

Groundwater Application Review Summary Form

Application # G- 19040

GW Reviewer Grayson Fish Date Review Completed: 1/8/2026

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).

WATER RESOURCES DEPARTMENT

MEMO

January 8, 2026

TO: **Application G- 19040**

FROM: **GW: Grayson Fish**
 (Reviewer's Name)

SUBJECT: Scenic Waterway Interference Evaluation

YES The source of appropriation is hydraulically connected to a State Scenic Waterway or its tributaries

NO

YES Use the Scenic Waterway Condition (Condition 7J)

NO

Per ORS 390.835, the Groundwater Section is **able** to calculate ground water interference with surface water that contributes to a Scenic Waterway. The calculated interference is distributed below

Per ORS 390.835, the Groundwater Section is **unable** to calculate ground water interference with surface water that contributes to a scenic waterway; **therefore, the Department is unable to find that there is a preponderance of evidence that the proposed use will measurably reduce the surface water flows necessary to maintain the free-flowing character of a scenic waterway**

DISTRIBUTION OF INTERFERENCE

Calculate the percentage of consumptive use by month and fill in the table below. If interference cannot be calculated, per criteria in 390.835, do not fill in the table but check the "unable" option above, thus informing Water Rights that the Department is unable to make a Preponderance of Evidence finding.

Exercise of this permit is calculated to reduce monthly flows in N/A Scenic Waterway by the following amounts expressed as a proportion of the consumptive use by which surface water flow is reduced.

Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec

PUBLIC INTEREST REVIEW FOR GROUNDWATER APPLICATIONS

TO: Water Rights Section Date 1/8/2026
 FROM: Groundwater Section Grayson Fish
 Reviewer's Name
 SUBJECT: Application G- 19040 Supersedes review of
 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: Bally Bandon LLC County: Coos

A1. Applicant(s) seek(s) 0.3 cfs from 2 well(s) in the South Coast Basin,
Coos subbasin

A2. Proposed use Irrigation (42.3 ac) & Commercial (60 AF)
 Seasonality: Irrigation (3/1 to 10/31), Commercial (1/1 to 12/31)

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

POA 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	COOS 57374	1	Alluvium	0.156	27S/14W-20 NW-NW	1394'N, 1693'W fr C ¼ cor S 20
2	COOS 57371	2	Alluvium	0.134	27S/14W-20 SW-NW	1033'N, 1396'W fr C ¼ cor S 20

* Alluvium, CRB, Bedrock

POA Well	Well Depth (ft)	Seal Interval (ft)	Casing Intervals (ft)	Liner Intervals (ft)	Perforations Or Screens (ft)	Well Yield (gpm)	Drawdown (ft)	Test Type
1	79	0 - 40	0-65; 75-79	--	65-75	16.6	4.8	Pump
2	74	3 - 28	0-50; 65-73	--	50-65	51.3	9.2	Pump

POA Well	Land Surface Elevation at Well (ft amsl)	Depth of First Water (ft bls)	SWL (ft bls)	SWL Date	Reference Level (ft bls)	Reference Level Date
1	124	48	42	7/31/2019	--	--
2	125	57	40	7/26/2019	--	--

Use data from application for proposed wells.

A4. **Comments:** Application indicates that COOS 57374 will be primarily used for commercial purposes and COOS 57371 will be used primarily for irrigation. If approved, the resulting water right would not preclude use of either POA for either character of use.

Water levels from the proposed POAs are only available at time of construction and alteration of the wells. A reference level is not being suggested at the time of this review in order to allow for more data to be collected from the proposed POAs in order to determine a suitable reference level at a later date.

A5. **Provisions of the** South Coast (OAR 690-517) 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: South Coast basin rules contain no such provisions.

