



WATER-RIGHT DOCKET

Lake Mead National Recreation Area

Docket No: 17

COTTONWOOD VALLEY (LAKE MOHAVE)

Preliminary Docket Information

05-23-1979: narrative

DATE: May 23, 1979

DOCKET (FILE) TITLE _____

REGION Western AREA Lake Mead National Recreation Area

SITE Cottonwood Valley (Lake Mohave) Well Site

STATE Arizona COUNTY Mohave DOCKET NO. WR #17

LOCATION NW¼ SW¼ SW¼ Sec.8 T24N R22W

REGIONAL BASIN _____ LOCAL BASIN _____

ACQUIRED BY Reservation

APPROPRIATION _____ PERMIT _____ CERTIFICATE _____

ACTION DUE _____ PRIORITY _____ RESERVATION October 8, 1964

QUANTITY _____ USE _____

STATUS _____ SOURCE Well

REMARKS Hydrologic Unit #15030101

NARRATIVE:

In 1967 a well was drilled at Cottonwood Valley, near Lake Mohave in Lake Mead NRA. The well driller's report showed the depth of the well to be 200 feet and that the alluvial aquifer which supplies water to the well was hydraulically connected to Lake Mohave. It was noted that it (the aquifer) was sufficient to sustain a 1,000 gpm well indefinitely with the assistance of lake recharge. No chemical analysis of the water from the test was available, and the status of the well today is unknown.

Compiled by T. Kern

Approved by _____

P. _____



IN REPLY REFER TO:

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

Howard H. Chapman
Regional Director, Western Region

Enclosures

See attached sheet for bcc's

RMR

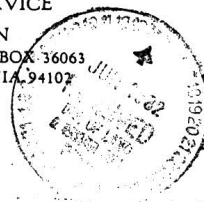
United States Department of the Interior

NATIONAL PARK SERVICE

WESTERN REGION

450 GOLDEN GATE AVENUE, BOX 36063
SAN FRANCISCO, CALIFORNIA 94107

JUN 9 '82



Rocky Mountain	Index
Regional Office	3/2/82
Administrative	
Public Relations	ML
Plan & Research	
Legal	
Education	
Outreach	
Other	
As Seen 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

READ INSTRUCTIONS ON BACK OF THIS FORM BEFORE COMPLETING
PRINT OR TYPE - FILE IN DUPLICATE

Declaration: The United States gives the verification to the State in the interest of the State, 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-	629126
FILE NO.	B(24-22)8ecb
FILED	6-9-82 AT 1:30
(DATE)	(TIME)
INA	
AMA	

1. 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)

2. File and/or Control Number under previous groundwater law:

(File Number) _____ (Control Number) 35- _____

3. a. The well is located within the NW ¼ SW ¼ SW ¼, Section 8, of Township 24 N N/S, Range 22 W E/W, G & SRB & M, in the County of Mohave.

b. If in a subdivision: Name of subdivision _____
Lot No. _____, Address _____

4. The principal use(s) of water (Examples: irrigation - stockwater - domestic - municipal - industrial)

Unused

5. If for irrigation use, number of acres irrigated from well _____

6. Owner of land on which well is located. If same as Item 1, check this box ☒

(Address) _____ (City) _____ (State) _____ (Zip) _____

7. Well data (If data not available, write N/A)

- Depth of Well 200 feet
- Diameter of casing 16 inches
- Depth of casing 100 feet
- Type of casing steel
- Maximum pump capacity N/A gallons per minute.
- Depth to water 37 feet below land surface.
- Date well completed N/A
(Month) (Day) (Year)

8. The place(s) of use of water. If same as Item 3, check this box ☐

¼ ¼ ¼, Section _____ Township _____ Range _____
¼ ¼ ¼, Section _____ Township _____ Range _____
Lake Mead National Recreation Area - Cottonwood Valley Well Site
Attach additional sheet if necessary.

