



Yosemite National Park

Docket Number: 8

YOSEMITE VALLEY WELL #1

Preliminary Docket Information

DOCKET INFORMATION FORM

Compiled by: Alexa Kreiling Date: 8/28/2025
 Initial Docket Information Form ☒ Amendment # (1,2,3 ...)
 Includes Confidential Content ☐

Park Unit: YOSE Docket #: 008 Docket Title Yosemite Valley Well #1

Docket Type:

Select all applicable: ☐ PC/V (pre-code/vested) ☐ APP (appropriate) ☒ RIP (riparian)
☒ FRR (federal reserved right) ☐ PWR (public water reserve) ☐ ACQ (acquired)
☐ GW (groundwater) ☐ Own (ownership) ☐ Other

Region:

☐ NER & NCR ☐ IMR
☐ SER ☐ MWR
☐ IMR ☒ PWR
☐ AKR

Source:

☒ Groundwater ☐ Spring (When recognized by the State as separate from groundwater and surface water)
☐ Surface Water
☐ Direct Diversion ☐ Diversion to Storage ☐ Instream Flow
 Name: Well #1 (2S/22E-19J1)

State: CA

County: Mariposa

Owner: US National Park Service (As listed by the State)

Application #: Date:

Permit #: Date Issued:

License / Certificate #: Priority Date:

Ruling/Order/Decree #: Date Issued:

Quantity: Rate: Duty:
 Units: ☐ cfs ☐ gpm ☐ afy ☐ other Units: ☐ cfs ☐ gpm ☐ afy ☐ other

Use(s): ☐ Domestic ☐ Livestock ☐ Irrigation ☐ Municipal ☐ Industrial/Commercial ☐ Wildlife ☐ Instream ☐ other

POD Name / Location: west of the Sentinel Bridge, near Yosemite Lodge ☐ Multiple PODs (see water right)

Qtr: Qtr: Sec: T: R: PM:

Latitude: Longitude:

UTM , Datum:

POU Name / Location: ☐ Multiple POU's (see water right)

Qtr: Qtr: Sec: T: R: PM:

Latitude: Longitude:

UTM , Datum:

Narrative / Remarks: Enter short narrative in the space below, attach additional page(s) as needed.

See notes to the file in the preliminary section.

NOTES TO THE FILE

Docket 008 Yosemite Valley Well #1
Docket 009 Yosemite Valley Well #2
Docket 030 Yosemite Valley Well #4

The following were excerpted from "DRAFT Hydrologist's Summary, Water Rights Assessment, Yosemite Valley, Yosemite National Park, August 23, 1996," filed in Docket 008 Yosemite Valley Well #1:

EXISTING WATER SUPPLY FOR YOSEMITE VALLEY

Yosemite Valley's water supply is produced by three wells (numbered 1, 2, and 4). Water storage for the system consists of a 2.5 million gallon storage tank. No other surface or ground-water diversions presently supply Yosemite Valley (Walls, Telephone Communications, 1996). Sewage effluent from Yosemite Valley is piped to El Portal for treatment, and the treated effluent is discharged to the Merced River at El Portal.

Wells 1, 2, and 4 are located west of the Sentinel Bridge, near Yosemite Lodge and are shown on the attached map. Specific information for each well, obtained from hydrologic records in the Water Resource Division's files, is in TABLE 1.

Espinoza (1983) reported daily water use for 1981 to be a little less than 2,000,000 gpd in the summer and 800,000 gpd in the winter, with a daily minimum of about 301,600 gpd and a daily maximum of 3,909,600 gpd. Total use for 1981 was reported to be about 400,000,000 gallons.

PREVIOUS WATER SUPPLIES TO THE VALLEY

In 1935 (NPS, 1935) Yosemite Valley's water supply was from a surface diversion on Illilouette Creek, supplemented by diversions from two springs, with diversions from the Merced River on an emergency basis. Prior to 1971 (Franks, 1984), the valley's supply was from a diversion on the Merced River at Happy Isles, augmented when necessary by diversions from two springs 1/4 mile southwest of Happy Isles (McClelland and Hotchkiss, 1974). By 1983 (Espinoza, 1983), the Merced River and Well #1 were the primary source of supply, and the springs were no longer used. Well #2 was drilled in 1975 and #4 in 1985. However, these were not tied into the valley system until the mid-1980's. The Valley Water System was rehabilitated in 1985 (Kennedy/Jenks/Chilton, 1989), and, presumably, Wells 1, 2, and 4, then became the source of supply.

TABLE 1. Well designations, locations, and comments, for Yosemite Valley water-supply wells.