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) 7RLN, Large 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 wells access an unconfined aquifer hosted in sands, gravels, silts, and clays of the Whiskey Run terrace (Qmtw) and Pioneer Terrace (Qmtp), which overlies the low permeability sandstone of Fivemile Point (Tefm) at about 60 ft amsl (Wiley et al, 2015). Most nearby wells in this aquifer produce 5-25 gpm. There are several OWRD observation wells within one mile that access the aquifer hosted in terrace sediments. In general, these wells show seasonal fluctuations of approximately 10 feet with relatively stable water levels on a decadal time scale (see attached hydrograph). Water levels in wells to the north and east (COOS 3368/COOS 717) are approximately 150 feet amsl, while water levels in the applicant’s wells are closer to 70 feet amsl. Generally, the water table slopes from east to west towards the Pacific Ocean. The stair-stepped marine terraces and local stream incision likely create steeper hydraulic gradients in specific locations. The available data indicates that the groundwater resource is not currently over appropriated.

The applicant’s POAs are located in the center of tax lot 100, creating a buffer for injury to senior groundwater users. A Theis distance drawdown model is used to estimate well-to-well interference to adjacent exempt-use wells. Full use of the requested water in a worst-case scenario may cause 5-20 feet of drawdown at the nearest well. The above conditions should be applied in the case that interference is greater than expected. Several POAs under permit G-15437 are located less than 1000 feet from the proposed POAs, but those are owned and operated by the applicant and are not evaluated for injury.

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	Sediments of Whiskey Run Terrace	<input type="checkbox"/>	<input checked="" type="checkbox"/>
2	Sediments of Whiskey Run Terrace	<input type="checkbox"/>	<input checked="" type="checkbox"/>

Basis for aquifer confinement evaluation: Water is stored and transmitted in the primary pore space of unconsolidated sediments deposited as an elevated marine terrace. SWLs in well logs are typically reported at the depth at which water is first encountered.

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	Whiskey Run	80-85	70	2450	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
2	1	Whiskey Run	80-85	70	2060	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
1	2	Unnamed Trib to Whiskey Run	80-85	80-85	1605	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
2	2	Unnamed Trib to Whiskey Run	80-85	80-85	1215	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
1	3	Twomile Creek	80-85	28	5110	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
2	3	Twomile Creek	80-85	28	5390	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
1	4	Unnamed trib to Twomile Crk	80-85	28	4175	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
2	4	Unnamed trib to Twomile Crk	80-85	28	4415	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>

Basis for aquifer hydraulic connection evaluation: Water level elevations in the unconsolidated terrace sediments are higher than or coincident with the elevation of Whiskey Run and its tributary, both of which are incised into the sediments. This indicates that groundwater is flowing towards and discharging to surface water. Significant flows in Whiskey Run throughout summer months indicate groundwater provides a baseflow to the stream. The unnamed tributary to Whiskey Creek was identified in several consultant reports to be running at ~0.25 cfs at the end of the dry season (Golder Associates, 2002). Twomile Creek and its tributaries are incised into the same terrace sediments and likely receive similar contributions of groundwater throughout the year. The presence of a groundwater divide does not preclude stream depletion because a reduction of groundwater gradient will reduce discharge to the surface water system (Barlow and Leake, 2012).

Water Availability Basin the well(s) are located within: Wells are not located inside a WAB. However, impacts are considered to WHISKY RUN > PACIFIC OCEAN - AT MOUTH and to TWOMILE CR > PACIFIC OCEAN - AT MOUTH.