9. 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 629126

I request the following information be changed in Well File Number B(24-22)8eck

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

25764

RECEIVED	
NPS STATE OF ARIZONA REGIONAL OFFICE	
JAN 25 1982	
DATE	TIME
D	
BRUCE BABBITT, Governor	
WESLEY E. STEINER, Director	
JAN 4 1982	
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DIVISION OF WATER RESOURCES

**STATE OF NEVADA
DIVISION OF WATER RESOURCES**

WELL DRILLERS REPORT

Please complete this form in its entirety

OFFICE USE ONLY

Log No. _____
Permit No. _____
Basin _____

1. OWNER U.S. National Park Service ADDRESS Boulder City, Nevada

2. LOCATION..... ¼..... ¼ Sec..... T..... N/S R..... E..... County.....
 PERMIT NO. Contract #14-10-7-973-83 - Cottonwood Valley, Arizona

3.	TYPE OF WORK		4.	PROPOSED USE			5.	TYPE WELL	
	New Well ☒	Recondition ☐	Domestic ☐	Irrigation ☐	Test ☒		Cable ☒	Rotary ☐	
	Deepen ☐	Other ☐	Municipal ☐	Industrial ☐	Stock ☐		Other ☐		

6. LITHOLOGIC LOG

[illegible]

Date started July 5, 1967
Date completed September 27, 1967

7. WELL TEST DATA

Pump RPM	G.P.M.	Draw Down	After Hours Pump
	1200	15	48

BAILER TEST

G.P.M.....	Draw down.....	feet	hours
G.P.M.....	Draw down.....	feet	hours
G.P.M.....	Draw down.....	feet	hours

8. **WELL CONSTRUCTION**

Diameter hole.....inches Total depth 200 feet

Casing record.....

Weight per foot. 62# Thickness. .375

Diameter	From	To
16 inches	plus 1 foot	200 feet
inches	feet	feet
inches	feet	feet
inches	feet	feet
inches	feet	feet
inches	feet	feet

Surface seal: Yes ☒ No ☐ Type Concrete

Depth of seal 10 feet

Gravel packed: Yes ☒ No ☐

Gravel packed from 10 feet to 200 feet

Perforations:

Type perforation..... Machine Cut

Size perforation.....3/16 x 3 - 16 rows

From 100 feet to 200 feet

From.....feet to.....feet

From.....feet to.....feet

From.....feet to.....feet

From.....feet to.....feet

9. WATER LEVEL

Static water level 45' Feet below land surface.....

Flow.....G.P.M.....

Water temperature.....° F. Quality **Sample**

furnished owner

10. DRILLERS CERTIFICATION

This well was drilled under my supervision and the report is true to the best of my knowledge.

Name PATRICK H. THOMPSON

Address 3215 Cinder Lane - Las Vegas

Nevada contractor's license number 4286

Nevada driller's license number.....192

Signed Patrick H. Thompson

Date October 7, 1967

FIELD CHECKED

WRD Exp. (GW)
April 1966Well No. (B-24-22) 8 CCB

WELL SCHEDULE

U. S. DEPT. OF THE INTERIOR

GEOLOGICAL SURVEY

WATER RESOURCES DIVISION

MASTER CARD

Record by C. Bentley Source of data Diller 40200-V Date Oct 3, 67 Map SPRINT 114 N.W., NP4-124, 1959

State Arizona County 02 (or town) Alhambra

Latitude: 32° 52' 8.40" N Longitude: 111° 43' 9.27" W Sequential number: 1

Local well number: 22 Other number: 1

Local use: Water Owner or name: National Park Service

Ownership: (C) County, (F) Fed Gov't, (N) City, Corp or Co, Private, (S) State Agency, Water Dist. F

Use of water: (A) Air cond., (B) Bottling, (C) Comm., (D) Dewater., (E) Fire, (F) Dom., (G) Irr., (H) Med., (I) Ind., (J) Rec., (K) Stock, (L) Instit., (M) Unused, (N) Repressure, (O) Recharge, (P) Desal-F S, (Q) Desal-other, (R) Other P

Use of well: (A) Anode, (B) Drain, (C) Seismic, (D) Heat Res., (E) Obs., (F) Oil-gas, (G) Recharge, (H) Test, (I) Unused, (J) Withdraw, (K) Waste, (L) Destroyed W

