: January 1 to date

Question 10. Do you divert and use more water at periods than granted in the permit for which proof is made? If so, make proper explanation.

Answer: No

Question 11. Give date when water measurements were taken, the point at which such measurements were taken and the name and address of persons who made the measurements.

Answer: Electric meter reading taken once a month for power used by pump. Quantity computed from this figure.

Question 12. State, if you know, the normal number of cubic feet per second flowing in the source at your point of diversion.

Answer:

IF WATER IS USED FOR IRRIGATION ANSWER THE FOLLOWING:

Question 13. Upon how many acres have you beneficially used water?

Answer:

Question 14. Give the number of acres in each legal subdivision.

Answer: acres in the of Sec., T., R. E.
 acres in the of Sec., T., R. E.
 acres in the of Sec., T., R. E.
 acres in the of Sec., T., R. E.
 acres in the of Sec., T., R. E.
 acres in the of Sec., T., R. E.
 (Enumerate only the land upon which water has been actually used.)

Question 15. Have you installed a headgate and weir at your point of diversion, as required by the terms of your permit? Give approximate dimensions of headgate.

Answer:

Question 16. Do you use the rotation system for irrigating?

Answer:

Question 17. What is the character of the soil irrigated?

Answer:

**IF WATER IS USED FOR STOCK-WATERING OR DOMESTIC PURPOSES
ANSWER THE FOLLOWING:**

Question 18. Give detailed description of works of diversion and manner by which water is stored for beneficial use, embracing approximate dimensions of dam at source, size and length of pipe, and size and number of tanks or troughs. If troughs are not used state exactly how water is stored for beneficial use.

Answer:

.....

.....

Question 19. Give approximate number and kind of animals watered.

Answer:

**IF WATER IS USED FOR POWER OR MINING AND MILLING PURPOSES
ANSWER THE FOLLOWING:**

Question 20. What are the dimensions of the diversion headgate and carrying capacity of the conduit in cubic feet per second? Is water diverted by ditch, pipe or flume?

Answer:

.....

Question 21. What are the dimensions of the cross-section of the pipe, flume, ditch or other conduit at each change in cross-section, and the length of each portion of the same size?

Answer:.....

Question 22. What is the average grade or difference in elevation between the termini of the conduit? Give the grades of the different sections of conduit as shown above.

Answer:.....

Question 23. Give any information concerning diversion and use of water for power or mining not covered above.

Answer:.....

IF WATER IS USED FOR ANY PURPOSE NOT HERETOFORE NAMED
DESCRIBE FULLY UNDER REMARKS:

Remarks:

The water is used for quasi-municipal purposes. It is distributed to a National Park Service residential and utility area, a Visitor Center and comfort stations, and to a Park Service campground.

The area covers approximately 30 acres in the north portion of the SW 1/4, SW 1/4, Sec. 5, T. 19 S., R. 68 E., approximately 10 acres in the NE 1/4, SE 1/4, SE 1/4, Sec. 6, T. 19 S., R. 68 E.; approximately 6 acres in SW portion of the NW 1/4, SW 1/4, Sec. 5, T. 19 S., R. 68 E.; approximately 2 acres in the W. portion of the SE 1/4, SW 1/4, Sec. 5, T. 19 S., R. 68 E.; approximately 2 acres in the SE 1/4, SE 1/4, NE 1/4, Sec. 6, T. 19 S., R. 68 E.

Consumption will increase as the concessioner and the Park Service continue to develop the area. Demand will never be greater than granted by permit.

(Give all information relative to the method of use of water and any other matters you deem important.)

The map made in substantiation of the claims herein, prepared under my instructions and authority, shows the actual conditions on the premises.

Signed:

I hereby certify that the foregoing statements were read to the above subscriber before its signing, and I believe him to be the person he represents himself to be, and that said statements were subscribed and sworn to before me at my office in, County of, State of, on this day of, A. D. 196....

[One dollar filing fee must accompany this proof]

STATE OF NEVADA
ENGINEER'S OFFICE
Carson City, Nevada

ORIGINAL

water rights
RECEIPT

Nº 60696

June 3, 19 63

U.S.A. National Park Service, Lake Mead Area
c/o Charles A. Richey, Superintendent
P.O. Box 127, Boulder City, Nevada

To THE STATE OF NEVADA, Dr.

		To Filing Proofs of Completions of Work under	
		Permit Nos. 19921, 19922, and 19936	\$ 3. 00

Remittance by U. S. Postal Money Order, Warrant No. 873,162,224

Drawn by National Park Service

Received payment,

Elmo J. De Hiss

State Engineer.

By

Nancy Sutherland

(I) CB



STATE OF NEVADA
DEPARTMENT OF CONSERVATION AND NATURAL RESOURCES

HUGH A. SHAMBERGER
Director

ELMO J. DeRICCO
State Engineer

DIVISION OF WATER RESOURCES

STATE OFFICE BUILDING

Carson City, Nevada

In reply refer to No.

19936

July 22, 1963

United States Department of the Interior
National Park Service
Lake Mead National Recreation Area
Boulder City, Nevada

Gentlemen:

The provisions of your permit of the
above serial number to appropriate public waters
of the State of Nevada require you to file Proof
of Beneficial Use

on or before August 22, 1963.

If you are unable to file the Proof as
required by the terms of your permit, then you
should file affidavit requesting an extension of
time.

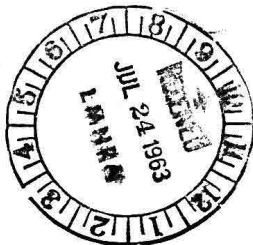
Very truly yours,

ELMO J. DeRICCO

State Engineer

SECOND NOTICE

hs



→ Fee for filing Proof of Commencement, Proof of Completion and
Proof of Beneficial Use \$1 each.

Fee for filing request for Extension of Time \$5.

Address all communications to the State Engineer, Division of Water Resources.

858

(1) CB

SUPERINTENDENT	
ASST. Supt.	
AD. OFFICER	
CHIEF RANGER	
NATURALIST	
GEN. FOREMAN	
ENGINEER	<i>7/24</i>
FILE	
PREPARE RECORD	
COMMENTS	
NECESSARY ACTION	
SEE	

OFFICE OF STATE ENGINEER

PROOF OF COMPLETION OF WORK

Permit No. 19936 - Echo Bay Well.

STATE OF NEVADA

County of Clark

} ss.

BEFORE ME, Personally appeared Gilbert A. Kane for Charles A. Richey, Superintendent, Lake Mead National Recreation Area, for the United States of America the subscribed, who being duly sworn saith that at least Fifty seven

thousand dollars (~~\$ 57,000.00~~) has been expended

in work or improvements performed or made under the conditions

provided in Permit No. 19936, in the completion of said works,

and at the expense of the applicant.

Said improvements consisted of _____

Drilling and casing 177' well	\$ 3647.50
Const. & installation 100,000 gal. reservoir	10925.70
Well pump and controls	7009.12
Distribution lines:	
3691 L. F. 6" C.I. pipe	12259.21
300 L. F. 4" C.I. pipe	1068.00
3600 L. F. 2" P.V.C. Sch. 40 pipe	6984.00
1050 L. F. 1" P.V.C. Sch. 40 pipe	1071.00
1197 L. F. 2" Plastic Pipe	4490.55
Valves, connections and hydrants	4320.75
Hook-up boxes	1000.30
12,000 L. F. irrigation ditches	1200.00
Water meters	1000.00
Irrigation boxes	2500.00
	57,476.13

and being work essential to the actual diversion of the water applied

for and in the completion of the work required under said permit.

United States of America, National Park Service, Lake Mead National Recreation Area,
Department of the Interior By /s/ Gilbert A. Kane Applicant

Subscribed and sworn to before me

this _____ day of _____, 19 _____

Notary public in and for the County

of _____, State of Nevada.

My Commission expires _____

[One dollar filing fee must accompany this proof]



PROOF OF COMMENCEMENT OF WORK

Permit No. 19936 - Echo Bay Well.

STATE OF NEVADA

County of Clark

} ss.

BEFORE ME, Personally appeared Gilbert A. Kane for Charles A. Richey,
Superintendent, Lake Mead National Recreation Area, for the United States of America
 the subscribed, who being duly sworn saith that at least thirty seven

thousand dollars (\$ 57,000.00) has been expended

in work or improvements performed or made under the conditions

provided in Permit No. 19936, and at the expense of the applicant.