WELL DESIGNATION	LOCATION	COMMENTS
Well #1 (2S/22E-19J1)	About 150 feet west of Yosemite Creek and about 250 northwest of the confluence of Merced River and Yosemite Creek	Total well depth is 520 feet, and well is screened from 429 to 459 feet and 479-509 feet. The well is under artesian pressure. A well test by the driller indicated a yield of 800 gpm with 80 ft of drawdown after 12 hours.
Well #2 (2S/22E-19H1)	About 90 feet east of Yosemite Creek and about 90 feet south of garage at Superintendent's residence.	Total well depth is 707 feet, and well is screened from 499-519, 559-579, 642-662, and 680-700 feet. The well is under artesian pressure. A well test by the driller indicated a yield of 640 gpm with 178 ft. of drawdown after 10 hours.
Well #4 (2S/22E-19K1)	Precise description of location not available. From map attached to this report, it appears that well is southwest of well 1 about 250 feet, and about 200 feet west of the confluence of Yosemite Creek and the Merced River.	Total well depth is 800 feet, and well is screened from 360-460, 540-580, 620-640, and 740-780 feet. The well is under artesian pressure. A well test indicated of yield of 1200 gpm with 40 ft of drawdown after 24 hours.

The NPS can probably rely upon riparian rights (to surface flow, underflow, and flow in known and definite underground channels, as applicable), rights to percolating ground water (as applicable), or possibly Federal reserved rights to support ground-water withdrawals in Yosemite Valley.