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 (SW) source. Limit evaluation to instream rights and minimum stream flows that are pertinent to that SW source, 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?
1	1	<input type="checkbox"/>	<input type="checkbox"/>	IS72964A	0.13	<input checked="" type="checkbox"/>	0.10	<input checked="" type="checkbox"/>	>>25	<input checked="" type="checkbox"/>
2	1	<input type="checkbox"/>	<input type="checkbox"/>	IS72964A	0.13	<input checked="" type="checkbox"/>	0.10	<input checked="" type="checkbox"/>	>>25	<input checked="" type="checkbox"/>
1	2	<input type="checkbox"/>	<input type="checkbox"/>	NA	NA	<input type="checkbox"/>	0.10	<input checked="" type="checkbox"/>	>>25	<input checked="" type="checkbox"/>
2	2	<input checked="" type="checkbox"/>	<input type="checkbox"/>	NA	NA	<input type="checkbox"/>	0.10	<input checked="" type="checkbox"/>	>>25	<input checked="" type="checkbox"/>
1	3	<input type="checkbox"/>	<input type="checkbox"/>	IS72804A	0.30	<input checked="" type="checkbox"/>	0.28	<input checked="" type="checkbox"/>	na	<input checked="" type="checkbox"/>
2	3	<input type="checkbox"/>	<input type="checkbox"/>	IS72804A	0.30	<input checked="" type="checkbox"/>	0.28	<input checked="" type="checkbox"/>	na	<input checked="" type="checkbox"/>
1	4	<input type="checkbox"/>	<input type="checkbox"/>	NA	NA	<input type="checkbox"/>	0.28	<input checked="" type="checkbox"/>	na	<input checked="" type="checkbox"/>
2	4	<input type="checkbox"/>	<input type="checkbox"/>	NA	NA	<input type="checkbox"/>	0.28	<input checked="" type="checkbox"/>	na	<input checked="" type="checkbox"/>

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?
	1	<input type="checkbox"/>	IS72964A	0.13	<input checked="" type="checkbox"/>	0.10	<input checked="" type="checkbox"/>	>>25	<input checked="" type="checkbox"/>
	2	<input type="checkbox"/>	NA	NA	<input type="checkbox"/>	0.10	<input checked="" type="checkbox"/>	>>25	<input checked="" type="checkbox"/>
	3	<input type="checkbox"/>	IS72804A	0.3	<input checked="" type="checkbox"/>	0.28	<input checked="" type="checkbox"/>	na	<input checked="" type="checkbox"/>
	4	<input type="checkbox"/>	NA	NA	<input type="checkbox"/>	0.28	<input checked="" type="checkbox"/>	na	<input checked="" type="checkbox"/>

Comments: Impacts to Whisky Run and its tributary are estimated using the Jenkins (1968) model using parameters representative of bulk aquifer properties. Impacts to Twomile Creek cannot be reliably calculated with a standard analytical model because Whisky Run and its tributaries are significantly closer and would receive most of the impact of groundwater production. Thus, analytical model assessments of impacts from pumping solely to Twomile Creek would be greatly overestimated.

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
2	3	%	%	%	%	%	%	%	%	%	%	%	%
Well Q as CFS		0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.3
Interference CFS													
(A) = Total Interf.													
(B) = 80 % Nat. Q		7.45	10.1	7.43	4.77	2.3	1.27	0.73	0.4	0.3	0.28	1.09	5.08
(C) = 1 % Nat. Q		0.0745	0.101	0.0743	0.0477	0.023	0.0127	0.0073	0.004	0.003	0.0028	0.0109	0.0508
(D) = (A) > (C)		✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓
(E) = (A / B) x 100		%	%	%	%	%	%	%	%	%	%	%	%

(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: Impacts to Twomile Creek could not reliable be calculated with a standard analytical model because Whisky Run and its tributaries are significantly closer and would receive most of the impact of groundwater production. Thus, analytical model assessments of impacts from pumping solely to Twomile Creek would be overestimated.

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:
- i. The permit should contain condition #(s) _____;
 - ii. The permit should contain special condition(s) as indicated in "Remarks" below;

C6. **SW / GW Remarks and Conditions:** The applicant's wells access an aquifer that is determined to be hydraulically connected to Whisky Run, an unnamed tributary to Whisky Run, Twomile Creek and an unnamed tributary to Twomile Creek. The proposed use is determined to have the Potential for Substantial Interference with all four streams as per the following criteria under OAR 690-009:

