

Interoffice Memorandum

3/19/2021

To: Water Right file for G-18458
From: Joe Kemper, Groundwater Section
Subject: Application G-18458 Well Correlation

The groundwater review for application G-18458 incorrectly identifies the applicant's proposed point-of-appropriation (POA) as JOSE 7157. Based on information submitted by the applicant and available records at OWRD, the correct well log for the POA under G-18458 is JOSE 7156. Analysis in the groundwater review was done assuming that the POA was JOSE 7156; the inconsistency was a typo in section A3.

This mistake was not sufficiently corrected before the water right was issued as a permit. As a result, permit G-18402 incorrectly identifies the POA as JOSE 7157. This memo serves as record to identify that JOSE 7156 is the correct POA for permit G-18402 for Water Use Reporting, Measuring and Reporting, and Certificates staff to prevent confusion when the applicant submits information to satisfy permit conditions and for the eventual Certification process.

cc: Water Use Reporting, Measurement Reporting, WRIS, & Certificate Staff

Groundwater Application Review Summary Form

Application # G- 18458

GW Reviewer Joe Kempor Date Review Completed: 5/24/2018

Summary of GW Availability and Injury Review:

☐ Groundwater for the proposed use is either over appropriated, will not likely be available in the amounts requested without injury to prior water rights, OR will not likely be available within the capacity of the groundwater resource per Section B of the attached review form.

Summary of Potential for Substantial Interference Review:

☐ There is the potential for substantial interference per Section C of the attached review form.

Summary of Well Construction Assessment:

☐ The well does not appear to meet current well construction standards per Section D of the attached review form. Route through Well Construction and Compliance Section.

This is only a summary. Documentation is attached and should be read thoroughly to understand the basis for determinations and for conditions that may be necessary for a permit (if one is issued).

OK
JL

MEMO

To: Kristopher Byrd, Well Construction and Compliance Section Manager
From: Joel Jeffery, Well Construction Program Coordinator
Subject: Review of Water Right Application G-18458
Date: August 30, 2018

The attached application was forwarded to the Well Construction and Compliance Section by Water Rights. Joe Kemper reviewed the application. Please see Joe's groundwater review and the Well Log.

Applicant's Well #1(JOSE 7157): Based on a review of the Well Report Applicant's Well #1 appears to protect the groundwater resource.

The construction of Applicant's Well #1 may not satisfy hydraulic connection issues.

JOSE 7157

WELL IDENTIFICATION FORMOwner's Well Number: 1

CURRENT WELL OWNER:

Phone _____

Name: Harold DouglasMailing Address: 515 Vannoy Crk. Rd.City: Grants PassState: ORZip: 97526

WELL LOCATION:

County: JosephineLatitude: ~~33~~Longitude: ~~120~~Township: 35 N or S, Range: 06 E or W Section: 34 00 1/4 1/4Tax Lot Number: 404

Street Address of Well (if different from above): _____

RECEIVED

SEP 01 2000

WATER RESOURCES DEPT.
SALEM, OREGON

If a well report is available for this well, please attach a copy of it to this form and return. It is not necessary for you to complete the remainder of the form if the well report is attached. If a well report is not available, please complete the remainder of the form to the best of your ability.

WELL INFORMATION:

Start Card Number: _____ Approx. Construction Date: _____

Well Constructor: _____

Name of Owner at Time of Construction: _____

Well Depth (in feet): _____ Static Water Level (in feet): _____

Diameter of Exposed Well Casing (in inches): _____

Does this well have a formal water right associated with it? Yes: _____ No: _____ If yes: _____

Application #: _____ Permit #: _____ Certificate #: _____

Please Return Completed Form to:

Oregon Water Resources Department
158 12th Street NE
Salem, OR 97310

(Office use only)

Well Identification Number: 450414

PUBLIC INTEREST REVIEW FOR GROUNDWATER APPLICATIONS

TO: Water Rights Section Date 5/24/2018
 FROM: Groundwater Section Joe Kemper
 Reviewer's Name
 SUBJECT: Application G- 18458 Supersedes review of NA
 Date of Review(s)