Said improvements consisted of

Drilling and casing 177' well	\$ 3647.50
Const. & installation 100,000 gal. reservoir	10925.70
Well pump and controls	7009.12
Distribution lines:	
3691 L.F. 6" C.I. pipe	12259.21
300 L.F. 4" C.I. pipe	1060.00
3600 L.F. 2" P.V.C. Sch. 40 pipe	6984.00
1050 L.F. 1" P.V.C. Sch. 40 pipe	1075.00
1197 L.F. 2" Plastic Pipe	4440.55
Valves, connections and hydrants	4320.75
Hook-up boxes	1000.30
12,000 L.F. irrigation ditches	1200.00
Water meters	1000.00
Irrigation boxes	2500.00
	<u>57,476.13</u>

and being work essential to the actual diversion of the water applied
 for.

Said improvements were begun prior to January 1, 1959

United States of America, National Park Service, Lake Mead National Recreation
Area, Department of the Interior By /s/ Gilbert A. Kane Applicant

Subscribed and sworn to before me this 23 day of May, 1962
on, or about date of sworn before, which is 5

Notary Public in and for the County of _____, State of Nevada.

My Commission expires _____

w/ Richey's memo of 5/23/62

Attachment

"Nothing herein constitutes a waiver of any other right which the United States may have to the use of the same water."



STATE OF NEVADA
DEPARTMENT OF CONSERVATION AND NATURAL RESOURCES

HUGH A. SHAMBERGER
Director

EDMUND A. MUTH
State Engineer

DIVISION OF WATER RESOURCES

STATE OFFICE BUILDING
Carson City, Nevada

In reply refer to No. 19936

January 23, 1962

Docket 13

U. S. A. National Park Service
Lake Mead National Recreation Area
Boulder City, Nevada

Gentlemen:

Enclosed herewith you will find Permit No. 19936
for the waters of an underground source (Echo Bay Well)
together with official receipt No. 57181 for the sum of \$10.00
fee for issuing the same.

You are advised that if the various proofs thereunder, together
with any map which may be required, are not filed in this office prior
to the dates set for such filings, the permit will be subject to
cancellation.

Yours truly,

EDMUND A. MUTH,
State Engineer.

	SUPERINTENDENT
☒	ASST. Supt. <i>2/25</i>
	ADM. OFFICER
	CHIEF BARRER
	NATURALIST
☒	GEN. FOREMAN <i>2/25</i>
	ENGINEER
	ARCHITECT
	PROC. + PROP.
	ACCOUNTING
	FILE <i>2/25</i>
	PREPARE REPLY
	COMMENTS
	NECESSARY ACTION
	SEE:

hs



Address all communications to the State Engineer, Division of Water Resources.

1083

19936

TO BE COMPLETED BY STATE ENGINEER

APPROVAL OF STATE ENGINEER

This is to certify that I have examined the foregoing application, and do hereby grant the same, subject to the following limitations and conditions: This permit is issued subject to all existing rights on the source and is limited to what the well will produce but not to exceed 0.248 c.f.s. It is understood that the amount of water herein granted is only a temporary allowance and that the final water right obtained under this permit will be dependent upon the amount of water actually placed to beneficial use. It is also understood that this right must allow for a reasonable lowering of the static water level at permittee's well due to other ground water development in the area. A substantial weir or other type of measuring device must be installed and measurements of water use kept, and a method provided either air line or opening, for measuring depth to water. The State retains the right to regulate the use of the water herein granted at any and all times.

The amount of water to be appropriated shall be limited to the amount which can be applied to beneficial use, and not to exceed 0.248 cubic feet per second.

Actual construction work shall begin on or before July 22, 1962

Proof of commencement of work shall be filed before August 22, 1962

Work must be prosecuted with reasonable diligence and be completed on or before July 22, 1963

Proof of completion of work shall be filed before August 22, 1963

Application of water to beneficial use shall be made on or before July 22, 1963

Proof of the application of water to beneficial use shall be filed on or before August 22, 1963

Map in support of proof of beneficial use shall be filed on or before

WITNESS MY HAND AND SEAL this 22nd day

of January 1962

EDMUND A. MUTH
State Engineer

By Charles L. H. H. H.
Assistant State Engineer

STATE OF NEVADA
ENGINEER'S OFFICE
Carson City, Nevada

ORIGINAL

Blm

RECEIPT

Nº 58152

May 28, 1962

U. S. A. National Park Service, Lake Mead Area
c/o Charles A. Richey, Superintendent
601 Nevada Highway, Boulder City, Nev.

To THE STATE OF NEVADA, Dr.

		TO Filing 3 Proofs of Commencement of Work under		
		Permits Nos. 19921, 19922 & 19936	\$3.	00

Remittance by U. S. Postal Money Order, Warrant No. 12-64,683,858

Drawn by Charles A. Richey, Superintendent

Received payment,

Charles A. Richey
State Engineer.

By *Louise Burns*

STATE OF NEVADA
ENGINEER'S OFFICE
Carson City, Nevada

ORIGINAL

RECEIPT

Nº 57181

Jan. 9, 1962

U. S. A. National Park Service

Lake Mead National Recreation Area
Boulder City, Nev.

To THE STATE OF NEVADA, Dr.

		TO Fee advanced for issuing permit under		
		Application No. 19936	\$10.	00

Remittance by Treasurer of the United States, Warrent No. 205,822

Received payment,

Edmund A. Burns
State Engineer.

Lorena Burns

1422 25-9-61



STATE OF NEVADA
DEPARTMENT OF CONSERVATION AND NATURAL RESOURCES

HUGH A. SHAMBERGER
Director

EDMUND A. MUTH
State Engineer

In reply refer to No. 19936

DIVISION OF WATER RESOURCES

STATE OFFICE BUILDING

P. O. Box 606

Carson City, Nevada

October 12, 1961

L54

National Park Service
Lake Mead National Recreation Area
Boulder City, Nevada

Gentlemen:

Your application was

SUPERINTENDENT	
ASST. Supt.	
ADM. OFFICER	
CHIEF ENGINEER	
NATURALIST	
GEN. FOREMAN	
ENGINEER	
ARCHITECT	
PROC. + PROP.	
ACCOUNTING	
FILE	
PREPARE REPLY	
COMMENTS	
NECESSARY ACTION	
SEE:	

received and filed in this office under the above-mentioned
serial number on June 23, 1961.

Notice of publication goes forward today to the Henderson Home
News, Henderson, Nevada.

Supporting map was received and filed August 23, 1961.

Very truly yours,

EDMUND A. MUTH,

State Engineer.

hs



Serial No. 19936

APPLICATION FOR PERMIT TO APPROPRIATE THE PUBLIC WATERS OF THE STATE OF NEVADA

Date of filing in State Engineer's Office Jun 23 1961

Returned to applicant for correction

Corrected application filed

Map filed

UNITED STATES OF AMERICA - NATIONAL PARK SERVICE - LAKE MEAD

The applicant NATIONAL RECREATION AREA - DEPARTMENT OF THE INTERIOR

of Boulder City, Nevada, County of Clark

State of Nevada, hereby make application for permission to appropriate the public waters of the State of Nevada, as hereinafter stated. (If applicant is a corporation, give date and place of incorporation; if a copartnership or association, give names of members.)

1. The source of the proposed appropriation is underground (Echo Bay Well)
Name of stream, lake or other source.

2. The amount of water applied for is 180 Acre feet per year 0.248 second-feet.
One second-foot equals 448.83 gals. per min.

(a) If stored in reservoir give number of acre-feet 100,000 gallon steel storage tank acre-feet.

3. The water to be used for quasi-municipal (resort) and domestic
Irrigation, power, mining, manufacturing, domestic, or other use.

4. If use is for:

(a) Irrigation (state number of acres to be irrigated)

(b) Stockwater (state number and kinds of animals to be watered)

(c) Other use (describe fully under "No. 11. Remarks")

(d) Power:

(1) Horsepower developed

(2) Point of return of water to stream

5. The water is to be diverted from its source at the following point: a point from which the N.W.
corner of Section 1, T. 19 S., R. 68 E., M.D.B. & M., bears N. 68° 53' 42" W.,
Describe as being within a 40-acre subdivision of public survey, and by course and distance to a section corner. If on unsurveyed land, it
12,471.09 feet.
should be stated.
6. Place of use SW 1/4 SW 1/4 Sec. 5 and portion E 1/2 SE 1/4 Sec. 6, T. 19 S., R. 68 E.
Describe by legal subdivision, if on unsurveyed land it should be so stated.
7. Use will begin about January 1 and end about December 31, of each year.
Month Month
8. Description of proposed works. (Under the provisions of NRS 535.010 you may be required to submit plans
and specifications of your diversion or storage works.) Drilled well, pump, storage tank
and distribution pipelines.
State manner in which water is to be diverted, whether by dam or other works, whether through pipes, ditches, flumes, or other conduits.
9. Estimated cost of works \$50,000
10. Estimated time required to construct works Works are completed for all practical purposes.
11. Remarks Water will be used primarily for quasi-municipal purposes. Concessioner
facilities, including 250 site trailer park, 40 unit motel, cafe building, dock
facilities as well as sales and storage buildings will be serviced by the
water system. National Park Service facilities to be served will include 5 residences,
utility building, and visitor center building and public campground (1/5 site).
The irrigation water referred to under item #4 is taken from the same system
distribution as the domestic water. It is only mentioned as a separate classi-
fication to clarify the total usage of the water.