- Well 2 (COOS 57371) is located within ¼ mile of the unnamed tributary to Whisky Run.
- Well 1 (COOS 57374) and Well 2 specific rates (0.156/0.134 cfs) and total requested rate (0.3 cfs) are greater than 1% of the 80% exceedance flows (1% of 0.10 cfs or 0.001 cfs) for the pertinent WAB to Whisky Run and the unnamed tributary to Whisky Run.
- both well specific rates (0.156/0.134 cfs) and total requested rate (0.3 cfs) are greater than 1% of the instream water right (1% of 0.13 cfs or 0.0013 cfs) for Whisky Run.
- the requested rate (0.156) for Well 1 is greater than 1% of the 80% exceedance flows (1% of 0.28 cfs or 0.0028 cfs) in the pertinent WAB for Twomile Creek.
- the requested rate (0.156) for Well 1 is greater than 1% of the instream water right (1% of 0.3 cfs or 0.003 cfs) for Twomile Creek.
- Well 1 and Well 2 specific rates (0.156/0.134 cfs) and total requested rate (0.3 cfs) are greater than 1% of the 80% exceedance flows (1% of 0.28 cfs or 0.0028 cfs) in the pertinent WAB for the unnamed tributary to Twomile Creek.
- Modeled stream depletion from Well 1 and Well 2 to both Whisky Run and its unnamed tributary is greater than 25% after 30 days of pumping.

References Used:

Barlow, P.M., and Leake, S.A., 2012, Streamflow depletion by wells—Understanding and managing the effects of groundwater pumping on streamflow: U.S. Geological Survey Circular 1376, 84 p.

Hunt, B. 1999. Unsteady Stream Depletion from Ground Water Pumping. Journal of Hydrologic Engineering, Vol 8(1), pp12-19

OWRD Groundwater Information System Database – Accessed 1/8/2026.

Theis, C.V., 1935. The relation between the lowering of the piezometric surface and the rate and duration of discharge of a well using groundwater storage, Am. Geophys. Union Trans., vol. 16, pp. 519-524.

Wiley, T.J., McClaughry, J.D., Niewendorp, C.N., Ma, L., Herinckx, H.H., and Mickelson, K.A., 2015, Geologic map of the southern Oregon coast between Bandon, Coquille, and Sunset Bay, Coos County, Oregon: Oregon Department of Geology and Mineral Industries, Open-File Report O-15-04, scale 1:24,000

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.

Water Availability Tables

**Water Availability Analysis
Detailed Reports**

WHISKY RUN > PACIFIC OCEAN - AT MOUTH
SOUTH COAST BASIN

Water Availability as of 1/8/2026

Watershed ID #: 72964 ([Map](#))
Date: 1/8/2026

Exceedance Level: 80% v
Time: 9:12 AM

Water Availability Calculation
Consumptive Uses and Storages
Instream Flow Requirements
Reservations
Water Rights
Watershed Characteristics

Water Availability Calculation

Monthly Streamflow in Cubic Feet per Second
Annual Volume at 50% Exceedance in Acre-Feet

Month	Natural Stream Flow	Consumptive Uses and Storages	Expected Stream Flow	Reserved Stream Flow	Instream Flow Requirement	Net Water Available
JAN	2.71	0.00	2.71	0.00	5.80	-3.09
FEB	3.71	0.00	3.71	0.00	6.42	-2.71
MAR	2.72	0.00	2.72	0.00	4.63	-1.91
APR	1.69	0.04	1.65	0.00	2.87	-1.22
MAY	0.79	0.27	0.52	0.00	1.28	-0.76
JUN	0.46	0.81	-0.35	0.00	0.75	-1.10
JUL	0.27	1.27	-1.00	0.00	0.36	-1.36
AUG	0.15	1.03	-0.88	0.00	0.18	-1.06
SEP	0.11	0.43	-0.32	0.00	0.13	-0.45
OCT	0.10	0.04	0.06	0.00	0.14	-0.08
NOV	0.41	0.00	0.41	0.00	1.08	-0.67
DEC	1.82	0.00	1.82	0.00	4.62	-2.80
ANN	1,720.00	237.00	1,600.00	0.00	1,690.00	10.60

Water Availability Analysis

Detailed Reports

TWO MILE CR > PACIFIC OCEAN - AT MOUTH
SOUTH COAST BASIN

Water Availability as of 1/8/2026

Watershed ID #: 72804 ([Map](#))