PUBLIC INTEREST PRESUMPTION; GROUNDWATER

OAR 690-310-130 (1) *The Department shall presume that a proposed groundwater use will ensure the preservation of the public welfare, safety and health as described in ORS 537.525. Department staff review groundwater applications under OAR 690-310-140 to determine whether the presumption is established. OAR 690-310-140 allows the proposed use be modified or conditioned to meet the presumption criteria. This review is based upon available information and agency policies in place at the time of evaluation.*

A. GENERAL INFORMATION: Applicant's Name: Keith Beatty County: Josephine

A1. Applicant(s) seek(s) 0.01 cfs from 1 well(s) in the Rogue Basin,
Lower Rogue/Jumpoff Joe Creek subbasin

A2. Proposed use Nursery Seasonality: Year Round

A3. Well and aquifer data (attach and number logs for existing wells; mark proposed wells as such under logid):

Well	Logid	Applicant's Well #	Proposed Aquifer*	Proposed Rate(cfs)	Location (T/R-S QQ-Q)	Location, metes and bounds, e.g. 2250' N, 1200' E fr NW cor S 36
1	JOSE 7157	1	Bedrock	0.01	35S/6W-34 NE-SE	525' S, 210' W fr E cor S 34
2						
3						
4						
5						

* Alluvium, CRB, Bedrock

Well	Well Elev ft msl	First Water ft bls	SWL ft bls	SWL Date	Well Depth (ft)	Seal Interval (ft)	Casing Intervals (ft)	Liner Intervals (ft)	Perforations Or Screens (ft)	Well Yield (gpm)	Draw Down (ft)	Test Type
1	1237	200	90	6/30/1977	250	0-20	0-90	NA	NA	8	109	

Use data from application for proposed wells.

A4. **Comments:** _____

A5. ☒ **Provisions of the Rogue (OAR 690-515)** Basin rules relative to the development, classification and/or management of groundwater hydraulically connected to surface water ☐ are, or ☒ are not, activated by this application. (Not all basin rules contain such provisions.)

Comments: The Rogue Basin rules contain no explicit provision. The reviewer notes, however, that OAR 690-515-0040(1)(a)(G) puts restrictions on "the waters of Jumpoff Joe Creek and tributaries".

A6. ☐ **Well(s) #** _____, _____, _____, _____, _____, tap(s) an aquifer limited by an administrative restriction.
 Name of administrative area: _____
 Comments: _____

B. GROUNDWATER AVAILABILITY CONSIDERATIONS, OAR 690-310-130, 400-010, 410-0070

B1. Based upon available data, I have determined that groundwater* for the proposed use:

- a. ☐ is over appropriated, ☐ is not over appropriated, or ☒ **cannot be determined to be** over appropriated during any period of the proposed use. * This finding is limited to the groundwater portion of the over-appropriation determination as prescribed in OAR 690-310-130;
- b. ☐ **will not** or ☐ **will likely** be available in the amounts requested without injury to prior water rights. * This finding is limited to the groundwater portion of the injury determination as prescribed in OAR 690-310-130;
- c. ☐ **will not** or ☐ **will likely** to be available within the capacity of the groundwater resource; or
- d. ☒ **will, if properly conditioned**, avoid injury to existing groundwater rights or to the groundwater resource:
 - i. ☒ The permit should contain condition #(s) 7J (Scenic); 7C (7-year SWL); Medium Water-use Reporting
 - ii. ☐ The permit should be conditioned as indicated in item 2 below.
 - iii. ☐ The permit should contain special condition(s) as indicated in item 3 below;

- B2.
- a. ☐ **Condition** to allow groundwater production from no deeper than _____ ft. below land surface;
 - b. ☐ **Condition** to allow groundwater production from no shallower than _____ ft. below land surface;
 - c. ☐ **Condition** to allow groundwater production only from the _____ groundwater reservoir between approximately _____ ft. and _____ ft. below land surface;
 - d. ☐ **Well reconstruction** is necessary to accomplish one or more of the above conditions. The problems that are likely to occur with this use and without reconstructing are cited below. Without reconstruction, I recommend withholding issuance of the permit until evidence of well reconstruction is filed with the Department and approved by the Groundwater Section.

