



WATER-RIGHT DOCKET

Saguaro National Park

Docket No: 16

CHIMINEA CREEK, MADRONA BASE PACK DIVERSION

Preliminary Docket Information

05-29-1979: water right/source docket information

WATER RESOURCES/WATER RIGHT

DATE: May 29, 1979

WATER RIGHT/SOURCE DOCKET INFORMATION

REGION Western AREA Saguaro National Monument
SITE Chimenea Creek, Madrona Base Pack Diversion
STATE Arizona COUNTY Pima DOCKET NO. WR#3
LOCATION SW $\frac{1}{4}$ NW $\frac{1}{4}$ SE $\frac{1}{4}$ Section 4, T15S, R17E, G&SRB&M.
REGIONAL BASIN Colorado LOCAL BASIN Santa Cruz
ACQUIRED BY Reservation
APPLICATION _____ PERMIT _____ CERTIFICATE _____
ACTION DUE _____ PRIORITY _____ RESERVATION March 1, 1933
QUANTITY USED: Variable USE Stockwatering and domestic
STATUS Active SOURCE Surface water (stream)

REMARKS Chimenea Creek lies within Hydrologic Basin Unit No.15050302.

The nature of this water right has changed substantially since the establishment of the Rincon Wilderness Area and management changes in the Saguaro backcountry.

NARRATIVE:

Saguaro National Monument consists of two separate areas, designated Rincon Mountain Unit (the eastern portion) and the Tucson Mountain Unit (the western section). The Rincon Mountain Unit was established by proclamation on March 1, 1933. The Tucson Mountain Unit was similarly created on November 15, 1961.

Madrona Ranger ^{Station}, maintained by the Park Service, was formerly the base facility for the management of the Saguaro backcountry. It is the site of numerous corrals and a ranger residence, as well as maintenance houses. Until 1976 and the establishment of the Rincon Wilderness Area within Saguaro National Monument, Madrona Ranger Station had an undependable water supply and demands usually exceeded the demand for water except during the rainy portions of the year when Chimenea Creek would run. The creek, according to flow data for the years 1957 through 1964, was dry from March to July and from October to November. The Ranger Station and the campground which a decade ago was available to the general public were originally supplied with water from Chimenea Creek by way of gravity flow through a small pipeline diversion system. Thinking that campground use would expand in the future, the Park Service in the late 1950's decided to build a dam across the creek and divert the water to storage tanks near the Station. Plans were drawn up in preparation for filing an Arizona State Water Right Application, for 80,000 gallons per year. This amount was derived by Mr. A. van V. Dunn in conjunction with his testimony in Arizona v. California.

The management of the water supply for Madrona Ranger Station and associated activities evolved in dissimilar ways for a number of years during the 1960's and 1970's. The Park Service apparently abandoned the idea of building a dam in the early 1960's. Instead, it was decided to drill a well, which was completed on March 17, 1964, and drilled to a depth of 255 feet, 30 feet from Chimenea Creek (at the SW $\frac{1}{4}$ SE $\frac{1}{4}$ section 4). The well was backfilled to 117 feet to adjust the water level to 12 feet below land surface datum. However, it was noticed that well productivity hinged upon the flow of the creek. Tests carried out during the dry season, on June 25-26, at a rate 1.12 gpm for 23 hours, indicated that the well would be inadequate as a water supply during that season. Prior to the test, the water level was 18.46 feet below land surface datum. After nine days of recovery, the water level remained at 23.94 feet below land surface datum. Due to this test result, the Park Service proposed building a storage system to augment the well supply. This was never accomplished.

Compiled by _____ Page 1 of 2

Approved by _____

In 1975, the Monument staff reported that the well was not being used. Due to the access problems caused by a new subdivision being built adjacent to the Monument in this area, campground use by the public had been almost completely stopped. Water for the maintenance of the ranger station and stock areas(during those times when the Creek was dry) was trucked in and placed in a large holding tank. This system of supplying Madrona Ranger Station formed the pattern throughout the latter part of the 1960's and early 1970's.

In 1976, Congress proclaimed the Rincon Wilderness Area, which included the Sonoran Desert foothill area of the southwestern part of the Monument and incorporating Madrona Ranger Station. Although the Ranger station legitimately constitutes an enclave allowing dwellings and other manmade structures in the wilderness area, the current management plan includes the dismantling or at least degrading of the Madrona facility. The ranger residence is no longer utilized year-round by the backcountry ranger, and, consistent with the lowering of the Service personnel visibility in the backcountry, the mule train operation has been severely curtailed. Thus, although there had been much talk previously of supplying Madrona Ranger Station with a more dependable water supply, current uses are in a state of flux and future water demands at Madrona difficult to ascertain.

All diversions and water facilities at the Madrona Ranger Station are located on lands originally withdrawn by the Forest Service as early as 1907, and subsequently made part of the Rincon Unit of Saguaro National Monument on March 1, 1933. Thus, any future discussion on the Park Service water right in Chimenea Creek will be covered by the Reservation Doctrine.

Ernesto L. Molina
May 29, 1979

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 verification to the State in the interest of the community, 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-	629099
FILE NO.	D(15-17)4 dcb
FILED	6-9-82 AT 1:30
(DATE)	(TIME)
INA	
AMA	T.S.N.

1. Name of Registrant:

National Park Service, Western Region, Division of Water Resources
450 Golden Gate Avenue, Box 36063, San Francisco, CA 94102
(Address) (City) (State) (Zip)

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

D (15 - 17) 4 uns. dcb 35-
(File Number) (Control Number)

3. a. The well is located within the NW ¼ SW ¼ SE ¼, Section 4, of Township 15 S N/S, Range 17 E E/W, G & SRB & M, in the County of Pima

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)

a. Depth of Well 117 feet
b. Diameter of casing 6.63 inches
c. Depth of casing 117 feet
d. Type of casing Steel, slotted from 10 - 110 ft. below land surface datum
e. Maximum pump capacity N/A gallons per minute.
f. Depth to water 8.44 feet below land surface.
g. Date well completed March 17, 1964
(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
Saguaro National Monument (Rincon Mountain Unit) - Madrona Pack Base Well
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

Supporting Hydro Data



IN REPLY REFER TO:

L54

UNITED STATES
DEPARTMENT OF THE INTERIOR

NATIONAL PARK SERVICE
Saguaro National Monument
Route 8, Box 350
Tucson, Arizona 85710

August 17, 1964

W O D C
AUG 20 '64

CHF
ADM
PERS
P & P
ARCH
ENGR <i>acty</i>
L. A.
SPEC
CONT
SFTV
ACTION TAKEN - DATE

8/21/64
File

Memorandum

To: Chief, WODC

From: Superintendent, Saguaro

Subject: Stream flow data for Chimenea Creek at Madrona

In his memorandum of July 16, Acting Regional Director George W. Miller requested that we furnish data on the stream flow of Chimenea Creek at Madrona Ranger Station.