UNITED STATES OF AMERICA
NATIONAL PARK SERVICE
LAKE MEAD NATIONAL RECREATION AREA
DEPARTMENT OF THE INTERIOR

FOR THE UNITED STATES OF AMERICA
By /Sgd./ Charles A. Richey
CHARLES A. RICHEY, SUPERINTENDENT
LAKE MEAD NATIONAL RECREATION AREA
NATIONAL PARK SERVICE

Compared _____

\$25.00 FILING FEE MUST ACCOMPANY APPLICATION

Nothing herein constitutes a waiver of any other right which the United States
may have to the use of the same water.

ATTACHMENT

DETAILED DESCRIPTION

Well: 175' deep, 10" casing

Pump: Deep well turbine peerless 7LA
100 G.P.M. 280' T.D.H. 220 V. 3 ϕ
10 H.P. Motor

Piping system: 3600' 6" C.I., 400' - 4" C.I.
1500' - 2" P.V.C.

TO BE COMPLETED BY STATE ENGINEER

.....OF STATE ENGINEER

This is to certify that I have examined the foregoing application, and do hereby grant the same, subject to the following limitations and conditions:

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The amount of water to be appropriated shall be limited to the amount which can be applied to beneficial use, and not to exceed.....cubic feet per second.....

Actual construction work shall begin on or before.....

Proof of commencement of work shall be filed before.....

Work must be prosecuted with reasonable diligence and be completed on or before.....

Proof of completion of work shall be filed before.....

Application of water to beneficial use shall be made on or before.....

Proof of the application of water to beneficial use shall be filed on or before.....

Map in support of proof of beneficial use shall be filed on or before.....

WITNESS MY HAND AND SEAL this.....day

of.....,

Serial No.

**APPLICATION FOR PERMIT
TO APPROPRIATE THE PUBLIC WATERS OF THE STATE OF NEVADA**

Date of filing in State Engineer's Office.....

Returned to applicant for correction.....

Corrected application filed.....

Map filed.....

UNITED STATES OF AMERICA - NATIONAL PARK SERVICE
The applicant... LAKE MEAD NATIONAL RECREATION AREA - DEPARTMENT OF THE INTERIOR
of... Boulder City, Nevada , County of... Clark
State of... Nevada , hereby makes.. application for permission to appropriate the public
waters of the State of Nevada, as hereinafter stated. (If applicant is a corporation, give date and place of incorpora-
tion; if a copartnership or association, give names of members.)..

1. The source of the proposed appropriation is.. Echo Bay, Nevada
Name of stream, lake or other source.
2. The amount of water applied for is.. 180 Acre feet per year 0.248 second-feet.
One second-foot equals 448.83 gals. per min.
(a) If stored in reservoir give number of acre-feet 100,000 gallon steel storage tank.....acre-feet.
3. The water to be used for.. Irrigation and quasi-municipal
Irrigation, power, mining, manufacturing, domestic, or other use.
4. If use is for:
 - (a) Irrigation (state number of acres to be irrigated).. Five (5)
 - (b) Stockwater (state number and kinds of animals to be watered)...
 - (c) Other use (describe fully under "No. 11. Remarks")... Quasi - Municipal
 - (d) Power:
 - (1) Horsepower developed..
 - (2) Point of return of water to stream

ATTACHMENT

8 continued

Briefly the water works consists of a deep well turbine pump, installed on a 10" well, 175' deep, which feeds water to a 100,000 gallon storage tank through a main 6" C.I. line. Water is distributed to the residential area, concessioner area and campground through a system of 4" , 2" and 1" distribution lines. The public campground uses water for irrigating trees and shrub through a system of unlined irrigation ditches.

DETAILED DESCRIPTION

Well - 175' deep, 10" casing

Pump - Deep well turbine peerless 7LA
100 g.p.m. 280' T.D.H. 220 V. 3 Ø
10 H.P. Motor

Piping - 3600' 6" C.I., 400' - 4" C.I.
1500' - 2" P.V.C.

PR OF OF COMMENCEMENT OF VORK

Permit No. 19936 - Echo Bay Well.

STATE OF NEVADA

County of Clark

} ss.

BEFORE ME, Personally appeared Gilbert A. Kane for Charles A. Richey,
Superintendent, Lake Mead National Recreation Area, for the United States of America
 the subscribed, who being duly sworn saith that at least Fifty seven

thousand dollars (\$ 57,000.00) has been expended

in work or improvements performed or made under the conditions

provided in Permit No. 19936 , and at the expense of the applicant.

Said improvements consisted of

Drilling and casing 177' well	\$ 3647.50
Const. & installation 100,000 gal. reservoir	10925.70
Well pump and controls	7009.12
Distribution lines:	
3691 L. F. 6" C.I. pipe	12259.21
300 L. F. 4" C.I. pipe	1068.00
2600 L. F. 2" P. V. C. Sch. 40 pipe	6984.00
1050 L. F. 1" P. V. C. Sch. 40 pipe	1074.00
1197 L. F. 2" Plastic Pipe	4490.55
Valves, connections and hydrants	4320.75
Hook-up boxes	1000.30
12,000 L. F. irrigation ditches	1200.00
Water meters	1000.00
Irrigation boxes	2500.00
	<u>57,476.13</u>

and being work essential to the actual diversion of the water applied
 for.

Said improvements were begun prior to January 1 , 1959
 United States of America, National Park Service, Lake Mead National Recreation
 Area, Dept. of the Interior By /s/ Gilbert A. Kane Applicant

Subscribed and sworn to before me this _____ day of _____, 19____

Notary Public in and for the County of _____, State of Nevada.

My Commission expires _____

Other Supporting Information

**Lake Mead National Recreation Area
Boulder City, Nevada**

L54

19921) Docket 16

September 19, 1963

19922)

19936 - Docket 13

**Mr. Elmo J. DeRicco, State Engineer
Division of Water Resources
State Office Building
Carson City, Nevada**

Dear Mr. DeRicco:

We have received the notification of readiness of the Certificates

of Appropriation for the subject permits. Enclosed is a Postal

Money Order in the amount of \$3.00 for the issuing and recording

of the Certificates.

Sincerely yours,

**Charles A. Richey
Superintendent**

Enc,

cc:

WASO

WODC

Southwest Region - all w/encs.

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11/29

Lake Mead National Recreation Area
Boulder City, Nevada

134

August 26, 1963

19921)

19922) Docket 16

19936 Docket 13

Mr. Elmo J. DeRocco, State Engineer
Division of Water Resources
State Office Building
Carson City, Nevada

Dear Mr. DeRocco:

The proofs of beneficial use under the subject applications are enclosed.

They have been amended as directed by Mr. Peter G. Morros' letter of
August 15, 1963. We appreciate very much the help you have given us
during our period of proving up the applications.

Sincerely,

Charles A. Richey
Superintendent

Encs. - 3

cc:

WASO w/4 enc.

WODC w/4 enc.

SW Region w/4 enc.

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BUREAU OF RECLAMATION

Division of Water Resources

STATE OF NEVADA

DEPARTMENT OF CONSERVATION AND NATURAL RESOURCES

DIVISION OF WATER RESOURCES

State Office Building, Boulder City, Nevada

RICHARD J. DUNN

State Engineer

GEORGE W. SPANGLER

Assistant State Engineer

August 15, 1963

19921, 19922,
19936

August 15, 1963

United States Department of the Interior
National Park Service
Lake Mead National Recreation Area
Boulder City, Nevada

Attention Gilbert A. Kane Civil Engineer

Gentlemen:

This letter is in connection with the proofs of beneficial use under the above-numbered permits.

The amount of water shown under Question 8, is the maximum amount that can be diverted, since this is the amount shown as being put to beneficial use. This would apply, regardless of the amount granted on the permit, provided it does not exceed the amount on the permit. The following are the amounts granted on the permits.

19921 - 0.165 c.f.s.
19922 - 0.333 c.f.s.
19936 - 0.248 c.f.s.

Under Question 9, the period of use under the permits is from January 1st to December 31st. If you wish to retain this period of use, this should be entered.

Enclosed are amended proof of beneficial use forms for your convenience. If you will complete these forms and return them to this office, they will be filed. There are no filing fees required.