Describe injury –as related to water availability– that is likely to occur without well reconstruction (interference w/ senior water rights, not within the capacity of the resource, etc): _____

- B3. **Groundwater availability remarks:** The applicant's well produces from decomposed/fractured bedrock of the Grants Pass Pluton. Wells in this aquifer system typically produce less than 20 gpm. There are no current OWRD observation wells within one mile of the proposed POA. Two wells within a mile show stable water levels before 2000 (see Figure 3) but the record does not continue to present. SWLs from wells that are approximately 2 miles away and accessing the Grants Pass Pluton do not show widespread declines. These data suggest but do not provide sufficient evidence to conclude that the aquifer is not over appropriated.

Injury to other water rights is unlikely as there are no groundwater POAs within one mile of the applicants well.

C. GROUNDWATER/SURFACE WATER CONSIDERATIONS, OAR 690-09-040**C1. 690-09-040 (1):** Evaluation of aquifer confinement:

Well	Aquifer or Proposed Aquifer	Confined	Unconfined
1	Bedrock of Grants Pass Pluton	☒	☐
		☐	☐
		☐	☐
		☐	☐
		☐	☐

Basis for aquifer confinement evaluation: The applicant's well log and well logs with similar depths in the surrounding area typically report SWLs above First Water indicating confined aquifer conditions.

C2. 690-09-040 (2) (3): Evaluation of distance to; and hydraulic connection with, surface water sources. All wells located a horizontal distance less than ¼ mile from a surface water source that produce water from an unconfined aquifer shall be assumed to be hydraulically connected to the surface water source. Include in this table any streams located beyond one mile that are evaluated for PSI.

Well	SW #	Surface Water Name	GW Elev ft msl	SW Elev ft msl	Distance (ft)	Hydraulically Connected?			Potential for Subst. Interfer. Assumed?	
						YES	NO	ASSUMED	YES	NO
1	1	Louse Creek	1147	1055	6000	☒	☐	☐	☐	☒
1	2	Vannoy Creek	1147	1045	6300	☒	☐	☐	☐	☒
						☐	☐	☐	☐	☐
						☐	☐	☐	☐	☐
						☐	☐	☐	☐	☐
						☐	☐	☐	☐	☐

Basis for aquifer hydraulic connection evaluation: GW elevations are above SW elevations suggesting groundwater is flowing towards and discharging to surface water. Although there are several appropriated surface water sources (unnamed tributaries to Louse Creek) within 1 mile of the proposed POA, these surface water sources are likely ephemeral or artificial (i.e., storage reservoirs) and thus assumed to be not hydraulically connected to groundwater.

Water Availability Basin the well(s) are located within: #71015 LOUSE CR > JUMPOFF JOE CR - AT MOUTH; PSI also considered for #31530801 ROGUE R > PACIFIC OCEAN - AB APPLGATE R

C3a. 690-09-040 (4): Evaluation of stream impacts for each well that has been determined or assumed to be **hydraulically connected and less than 1 mile** from a surface water source. Limit evaluation to instream rights and minimum stream flows that are pertinent to that surface water source, and not lower SW sources to which the stream under evaluation is tributary. Compare the requested rate against the 1% of 80% *natural* flow for the pertinent Water Availability Basin (WAB). If Q is not distributed by well, use full rate for each well. Any checked ☒ box indicates the well is assumed to have the potential to cause PSI.

Well	SW #	Well < ¼ mile?	Qw > 5 cfs?	Instream Water Right ID	Instream Water Right Q (cfs)	Qw > 1% ISWR?	80% Natural Flow (cfs)	Qw > 1% of 80% Natural Flow?	Interference @ 30 days (%)	Potential for Subst. Interfer. Assumed?
		☐	☐			☐		☐		☐
		☐	☐			☐		☐		☐
		☐	☐			☐		☐		☐
		☐	☐			☐		☐		☐
		☐	☐			☐		☐		☐

C3b. **690-09-040 (4):** Evaluation of stream impacts by total appropriation for all wells determined or assumed to be **hydraulically connected and less than 1 mile** from a surface water source. **Complete only if Q is distributed among wells.** Otherwise same evaluation and limitations apply as in C3a above.