Exceedance Level: 80%

Date: 1/8/2026

Time: 9:13 AM

Water Availability Calculation

Consumptive Uses and Storages

Instream Flow Requirements

Reservations

Water Rights

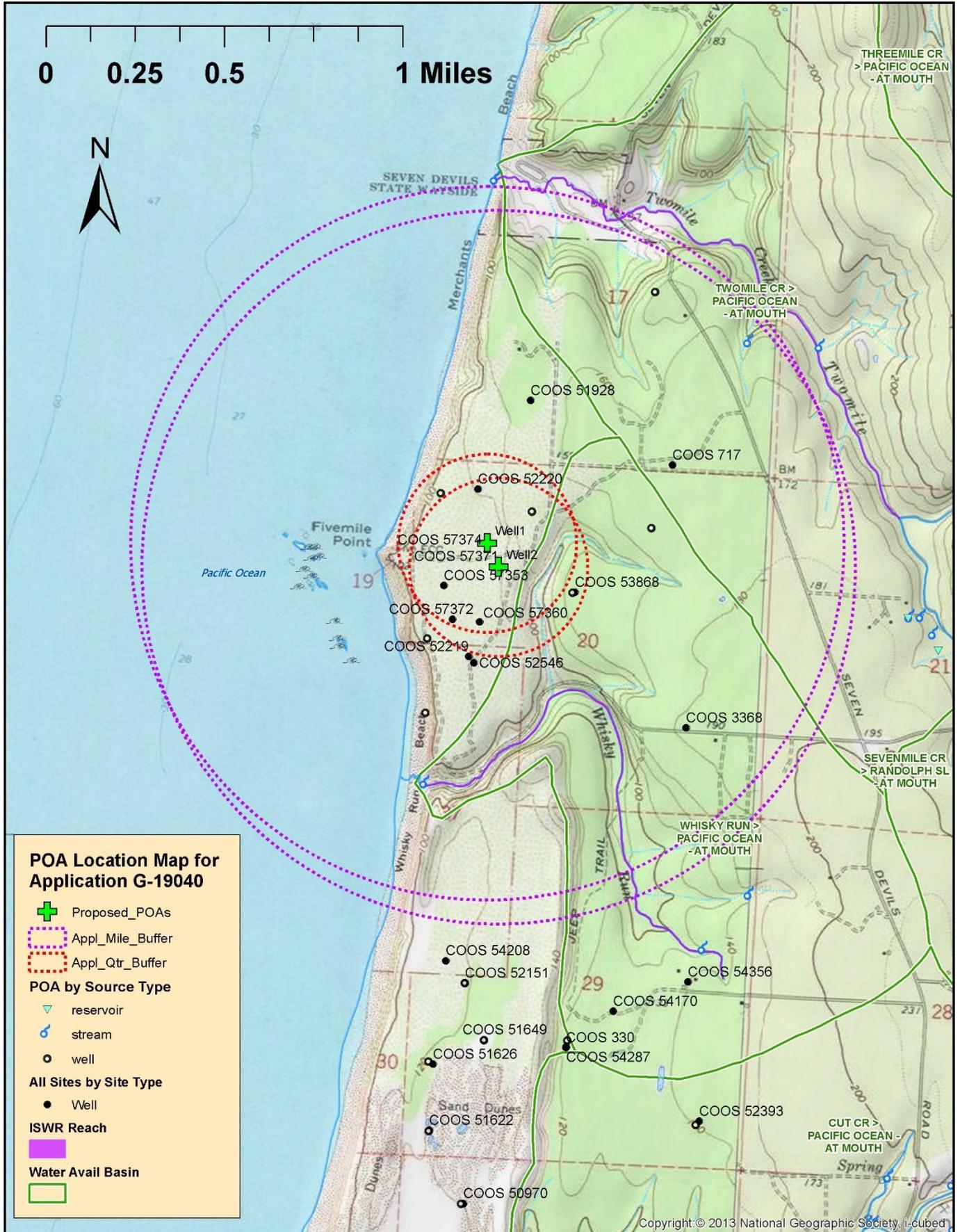
Watershed Characteristics

Water Availability Calculation

Monthly Streamflow in Cubic Feet per Second
Annual Volume at 50% Exceedance in Acre-Feet