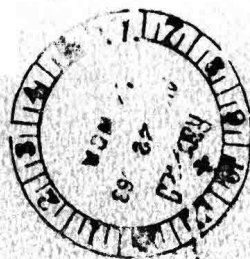
If we can be of further assistance, please contact us.

Very truly yours,

Peter G. Morros

Peter G. Morros, Hydraulic Engineer
Office Engineering Section

PGM:and
Enclosures



Address All Correspondence to
The State Engineer, Division
of Water Resources

SUPERVISOR	
ASST. ENG.	
ADM. CLERK	
CHIEF ENGINEER	
NATURALIST	
GEN. FORESTER	
ENGINEER	
ARCHITECT	
PAID + POST	
ACCOUNTS	
FILE	
PROPERTY CLERK	
LABORER	
CONTRACTOR	



STATE OF NEVADA
DEPARTMENT OF CONSERVATION AND NATURAL RESOURCES

HUGH A. SHAMBERGER
Director

ELMO J. DeRICCO
State Engineer

DIVISION OF WATER RESOURCES

STATE OFFICE BUILDING
Carson City, Nevada

In reply refer to No.

19936

July 22, 1963

United States Department of the Interior
National Park Service
Lake Mead National Recreation Area
Boulder City, Nevada

Gentlemen:

The provisions of your permit of the
above serial number to appropriate public waters
of the State of Nevada require you to file Proof
of Beneficial Use

on or before August 22, 1963.

If you are unable to file the Proof as
required by the terms of your permit, then you
should file affidavit requesting an extension of
time.

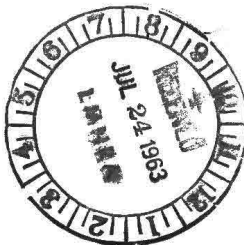
Very truly yours,

ELMO J. DeRICCO

State Engineer

SECOND NOTICE

hs



→ Fee for filing Proof of Commencement, Proof of Completion and
Proof of Beneficial Use \$1 each.

Fee for filing request for Extension of Time \$5.

Address all communications to the State Engineer, Division of Water Resources.

858

(1) CB

SUPERINTENDENT	
ASST. Supt.	
ADM. OFFICER	
CHIEF RANGER	
NATURALIST	
GEN. FOREMAN	
ENGINEER	<i>John V. [unclear]</i>
REC'D	
FILE	
PREPARE REPLY	
COMMENTS	
NECESSARY ACTION	
SEE:	

W O D C

JUL 30 1963

Lake Mead National Recreation Area
Boulder City, Nevada

LS4

App. 19921 } Docket 16 July 25, 1963
19922 }

App. 19936 Docket 13

Mr. Elmo J. DeRicco, State Engineer
Division of Water Resources
State Office Building
Carson City, Nevada

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L. A.

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CONT

SFTY

HABS

TIEN TAKEN DATE

Dear Mr. DeRicco:

Enclosed for filing are the Proofs of Application of Water to
Beneficial Use for Applications 19921, 19922, and 19936. A
postal money order for \$3.00 is enclosed to cover the filing
fees of the three proofs.

Sincerely yours,

Charles A. Richey
Superintendent

Encs. - 4

cc:
WASO w/3 encs.
WODC w/3 encs.
Southwest Region w/3 encs.

KN 26

*W. H. Hign
Blair*

**Lake Mead National Recreation Area
Boulder City, Nevada**

L54

**Docket 13
19936**

June 24, 1963

**Mr. Elmo J. DeRicco, State Engineer
Division of Water Resources
State Office Building
Carson City, Nevada**

Dear Mr. DeRicco:

**With reference to your letter dated June 20, 1963 - First
Notice to file Proof of Beneficial Use, we have just filed
Proof of Completion of Work (due before August 22, 1963.)
Our other permits indicate a one year lag between filing of
Proof of Completion and filing of Proof of Beneficial Use.
Would you please advise us as to whether or not the filing
date for Proof of Beneficial Use for 19936 is in error or the
filing dates for 19921 and 19922 are in error.**

Sincerely,

**Ralph R. Ramsey
Acting Superintendent**

cc: Blair

254

Southwest Region
Santa Fe, New Mexico

JUN 5 - 1963

Memorandum

To: Director

From: Assistant Regional Director

Subject: Proofs of Completion of Work, Applications 19921,
19922 and 19936, Dockets Number 13 and 16, Lake
Mead Recreation Area

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Enclosed are copies of the subject Proofs of Completions as
supplied by the Superintendent, Lake Mead, which we have filed
in our Water Rights Dockets for Lake Mead as follows:

19921 and 19922 in Docket #16
19936 in Docket #13

By copies of this memorandum we are sending these to WODC and
the Superintendent of Lake Mead for insertion in their dockets.

Leslie P. Arnberger

SIGNED

Enclosures

In duplicate

cc: WASO w/1 copy of enclosures
WODC w/1 copy of enclosures
Superintendent, Lake Mead, w/1 copy of enclosures

KN

**Lake Mead National Recreation Area
Boulder City, Nevada**

L54

May 23, 1963

**Mr. Elmo J. DeRicco, State Engineer
Division of Water Resources
State Office Building
Carson City, Nevada**

Dear Mr. DeRicco:

Enclosed for filing are the Proofs of Completion of Work for
Applications 19921, 19922, and 19936. A Postal Money Order
for \$3.00 is enclosed to cover the filing fees necessary for
the three applications.

Sincerely yours,

**Charles A. Richey
Superintendent**

Encls. - 4

**cc:
WASO
WODC
SOUTHWEST REGION
all w/encls.**

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UNITED STATES
DEPARTMENT OF THE INTERIOR
NATIONAL PARK SERVICE
Lake Mead National Recreation Area
Boulder City, Nevada

FEB 22 3 27 PM '63

February 25, 1963

A3219
D
Rec'd on
1- Lands
2 H. Smith
3- Wirth

AIR MAIL

Memorandum

To: The Director
From: Superintendent, Lake Mead
Subject: Record of Decision: Echo Bay Water System,
Lake Mead

Problem:

The serious situation concerning the Echo Bay water system was discussed with Director Wirth and Regional Director Allen by Landscape Architect William Glover and myself on February 17. When the first well at Echo Bay was drilled the water was too high in sulphates for human consumption. Later a new well was drilled at high water elevation on the lake shore in a gravel deposit with the hope of getting lake water. The well was high in sulphates but met the maximum tolerance allowed by the Public Health Service for human consumption. The well was drilled during an extreme low period of the lake (surface elevation approximately 1090 above sea level.) It is apparent because of the increased amount of sulphates over lake water that some ground water may be coming into the well, particularly when the lake is at high elevations. While it is within the maximum tolerance allowable for human consumption, we find that use of the water for one day or over by individuals makes them ill. All the National Park Service residences now have to haul their drinking water and campers who use the water 24 hours or longer become ill.

Discussion:

It appears that the only solution to this problem is to pump directly from the lake. PCP U-183 has been prepared in the amount of \$71,325 with the request that the item be included in the 1965

construction program. Because of the visitor popularity at Echo Bay and the fact that a firm concession contract has been awarded for construction of extensive concession facilities, however, an adequate water supply should be provided at the earliest practicable date. It was hoped that financing could be accomplished through the concession reserve. Mr. Wirth doubted that funds were available in this reserve and thought that it would be necessary for Lake Mead to reprogram 1963 or 1964 projects for this purpose.

Agreement Reached:

It was agreed that the program at Lake Mead would be restudied and reprogramming of funds for the project recommended if possible.

The following items in 1964 could be reprogrammed for the water supply and the items re-established in the 1965 construction program with the least decrease in visitor service:

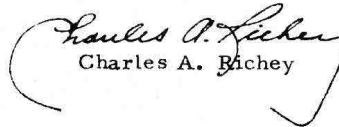
Boulder Beach

- (a) Complete campground expansion incl. grading, planting, tables, fireplaces. M-208, \$33,800 total, \$28,000 construction.
- (b) Complete campground utilities, water, sewer and power, U-106, \$36,200 total, \$29,200 construction.
- (c) Construct water, sewer, power and hook-up boxes down launching ramp, Hemenway Harbor, U-165, \$18,400 total, \$15,300 construction.

Total Reprogram - Construction	\$72,500
PCP U-183 - Construction	<u>59,200</u>
Excess Construction	13,300

In considering the proposed cost of this project Mr. Wirth felt that the estimate was high. However, because of the maximum fluctuation of Lake Mead (some 135 feet vertical) and the large amount of water that is going to be required at Echo Bay we would like to hold to the proposed program amount at this time. The excess construction

amount of \$13,300 and any additional savings which may result from a bid below the **PCP** U-183 estimate should be programmed for comfort stations to complete the F. Y. 63 campground project at Boulder Beach. Approval of the reprogramming is requested.