Alice Johns

Alice Johns
Hydrologist
Water Rights Branch
Water Resources Division

06 DATA

Yosemite National Park

YOSEMITE VALLEY WELL #1

Supporting Hydrologic Data

STATE OF CALIFORNIA
THE RESOURCES AGENCY

Do Not Fill In

TRIPLICATE
Retain this copyDEPARTMENT OF WATER RESOURCES
WATER WELL DRILLERS REPORTN^o 87928

State Well No. _____

Other Well No. _____

~~Test 6222 #2~~ Test Well #1

(1) OWNER: Name U. S. Dept. of Interior National Park Service Address 450 Golden Gate Ave., Box 36025 San Francisco, Calif. 94102					(11) WELL LOG: Total depth 1015 ft. Depth of completed well 522 1/2 from top of casing or 519 1/2 from ground level Formation: Describe by color, character, size of material, and structure <table border="1"> <tr><td>0</td><td>6</td><td>Soil and decomposed granite</td></tr> <tr><td>6</td><td>43</td><td>Sand, white, fine to coarse</td></tr> <tr><td>43</td><td>48</td><td>Fine white sand</td></tr> <tr><td>48</td><td>65</td><td>Fine to coarse white sand</td></tr> <tr><td>65</td><td>66</td><td>Coarse brown sand</td></tr> <tr><td>66</td><td>90</td><td>Fine white sand</td></tr> <tr><td>90</td><td>423</td><td>Fine blue silt</td></tr> <tr><td>423</td><td>431 1/2</td><td>Boulders and silt</td></tr> <tr><td>431 1/2</td><td>679</td><td>Medium fine grey sand</td></tr> <tr><td>679</td><td>680</td><td>Boulder or layer of rock</td></tr> <tr><td>680</td><td>690</td><td>Medium sand</td></tr> <tr><td>690</td><td>691</td><td>Hard layer</td></tr> <tr><td>691</td><td>780</td><td>Medium sand</td></tr> <tr><td>780</td><td></td><td>2" hard layer</td></tr> <tr><td>780</td><td>836</td><td>Medium sand</td></tr> <tr><td>836</td><td>836 1/2</td><td>Hard layer</td></tr> <tr><td>836 1/2</td><td>893</td><td>Medium sand</td></tr> <tr><td>893</td><td>893 1/2</td><td>Hard layer</td></tr> <tr><td>893 1/2</td><td>899</td><td>Medium sand</td></tr> <tr><td>899</td><td>905</td><td>Large rocks and sand</td></tr> <tr><td>905</td><td>930</td><td>Medium sand</td></tr> <tr><td>930</td><td>930 1/2</td><td>Hard layer - 2"</td></tr> <tr><td>930 1/2</td><td>934</td><td>Medium sand</td></tr> <tr><td>934</td><td>935</td><td>Hard rock</td></tr> <tr><td>935</td><td>974</td><td>Medium sand</td></tr> <tr><td>974</td><td>980</td><td>Hard rock</td></tr> <tr><td>980</td><td>987</td><td>Loose rock and sand</td></tr> <tr><td>987</td><td>991</td><td>Hard rock</td></tr> <tr><td>991</td><td>995</td><td>Loose rock and sand</td></tr> <tr><td>995</td><td>1002</td><td>Sand</td></tr> <tr><td>1002</td><td>1015</td><td>Loose rock and sand</td></tr> </table>					0	6	Soil and decomposed granite	6	43	Sand, white, fine to coarse	43	48	Fine white sand	48	65	Fine to coarse white sand	65	66	Coarse brown sand	66	90	Fine white sand	90	423	Fine blue silt	423	431 1/2	Boulders and silt	431 1/2	679	Medium fine grey sand	679	680	Boulder or layer of rock	680	690	Medium sand	690	691	Hard layer	691	780	Medium sand	780		2" hard layer	780	836	Medium sand	836	836 1/2	Hard layer	836 1/2	893	Medium sand	893	893 1/2	Hard layer	893 1/2	899	Medium sand	899	905	Large rocks and sand	905	930	Medium sand	930	930 1/2	Hard layer - 2"	930 1/2	934	Medium sand	934	935	Hard rock	935	974	Medium sand	974	980	Hard rock	980	987	Loose rock and sand	987	991	Hard rock	991	995	Loose rock and sand	995	1002	Sand	1002	1015	Loose rock and sand
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(2) LOCATION OF WELL: Yosemite Park County Mariposa Owner's number, if any Test Hole #2 ~~Approximately 1/8 mile SE of Yosemite Lodge,~~ Distance from cities, roads, railroads, etc. About 200' SW of sewage pumping plant																																																																																																						
(3) TYPE OF WORK (check): New Well ☒ Deepening ☐ Reconditioning ☐ Destroying ☐ If destruction, describe material and procedure in Item 11.																																																																																																						
(4) PROPOSED USE (check): Domestic ☐ Industrial ☐ Municipal ☒ Irrigation ☐ Test Well ☐ Other ☐			(5) EQUIPMENT: Rotary ☒ Cable ☐ Other ☐																																																																																																			
(6) CASING INSTALLED: STEEL: _____ OTHER: _____ SINGLE ☒ DOUBLE ☐ <table border="1"> <thead> <tr> <th>From ft.</th> <th>To ft.</th> <th>Diam.</th> <th>Gage or Wall</th> <th>Diameter of Bore</th> <th>From ft.</th> <th>To ft.</th> </tr> </thead> <tbody> <tr> <td>Up 1 1/2</td> <td>425</td> <td>10"</td> <td>#12</td> <td>15"</td> <td>0</td> <td>435</td> </tr> <tr> <td>Up 3'</td> <td>417</td> <td>8"</td> <td>#10</td> <td>9 7/8"</td> <td>425</td> <td>1015</td> </tr> <tr> <td>417'</td> <td>417' 8"</td> <td>8" top</td> <td colspan="4">taper 10 ga.</td> </tr> <tr> <td>417' 8"</td> <td>519 1/2</td> <td>6" std.</td> <td colspan="4">pipe and screen</td> </tr> </tbody> </table> Size of shoe or well ring: Flat plate Size of gravel: #8 Monterey Describe joint: Buttwelded Sand Co.					From ft.	To ft.	Diam.	Gage or Wall	Diameter of Bore	From ft.	To ft.	Up 1 1/2	425	10"	#12	15"	0	435	Up 3'	417	8"	#10	9 7/8"	425	1015	417'	417' 8"	8" top	taper 10 ga.				417' 8"	519 1/2	6" std.	pipe and screen																																																																		
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(7) PERFORATIONS OR SCREEN: Type of perforation or name of screen Johnson stainless steel screen, slot size .020 <table border="1"> <thead> <tr> <th>From ft.</th> <th>To ft.</th> <th>Perf. per row</th> <th>Rows per ft.</th> <th>Size in. x in.</th> </tr> </thead> <tbody> <tr> <td>429</td> <td>459</td> <td>6" Johnson, slot size .020</td> <td></td> <td></td> </tr> <tr> <td>459</td> <td>509</td> <td>stainless steel screen</td> <td></td> <td></td> </tr> </tbody> </table>					From ft.	To ft.	Perf. per row	Rows per ft.	Size in. x in.	429	459	6" Johnson, slot size .020			459	509	stainless steel screen																																																																																					
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(8) CONSTRUCTION: Was a surface sanitary seal provided? Yes ☒ No ☐ To what depth 420 ft. Were any strata sealed against pollution? Yes ☐ No ☒ If yes, note depth of strata <table border="1"> <tr><td>From</td><td>ft. to</td><td>ft.</td></tr> <tr><td>From</td><td>ft. to</td><td>ft.</td></tr> </table> Method of sealing _____ Work started 3/9/72 19____, Completed 6/15/72 19____					From	ft. to	ft.	From	ft. to	ft.																																																																																												
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(9) WATER LEVELS: 100 gpm artesian flow approx. 10# per square inch head Depth at which water was first found, if known _____ Standing level before perforating, if known _____ ft. Standing level after perforating and developing _____ ft.					WELL DRILLER'S STATEMENT: This well was drilled under my jurisdiction and this report is true to the best of my knowledge and belief. NAME Bill Belknap TB & BH (Person, firm, or corporation) (Typed or printed) Address P. O. Box 846 Reedley, California 93654 [SIGNED] Bill Belknap vh (Well Driller) License No. 106833 Dated July 21, 1972 , 19____																																																																																																	
(10) WELL TESTS: Was pump test made? Yes ☒ No ☐ If yes, by whom? Belknap Yield: 800 gal./min. with 80 ft. drawdown after 12 hrs. Temperature of water _____ Was a chemical analysis made? Yes ☒ No ☐ Was electric log made of well? Yes ☐ No ☒ If yes, attach copy _____																																																																																																						

SKETCH LOCATION OF WELL ON REVERSE SIDE

WELL LOCATION SKETCH

NORTH BOUNDARY OF SECTION

NW 1/4		NE 1/4		1/2 MILE
SW 1/4		SE 1/4		
1/2 MILE		1/2 MILE		

A. Location of well in sectionized areas.

Sketch roads, railroads, streams, or other features as necessary.