Available stream flow data are enclosed. Unfortunately, however, records of stream flow at that location are very incomplete. In fact, for some years practically no reliable observations are available. We have tried, however, to fill in the gaps with estimates based on probable watershed rainfall. Where we had no knowledge of stream flow, we preceded our best guess with the word "probably."

Rainfall records at Madrona or at a comparable elevation were used in our estimates. Precipitation at the higher elevations is much heavier but is generally proportionate to that at Madrona. Unfortunately, rainfall in the area fluctuates over a wide range, and we can count on occasional years like 1960, where considerably less than 10 inches is recorded.

Our pattern of bi-seasonal rainfall is reflected in stream flow. The most critical period is spring and early summer (May, June, and July). It is interesting to note that although we nearly always get good summer rains in July, Chimenea Creek does not begin flowing until about the first of August. Apparently, there is about a two or three week lag between the first heavy summer rains and stream flow at Madrona.

Hydraulic Engineer William E. Fields has now had time to study the data from the dry-season test conducted on June 25 and 26. The results of the test were inconclusive and Mr. Fields is in favor of running another test of longer duration. To be of value, the test would have to be carried out during the fall dry season - probably in late October or early November.

Paul A. Judge
Paul A. Judge

Enclosure

cc: Southwest Region

W OF CHIMENEA CREEK AT WELL SI

Madrona Ranger Station

	<u>1957</u>	<u>1958</u>	<u>1959</u>
Jan.	Flowing	Flowing	Almost Dry
Feb.	Probably Flowing	Flowing	Probably Flowing
Mar.	Flowing	Flowing	Flowing Lightly
Apr.	Flowing	Flowing	Probably Flowing
May	Probably Drying Up	Flowing	Dry
June	Dry	Probably Dry	Dry
July	Dry	Probably Dry	Probably Dry
August	Flowing	Flowing	Flowing
September	Decreasing Flow	Probably Flowing	Flowing
October	Probably Flowed Part of Month	Flowing	Probably dry- ing Up
November	Flowing	Probably Flowing	Probably flowing slightly
December	Flowing	Flowing	Probably Flowing well
Estimated Rainfall at Madrona Elev.	17"	16"	11"

FLOW OF CHIMENEA CREEK AT WELL SITE

Madrona Ranger Station

	<u>1960</u>	<u>Precip.</u>	<u>1961</u>	<u>Precip.</u>
Jan.	Flowing heavily	2.50	Flowing heavily	1.00
February	Flowing	.80	Probably flowing	No rain
March	Probably flowing	.20	Probably drying up	.50
April	Probably drying up	No rain	Probably dry	No rain
May	Probably dry	No rain	Dry	No rain
June	Probably dry	.20	Dry	No rain
July	Probably dry	1.00	Probably dry	3.50
August	Probably dry	1.00	Probably flowing	3.00
September	Probably dry	.80	Probably flowing	.55
October	Probably dry	.70	Probably dry	.85
November	Probably dry	.10	Probably dry	.50
December	Probably dry	.70	Probably flowing	2.10
		<u>8"</u>		<u>12"</u>

some minor flow likely

FLOW OF CHIMENEA CREEK AT WELL SITE

Madrona Ranger Station

	<u>1962</u>	<u>Precip.</u>	<u>1963</u>	<u>Precip.</u>
January	Probably flowing	1.51	Flowing heavily	1.40
February	Probably flowing	.46	Flowing heavily	1.50
March	Probably drying up	.64	Flowing	1.00
April	Probably dry	No rain	Flowing	.30
May	Probably dry	No rain	Probably drying up	No rain
June	Probably dry	No rain	Dry	No rain
July	Probably dry	2.16	Probably dry	2.00
August	Some minor flow	.69	Flowing heavily	6.50
September	Probably flowing	3.53	Decreasing flow	.80
October	Dry	.20	Very little flow	.40
November	Dry	.43	Flowing late in month	1.90
December	Probably flowing	<u>1.38</u> 11"	Reduced flow	<u>.20</u> 16"
	<u>1964</u>	<u>Precip.</u>		
January	Flowing	.53		
February	Decreasing flow	.50		
March	Flowing	.80		
April	Very little flow	.80		
May	Drying up	No rain		
June	Dry	No rain		
July	Dry	3.74		
August	Flowing heavily	good rains		
September				
October				
November				
December				



IN REPLY REFER TO:
D5039

UNITED STATES
DEPARTMENT OF THE INTERIOR
NATIONAL PARK SERVICE
Saguaro National Monument
Route 8, Box 350
Tucson, Arizona 85710

July 9, 1964

Docket 3

RECEIVED	
NPS SOUTHWEST REGIONAL OFFICE	
JUL 13 1964	
	Date
Regional Director	
Operations	
Administration	
Coop. Activities	
Development	
Resource Science	
Files	

Memorandum

To: Regional Director, Southwest Region
From: Acting Superintendent, Saguaro
Subject: Dry-season test of Madrona Well

Another test was run on the Madrona Well on June 25-26. Initial testing back in March was inconclusive because Chimines Creek was flowing heavily about 30 feet from the well. The latest test was scheduled near the end of the dry season to obtain information under the most adverse drought conditions possible.