Charles A. Richey

Approved:

Director

Date

In triplicate

cc:

Chief, WODC

Regional Director, Southwest Region

June 4, 1962

To: The Director

Subject: Docket 13 (Echo Bay) and Docket 16 (Cottonwood Cove) - Water Rights Permit Applications 19921, 19922, 19936.

By copy of this memorandum, copies of these sheets are being sent to Regional Director, Region Three and Chief, WODC to bring their water right dockets up to date.

In duplicate

Copy to: Regional Director, Region Three w/attachment
✓Chief, WODE w/attachment
E. W. Blair w/attachment

Lake Mead National Recreation Area
Boulder City, Nevada

L54

May 23, 1962

Mr. Edmund A. Muth, State Engineer
Division of Water Resources
State Office Building
Carson City, Nevada

Dear Mr. Muth:

Enclosed for filing are the Proofs of Commencement of Work
for Applications 19921, 19922 and 19936. A Postal Money
Order for \$3.00 is enclosed to cover the filing fees necessary
for the three applications.

Sincerely yours,

Charles A. Richey
Superintendent

In duplicate

Enclosures - 4

Copy to: WASO (In duplicate) w/a
WODC (In duplicate) w/a
Region Three (In duplicate) w/a

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Region Three
Santa Fe, New Mexico

NOV 27 1961

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1. Miller 11/29
2. Haglund
3. Stralton 11/20
None

Memorandum

To: Director

From: Assistant Regional Director

Subject: Analysis of Water, Echo Bay Well, Lake Mead National Recreation Area

Attached is a copy of chemical analysis of water taken from Echo Bay well, Lake Mead National Recreation Area. There is also a volumetric analysis of the same water sample. This analysis was done by the Nevada State Department of Health at the request of the state. We have filed this in our docket and by copies of this memorandum are sending them to WODC and the Superintendent for insertion in their dockets.

(SIGNED)

George W. Miller
Assistant Regional Director

In duplicate

Attachments

Copy to: Chief, WODC (2) w/attachments
Supt., Lake Mead w/attachments

20

Lake Mead National Recreation Area
Boulder City, Nevada

D 5039

November 14, 1961

Memorandum (AIR MAIL)

To: Chief, WODC

From: Assistant Superintendent, Lake Mead

Subject: Domestic Water Supply - Echo Bay - Lake Mead

Please refer to the following correspondence:

- (a) Memorandum of July 31 from Supervisory Engineer to this office, above subject.
- (b) Memorandum of September 26, from Assistant Superintendent to Chief, WODC, above subject.

We are enclosing for your comparison copies of the last two chemical analyses made of water from the Echo Bay well.

The last analysis was made after pumping the well continuously for three three weeks except for weekends. The results are very gratifying. Although they are short of the Public Health Service recommendations in some cases, it is evident that the water is safe enough for use by the general public. Special attention is directed to the magnesium and sulphate contents (epsom salts) which are within the recommended limits.

We might safely assume in view of the drastic reduction in total dissolved solids (from 4343 to 2154 p. p. m.) that we are getting lake water which is obtaining its chemical content from the soil through which it is being filtered prior to reaching the well. If this is the case continued pumping should further reduce the chemical content.

The pattern of the quality of the water thus far has been similar to that of the Overton Beach well which has reduced in chemical content from 4000 p. p. m. to 880 p. p. m. total dissolved solids.

**We will continue pumping the well as much as possible and will
continue to keep your office informed of any major change.**

**Jerry B. House
Assistant Superintendent**

**Copy to: Regional Director, Region Three w/copy of tests
Mr. C. T. Wright, Regional Health Director
447 Federal Office Building
San Francisco 2, California w/copy of tests**

W O D C
NOV - 3 '61

Region Three
Santa Fe, New Mexico

NOV 1-1961

L54

Memorandum

To: Director

From: Acting Regional Director

Subject: Application for the Appropriation of Water from Echo Bay Well, Docket No. 13, Cottonwood Cove Well and Cottonwood Cove (Public Campground) Well, Docket No. 16, Nevada Section, Lake Mead

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We have received by memorandum Applications for Permit to appropriate the Public Waters of the State of Nevada for Echo Bay Well (Application No. 19936) and Cottonwood Cove Well No. 2 (Application No. 19922) and the Cottonwood Cove Well No. 3 (Public Campground), Application No. 19921. We have also received the location maps as drawn by State Water Rights Surveyor L. M. Bobeau.

We have filed Application No. 19936 in Docket No. 13 and 19921 and 19922 in Docket No. 16, Lake Mead, with the accompanying location maps.

Our correspondence indicates that Superintendent, Lake Mead, forwarded copies of the applications and drawings to your office. From all indications they forwarded only copies of the applications to WODC.

By copies of this memorandum we are notifying you, the Superintendent, and WODC that these documents have become a part of our water rights dockets and at the same time requesting that if copies of the maps have not been forwarded to WODC that it be done.

(SIGNED)

George W. Miller
Acting Regional Director

In duplicate

Copy to: Chief, WODC (2)
Supt., Lake Mead

EXTRA COPY

19

*Blair
water rights
water analysis*

Lake Mead National Recreation Area
Boulder City, Nevada

D5039

September 26, 1961

Memorandum (AIR MAIL)

To: Chief, WODC

From: Assistant Superintendent, Lake Mead

Subject: Domestic Water Supply - Echo Bay, Lake Mead

Please refer to past correspondence regarding subject domestic water supply. As promised, we are writing this to keep all offices notified of the condition of the water supply.

We have had samples of the water tested for chemical analysis by the local water treatment plant and the Nevada State Department of Health in Reno, Nevada. The test results all agree within a small margin of differences. For your information a copy of the Nevada State Department of Health analysis is attached.

Please bear in mind we have not pumped the well enough to determine whether the hardness of the water will reduce with use, or not. We are in the process of continuous daytime pumping which we hope to continue for at least six weeks longer before again sampling and testing the water. The results of this particular test will be passed on as soon as available.

Jerry E. House
Assistant Superintendent

Attachment

Copy to: Regional Director, Region Three w/attachment

L54 OLB

Lake Mead National Recreation Area
Boulder City, Nevada

August 29, 1961

Mr. Edmund A. Muth
State Engineer
Division of Water Resources
State Office Building
Carson City, Nevada

Dear Mr. Muth:

This is to authorize the change in Application 19936, paragraph 5, of R. 68 E. to R. 67 E., and paragraph 6 to read,

"Portions of SE $\frac{1}{4}$ SW $\frac{1}{4}$ and W $\frac{1}{2}$ SE $\frac{1}{4}$ Sec. 5; and a portion of SE $\frac{1}{4}$ Sec. 6, T. 19 S., R. 68 E., M.D.B. & M." These corrections are in accordance with the supporting map.

Sincerely yours,

/Sgd./ Charles A. Richey

Charles A. Richey
Superintendent

Copy to: WASO (In duplicate)
WODC (In duplicate)
Region Three (In duplicate)
L.M. Bobeau

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Lake Mead National Recreation Area
Boulder City, Nevada

August 20, 1961

L-54 GAT

Edmund A. Muth
State Engineer
Division of Water Resources
State Office Building
Carson City, Nevada

Dear Mr. Muth:

In regards to your letter to Mr. L. M. Bobeau concerning Applications 19921 and 19936, this office originated the subject applications. This letter authorizes the change of paragraph 6 to read, "SE $\frac{1}{4}$ NE $\frac{1}{4}$, NE $\frac{1}{4}$ SE $\frac{1}{4}$ Sec. 23, and SW $\frac{1}{4}$ NW $\frac{1}{4}$ Sec. 24, T. 28 S., R. 65 E., M.D.B. & M," on Application No. 19921.

Application No. 19936 takes in an area of use in range 68 E. This office cannot agree with the changing of the range under paragraph 6 to read 67 E.

We are forwarding the original map for Application 19936 under separate cover.

Sincerely yours,

Charles A. Richey
Superintendent

Copy to: WASO (In duplicate)
WODC (In duplicate)
Region Three (In duplicate)
L.M. Bobeau

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HUGH A. SHAMBERGER
Director

STATE OF NEVADA

EDMUND A. MUTH
State Engineer

DEPARTMENT OF CONSERVATION AND NATURAL RESOURCES

DIVISION OF WATER RESOURCES

State Office Building, Carson City, Nevada

In reply refer to
No.

Address All Communications to
the State Engineer, Division
of Water Resources

19921 and 19936

Mr. L. M. Bobeau
206 Stewart Street
Las Vegas, Nevada

Dear Mr. Bobeau:

I am writing in regard to Application No. 19921 filed by
U. S. A., National Park Service, Lake Mead Area.