	SW #		Qw > 5 cfs?	Instream Water Right ID	Instream Water Right Q (cfs)	Qw > 1% ISWR?	80% Natural Flow (cfs)	Qw > 1% of 80% Natural Flow?	Interference @ 30 days (%)	Potential for Subst. Interfer. Assumed?
			☐			☐		☐		☐
			☐			☐		☐		☐
			☐			☐		☐		☐
			☐			☐		☐		☐

Comments: There are no hydraulically connected surface water sources within 1 mile of the proposed POA.

C4a. **690-09-040 (5):** Estimated impacts on **hydraulically connected surface water sources greater than one mile** as a percentage of the proposed pumping rate. Limit evaluation to the effects that will occur up to one year after pumping begins. This table encompasses the considerations required by 09-040 (5)(a), (b), (c) and (d), which are not included on this form. Use additional sheets if calculated flows from more than one WAB are required.

Non-Distributed Wells													
Well	SW#	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec
1	1	0.3	2.7	6.3	10.1	13.7	17.0	20.0	22.7	25.2	27.5	29.6	31.5
Well Q as CFS		.01	.01	.01	.01	.01	.01	.01	.01	.01	.01	.01	.01
Interference CFS		0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
(A) = Total Interf.		0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
(B) = 80 % Nat. Q		13.2	23.8	21.2	10.7	5	2.31	1.29	1.03	0.75	0.97	2.38	6.8
(C) = 1 % Nat. Q		0.132	0.238	0.212	0.107	0.050	0.023	0.013	0.010	0.008	0.010	0.024	0.068
(D) = (A) > (C)		✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓
(E) = (A / B) x 100		<1 %	<1 %	<1 %	<1 %	<1 %	<1 %	<1 %	<1 %	<1 %	<1 %	<1 %	<1 %

(A) = total interference as CFS; (B) = WAB calculated natural flow at 80% exceed. as CFS; (C) = 1% of calculated natural flow at 80% exceed. as CFS; (D) = highlight the checkmark for each month where (A) is greater than (C); (E) = total interference divided by 80% flow as percentage.

Basis for impact evaluation: The Hunt (2003) stream depletion model is used here to evaluate pumping affects using bulk aquifer parameters appropriate for a fractured bedrock aquifer. With the low pumping rate and large distance to surface water sources, model results indicate negligible streamflow depletion as a result of the proposed use. Stream depletion for WAB #31530801 is not shown here as 80% natural flow is greater than 1000 cfs.

C4b. **690-09-040 (5) (b)** The potential to impair or detrimentally affect the public interest is to be determined by the Water Rights Section.

- C5. ☐ If properly conditioned, the surface water source(s) can be adequately protected from interference, and/or groundwater use under this permit can be regulated if it is found to substantially interfere with surface water:
- ☐ The permit should contain condition #(s) _____;
 - ☐ The permit should contain special condition(s) as indicated in "Remarks" below;

- C6. **SW / GW Remarks and Conditions:** The applicant's proposed POA would produce from an aquifer that has been found to be hydraulically connected to surface water. However, the reviewer has not found a preponderance of evidence that the proposed use will have the Potential for Substantial Interference (PSI) with surface water.
-
-
-
-
-
-
-
-
-
-

References Used:

Hunt, B. 1999. *Unsteady Stream Depletion from Ground Water Pumping*. Journal of Hydrologic Engineering, Vol 8(1), pp 12-19

OWRD Groundwater Site Information System Database – Accessed 5/24/2018.

Ramp, L. and Peterson, N. 2004. *Geologic Map of Josephine County, Oregon*. Oregon Dept. of Geol. and Mineral Industries, OFR O-04-13.