DATA AVAILABLE: Well data 70 Freq. W/L meas.: 0.97-1 Field aquifer char. 73

Hyd. lab. data: 73

Qual. water data: type: Standard plus periodic 74

Freq. sampling: 0.97-1 Pumpage inventory: 75 yes 76 no 77 period: 78

Aperture cards: 77 yes 78

Log data: Diller's 78

WELL-DESCRIPTION CARD

NAME AS ON MASTER CARD Depth well: 200 ft. 200 Meas. 24

Depth cased: 100 ft. 100 Casing type: steel accuracy 25

Finish: (C) porous, (F) gravel w. horis., (G) open, (H) screen, (I) sd. pt., (J) shored, (K) other F

Method: (A) air bored, (B) cable, (C) dug, (D) hyd. jetted, (E) air percussion, (F) reverse, (G) trenching, (H) driven, (I) drive wash, (J) other C

Date drilled: Sept. 1967 9:6:7 Pump intake setting: 180 (temporary) ft. 38

Driller: But Thompson Dilling Co. Los Vegas, N.M.

Lift: (A) air, (B) bucket, (C) cent., (D) jet, (E) multiple, (F) multiple, (G) none, (H) piston, (I) rot., (J) submers., (K) turb., (L) other Deep 40 Shallow 41

Power: (type) diesel, elec, gas, gasoline, hand, gas, wind; H.P. 41 Trans. or meter no. 42

Descript. MP 1" hole 5.5 to 100 ft. 20 ft. above LSD, Alt. MP 43

Alt. LSD: 6410 Accuracy: 44 (source) 45 46

Water level: 370 ft. above MP; Ft. below LSD 48 Accuracy: 49

Date meas: Sept 25 67 9:6:7 Yield: 1000 gpm 50 Method determined 51

Drawdown: 17.9 ft. 1:4 Accuracy: 52 Pumping period 1/2 hrs. 53

QUALITY OF WATER DATA: Iron 54 Sulfate 55 Chloride 56 Hard. 57

Sp. Conduct 58 K x 10⁶ 59 Temp. 70 °F 71 72 73 74 75 76 77 78 79 80 81 82 83 84 85 86 87 88 89 90 91 92 93 94 95 96 97 98 99 100

Taste, color, etc. None

Well No. (B-24-22) 8 CCB

Well No. (4-22) 8 C C 6

Latitude-Longitude 35.28.40 N 114.39.27 W

HYDROGEOLOGIC CARD

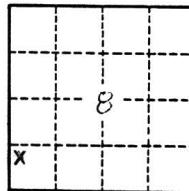
SAME AS ON MASTER CARD		Physiographic Province: <u>Basin & Range</u>		Section: <u>Mexican</u>	
Driller: <u>BILL WILLIAMS</u>		Well No.: <u>22</u>		Subbasin: <u>Colorado River</u>	
Basin: <u>Lower Gila River Basin</u>		Subbasin: <u>Lower Basin</u>			
(D) (C) (E) (F) (H) (K) (L) Top of depression, stream channel, dunes, flat, hilltop, sink, swamp, well site: (Q) (P) (S) (T) (U) (V) offshore, pediment, hillside, terrace, undulating, valley flat					
MAJOR AQUIFER: <u>Grustman, Platorne</u>		series: <u>Q G</u>		aquifer, formation, group	
Lithology: <u>UNCONSOLIDATED</u>		Origin: <u>Fluvial</u>		Aquifer Thickness: <u>100</u> ft	
Length of well open to: <u>37</u> ft		Depth to top of: <u>37</u> ft		37	
MINOR AQUIFER: <u>Tertiary (?)</u>		series: <u>6 C</u>		aquifer, formation, group	
Lithology: <u>SON CLAYEY</u>		Origin: <u>Fluvial</u>		Aquifer Thickness: <u>155</u> ft	
Length of well open to: <u>45</u> ft		Depth to top of: <u>155</u> ft		155	
Intervals Screened: <u>Perforated 100-200 feet machine cut</u>					
Depth to consolidated rock: <u>155</u> ft		Source of data: <u>D. H.</u>		40	
Depth to basement: <u>ft</u>		Source of data: <u>ft</u>		40	
Surficial material: <u>fine gravel</u>		Infiltration characteristics: <u>excellent</u>		70	
Coefficient Trans: <u>gpd/ft</u>		Coefficient Storage: <u>ft</u>		70	
Coefficient Perm: <u>gpd/ft²</u>		Spec cap: <u>7.2</u> gpm/ft		Number of geologic cards: <u>79</u>	