A slight discrepancy was found on the amended application and we are therefore requesting a letter of authorization from you to change paragraph 6 to read, "SE $\frac{1}{4}$ NE $\frac{1}{4}$, NE $\frac{1}{4}$ SE $\frac{1}{4}$ Sec. 23, and SW $\frac{1}{4}$ NW $\frac{1}{4}$ Sec. 24, T. 28 S., R. 65 E., M.D.B.&M." This will make the place of use of the application to conform with the map.

In regard to Application No. 19936 (same applicant), we would like you to authorize us to change the range number under the place of use to range 67 E., which will then conform with the map.

We are also returning the original map which you submitted in behalf of this application. It is necessary that we have an original tracing with original signatures and notary seal.

Very truly yours,

EDMUND A. MUTH
State Engineer

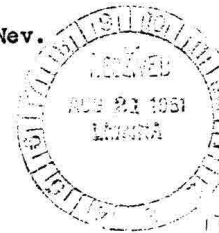
By

THOMAS J. SMALES
Hydraulic Engineer

TJS:bw

cc: National Park Service
Lake Mead National Recreation Area, Boulder City, Nev.
Attention Mr. Charles A. Richey, Superintendent

SUPERINTENDENT	
ASST. SUPT.	
ADM. OFFICER	
CHIEF ENGINEER	
NATURALIST	
GEN. FOREMAN	
ENGINEER	<i>sk</i>
ARCHITECT	<i>sk</i>
PRCC. & PROP.	
ACCOUNTING	
FILE	
STATE CLERK	
RECORDS	
SEE	



Lake Mead National Recreation Area
Boulder City, Nevada

August 11, 1961

L-54 ~~225~~

Mr. Edmund A. Muth
State Engineer
Division of Water Resources
State Office Building
Carson City, Nevada

13

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Dear Mr. Muth:

Enclosed are the amended applications for permit to appropriate the waters of the State of Nevada for Cottonwood Cove Well No. 2 (19922), Cottonwood Cove Well No. 3 (19921), and Echo Bay Well (19936). The indicated changes have been made. Also enclosed are the original applications as requested in your letter of July 19, 1961.

Under paragraph 2 of application 19922, Cottonwood Cove Well No. 2, a revised amount of water applied for has been inserted.

Further, a paragraph has been inserted into the applications, "Nothing herein constitutes a waiver of any other right which the United States may have to the use of the same water."

The maps to support applications Nos. 19921, 19922, and 19936 have been corrected as indicated and are being returned to your office under separate cover.

Sincerely yours,

Charles A. Richey /s/

Charles A. Richey
Superintendent

Enclosures

Copy to: WODC (In duplicate)
WASO (In duplicate)
Region Three (In duplicate)

EXTRA FILE COPY

15

L54-CBL

July 20, 1961

Memorandum

To: Regional Director, Region Three

From: Chief, Water Resources Section

Subject: Maps to Support Applications for the Appropriation of Water from (1) Echo Bay Well, Docket 13; (2) Cottonwood Cove Well; and Cottonwood Cove (Public Campground) Well, Docket 16, Nevada Section, Lake Mead

The two drawings, one in duplicate for two applications, which Mr. Richey forwarded with memorandum of July 7 to you, are excellent records of the surveys. I hope Mr. Bobeau can do more of the surveys.

I am pleased to see that some permanent NPS survey monuments in the area, were established, or tied into the survey for the Cottonwood Cove Wells where the sections are projected five miles by triangulation and traverse. It is also excellent to have such complete records of the surveys from which the ties were computed, and I did not realize that such detail was required by the State.

For future maps I believe that the title should be modified to designate "The United States" as the claimant, as Mr. Richey did in the related applications, by putting that on the first line, and "National Park Service, Department of the Interior" on the second line in smaller letters.

WDC should have copies of the drawings for its docket assemblies. Such distribution is not shown on Mr. Richey's memorandum.

SIGNED

A. van V. Dunn
Chief, Water Resources Section

Copy to: Superintendent, Lake Mead
Chief, WDC (2)
Mr. Dunn

AvVDunn:let

HUGH A. SHAMBERGER
Director

STATE OF NEVADA
DEPARTMENT OF CONSERVATION AND NATURAL RESOURCES
DIVISION OF WATER RESOURCES
State Office Building, Carson City, Nevada

*water right
Corresp.*
EDMUND A. MUTH
State Engineer

In reply refer to
No.

19921, 19922
& 19936

July 19, 1961

Address All Communications to
the State Engineer, Division
of Water Resources

Mr. L. M. Bobeau
206 Stewart Street
Las Vegas, Nevada

Dear Mr. Bobeau:

The above enumerated applications in the name of the United States of America, Park Service, Lake Mead National Recreation Area, Department of the Interior, are being returned to you for correction since they are defective in the following particulars:

Application No. 19921.

Under Paragraph 1: change the source of water to underground (Cottonwood Cove Well No. 3).

Under Paragraph 3: change the manner of use to public camp ground and domestic.

Omit Paragraph 4a and 4c.

Under Paragraph 5: describe the point of diversion as being in the SW $\frac{1}{4}$ NE $\frac{1}{4}$ Sec. 23, T. 28 S., R. 65 E., M.D.B.&M., or at a point from which the S.W. corner of Section 31, T. 28 S., R. 65 E., M.D.B.&M., bears S. 62° 34' 35" W., 29,577.50 feet.

Under Paragraph 7: give the period of use from January 1st to December 31st.

Under Paragraph 8: stipulate drilled well, pump, storage tank and distribution pipelines.

In answer to Paragraph 11: clarify the type and number of units to be served.

Please clarify if there are any other units other than the proposed 45 site public camp ground to be serviced by this water.

Application No. 19922.

Under Paragraph 1: change the source of water to underground (Cottonwood Cove Well No. 2).

Under Paragraph 3: change the manner of use from irrigation and domestic to quasi-municipal (resort) and domestic.

Omit Paragraph 4a.

Under Paragraph 5: describe the point of diversion as being within the SW $\frac{1}{4}$ SW $\frac{1}{4}$ Sec. 24, T. 28 S., R. 65 E., M.D.B.&M., or at

Page 2

L. M. Bobeau

a point from which the S.W. corner of Section 31, T. 28 S., R. 65 E., M.D.B.&M., bears S. 66° 20' 34" W., 29,268.23 feet.

Under Paragraph 7: give the period of use from January 1st to December 31st.

Under Paragraph 8: stipulate drilled well, pump, storage tank and distribution pipelines.

In answer to Paragraph 11: give the type and number of units to be served with this water. (do not use a supplemental sheet for this answer).

Application No. 19936.

Under Paragraph 1: change the source of water to underground (Echo Bay Well).

Under Paragraph 3: change the manner of use from irrigation and quasi-municipal to quasi-municipal (resort) and domestic.

Omit 4a and 4c.

Under Paragraph 5: describe the point of diversion as being located within the SW $\frac{1}{4}$ SW $\frac{1}{4}$ Section 5, T. 19 S., R. 68 E., M.D.B.&M., or at a point from which the N. W. corner of Section 1, T. 19 S., R. 68 E., M.D.B.&M., bears N. 68° 53' 42" W., 12,471.09 feet.

Under Paragraph 7: give the period of use from January 1st to December 31st.

Under Paragraph 8: stipulate drilled well, pump, storage tank and distribution pipelines.

Maps to support Applications Nos. 19921, 19922 and 19936 are being returned to you under separate cover via certified mail for correction.

In the affidavit and title block change the manner of use from recreation to quasi-municipal (resort).

On both maps outline the proposed place of use by legal 40 acre subdivisions in heavy _____ lines.

Please return the original and amended applications together with the respective supporting maps to this office on or before September 18, 1961 or it becomes mandatory for the State Engineer to cancel these applications.

You are advised that the applications, if returned properly corrected within sixty days, will be refiled, retaining the priority of their original filings, and if not returned within the time stated will be canceled.

Very truly yours,

EDMUND A. MUTH
State Engineer

By


L. EDWARD PARMENTER
Hydraulic Engineer

LEP:lb

CC: Charles A. Richey, Supt.
Enclosures

Lake Mead National Recreation Area
Boulder City, Nevada

July 11, 1961

L-54
LAME

State of Nevada
Department of Conservation and Natural Resources
Division of Water Resources
State Office Building
Carson City, Nevada

Gentlemen:

Please refer to our recent applications to appropriate water
for the following areas:

- 13 1) Echo Bay
16 2) Cottonwood Cove Campground
17 3) Cottonwood Cove Concession Area

We are enclosing a statement to be attached to each of the above
applications.