NORTH	
WEST	EAST
SOUTH	

B. Location of well in areas not sectionized.

Sketch roads, railroads, streams, or other features as necessary.
Indicate distances.



UNITED STATES
DEPARTMENT OF THE INTERIOR
GEOLOGICAL SURVEY

Water Resources Division
2800 Cottage Way, Room W-2235
Sacramento, California 95825

*Docket
File*

October 29, 1971

Mr. Donald Barrett
Western Service Center
National Park Service
450 Golden Gate Avenue, Box 36025
San Francisco, California 94102

CHEMICAL ANALYSIS FOR LEIDIG MEADOW WELL NO. 2

Enclosed is a copy of the chemical analysis of water from Leidig Meadow well no. 2. Per your telephone conversation today with our Bill Hotchkiss, you will note the -23.80 percent error in totalled milliequivalents of cations and anions. This discrepancy could be a result of contamination of the sample, but errors of this magnitude are often encountered in bicarbonate type water with small dissolved-solids content.

If you have further questions regarding these results we will be pleased to discuss them with you.

Willard W. Dean

Willard W. Dean, Chief
Sacramento Subdistrict

Enclosure

UNITED STATES DEPARTMENT OF THE INTERIOR
GEOLOGICAL SURVEY
WRD CENTRAL QW LAB. SALT LAKE CITY, UTAH

WATER QUALITY ANALYSIS

DATE 711022

STATION ID
NO STA. ID

LEIDIG MEADOW WELL NO. 2

STATE CODE
LOCATION
06COUNTY
CODEPROJECT
CODEAGENCY
CODEMAILING ADDRESS
SACRAMENTO, CAL.

BEGIN DATE	END DATE	TIME	TYPE	NO. OF DETR	SAMPLE ID.	RECORD NO.	SOURCE
710903			2	22	275001	6109	SURFACE WATER

BORON DISSOLVED	UG/L	60	CONDUCTIVITY	36
IRON DISS (AS FE)	UG/L	120	PH	7.0
SILICA	MG/L	19	ALK.TOT (AS CAC03)	MG/L 28
TOTAL HARDNESS	MG/L	10	NONCARB HARDNESS	MG/L 0
SAR		0.4	PERCENT SODIUM	32
CALC DISSOLVED SOLID	MG/L	46	DIS SOLIDS (TON/AFT)	0.06

MAJOR IONS

CATIONS
(MG/L)ANIONS
(MG/L)

CALCIUM DISS.	3.1	BICARBONATE	34
MAGNESIUM DISS.	0.6	CARBONATE	0
POTASSIUM	2.0	CHLORIDE	0.7
SODIUM	2.8	FLOURIDE DISS.	0.5
		SULFATE	0.3
		NITRITE-NITRATE	0.04

CATIONS
(MEQ/L)ANIONS
(MEQ/L)

0.155	0.558
0.050	0.000
0.052	0.020
0.122	0.027
	0.007
	0.003

TOTALS 0.3770

0.6124

PERCENT ERROR =

-23.80

Witucki
Sily
wed

D52
(WR)FP

October 5, 1972

Memorandum

To: Chief, Division of Finance, Western Regional Office
From: Chief, Division of Property Management and General Services, Western Regional Office
Subject: Contract No. 4970P10325, Contractor's Payrolls, Drilling Developing Test Well(s), Yosemite National Park

The work on subject contract was completed on June 15, 1972, and final payment has been made.

In accordance with the Design and Construction Operations Manual, Part 170, Chapter 2, Section 6, Page 2, in which it is indicated that the Contractor's payrolls are to be retained in the audit file of the Finance Office, the payrolls are enclosed herewith.

(Sgd.) W. B. Peppers

W. B. Peppers

Enclosures

cc: (w/o enclosures)
Associate Director, Professional Services (WASO) (2)
Superintendent, Yosemite
Project Supervisor, (WR)ASW
(WR)AS
(WR)FP

07 OTHER

Yosemite National Park

YOSEMITE VALLEY WELL #1

Other Supporting Information



United States Department of the Interior

NATIONAL PARK SERVICE

Water Resources Division
1201 Oak Ridge Drive, Suite 250
Fort Collins, Colorado 80525-5596

IN REPLY REFER TO:

August 26, 1996

L54(2380)
YOSE/Water Rights

Memorandum

To: Superintendent, Yosemite National Park, Attention: Mark Butler
Michael Morelli, Team Captain, DSC-PM

From: Chief, Water Rights Branch

Subject: Water Rights Assessment, Yosemite Valley

Mark Butler, Yosemite National Park (YOSE), and Mike Morrelli, Denver Service Center, requested that the Water Rights Branch provide a draft water rights assessment for Yosemite Valley (attached). The assessment, along with an assessment which was drafted for El Portal (See my June 27, 1996 Memorandum to you) was requested to assist park and DSC staff in addressing water right issues, if any, associated with the Yosemite Valley Implementation Plan currently being drafted.