D. WELL CONSTRUCTION, OAR 690-200

D1. Well #: _____ Logid: _____

D2. **THE WELL does not appear to meet current well construction standards based upon:**

- a. ☐ review of the well log;
 - b. ☐ field inspection by _____;
 - c. ☐ report of CWRE _____;
 - d. ☐ other: (specify) _____
-

D3. **THE WELL construction deficiency or other comment is described as follows:** _____

D4. ☐ **Route to the Well Construction and Compliance Section for a review of existing well construction.**

Figure 1. Water Availability Tables

DETAILED REPORT ON THE WATER AVAILABILITY CALCULATION						
Watershed ID #: 71015		LOUSE CR > JUMPOFF JOE CR - AT MOUTH			Exceedance Level: 80	
Time: 11:24 AM		Basin: ROGUE			Date: 05/01/2018	
Month	Natural Stream Flow	Consumptive Use and Storage	Expected Stream Flow	Reserved Stream Flow	Instream Requirements	Net Water Available
Monthly values are in cfs. Storage is the annual amount at 50% exceedance in ac-ft.						
JAN	13.20	0.34	12.90	0.00	39.50	-26.60
FEB	23.80	1.09	22.70	0.00	42.00	-19.30
MAR	21.20	0.63	20.60	0.00	42.00	-21.40
APR	10.70	0.50	10.20	0.00	21.90	-11.70
MAY	5.00	0.70	4.30	0.00	7.73	-3.43
JUN	2.31	0.91	1.40	0.00	4.23	-2.83
JUL	1.29	1.16	0.13	0.00	1.73	-1.60
AUG	1.03	0.99	0.04	0.00	1.22	-1.18
SEP	0.75	0.71	0.04	0.00	0.97	-0.93
OCT	0.97	0.35	0.62	0.00	1.58	-0.96
NOV	2.38	0.20	2.18	0.00	6.03	-3.85
DEC	6.80	0.31	6.49	0.00	32.10	-25.60
ANN	12,700	475	12,200	0	12,100	516

DETAILED REPORT ON THE WATER AVAILABILITY CALCULATION						
Watershed ID #: 31530801		ROGUE R > PACIFIC OCEAN - AB APPLGATE R			Exceedance Level: 80	
Time: 11:27 AM		Basin: ROGUE			Date: 05/01/2018	
Month	Natural Stream Flow	Consumptive Use and Storage	Expected Stream Flow	Reserved Stream Flow	Instream Requirements	Net Water Available
Monthly values are in cfs. Storage is the annual amount at 50% exceedance in ac-ft.						
JAN	2,590.00	1,090.00	1,500.00	0.00	0.00	1,500.00
FEB	3,220.00	2,010.00	1,210.00	0.00	0.00	1,210.00
MAR	3,220.00	1,780.00	1,440.00	0.00	0.00	1,440.00
APR	3,150.00	1,030.00	2,120.00	0.00	0.00	2,120.00
MAY	2,920.00	375.00	2,540.00	0.00	0.00	2,540.00
JUN	1,810.00	418.00	1,390.00	0.00	0.00	1,390.00
JUL	1,350.00	455.00	895.00	0.00	0.00	895.00
AUG	1,170.00	409.00	761.00	0.00	0.00	761.00
SEP	1,140.00	339.00	801.00	0.00	0.00	801.00
OCT	1,170.00	225.00	945.00	0.00	0.00	945.00
NOV	1,460.00	315.00	1,140.00	0.00	0.00	1,140.00
DEC	2,080.00	533.00	1,550.00	0.00	0.00	1,550.00
ANN	2,140,000	537,000	1,600,000	0	0	1,600,000