A rented pump was installed in the well by monument maintenance personnel on June 24. The $\frac{1}{2}$ -horse submergible pump was set at 100 feet for the test. The well was pumped at a constant rate of 1.12 g.p.m. for 23 hours. From the looks of a graph, plotted on semi-logarithmic paper, the water level appeared headed straight for the bottom.

Recovery data were also collected for 23 hours and the results plotted. Recovery was fairly good at first but became very slow toward the end. In fact, the well failed to recover completely, ending up at 24.33 for a deficit of 5.80 feet. After another 24 hours, the well recovered to 23.00 feet. Nine days after the test was completed, the water level was measured at 23.94 feet.

The well does not appear too promising during the dry season. With adequate storage, however, perhaps a workable system could be developed. We are, of course, anxious to develop a water supply at Madrona and would appreciate Hydraulic Engineer William E. Fields' comments and suggestions. Drawdown and recovery data obtained in the test are enclosed for Mr. Fields' use.

Mr. Fred Pashley of the U. S. G. S. was very helpful during the test. Mr. Pashley helped out at the site and provided measuring equipment, and much useful advice.

William E. Dyer
William E. Dyer

Enclosures

LS4
D5039 Sagu

PUMPING TEST DATA SHEET

Page 1 of 3

NPS

Well Madrona

Dyer

2

Static water level

18.46

Distance to pump or well

ft.

Date	Time	Depth	Discharge (gpm)	Pump max drawdown	Recovery S
6/26/64				47.24	
0901		1		47.15	
0902		2		47.03	
0903		3		46.94	
0904		4		46.82	
0905		5		46.69	
0906		6		46.58	
0907		7		46.47	
0908		8		46.35	
0909		9		46.24	
0910		10		46.11	
0915		15		45.52	.59
0920		20		44.88	.64
0925		25		44.34	.54
0930		30		43.68	.66
0935		35		42.95	.73
0940		40		42.26	.69
0945		45		41.58	.68
0950		50		40.90	.68
1000		60		39.55	1.35
1010		70		38.23	1.32
1020		80		36.95	1.28
1030		90		35.75	1.20
1040		100		34.97	.98
1100		115		33.73	1.24
1115		130		33.08	.65
1130		145		32.74	.34
1145		160		32.17	.57
1200		175		31.58	1.41
1215		190		31.04	.54
1230		205		30.55	.49

After pump was shut down, water could be heard running in.

Could no longer hear water trickling in.
Reset watch at 1100

POT-2128-11

7

NPS

Dyer

Well Madrona

18.46

if, Discharge is pumped well

Water started
to recover in
abandoned
hole

Abandoned hole
level of 20.5

Time	Discharge (gpm)	30.55	Recovery
6/24/64			
1245	220	30.05	.50
1300	235	29.45	.60
1315	250	28.90	.55
1330	265	28.48	.42
1345	280	28.15	.33
1400	295	27.75	.40
1415	310	27.85	
1430	325	28.10	
1445	340	27.70	
1500	355	27.47	.23
1515	370	27.20	.27
1530	385	26.94	.26
1545	400	26.80	.14
1600	415	26.65	.15
1615	430	26.52	.13
1630	445	26.40	.12
1645	460	26.29	.11
1700	475	26.15	.14
1715	490	26.09	.06
1730	505	26.01	.08
1745	520	25.92	.09
1800	535	25.86	.06
1830	565	25.76	.10
1900	595	25.64	.12
1930	625	25.56	.08
2000	655	25.44	.12
2100	715	25.35	.09
2200	775	25.14	.21
2300	835	25.04	
2400	895	24.93	

- Recovery - 2

Well Madrona

Measuring Error

re. 85000 130

Static water level 18.46

ft., Distance to pumped well ft.

Date	Time		Discharge (gpm)	Pumping level (ft.)	Drawdown S (ft.)
	Hour	Minutes Start Stop			
0100		955		No Reading	
0200		1015		24.71	
0300		1075		24.63	
0400		1135		No Reading	
0500		1195		24.54	
0600		1255		24.43	
0700		1315		24.39	
0800		1375		24.33	

19.35
water level in
abandoned hole

Recovery = 3

SAGUARO 1964 DRY SEASON TEST

3

Parker Service - Madrona R.S.

Well Madrona

Pashley, Dyer, & Hanley

Depth of casing 2

Static water level 18.46

Distance to pumped well

Date	Time	Start	Stop	Discharge (gpm)	Reading (ft)	Drawdown S (ft)
6/25/64		1		3 gal	18.53	
		2		in	18.57	
		3		160 sec.	18.62	
		4			18.69	
		5			18.75	
		6		160 sec.	18.77	
		7			18.81	
		8			18.85	
		9			18.89	
		10			18.92	
		15			19.11	
		20			19.25	
		25			19.37	
		30			19.49	
		35			19.60	
		40			19.70	
		45			19.79	
		50		160 sec	19.88	
		60			20.04	
		70			20.20	
		80			20.33	
		95			20.53	
		110			20.74	
		125			21.15	
		140			21.58	
		155			21.83	
		170			22.15	
		185			22.45	
		200			22.70	
		215			22.90	

$$\frac{53}{3 \times 160}$$

$$\frac{1390}{16}$$

$$\frac{60}{3}$$

$$\frac{16}{16}$$
15-min
intervals

FINDING TEST DATA SHEET

Page 2 of 2

NPS

Well Madrona

1430

Stationing: _____
 Elevation of top of casing: _____
 Static water level: 18.46
 Distance to nearest well: _____

Date	Time	Discharge (gpm)	Running Time	Drawdown (ft)
	Start		22.90	
1345	230		23.10	
1400	245		23.20	
1415	260		23.45	
1430	275		23.60	
1445	290		No Reading	
1500	305		23.91	
1515	320		24.05	
1530	335	3 gal in 160 sec	24.19	
1545	350	1.1 gpm	24.33	
1600	365		24.46	
1615	380		24.61	
1630	395		24.76	
1645	410		24.90	
1700	425		25.03	
1715	440		25.24	
1730	455		25.41	
1745	470		25.55	
1800	485		25.79	
1815	500		25.95	
1830	515		26.13	
1845	530		26.45	
1900	545		26.66	
1915	560		26.89	
1930	575		27.14	
1945	590		27.33	
2000	605		27.51	
2015	620		27.66	
2030	635		27.80	
2045	650		27.94	
2100	665		28.10	

5.1
 60.35
 2.00

28
 1440

24.19
 18.53
 5.66

PUMPING TEST DATA SHEET

Page 2 of 3

Owner NPSWell Madron

Inventor

Measuring point

ft. above

isd.