The attached draft assessment may contain sensitive material. Therefore, prior to releasing the report or relying upon its conclusions, I recommend that it be reviewed and approved by the Field Solicitor (SOL). I anticipate that a due date for comments and for a final water rights report suitable for public release will be determined by you, in consultation with SOL and me.

Attachment

(all w/out attachment)
cc: YOSE - Butler, Olsen, Walls
Pacific Field Area - Kilgore
Pacific Great Basin SSO - Turnbull, Kolipinski
SOL (San Francisco) - Mihan
DSC - Stone
2380 (E:mail) - Kimball, Jackson, Flora, Walker

DRAFT

**Hydrologist's Summary
Water Rights Assessment
Yosemite Valley
Yosemite National Park**

August 23, 1996

Prepared by
Alice Johns, Hydrologist
National Park Service
Water Resources Division
Fort Collins, CO.

BACKGROUND AND STATEMENT OF THE PROBLEM

Denver Service Center (DSC) and Yosemite National Park (YOSE) staff are preparing a Yosemite Valley Implementation Plan, Yosemite Valley Housing Plan and an addendum to the housing plan. The Draft Yosemite Valley Implementation Plan (VIP) proposes that facilities for maintenance, administration, and community services, currently in Yosemite Valley, be relocated to the El Portal administrative site (Butler, Telephone Communication, 1996). The Draft Housing Plan Addendum proposes to relocate headquarters and housing from Yosemite Valley to El Portal (USDI-NPS, 1995). Under each of the plans, a decrease in the withdrawal and use of water at Yosemite Valley is anticipated. However, it is possible that an additional well would be drilled somewhere in the middle of the valley to provide water to a planned visitor contact area (Walls, Telephone Communication, 1996).

DSC and YOSE have requested that the Water Rights Branch (1) determine if water rights currently relied upon at Yosemite Valley could be utilized elsewhere in the park or at El Portal, and (2) identify water right concerns associated with drilling a new well mid-valley to support a planned visitor contact station.

The following technical assessment responds to this request by describing existing water rights at Yosemite Valley and the implications of decreased water use and drilling additional wells in the valley. This assessment was prepared from existing hydrologic and water rights-related information in the files of the NPS-WRD and documents provided by YOSE and DSC.

EXISTING WATER SUPPLY FOR YOSEMITE VALLEY

Yosemite Valley's water supply is produced by three wells (numbered 1, 2, and 4). Water storage for the system consists of a 2.5 million gallon storage tank. No other surface or ground-water diversions presently supply Yosemite Valley (Walls, Telephone Communications, 1996). Sewage effluent from Yosemite Valley is piped to El Portal for treatment, and the treated effluent is discharged to the Merced River at El Portal.

Wells 1, 2, and 4 are located west of the Sentinel Bridge, near Yosemite Lodge and are shown on the attached map. Specific information for each well, obtained from hydrologic records in the Water Resource Division's files, is in TABLE 1.

Espinoza (1983) reported daily water use for 1981 to be a little less than 2,000,000 gpd in the summer and 800,000 gpd in the winter, with a daily minimum of about 301,600 gpd and a daily maximum of 3,909,600 gpd. Total use for 1981 was reported to be about 400,000,000 gallons.

PREVIOUS WATER SUPPLIES TO THE VALLEY

In 1935 (NPS, 1935) Yosemite Valley's water supply was from a surface diversion on Illilouette Creek, supplemented by diversions from two springs, with diversions from the Merced River on an emergency basis. Prior to 1971 (Franks, 1984), the valley's supply was from a diversion on the Merced River at Happy Isles, augmented when necessary by diversions from two springs 1/4 mile southwest of Happy Isles (McClelland and Hotchkiss, 1974). By 1983 (Espinoza, 1983), the Merced River and Well #1 were the primary source of supply, and the springs were no longer used. Well #2 was drilled in 1975 and #4 in 1985. However, these were not tied into the valley system until the mid-1980's. The Valley Water System was rehabilitated in 1985 (Kennedy/Jenks/Chilton, 1989), and, presumably, Wells 1, 2, and 4, then became the source of supply.

TABLE 1. Well designations, locations, and comments, for Yosemite Valley water-supply wells.

WELL DESIGNATION	LOCATION	COMMENTS
Well #1 (2S/22E-19J1)	About 150 feet west of Yosemite Creek and about 250 northwest of the confluence of Merced River and Yosemite Creek	Total well depth is 520 feet, and well is screened from 429 to 459 feet and 479-509 feet. The well is under artesian pressure. A well test by the driller indicated a yield of 800 gpm with 80 ft of drawdown after 12 hours.
Well #2 (2S/22E-19H1)	About 90 feet east of Yosemite Creek and about 90 feet south of garage at Superintendent's residence.	Total well depth is 707 feet, and well is screened from 499-519, 559-579, 642-662, and 680-700 feet. The well is under artesian pressure. A well test by the driller indicated a yield of 640 gpm with 178 ft. of drawdown after 10 hours.
Well #4 (2S/22E-19K1)	Precise description of location not available. From map attached to this report, it appears that well is southwest of well 1 about 250 feet, and about 200 feet west of the confluence of Yosemite Creek and the Merced River.	Total well depth is 800 feet, and well is screened from 360-460, 540-580, 620-640, and 740-780 feet. The well is under artesian pressure. A well test indicated of yield of 1200 gpm with 40 ft of drawdown after 24 hours.