gravel pack - 4 in) pos gravel

Drillers log

gravel 0-37 ft
 quick sand 37-45 "
 coarse sand w/ little cement 45-115 "
 coarse sand & gravel w/ loose cement 115-125 "
 pretty cemented clay 125-137 "
 tight clay w/ red clay 137-155 "
 155-200

Positive boundary due to Lake Mohave artificial test
 at the 35 min. / pumping



Well No. (3-24-22) 8 C C 6



UNITED STATES
DEPARTMENT OF THE INTERIOR
GEOLOGICAL SURVEY

WATER RESOURCES DIVISION
P.O. BOX 4070
TUCSON, ARIZONA 85717

n tdlp *See list*
IN REPLY REFER TO:

1	Supt.	CCJ
	Mgt. Asst.	0
	Adm.	
3	Maint.	<i>2/27/67</i>
	CRO	
	CNO	
	Rec. Sn.	
2	L. Rec.	<i>1/23/67</i>
2	Proj. Sup.	<i>DP</i>

September 29, 1967

254
Mr. Charles A. Richey, Superintendent
Lake Mead National Recreation Area
National Park Service
Boulder City, Nevada 89005

Re: Cottonwood Valley (Lake Mohave) well site

Dear Mr. Richey:

Craig Bentley and Leonard Werho, of our Phoenix subdistrict office, conducted a step-drawdown aquifer test on September 25, 1967, on the Cottonwood Valley well in the Lake Mead National Recreation Area. The well is in the NW $\frac{1}{4}$, SW $\frac{1}{4}$, SW $\frac{1}{4}$ Sec. 8, T. 24 N., R. 22 W., Mohave County, Arizona. The test data are as follows:

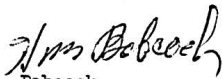
Depth of well	200 feet
Casing	16-in. diameter to 200 feet; 4-in. gravel pack
Perforations	100-200 feet, machine cut
Test pump setting	180 feet
Duration of test	7 hours
Static water level below land surface	37.0 feet
1st step: yield	400 gpm
drawdown	4.3 feet
specific capacity	93 gpm/ft drawdown
2nd step: yield	700 gpm
drawdown	8.1 feet
specific capacity	86 gpm/ft drawdown
3rd step: yield	1,000 gpm
drawdown	13.9 feet
specific capacity	72 gpm/ft drawdown
Well efficiency	66 percent
Water temperature	70°F

The well is about 500 feet west of the present shoreline of Lake Mohave and about 100 feet from the high lake level shoreline. The test results

show that the alluvial aquifer which supplies water to the well is hydraulically connected to Lake Mohave. Recharge to the well from the lake decreased significantly the rate of drawdown after the first few minutes of the test. The transmissibility of the aquifer could not be determined because of the influence of the lake but is sufficient to sustain a 1,000-gpm well indefinitely with the assistance of lake recharge. A sample of the water was collected for chemical analysis; the results of which will be sent to you when available.