Month	Natural Stream Flow	Consumptive Uses and Storages	Expected Stream Flow	Reserved Stream Flow	Instream Flow Requirement	Net Water Available
JAN	7.45	0.11	7.34	0.00	14.00	-6.66
FEB	10.10	0.14	9.97	0.00	14.00	-4.03
MAR	7.43	0.09	7.34	0.00	12.40	-5.06
APR	4.77	0.09	4.68	0.00	7.92	-3.24
MAY	2.30	0.09	2.21	0.00	3.63	-1.42
JUN	1.27	0.09	1.18	0.00	1.92	-0.74
JUL	0.73	0.00	0.73	0.00	0.89	-0.16
AUG	0.40	0.00	0.40	0.00	0.43	-0.03
SEP	0.30	0.00	0.30	0.00	0.30	0.00
OCT	0.28	0.00	0.28	0.00	0.34	-0.06
NOV	1.09	0.09	1.00	0.00	2.76	-1.76
DEC	5.08	0.09	4.99	0.00	12.60	-7.61
ANN	4,650.00	46.80	4,600.00	0.00	4,280.00	345.00

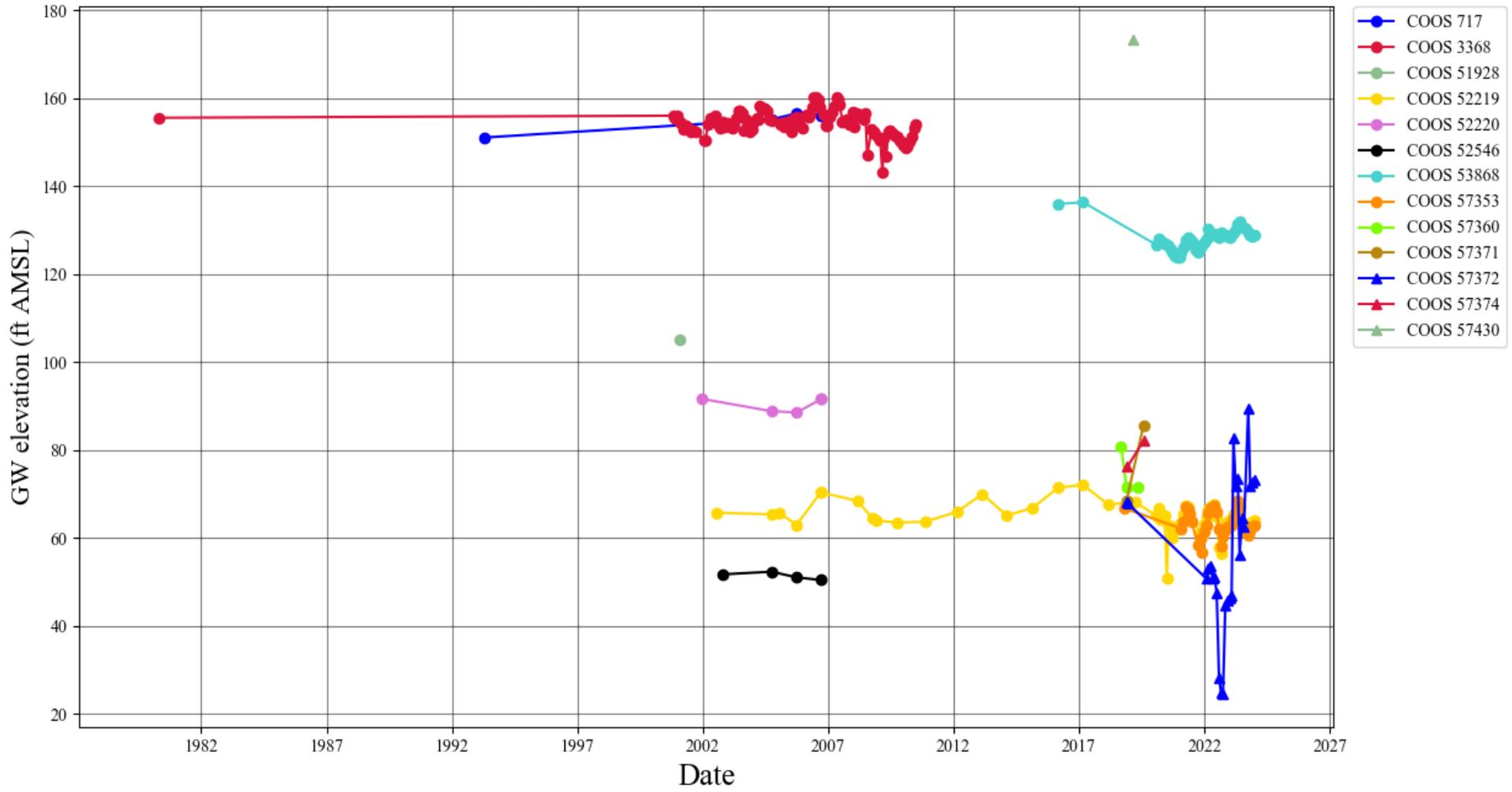
Well Location Map



Copyright: © 2013 National Geographic Society, I-cubed

Water-Level Measurements in Nearby Wells

Observation Well Data

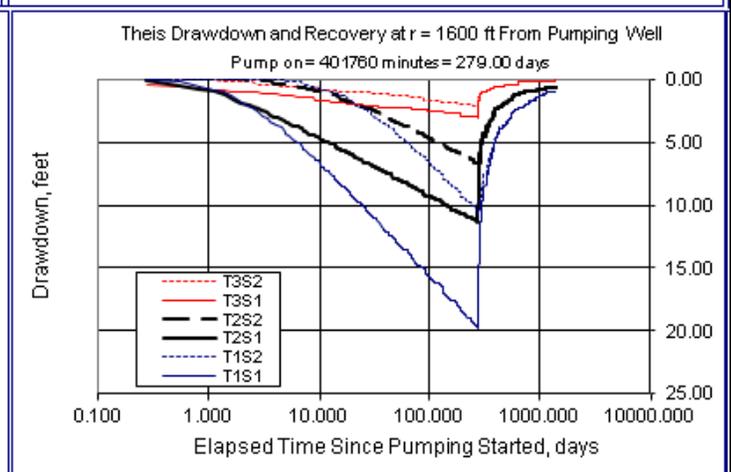
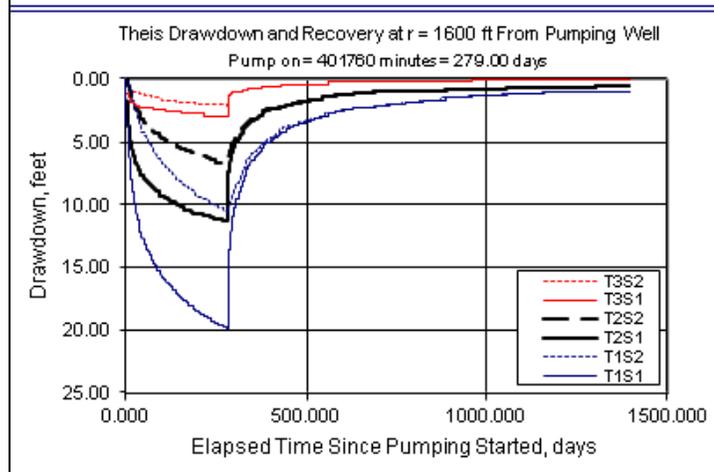
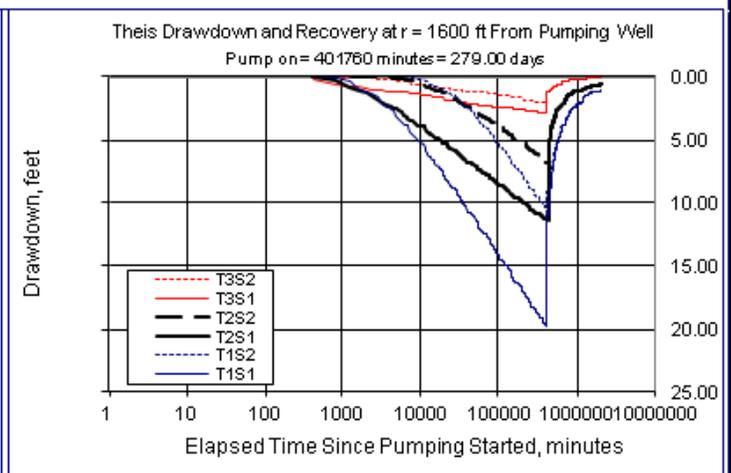
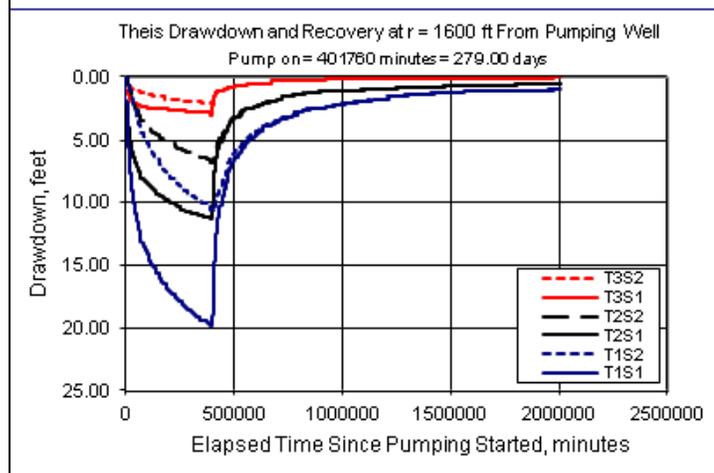