HYDROGEOLOGIC SETTING

Yosemite Valley is a narrow steep-walled canyon of the Merced River, which drains from the western slope of the Sierra Nevada. Glacial erosion widened and deepened the valley, creating the characteristic "u-shaped" profile. In areas of low flow velocity, glacial deposits were finer less permeable silts and glacial flour, and in areas of higher velocity, deposits were coarser more permeable sands and gravels. Near the valley margins, in areas of erosion and rock fall, are found permeable areas which act as recharge zones for surface and subsurface flow (Franks, 1984).

Artesian flow from wells 1, 2, and 4, indicates the presence of a confining layer overlying the aquifer. The confining layer, beneath recent stream deposits of gravel, cobbles, and sand, is composed of Pleistocene lake deposits of mostly fine material including glacial flour and some fine sands. Pleistocene stream and glacial deposits of mostly sands and gravels comprise the confined aquifer. Beneath the aquifer are more lake deposits and beneath that, granitic bedrock (Franks).

A 652-minute pump test was performed on Well 2 in 1975, and two shallow piezometer tubes were installed about 30 feet north and south of the pumped well. No drawdown was observed in the shallow piezometer tubes (Franks). These observations indicate that the Merced River in the immediate vicinity of Well 2 was not recharging the confined aquifer (e. g., there is probably not significant hydrologic connection between the shallow alluvial aquifer and the confined aquifer) at least this was not observed during the test. Thus, it may well be that the confined aquifer is recharged at the valley margins as has been suggested by Franks (1984). Werrell (Telephone Communications, 1996) concurred with Franks' theory, and also thought it likely that ground water from the confined aquifer discharges to the Merced River at some point or points not precisely known.

Thus, it does not appear, based upon existing data, that pumping NPS's supply wells which tap the confined aquifer would affect the water level in the shallow alluvial aquifer or the flow of the Merced River in the immediate vicinity of the wells. Whether withdrawals from the wells diminish the flow of the Merced River at some other point or points downstream is unknown, but seems likely according to Werrell (Telephone Communications, 1996).

LAND STATUS

Yosemite Valley was granted by the United States, to the State of California in 1864 to be held for public use, resort and recreation, "...inalienable for all time." In 1906 Congress ratified and accepted California's recession and regranteeing of the Yosemite Valley Grant to the United States and included it in YOSE. The purposes of YOSE can be gleaned from, among other authorities,

the Act of October 1, 1890, which states the duty of Secretary of the Interior to publish rules and regulations to "...provide for the preservation from injury of all timber, mineral deposits, natural curiosities, or wonders within said reservation, and their retention in the natural condition." Since 1920, the lands within YOSE have been under the exclusive jurisdiction of the United States.

WATER RIGHTS

Water Rights Generally

For a general discussion of California water rights, please refer to the Draft WATER RIGHTS ASSESSMENT, EL PORTAL ADMINISTRATIVE SITE, YOSEMITE NATIONAL PARK, which was transmitted to the Superintendent, YOSE, by Memorandum of June 27, 1996.

Water Rights in Yosemite Valley

Federal Reserved Water Rights

The United States, NPS may or may not have Federal reserved water rights at Yosemite Valley for the purposes of Yosemite National Park, which purposes may include water necessary for preservation and retention of natural resources, accommodation of visitors, and protection against the wanton destruction of fish and game.

The nature and extent of the Federal reserved rights can only be determined with certainty in a water rights adjudication. The fact that the Yosemite Valley was granted to the State in trust and then regranted to the Federal government could be used to argue that the lands were not reserved from public domain because the ownership of the lands by the State "in trust" compromised the reserved status of the lands and thus the applicability of Federal reserved rights. On the other hand, it could be argued that Congress's intent was that the Yosemite Valley lands be treated like all other lands within the Yosemite National Park reserved from public domain, and thus reserved rights would apply. (For a more in-depth discussion of this issue, refer to a May 22, 1986 Hydrologist's Report by Owen Williams, WRB, on YOSE Water Rights Related Issues.)

Assuming that Federal reserved rights do pertain to Yosemite Valley, the NPS's ground-water withdrawals and water use might be covered by a Federal reserved right. However, only that water necessary for the purposes of the reservation, as set forth in applicable Acts of Congress and Presidential Proclamations, would be reserved. The reserved right is not lost by non-use, and no specific steps are necessary to protect the reserved right, in the event that water demand diminishes at Yosemite Valley.

The effect of exclusive jurisdiction over YOSE by the United States upon the validity of Federally-based claims to water rights is not

known. Addressing this issue would require assistance from the Office of the Solicitor. In looking at similar issues at Wawona, Williams (1986) speculated that it is unlikely to have an effect.