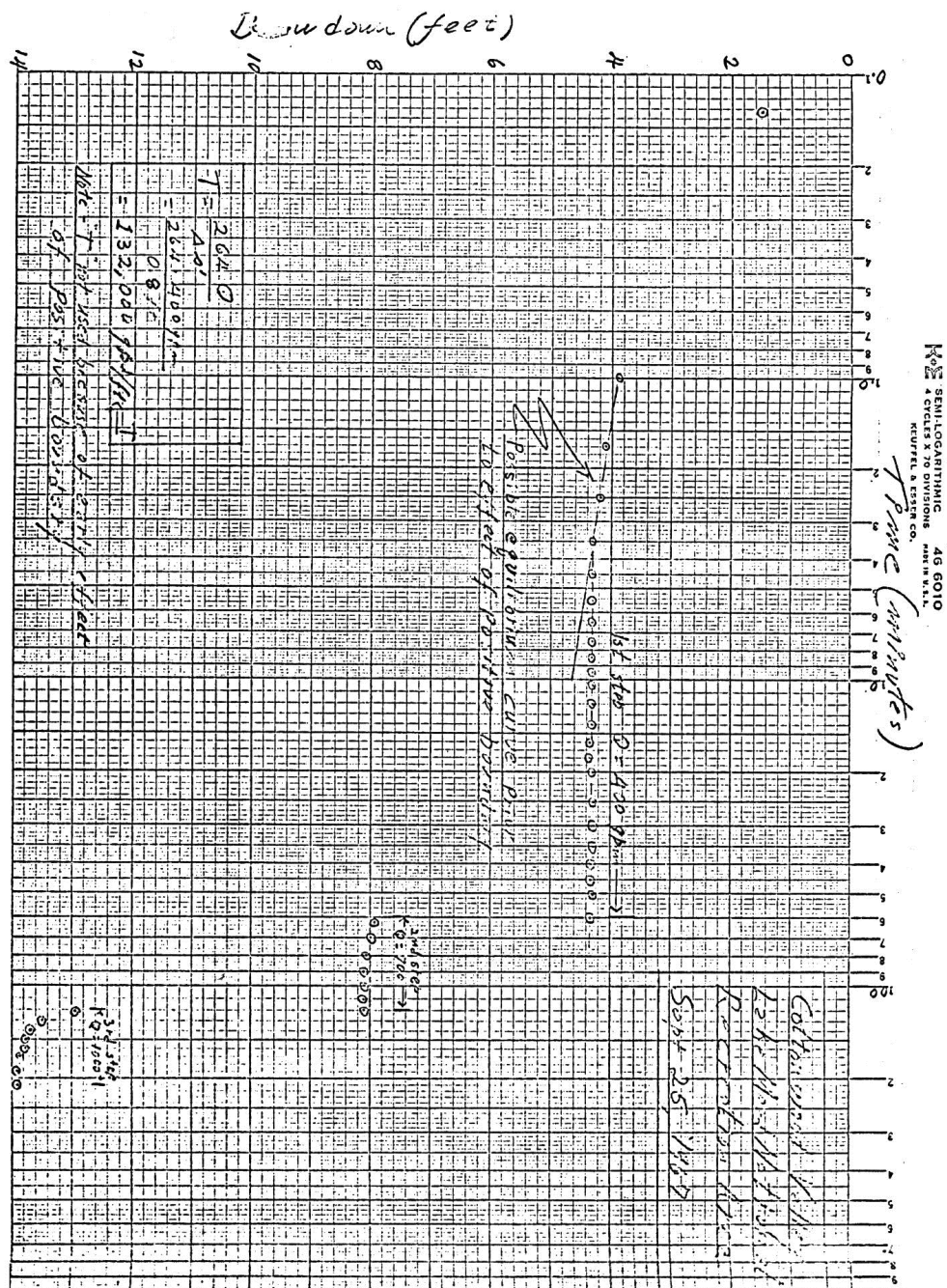
This completes our work on the Cottonwood Valley well as outlined in our letter of January 30, 1967.

Sincerely yours,


H. M. Babcock
District Chief

Enclosure

cc: Ralph Stratton, San Francisco
Col. Curtis Richey, San Francisco
Phoenix Subdistrict





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

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
Kilgore
PK 9/21

Davis
Reg. Dir.
9/22

Memorandum

To: Field Solicitor, San Francisco
ACTING
From: 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.