Static water level

ft., Distance to pump ed well

ft.

Date	Time		Discharge (gpm)	Pumping lev. (ft.)	Drawdown S (ft.)
	Hour	Start			
2130		695		28.37	
2200		725		28.70	.33
2230		755		29.01	.31
2300		785		29.28	
2330		815		29.66	
2400		845		30.12	
0030		875		30.52	
0100		905		30.87	.35
0130		935		NO READING	
0200		965		31.72	.45
0230		995		32.17	.45
0300		1025		32.69	.42
0330		1055		33.09	.40
0400		1085		33.83	.74
0430		1115		35.11	1.28
0500		1145		36.71	1.60
0530		1175		38.59	1.88
0600		1205		40.41	1.82
0630		1235		42.24	1.83
0700		1265		44.02	1.18
0730		1295		45.40	1.38
0800		1325		46.79	1.39
0830		1355		47.26	
Pump Stopped 0900		1385		47.24	
0930		1415			
24 hours → 1000		1445			

Abandoned hole south of test well was bone dry at 0900.

PROP SALES
SERVICEWELL DRILLING
PROSPECTS*J. R. Sharp*GENERAL CONTRACTOR
BOX 01175 - PHONE ME 2-4507
BISBEE, ARIZONA*E*

March 31, 1964

LS4
Saguaro National Monument
Route 8, Box 350
Tucson, Arizona

Paul A. Judge

Dear Mr. Judge:

Enclosed is the State Land Department Log and four copies of the well log for your files as you requested.

Well Log

- 0 - 17' Sand & Boulders
- 17 - 255 Brecciated Granite Gneiss
- 117 - 125 Cement & Bentonite Plug
- 125 - 255 Gravel Fill
- 12' First Water
- 0 - 117' 6 5/8 x .280 Wall P.E. Casing
- 10 - 105' 6" Perforated one slot 1/4 x 6 every 5 feet
- 135 - 110 Perforated one slot 1/4 x 6 every foot
- 0 - 110 8 5/8 x .277 Wall P.E. Casing
- 10 - 100 8" Perforated two slots 3/8 x 3" every foot

EXTRA

Very truly yours,

J.R. SHARP GENERAL CONTRACTOR

Boyce Azbill
Boyce Azbill, Manager

W O D C	
JUN 22 1964	
CHF	
ADM	
PERS	
P & P	
ARCH	
ENGR	
L. A.	
SPEC	
CONT	
SFTY	
HABS	
NOT TAKEN - DATE	

Other Supporting Information



19-1-12-67.

UNITED STATES
DEPARTMENT OF THE INTERIOR
NATIONAL PARK SERVICE
WASHINGTON, D.C. 20240

IN REPLY REFER TO:

L58-CAM

JAN 11 1967

Memorandum

To: Chief, Office of Resource Planning, SSC

From: Chief, Division of New Area Studies and Master Planning

Subject: Proposed boundary revision, Saguaro National Monument

This refers to Mr. Kuehl's memorandum of October 11, 1966, and our discussion with you on this subject when you were in this office.

The Master Plan Brief for Saguaro National Monument calls for the addition of 1260 acres of privately-owned land in the vicinity of the Madrona Ranger Station. Mr. Kuehl's memorandum suggests that this proposed addition could be reduced to 960 acres, identified as follows: E 1/2 Section 9 and all of Section 10, T, 15 S., R, 17 E.

The plan enclosed with Mr. Kuehl's memorandum recommends a boundary revision to permit the relocation of the Madrona Ranger Station to Sections 9 and 10. This site was selected because it has sufficient space, suitable topography, the prospect of an adequate potable water supply, and, in addition, would provide a good contact and control point for visitors using the loop trail. However, because of the potential high land cost of the 960 acres which would be added to the Monument under this proposal, we believe consideration should be given to an alternative location within the existing Monument.

The critical item in this relocation appears to be an adequate potable water supply. In this regard, we are enclosing for your information copies of two letters from the Geological Survey in Tucson, one of May 3, 1963, from Mr. P. E. Dennis and one of October 11, 1966, from Mr. H. M. Babcock. You will note that Mr. Babcock recommends that the Service first drill a shallow test hole in the Rincon Creek Valley in Section 11 to determine whether an adequate supply of water can be obtained within the present boundaries of the Monument. We concur that such a test well should be drilled. Although Mr. Babcock's memorandum recommends test drilling near the west section line of Section 11, please note that the potential water bearing zone shown on the map enclosed with Mr. Dennis' memorandum of May 3, 1963, also extends into Section 14.

We recommend that your Office plan to make a planning study of this problem at Saguaro National Monument the next time you have a master plan team in Arizona or New Mexico. This study should consider the two alternatives: (1) relocation of the ranger station to Sections 9 and 10, resulting in a boundary revision, and (2) relocation of the ranger station to Section 11 (possibly extending into Sections 14 and 10). In your report on the study, please present for each alternative the following: the justification for the selection of that site, discussion of the physical features of the site, the estimated development cost, the estimated land acquisition cost, a statement of the potential for developing a suitable water supply (including results of test well in Section 11), a statement regarding access problems (such as road and trail relocations), a statement on visitor contact and orientation, and a discussion of the preservation of natural values at the two sites. A sketch plan showing the developments at each site would also be most helpful.

As the first step, we suggest you get in touch with the Regional Director regarding his making arrangements to have the test well drilled within the Monument in Section 11. We assume that either he or the Superintendent will get in touch with Mr. Babcock of the Geological Survey to request his assistance in this endeavor.

*Should be
PSC*

We are also enclosing for your information copies of several memoranda from the Regional Director and the Superintendent which provide additional information pertaining to the proposed boundary revision.