Riparian Rights

The NPS generally has the same riparian rights as any other person owning riparian lands. Thus, the NPS has riparian rights to (1) reasonable use the Merced River including the river's underflow, and (2) ground water in known and definite channels (if such exist in Yosemite Valley). Such riparian rights are appurtenant to the lands riparian to the Merced River, and in the case of underground channels (if such exist in YOSE) to overlying lands. Because riparian rights attach to stream-adjacent or overlying lands, they can not be transferred for use elsewhere in the park.

Pre-1914 Appropriative Rights

Water Rights Branch records contain a copy of a Notice of Appropriation of Water, dated July 14, 1903, by John S. Washburn, to divert the waters of the Merced River just upstream from eastern boundary of the former Yosemite Grant to the State of California. No documentation in WRB files could be found (1) which substantiates that the water claimed was actually put to use prior to when the land in question was acquired by the United States from the Yosemite Sugar Pine Company, or (2) indicates the NPS utilized this right following acquisition of the property. Thus, the validity of this water right is unclear. Also, whether the NPS could legitimately claim other pre-1914 rights, based upon use by the State or the United States prior to 1914, is unknown.

Post 1914 Licensed Appropriative Water Rights

The California State Water Resources Control Board (SWRCB) has no record of any licensed appropriative rights within Yosemite Valley, YOSE (SWRCB, 1995). Opportunities for obtaining licensed water rights are limited. The Merced River is within a couple of stream systems which have been declared by the SWRCB to be fully appropriated. For a description of limitations, see Draft WATER RIGHTS ASSESSMENT, EL PORTAL ADMINISTRATIVE SITE, YOSEMITE NATIONAL PARK, which was transmitted to the Superintendent, YOSE, by Memorandum of June 27, 1996.

Ground water

Ground water, in a state-based water rights context, is either percolating, underflow, or water in a known and definite underground channel. It is not known with certainty if wells 1, 2, and 4 in Yosemite Valley tap underflow, percolating ground water, or water in a known and definite underground channel. Under

California law, ground water is generally presumed to be percolating, unless proven otherwise. A study of the hydrogeology in the vicinity of Well 4, as well as an aquifer test on Well 2 with monitoring wells in the shallow aquifer nearby, indicate that wells 1, 2, and 4 probably do not tap the underflow of the Merced River. Thus, since it has not been proven otherwise, it would appear that the ground water in Yosemite Valley which is tapped by wells 1, 2, and 4, is percolating.

However, the distinctions between percolating ground water, ground water in a known and definite underground channel, and underflow may not be important, at this point, for a couple of reasons. First, the NPS may be able to rely upon a water rights doctrine that is for the most part outside the SWRCB's jurisdiction (i.e., either riparian rights or Federal reserved rights) regardless of how the waters are classified. If this were the case, the NPS would not be required to file applications with the SWRCB to appropriate the water.

Secondly, in a water rights dispute, the legal classification of the ground water as percolating or as underflow may be largely irrelevant, if the extraction of ground water substantially affects surface flow, as could be concluded based on the statements of Werrell (1996) cited above. Hutchins (1974) states:

"So long as the facts of the case show that the extraction of ground water substantially diminishes the flow of the stream to the injury of those who hold rights therein, the question as to whether the ground water at the place of extraction is strictly a part of the stream, or is tributary percolating water on its way to the stream, is immaterial."

Neither a riparian's right to the reasonable use of stream underflow or flow in a known and definite underground channel, nor an overlying landowner's right to percolating ground water is lost by non-use. However, in an adjudication of rights, an unexercised riparian right may be given a lower "priority" than existing appropriative uses.

If an adjudication seemed likely in the next 5-10 years, it would be wise for YOSE to maintain records of water diversion, and to apply the water to state-recognized beneficial uses. This would help support the United States water rights claim.

Springs

The waters of springs and standing pools which have no natural outlet belong to the owner of the land on which the sources are located and may be used without permit (SWRCB, 1990). Assuming this to be the case for the springs which were utilized in the past for a water supply, the water rights could not be transferred for use in another part of the park. Neither would the NPS's ability

to use the springs be lost by nonuse.

If the springs provided surface flow to a stream, the use of the springs for a water supply would need to be covered by Federal reserved or appropriative water rights. (A riparian right to tributary springflow may be of limited utility, because the right would only apply to the small watershed created by the spring and its outflow.) There is no record in the WRB office or the SWRCB's records of appropriative rights on the springs.

CONCLUSION AND RECOMMENDATIONS

The NPS can probably rely upon riparian rights (to surface flow, underflow, and flow in known and definite underground channels, as applicable), rights to percolating ground water (as applicable), or possibly Federal reserved rights to support ground-water withdrawals in Yosemite Valley. Decreased water use in the valley, anticipated by the Valley Implementation Plan, should have no negative effect to these types of rights. No transfer of water rights is needed to protect these rights, and, because of the nature of the rights, they are generally not transferrable.