Sincerely yours,

Jerry B. House
Assistant Superintendent

Attachments (3)

Copy to: The Director w/copy attachment, Airmail
Regional Director, Region Three, Airmail
Chief WODC w/copy attachment

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11

Attachment

"Nothing herein constitutes a waiver of any other right which the United States may have to the use of the same water."

WR Copy

Lake Mead National Recreation Area
Boulder City, Nevada

L54-OBL

July 7, 1961

Memorandum

To: Regional Director, Region Three
From: Superintendent, Lake Mead
Subject: Water Right Applications for (1) Echo Bay; (2) Cottonwood Cove Well; and (3) Cottonwood Cove (Public Campground), Nevada Section, Lake Mead

Please refer to Mr. A. van V. Dunn's memorandum of June 27, 1961, above subject. We are forwarding prints of the supporting maps to Mr. Dunn, as well as your office, by copy of this memorandum.

The statement contained on the first page of Mr. van Dunn's memorandum is being forwarded to the State Engineer for attachment to the applications. Designating each well by number appears to be a good idea and will be incorporated providing the applications are returned for corrections, etc.

We appreciate Mr. van Dunn's diligence in pointing out the differences we show between designated rate of diversion and existing pumping capacity. Obviously we have indicated our estimate of ultimate annual usage. We shall attempt to clarify this at the time proof of beneficial use is established.

We agree that proof for final licensing should be withheld until all water is being used, at which time we shall know more accurately our usage and can adjust our proofs accordingly. During the interim we have at least begun to establish a priority of right to appropriate.

Charles A. Richey
Superintendent

Enclosures (3)

Copy to: A. van V. Dunn w/copy 3 drawings ✓
w/12-1-61

a/R 6/7
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VAB

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Region Three
Santa Fe, New Mexico

L-54
LANE

JUL 7 1961

Memorandum

To: Director

From: Acting Regional Director

Subject: Water Right Applications for (1) Echo Bay; (2) Cottonwood
Cove Well; and (3) Cottonwood Cove (Public Campground),
Nevada Section, Lake Mead

Your memorandum of June 27 to this office concerning the above
subject came just a few days after we filed the information on
the above applications in our water dockets and notified you by
memorandum.

These applications were submitted to the State Engineer of
Nevada by the Superintendent, Lake Mead and were prepared under
his supervision. He has a registered water rights engineer
as a member of his staff who compiled the technical data. Any
corrections or additions will be made by Superintendent, Lake Mead.

Under our M&P Account 1961 we had a project programed for Lake
Mead. It was intended to send Civil Engineer Fields to Lake Mead.
He was to have worked with Park Engineer Blair and to have brought
all of the water right dockets up to date. However, because of
other projects which were deemed more important by this office
Mr. Fields has not had time to make this trip. We are rescheduling
this project for 1962 and have placed it among the high priority
items to be accomplished by this office during this fiscal year.

(SIGNED)

George W. Miller
Acting Regional Director

In duplicate

Copy to: Chief, WODC (2)
Supt., Lake Mead

SWR Note by A.R.D. on orig, routed to files thru Vint:
"licensed or not, the engineer did not present
proper Fed. Claim 7/11/61"

Region Three
Santa Fe, New Mexico

JUL 6 1961

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None

Memorandum

To: Director

From: Acting Regional Director

Subject: Application to Appropriate Public Waters of the State of Nevada for a Well Located at Echo Bay, Docket No. 13, Lake Mead National Recreation Area

We recently received a copy of a letter from Superintendent Richey to the State Engineer of Nevada with an application for a permit to appropriate the public waters of the State of Nevada, which is attached. This application was for the well located at Echo Bay in the Lake Mead Area.

We have placed a copy of this letter and of the application in our Docket No. 13. By copies of this memorandum we are sending them to WODC for insertion in their docket.

The letter indicates that Superintendent Richey forwarded copies of these directly to your office.

The letter also indicates that there is a location map enclosed. We did not receive the map. As soon as a copy of it is obtained we will insert it in our docket.

(SIGNED)

George W. Miller
Acting Regional Director

In duplicate

Attachments

Copy to: Chief, WODC (2) with attachments
Supt., Lake Mead without attachments

7

L54-OBL

June 27, 1961

Memorandum

To: Regional Director, Region Three

From: Chief, Water Resources Section

Subject: Water Right Applications for (1) Echo Bay; (2) Cottonwood Cove Well; and (3) Cottonwood Cove (Public Campground), Nevada Section, Lake Mead

Copies of the subject applications have been received with copies of the Superintendent's letters of transmittal to the State Engineer of June 2 and 7. It is gratifying to note that the applications for the appropriation of water at Lake Mead are now being prepared, but several points should be considered before more are filed.

All applications should include the following statement, and it should be added to the subject applications if they are returned by the State Engineer for any other corrections or supplemental information before being advertised:

Nothing herein constitutes a waiver of any other right which the United States may have to the use of the same water.

Most diversions, or wells, should be numbered or given other distinctive identity in each area of use. There may ultimately be more than one well to serve the Cottonwood Cove Campground, and more than one well to concessioner at Cottonwood Cove. It is also possible that Federal and concession developments may be served from some of the same wells. For this reason, the applications should be for the appropriation of water from Cottonwood Cove Well No. 1, and Cottonwood Cove Well No. 2, etc.

The present, or pending, applications may be for the appropriation of water from replacement wells. Such a well might be numbered Well No. 1, Replacement 1, or Well No. 3, but the two wells should be described, and the priority of use should be that of the first well to serve the facilities.

The applications do not agree as to installed diversion capacity, quantity of water claimed, or justifiable water demand, and will need

W O B - 5129 '61

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None

revision at the time of proof even if the amounts are not challenged when advertised. We did not receive copies of the supporting maps.

1. The Echo Bay pump has a capacity of 100 gpm, or 0.223 c.f.s., which would deliver 161.5 acre-feet per year if pumped continuously, but the claim is for 0.248 c.f.s. or 180 acre-feet per year. There are five acres to irrigate, and the demand will probably be about 10 acre-feet per acre per annum, or a total of 50 acre-feet per year. This leaves 130 acre-feet per year for the "quasi-municipal" uses, largely domestic type with the major item of sanitation, which is likely to be challenged as excessive. Normally, the pump may be operated at the suggested 111.0% of rated capacity; but for only between 8 and 12 hours per day at the seasonal peak, and continuous operation on one or two days. Either the annual acre-foot per year claim should be reduced, or the present well and pump should be designated as the first of several which will be needed ultimately. I have suggested 10-acre-feet per acre as the annual irrigation demand, which may be either a little high or low, and a local irrigation engineer should be consulted.
2. The concessioner's Cottonwood Cove well has a capacity of 150 gpm, or 0.334 c.f.s., which should be the designated rate of diversion, rather than the indicated 0.207 c.f.s. With 15 acres to be irrigated, and a probable demand of 10 acre-feet per acre per year if the vegetation is similar to that at Echo Bay, there would be no supplemental water for the domestic or quasi-municipal purposes. Also, why is the answer to question 3 in this application "irrigation and domestic" while that in the application for Echo Bay for "irrigation and quasi-municipal", while identical uses are indicated in answers to question 11?
3. The application for the Cottonwood Cove Campground claims the continuous diversion at the rated pump capacity, with a suggestion that half will be used for irrigation if 10 acre-feet per acre per annum are needed. Each of the 45 camp sites may have an average of 3 people using 35 gpc per day. If fully occupied throughout the year, the domestic demand should be about 5.35 acre-feet per year, instead of 60 acre-feet per year.

The claims should be reviewed by some one with more knowledge than I have of the detailed local demands, to be prepared in the event that a representative of the State Colorado River Commission raises questions after an analysis similar to mine. I also advise against proof for final license in any area at this time, unless all diverted water is being used. If it is used, there should be a supplemental application to establish the priority for future increases.

SIGNED

A. van V. Dunn
Chief, Water Resources Section

Copy to: Superintendent, Lake Mead
Chief, WRC (2)

*State
Water
Right
Status
Application*

Lake Mead National Recreation Area
Boulder City, Nevada

L 54

June 14, 1961

AIR MAIL

Department of Conservation and Natural Resources
State of Nevada
Division of Water Resources
P. O. Box 606
Carson City, Nevada

Attention: Mr. Edmund A. Muth
State Engineer

Gentlemen:

As requested in your letter of June 6, we are enclosing
Government checks in the amount of \$25.00 for filing fees to
appropriate water for the following areas:

- (a) Echo Bay Well
- (b) Cottonwood Cove Well Campground Area
- (c) Cottonwood Cove Well Concession Area

Application forms for "b" and "c" above, which were forwarded
by your letter, are hereby returned for processing. Appli-
cation form for "a" above was transmitted by our letter of
June 7, 1961.