We shall await the results of your planning study at Saguaro before giving any further consideration to the proposed boundary revision.

(Sgd.) **Raymond L. Freeman**
Raymond L. Freeman

Enclosures

cc:
Regional Director, Southwest
Supt., Saguaro
SLW - Mr. Reid
SLW - Mr. Stewart
CAM - Mr. Ingham
CAM - Mr. Reshoft
CAM - Mr. Husted

JHusted:HJHowe:ncb 1/6/67

[illegible]

Subject: Chiminea Creek Diversion for Madrona Pack Base, Docket 3,
Saguaro

Mr. Kell and I prepared the claim for Arizona vs. California in San Francisco, as sheet 4 of Exhibit 2813, claiming 0.10 AF or 32,585 gallons per year for domestic purposes, and 0.15 AF or 49,878 gallons per year for stock and wildlife watering. I may have included evaporation from the diversion pools in the later. Mr. Bill's data shows that the pumps can fill the 4-3000 gallon tanks in about 100 minutes. The entire water claim of 80,000 gallons per year could be diverted during about 6.83 tank fillings a year, but there are probably more frequent fillings to maintain full storage and the extra 8 feet of water pressure.

The application should be for the use of at least as much water as I claimed in Arizona vs. California and Mr. Fields should not hesitate to claim more if the latest development and area use plans justify such action. The claim was prepared at the last minute for my testimony, and should be revised if there is justification for a larger claim.

This is one of the claims for which I think a state filing should be made as soon as possible. It will support my testimony. I will also offer an opportunity to find out how the state now reacts to new applications. It "lapped them up" until the suit was started, but may not be so anxious to accept new ones now.

SIGNED

A. van V. Dunn
Chief, Water Resources Section

Copy to: ~~Superintendent~~, Saguaro
Chief, WODC (2)

Region Three
Santa Fe, New Mexico

October 13, 1959

L-54

WRG/ly

Price
P. J. Hest
H. C. S.

Memorandum

To: Director
From: Acting Regional Director
Subject: Chiminea Creek Diversion for Madrona Pack Base, Docket No. 3, Saguaro

On October 23, 1958 Mr. Dunn wrote this office requesting additional information for completion of our drawing SAG-MM-7106. This additional information required considerable field work in order to compile it, and Park Engineer, George D. Smith, SW Archeological Center, provided us with the information.

Additional data is supplied as follows:

1. We have omitted the elevation to the top of the dam and inlet pipe as the planning has changed and no longer includes the area from point #12 to the dam.
2. The water pump near point #12 is a Gardner-Denver, two inch centrifugal, powered by a four cylinder Wisconsin gasoline engine rated at 35 H.P. At 1750 r.p.m. the pump will deliver approximately 120 g.p.m.
3. Elevation of the pool level near point #12 is 3410.8 feet. Elevation of the intake pipe (bottom) is 3408.24 feet. Elevation of the intake pipe (top of pool) is 3410.3 feet.
4. Elevation at the base of the pump is 3415.27.
5. Elevation at the top of the tanks is 3431.76 feet, and the highest part of the inlet pipe is 3432.56 feet.
6. The average use elevation is 3391.0 feet and the roof elevation of the highest building which is the Ranger Station is 3399.7 feet.

7. Section ties from the pool to the section corner common to Sections 3, 4, 9 and 10 is $S49^{\circ}12'E$, 3017.6 feet and the tie from the water pump to the same section corner is $S50^{\circ}32'E$, 2940.0 feet.

All of this additional information will be incorporated on the map and a copy of this map forwarded to you as soon as it is finished. In addition, we are told that the tanks shown on this map are incorrect and they will be corrected when we have the necessary information.

We have been incorrectly calling this the Chiminer Creek Diversion and Engineer Smith informs us that it is the Chiminea Creek Diversion.

We hope this information will be helpful, and if any additional information is needed, please let us know.

(SIGNED)

Harthon L. Bill
Acting Regional Director

In duplicate ✓

Copy to: Supt., Saguaro
Eng. Geo. Smith (SWAC)

L-54

December 12, 1958

Docket 3

DDM 12/12
Marley
Garber

Memorandum

To: Regional Director, Region Three
From: Acting Supervisory Engineer, WERC
Subject: Madrona Pack Base Diversion, Saguaro National Monument

Reference is made to Mr. Hall's memorandum of December 4 requesting information pertaining to surveys in the area of the proposed diversion. To the best of our knowledge, there is no information at this office which would be of any value in the matter. We can find no record of funds having been programmed for such a project; hence, no formal surveys have been made in the area by anyone from this office.

At the request of Superintendent Brechler in June, 1957, Mr. Marley of this office made a very informal and preliminary survey to determine a location in the stream bed of sufficient elevation to permit a gravity flow of water into the existing storage tanks. It was at this time that the stake was set which is shown on Drawing No. RM-584-7105; however, the elevations used were based on an assumed datum plane without regard to actual elevations and the distance to the storage tanks was roughly chained to determine the approximate length of pipe required to connect to the existing intake. No ties to any existing survey points were made.

By copies of this memorandum, Superintendent Cook and Engineer Smith are informed of its contents.

Signed

Paul J. Garber
Acting Supervisory Engineer

In duplicate

Copy to: Chief, D & C
Supt., Saguaro
Dist Engr. Smith, Globe, Ariz.
Proj. Supv. Marley
Mr. Hayward
DSMarley:cr

Chief, Water Resources Section

FILE COPY



UNITED STATES
DEPARTMENT OF THE INTERIOR
NATIONAL PARK SERVICE
Region Three
Santa Fe, New Mexico

DEC 4 - 1958

IN REPLY REFER TO:

L-54

WESTERN OFFICE DESIGN & CONSTRUCTION	
DEC 3 1958 A.M.	
CHIEF	
ADMIN. ASSIST.	
PERSONNEL	
PLANS & PROJ.	
SAFETY	
ARCHITECT	
ENGINEER	
LAND. ARCH.	
ACTION TAKEN - DATE Memo to Rep. 12/12	

Memorandum

To: Chief, Western Office of Design and Construction
From: Regional Chief of Lands
Subject: Revised Preliminary Drawing NM-SAG-7106, Madrona
Pack Base Diversion, Saguario

Attached is a copy of preliminary print, Sheet 1 of 2, of Drawing NM-SAG-7106, Madrona Pack Base Diversion, Saguario National Monument with recommended additions and corrections by Mr. Dunn. Also included is a copy of our memorandum to Park Engineer George Smith at Globe. A copy of Mr. Dunn's memorandum of October 23 was transmitted to you direct.