Drilling a new well mid-valley to serve needs at a visitor contact station should not present problems, from a water rights perspective. (Of course, NPS should comply with state regulations for the construction of water wells, but this is not a water rights issue.) Again, the basis for the right may be riparian rights, rights to percolating ground water, or possibly Federal reserved water rights. Irrespective of the type of right relied upon, it may be helpful to maintain records of water withdrawals, use, and water returns to the stream system. Such records could be used to support claimed rights should the rights in the Yosemite Valley area be adjudicated.

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UNITED STATES
DEPARTMENT OF THE INTERIOR
GEOLOGICAL SURVEY

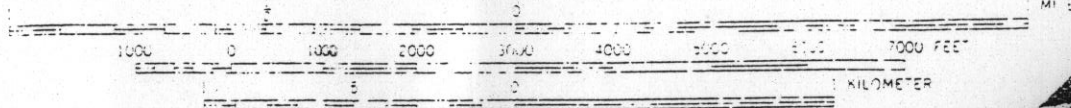
MAP OF YOSEMITE VALLEY

YOSEMITE NATIONAL PARK, CALIFORNIA
MARIPOSA COUNTY

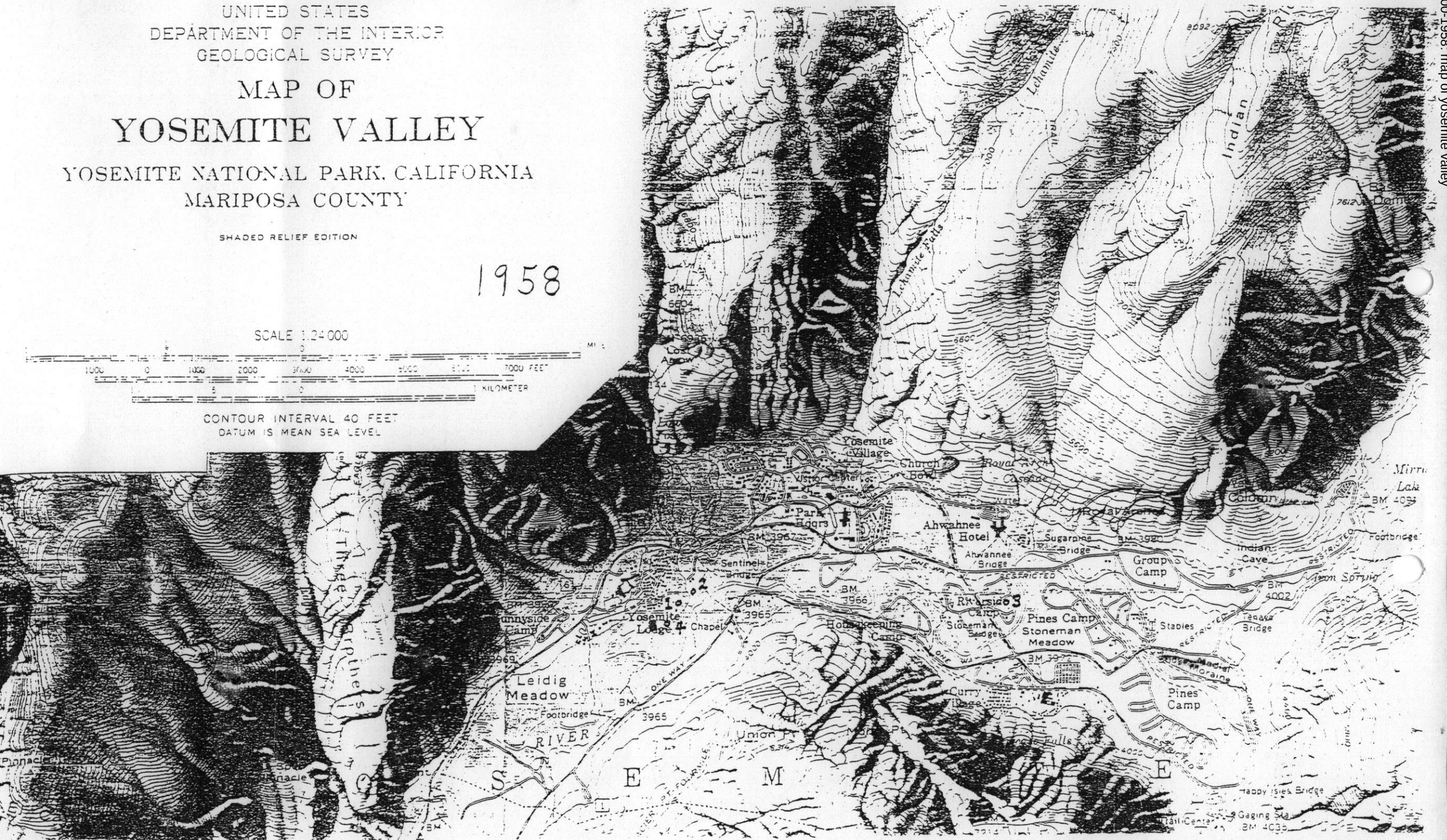
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CONTOUR INTERVAL 40 FEET
DATUM IS MEAN SEA LEVEL



Docket Information

Number of Documents in Docket : 20

Documents Dated from : 00-00-1958 to 08-28-2025

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