Theis Interference Analysis

Theis Time-Drawdown Worksheet v.3.00
 Calculates Theis nonequilibrium drawdown and recovery at any arbitrary radial distance, r, from a pumping well for 3 different T values and radial distance, r, from a pumping well for 3 different T values and 2 different S values.
 Written by Karl C. Wozniak September 1992. Last modified December 17, 2019

Input Data:	Var Name	Scenario 1	Scenario 2	Scenario 3	Units	
Total pumping time	t		279		d	
Radial distance from pumped well:	r		1600		ft	Q conversions
Pumping rate	Q		0.3		cfs	134.64 gpm
Hydraulic conductivity	K	10	20	100	ft/day	0.30 cfs
Aquifer thickness	b		50		ft	18.00 cfm
Storativity	S_1		0.001			25,920.00 cfd
	S_2		0.01			0.60 af/d
Transmissivity Conversions	T_ft2pd	500	1000	5000	ft ² /day	Recalculate
	T_ft2pm	0.3472222	0.6944444	3.4722222	ft ² /min	
	T_gpdpft	3740	7480	37400	gpd/ft	

Use the Recalculate button if recalculation is set to manual



Stream Depletion Model Analysis (Hunt, 1999) Model results below are for Well 1 (COOS 57374) to Whisky Run, which has the greatest distance (and thus the lowest stream depletion values) of all modeled scenarios.

Application type:	G
Application number:	19040
Well number:	1
Stream Number:	1
Pumping rate (cfs):	.3
Pumping duration (days):	244
Pumping start month number (3=March)	1

Parameter	Symbol	Scenario 1	Scenario 2	Scenario 3	Units
Distance from well to stream	a	2450	2450	2450	ft
Aquifer transmissivity	T	500	1000	5000	ft ² /day
Aquifer storativity	S	0.01	0.001	0.0001	-
Not used		0.01	0.05	0.1	
Not used		1	1	1	
Not used		2	2	2	
Not used		1	1	1	
Not used		10	10	10	

Stream depletion for Scenario 2:

Days	10	30	60	90	120	150	180	210	240	270	300	330	360
Depletion (%)	58	75	82	86	87	89	90	90	91	18	10	7	6
Depletion (cfs)	0.18	0.23	0.25	0.26	0.26	0.27	0.27	0.27	0.27	0.05	0.03	0.02	0.02