Any information which you have on the proposed route from the new dam site to the existing tanks would be greatly appreciated (ie. bearing and distance of proposed route, height, size and type of proposed dam and, if possible, any elevation shots of that area.)

We have also attached a copy of our memorandum to Park Engineer George Smith based upon questions raised in Mr. Dunn's memorandum of October 23.


John E. Kell
Regional Chief of Lands

Attachments

Copy to: Director (2)
Supt., Saguario
Park Engineer Smith

UNITED STATES
DEPARTMENT OF THE INTERIOR
NATIONAL PARK SERVICE

L-54

Region Three
Santa Fe, New Mexico

DEC 4 - 1958

Memorandum

To: NPS Southwest Archeological Center
Attention: George D. Smith, Park Engineer

From: Regional Chief of Lands

Subject: Chiminer Creek Diversion for Madrona Pack Base,
Docket 3, Saguaro

Attached are copies of preliminary prints, Sheet 1
of 2, of Drawing NM-SAG-7106.

Preliminary prints were submitted to Mr. Dunn for
review and, prior to submission of final drawing, we need the
following information from you.

- (1) Elevation to top of dam and inlet pipe
- (2) Gallons per minute rating of existing pump and
engine horse power rating
- (3) Elevation of pool level and pipe intake at
diversion point of existing facilities
- (4) Elevation of existing pump
- (5) Elevation at top of tanks and bottom of the
highest part of the inlet pipe
- (6) Elevation of average height of center of water
use and elevation of roof of highest building

The above are listed on copy of attached map in pencil.

Calculations of ties, as indicated in red on attached
map, were computed using your traverse but with some distances
scaled. We need bearing and distance from point no. 12 to water
pump and from point no. 12 to beginning of present pipe line.

We are writing WODC for any information they can supply and the proposed route of the new pipe line from new dam site to existing tanks. Any information you may have on this subject would be greatly appreciated. A copy of Mr. Dunn's memorandum of October 23 is attached.

JOHN E. KELL

John E. Kell
Regional Chief of Lands

Attachments

Copy to: Director (2)
Supt., Saguaro w/attachments
W.O.D.C. ✓



UNITED STATES
DEPARTMENT OF THE INTERIOR
NATIONAL PARK SERVICE
WASHINGTON 25, D. C.

IN REPLY REFER TO
L54-OBL

October 23, 1958

Memorandum

To: Regional Director, Region Three
From: Chief, Water Resources Section
Subject: Chimer Creek Diversion for Madrona Park Base, Docket 3, Saguaro

ch 10-27

Kell

The second sheet of Drawing SAG-7106, which was forwarded with Mr. Kell's memorandum of September 17 is not required for the water right filing, but will help in preparing data for the application form. The title should be the same as sheet 1. That title should be Chimer Creek Diversion for Madrona Park Base, Saguaro National Monument, as shown on sheet 1 of the attached prints.

Both sheets should show elevations at each of two intakes, the pump, bottom (invert) at highest point on pipeline to tanks. It should also have elevation of bottom of tanks, and of center of water use and highest roof top. Pump lift and gravity gradients must be computed from these.

The ties, by bearing and distance, from each diversion pipe inlet, and pump, to SE Cor. Sec. 4 should be computed and shown.

We will have to have pump capacity in gpm, and engine horse power if existing lower diversion is claimed temporarily, or as alternative to upper gravity diversion. Mr. Kell did not supply me with that information at the Arizona vs. California hearing. Pump capacity can be determined by pumping into tanks for specified time, and measuring the rise in water level in tanks. Approximate stream flow at dam would be desirable, but will be assumed to exceed pump capacity if not available.

Existing pipeline should be solid line, and proposed line should be broken if initial application is to cover both. Proposed length, height and material of proposed dam should be supplied.

It is assumed that sheet 1 is being retraced unless the tanks can be erased. However, I see nothing wrong with sheet 1 for filing, if neat erasures can be made, except that the detail of (present) diversion to residence is superfluous. It could be titled

initial development, and the main drawing could be titled ultimate development if new tracing is not made. In that case, the line from diversion to pump and thence to junction with pipeline extension should bear some notation as to whether it will be removed or retained for standby purposes. Corrals and packer's residence should be labeled on main drawing. Radio antenna and powerhouse need not be shown on file map. What is building near tanks?

Although I testified to acre-feet water demand in Arizona vs. California, I am tempted to claim gallons per day, or rates of diversion in application to cover more frequent use than Mr. Kell suggested. That detail can be decided when we get extra data on pump and pipe gradients, and possible stream flow.

If all six tanks are not on same elevation, there may have to be some mechanical controls to retain and use them all. This detail will not be important in the water right application, however.

The workmanship on the drawing is excellent, and it may pay to complete it as construction or master plan drawing and retrace minimum required portion for file map. However, this is a good example to cite of case where needless water right funds have been used to complete plans which should be charged to R&C funds. This is one of a number of cases in which present financing may be justified to complete water right filings as soon as possible for claims made in court, but there should be care not to use water right funds for needless work under other activities.

One set of prints is returned herewith. We are also distributing docket folders.

A. van V. Dunn
Chief, Water Resources Section

Attachments 2

Copy to: Superintendent, Saguaro, w/c docket folder
Chief, WREC, w/c docket folder

154-CBL

WRC
D

October 23, 1958

Memorandum

To: Regional Director, Region Three
From: Chief, Water Resources Section
Subject: Chiminer Creek Diversion for Madrona Pack Base, Pocket 3, Saguaro

The second sheet of Drawing SAS-7106, which was forwarded with Mr. Kell's memorandum of September 17 is not required for the water right filing, but will help in preparing data for the application form. The title should be the same as sheet 1. That title should be Chiminer Creek Diversion for Madrona Pack Base, Saguaro National Monument, as shown on sheet 1 of the attached prints.