Sincerely,

Charles A. Richey
Superintendent

Enclosures

EWB:sms

Shain

Lake Mead National Recreation Area
Boulder City, Nevada

L 54

June 7, 1961

AIR MAIL

Mr. Edmund A. Muth, State Engineer
Department of Conservation and Natural Resources
State of Nevada
Division of Water Resources
P. O. Box 606
Carson City, Nevada

Dear Mr. Muth:

We are enclosing an application form for permit to appropriate
Public Waters of the State of Nevada for the following:

(a) Well located at Echo Bay, Nevada

A location map, prepared by State Water Right Surveyor,
L. M. Bebeau, is also enclosed.

Sincerely,

Charles A. Richey
Superintendent

Enclosures

Copy to: The Director - Attention Mr. A. Van V. Dunn w/encl. }
Regional Director, Region Three w/encl. } AIR MAIL

See map for location

L-54

Region Three
Santa Fe, New Mexico

Memorandum

To: Superintendent, Lake Head
From: Regional Chief of Operations

Subject: Water Rights Dockets 12 to 18 Inclusive, Lake Head

The subject Dockets Nos. 12 to 18 inclusive were prepared in the Washington Office and distributed to the various field offices by Mr. Dunn. At the time distribution was made Mr. Dunn pointed out that he expected Mr. Fields to take over the rest of the work leading to the preparation of water right applications.

Because of the large amount of time required to prepare data for the Department of Justice in connection with the injunctive action at Battlesnake Springs, Carlsbad Caverns, Mr. Fields has not been able to devote much time to the preparation of the various water right applications.

Much of the data needed consists of ties to section corners so that wells or points of diversions can be shown. We also need any additional information on pumps, type, and capacity similar in nature to the "Well Pump Data Chart" attached to your memorandum of March 26, 1959.

It is probable that much of this information is probably available in your office even though it may not be assembled as a complete unit. We have attached a supply of mimeographed sheets for "Water Supply Information" and would appreciate any data not previously supplied that can be used to complete water right applications. We also need prints showing wells and distribution lines for water systems that have not been shown on plans that are in the water rights dockets. If Engineer Blair or a representative of your office can supply the data either by means of work sheets or marked prints or a combination of both, the drafting on linen can be done in this office. We have a limited amount of funds, Account No. 143.2, that can be made available

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before June 30 to partially defray the cost of prints or preparation of data necessary to supply the requested information. However, we should have an estimate of the cost as soon as possible, so that the necessary funds can be earmarked in this office.

Jerome C. Miller
Regional Chief of Operations

In duplicate

Attachments

Copy to: Director (2) w/one attachment
Chief, WODC (2) w/one attachment

In reply refer to:
L-54

WATER SUPPLY INFORMATION

Region Three

Area Name _____

Proposed MISSION 66 Project _____

Programmed for development in fiscal year 196 _____

1. What is present source of water supply? (Check source applicable)

Well _____, Spring _____, Surface flow _____, Lake _____,

Other? _____

2. Name of present source of water? _____

Location* _____

3. Amount of water supply required for completed development? _____ gpd.

4. Is further investigation of present source desired to determine the potential of the supply? _____

5. Will a new source of water supply be required? _____. (If yes, check one you propose) Surface water _____, Spring _____, Well _____; Or, state your proposal _____

6. Check type of investigation you propose: Geological _____, Measurement of present supply _____, Test well drilling _____, Measurement of proposed new source _____; Or, state other type _____

7. Geological study should be programmed for accomplishment in FY 196 _____

8. Test well drilling should be programmed for accomplishment in FY 196 _____

Estimated depth to which test well should be drilled? _____

Supervision of test well drilling and pump testing to be done by: (check one) Area Engineer _____, WODC or EODC Supervisory Engineer _____

U. S. Geological Survey _____

NOTE* By legal survey description, if available, if not, by reference to some identifiable geographic feature - such as the confluence of two streams, a prominently known peak, rock point, et cetera.

(over)

ESTIMATED COST OF WATER SUPPLY INVESTIGATION

Participant	Phase of Work	Personal Service Costs	Other Direct Costs
WODC or EODC			
AREA STAFF			
PRIVATE GEOLOGIST			
CONTRACT			
** USGS			

NOTE** Estimates covering services by United States Geological Survey
will be inserted by Region Three Office

SPACE IN THIS BLOCK FOR USE BY REGIONAL OFFICE ONLY

	Programmed for	Total Costs
Investigation (143.2)	FY 196	\$
Water Rights (0343)	FY 196	\$

R E M A R K S

Date: _____ 196__ Signature _____
Title _____

Area _____

154-OBL

March 15, 1960

Memorandum

To: Regional Director, Region Three

From: Chief, Water Resources Section

Subject: Docket 13, Lake Mead National Recreational Area

Attached is your copy of completion report, for the subject docket,
of water and sewer system at Echo Bay.

*file in
docket*

SIGNED

A. van V. Dunn
Chief, Water Resources Section

Attachment

Copy to: ~~Superintendent, Lake Mead, w/identical attachment~~
Chief, WODC (2), w/identical attachment
1 need

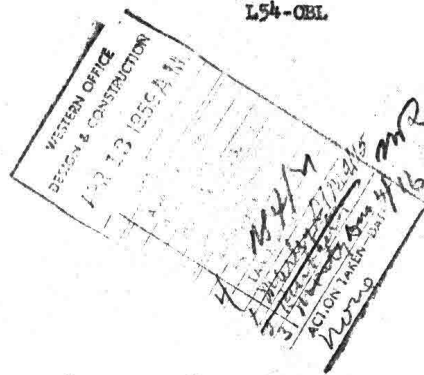
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ACTION TAKEN, DATE	
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April 1959

LAKE MEAD - ECHO BAY - IRRIGATION AREAS					
Location	Gross Area	Net Irrigation Area	% of Gross Area to be Irrigated	@ 5 AF/A/AN	@ 8 AF/A/AN
A. Information Station	0.49 acres	0.08 acres	16%	0.40 ~~0.04~~	0.64
B. Campground	7.33 acres	4.02 acres	55%	20.10	32.16
C. Utility area, concessioner employee quarters, seasonal employee quarters, employee residences, con- cessioner marine sales & boat repair, con- cessioner trailer storage	3.40 acres	1.75 acres	51%	8.75	14.00
D. Trailer Vil- lage	3.62 acres	1.44 acres	40%	7.20	11.52
E. Concessioner cafe-store- office, overnight trailers	3.38 acres	1.10 acres	33%	5.50	8.80
TOTAL	18.22 acres	8.39 acres	46%	41.95AF	67.12AF

Derived from Drawing No. 6983

April 10, 1959



Memorandum

To: Regional Director, Region Three
From: Chief, Water Resources Section
Subject: Water Right Dockets 12, 13, 14, 15, 16, 17 and 18,
Lake Mead

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

Docket No. 12	Las Vegas Wash
Docket No. 13	Echo Bay
Docket No. 14	Willow Beach
Docket No. 15	Overton Beach
Docket No. 16	Cottonwood Cove Proposed Residential Area Cottonwood Cove
Docket No. 17	Cottonwood Vacation Cabin Sites
Docket No. 18	Water Line to Boulder Beach Ranger Station

Also attached are three extra prints of Drawing 6982, 6983, 6984, 6985, 6987 and 6989. 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.

We cannot locate well logs for wells at Willow Beach (Docket 14), Overton Beach (Docket 15) and Cottonwood Cove (Docket 16). If you have or can obtain the well logs we would like copies for inclusion in their respective dockets.

The purpose of this study is as outlined in my memorandum of October 22, 1958, to the Regional Director, Region Three. The prints with that memorandum were chiefly to obtain section ties.

My immediate concern is the area of irrigation at Lake Mead since I believe my original estimate as testified in Arizona vs. California may be low for the dates I gave. Water right filings will reflect accelerated development if the claims exceed my testified totals in each state for 1966 and 1975. We should also estimate, and include domestic and other water uses in the applications.

These records are being sent to you as soon as we can complete computations and map compilation which we started. We expect Mr. Fields to take over the rest of the work leading to the preparation of water right applications.

SIGNED

A. van V. Dunn
Chief, Water Resources Section

Attachments 7

Copy to: ~~Superintendent, Lake Mead, with 7 attachments~~
✓ Chief, WODC, with 7 attachments

ATTACHMENT

DETAILED DESCRIPTION

Well: 175' deep, 10" casing

Pump: Deep well turbine peerless 71A
100 G.P.M. 280' T.D.H. 220 V. 3 ø
10 H.P. Motor

Piping system: 3600' 6" C.I., 400' - 4" C.I.
1500' - 2" P.V.C.