Figure 2. Well Location Map

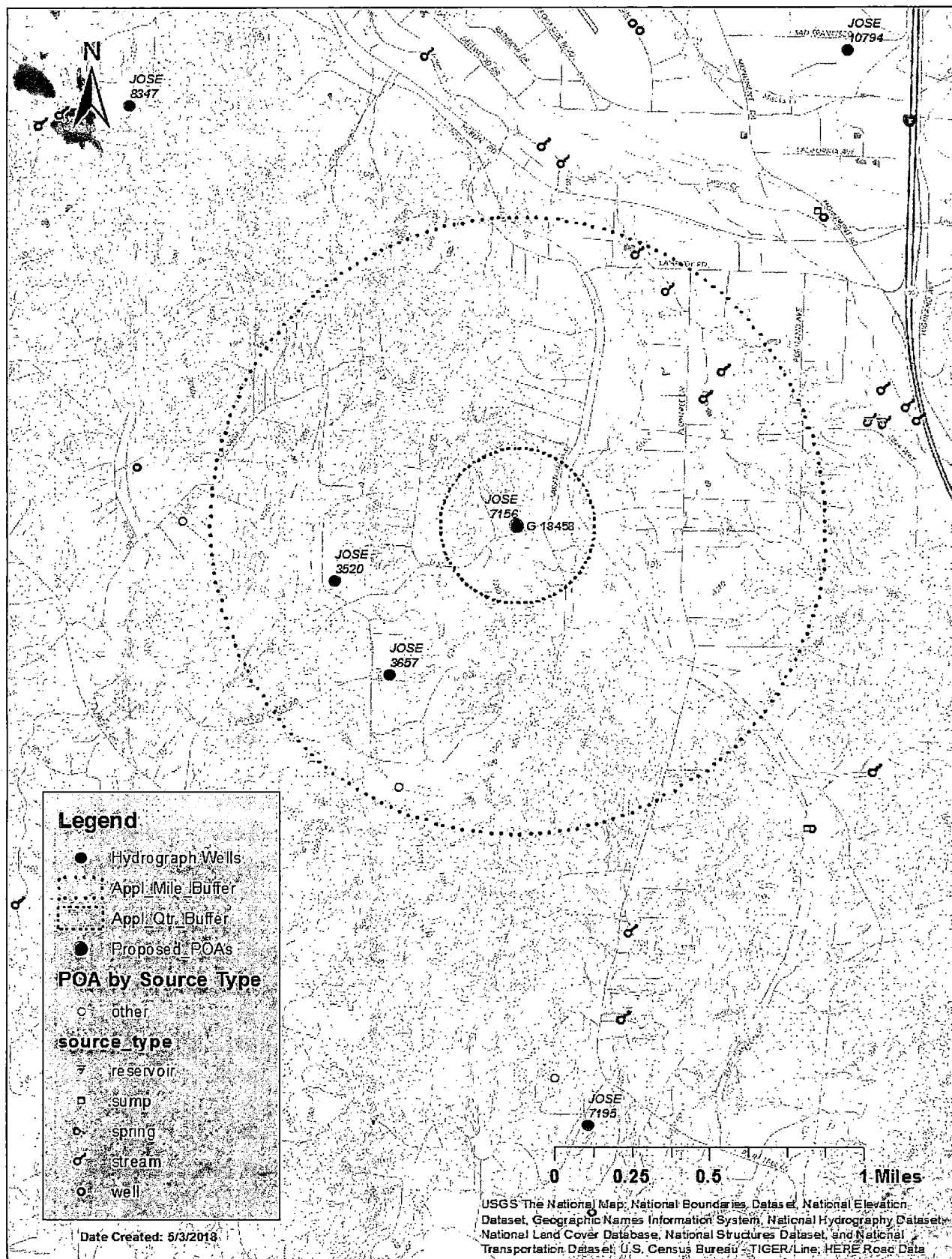


Figure 3. Water-Level Trends in Nearby Wells

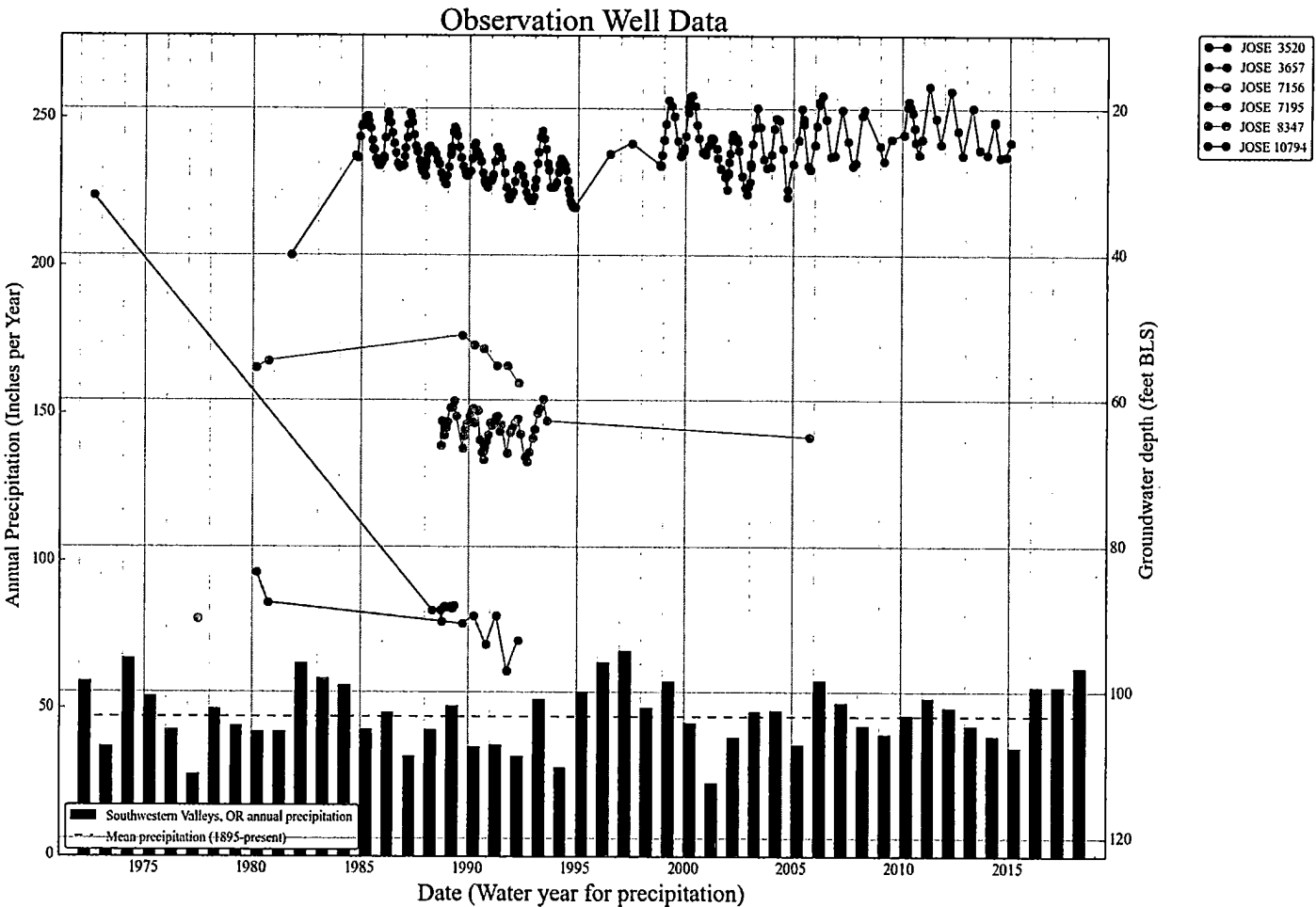


Figure 4. Stream Depletion Model Results

Application type:	G
Application number:	18458
Well number:	1
Stream Number:	1
Pumping rate (cfs):	0.01
Pumping duration (days):	365

Parameter	Symbol	Scenario 1	Scenario 2	Scenario 3	Units
Distance from well to stream	a	6000	6000	6000	ft
Aquifer transmissivity	T	500	1000	5000	ft ² /day
Aquifer storativity	S	.001	.005	.01	-
Aquitard vertical hydraulic conductivity	Kva	0.01	0.05	0.1	ft/day
Aquitard saturated thickness	ba	10.0	20.0	30.0	ft
Aquitard thickness below stream	babs	4.0	3.0	2.0	ft
Aquitard specific yield	Sya	0.2	0.2	0.2	-
Stream width	ws	20	20	20	ft

	Stream depletion for Scenario 2:												
Days	10	30	60	90	120	150	180	210	240	270	300	330	360
Depletion (%)	0	0	0	0	0	0	0	0	0	0	0	0	0
Depletion (cfs)	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00