(not r) / 11/16

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SIGNED

A. van V. Dunn
Chief, Water Resources Section

Attachments 2

Copy to: Superintendent, Saguaro, w/c docket folder
Chief, WODE, w/c docket folder
Mr. B. Miller
Mr. Dunn

AvVDunn:1ct

UNITED STATES
DEPARTMENT OF THE INTERIOR
NATIONAL PARK SERVICE
Region Three
Santa Fe, New Mexico

L-54 SOAR

WRG
@

September 22, 1958

Memorandum

To: Park Engineer S.W.A.C., Globe, Arizona
From: Regional Chief of Lands
Subject: Preliminary Drawing, Madrona Pack Base Diversion,
Saguaro National Monument

Attached for your review and comments are Sheets
1 and 2 of Drawing SAG-MM-7106, Madrona Pack Base Diversion,
Saguaro National Monument.

The drawings were retraced in this office to fit
the Arizona State Engineer's requirements for water rights
drawings to accompany applications. Prints have been sub-
mitted to Mr. Dunn for his review and comment.

As you probably know, most State Engineers have
specific regulations for preparation of water rights drawings
and the standard Park Service sheet with approval panels is
generally unacceptable filing.

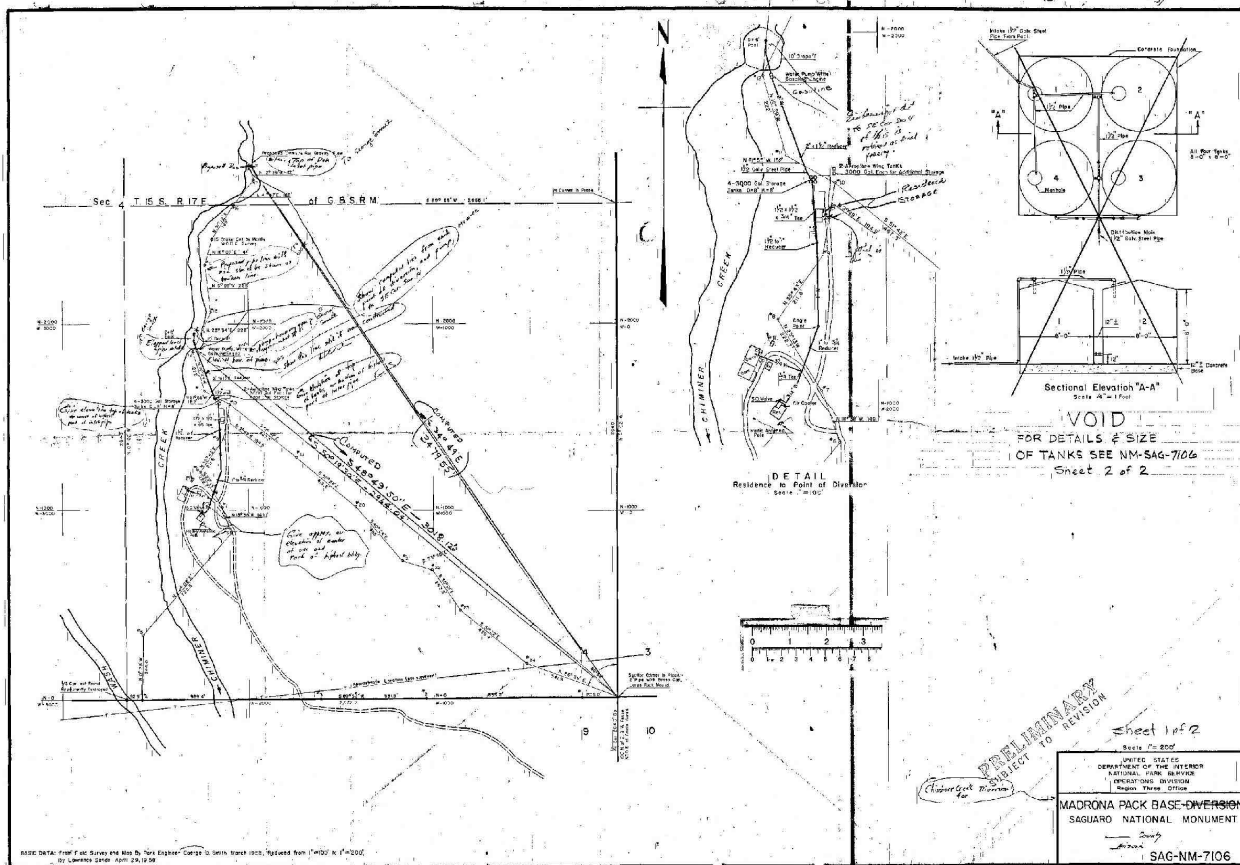
If you have completed the hard copy for any work at
Manning Camp, draftsmen in this office could trace the infor-
mation on linen and thus save you the time required for tracing.