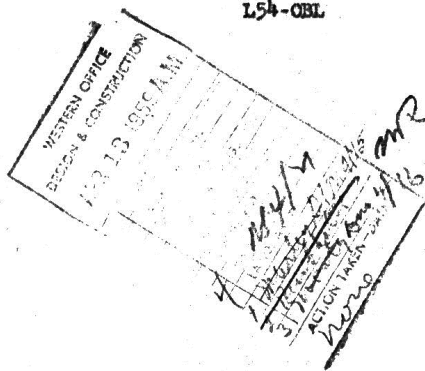
(SGD) JOHN H. DAVIS

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

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

April 10, 1959

L54-CBL



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

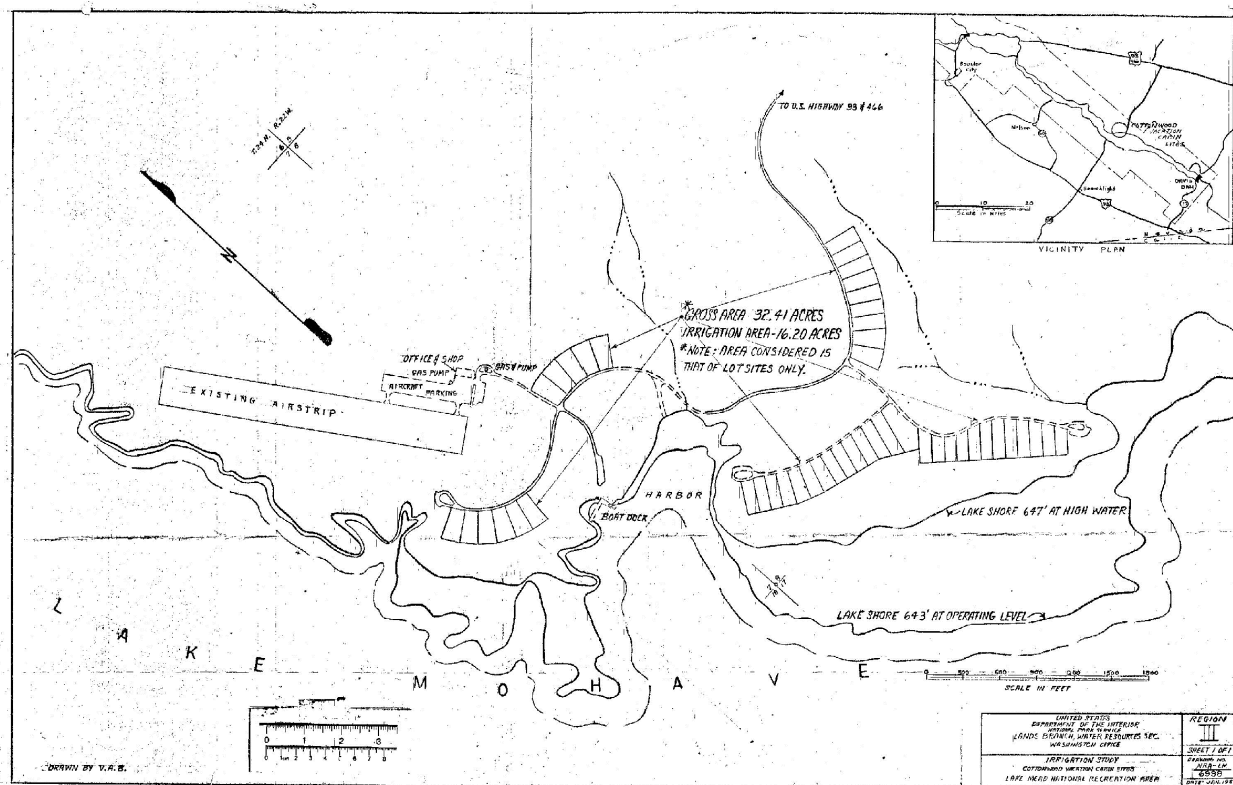
Copy to: Superintendent, Lake Mead, with 7 attachments
✓ Chief, WODC, with 7 attachments

April 1959

LAKE MEAD - COTTONWOOD VACATION CABIN SITES - IRRIGATION STUDY					
Location	*Gross Area	Net Irrigation Area	% of Gross Area to be Irrigated	@ 5 AF/A/AN	@ 8 AF/A/AN
Vacation Cabin Sites	32.41 acres	16.20 acres	50%	81.00 AF	129.60 AF

*NOTE: Area considered is that of lot sizes only.

Derived from Drawing No. 6988



Docket Information

Number of Documents in Docket 18

Documents Dated from 1/15/1959 to 6/4/1982

Docket Compiled: 6/2/2016