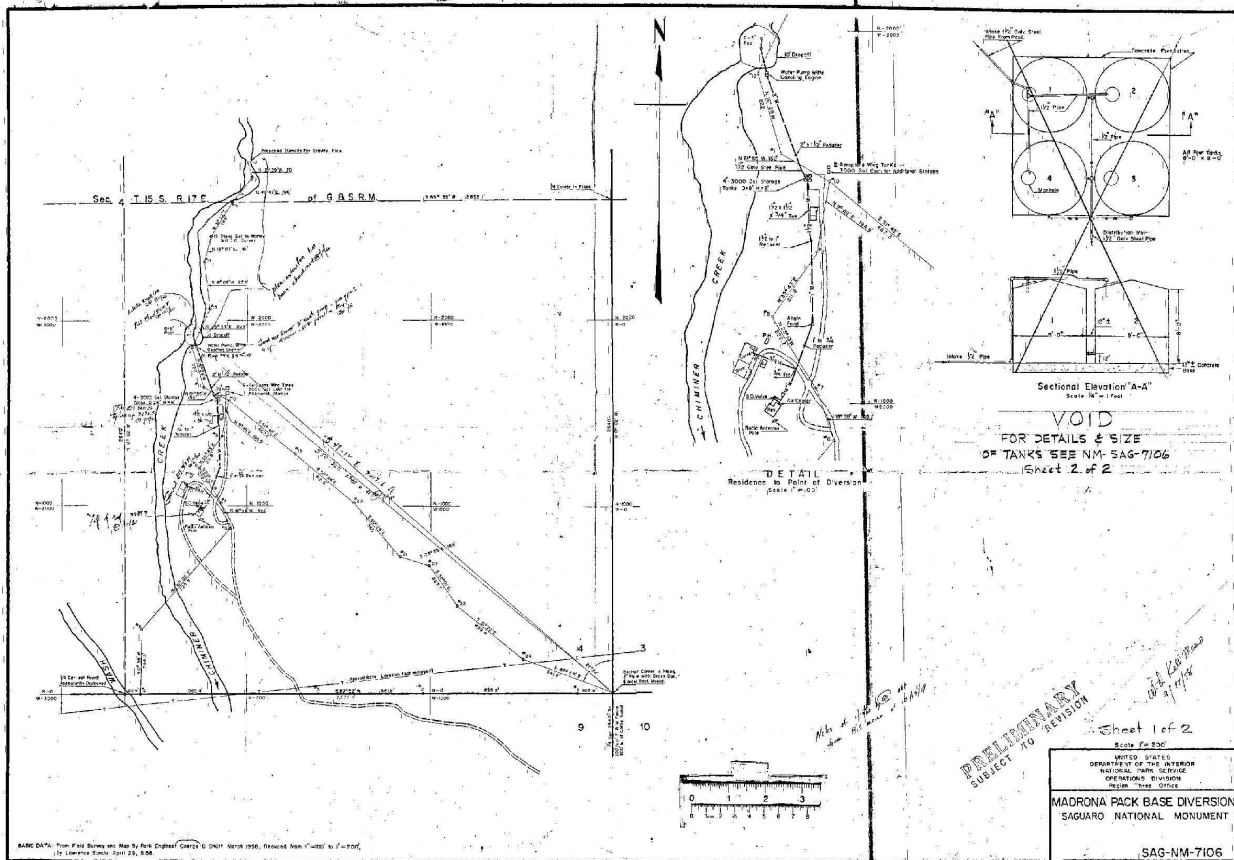
JOHN E. KELL

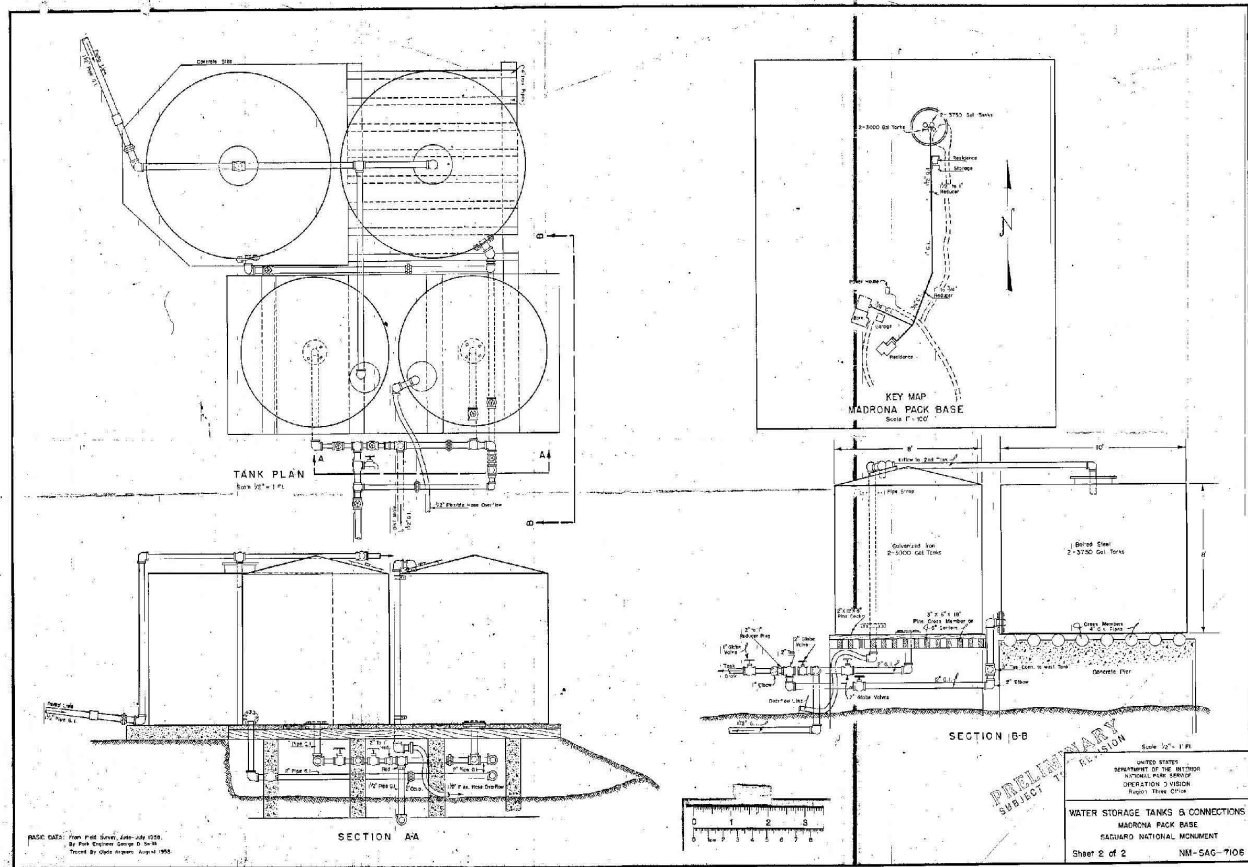
John E. Kell
Regional Chief of Lands

Attachments

Director (2) ✓ w/o prints







Docket Information

Number of Documents in Docket 35

Documents Dated from 4/29/1956 to 6/3/1982

Docket Compiled: 6/16/2011