

## Groundwater Application Review Summary Form

Application # G- 19216

GW Reviewer: Mitra Khadka/Travis Brown Date Review Completed: 4/28/2023

### 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).*

## Scenic Waterway Interference Evaluation

Application # G- 19216

GW Reviewer: Mitra Khadka / Travis Brown Date Review Completed: 4/28/2023

**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 the [\_\_\_\_\_] 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 4/28/2023  
 FROM: Groundwater Section Mitra Khadka/Travis Brown  
Reviewer's Name  
 SUBJECT: Application G- 19216 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: Chemeketa Community College County: Marion

A1. Applicant(s) seek(s) 0.67 cfs from 1 well(s) in the Willamette Basin,  
Molalla-Pudding subbasin

A2. Proposed use Commercial, Irrigation, Firefighting training 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	<b>MARI 4092</b>	Well 1	Alluvial (Willamette)	0.67 <sup>a</sup>	6S/2W-17-NWSE	880'S, 135'E fr C1/4 cor S17

\* 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	186 <sup>b</sup>	87	40	5/18/1988	315	0-25	-2-229	none	229-300	80	2	Pump/Bailer

Use data from application for proposed wells.

A4. **Comments:** The applicant proposes to withdraw 0.67 cfs groundwater for multiple uses from the existing well MARI 4092. There is a discrepancy in location of the well as recorded in OWRD groundwater information system and reported by applicant in the application. The well location identified by applicant relative to the Department's Public Land Survey System (PLSS) is considered to be accurate and will be used in this review.

<sup>a</sup> Proposed pumping rate is variable. Because requested rate for commercial use including firefighting training is 300 gpm year-round, the maximum rate (300 gpm) will be used in this review.

<sup>b</sup> Ground surface elevation at POA location, estimated from LIDAR (Watershed Sciences, 2009).

A5.  **Provisions of the Willamette** 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 proposed POA are greater than 1/4 mile from the nearest surface water source. Per OAR 690-502-0240, the relevant basin rules do not apply.

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) 7n (Annual groundwater level measurement), 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 alluvial 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 proposed POA well (MARI 4092) is located in the Central Willamette Valley (Figure 1) and is completed at the depth of 315 ft bls. The well will produce groundwater from the depth of 229 – 300 ft bls. The groundwater producing zone is a part of the Willamette Aquifer, which is primarily composed of unconsolidated sand and gravels (Gannett and Caldwell, 1998). The Willamette Aquifer in the area is estimated to be 80-120 ft thick and is overlain by 60-80 ft of low permeability silt and fine sand, known as the Willamette Silt Unit. The aquifer is underlain by the Willamette Confining Unit, which is comprised of fine-grained distal alluvial fan and low gradient stream deposits locally separated by thin layers of clay, silt, and sand. The majority of the wells in the immediate vicinity draw groundwater from the Willamette Aquifer from the depth of around 100ft (Figure 2a). Deeper wells (> 200 ft bls) in this area have generally reported higher yields. The applicant's requested rate 300 gpm (~0.8 cfs) is less than the median yield (695 gpm) reported for wells deeper than 200 ft bls (Figure 2b).

Static water levels (SWL) are typically 20-50 ft bls in this area of the Willamette aquifer. Nearby wells show some decline in groundwater level over the past 10 years, though much of this can likely be attributed to drier-than-average climatic conditions in recent years (Figure 3). Groundwater has declined by up to 8 ft in the area within the last 10 years.

The nearest permitted well (NLOG 57966) to the propose POA is located about 630 ft southeast (Figure 1). Interference with NLOG 57966 was quantitatively estimated using a Theis (1935) time-drawdown model for a confined aquifer. Hydraulic parameters used for the analysis were derived from regional data and studies (Pumping Test Reports; Conlon et al., 2005; McFarland and Morgan, 1996). The analysis shows that drawdown would not exceed 15 ft at a distance of 630 ft (at NLOG 57966) after 365 days of pumping at the maximum requested rate in scenario 2 when median aquifer transmissivity value is used from the pumping test reports in the area (Figure 4). Therefore, the proposed use unlikely to cause well-to-well interference with NLOG 57966 or similarly located wells which would meet the definition of injury.

The conditions specified in Item B1(d) and B2(c), above, are recommended for any permit issued pursuant to this application.

**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	Alluvial (Willamette Aquifer)	<input checked="" type="checkbox"/>	<input type="checkbox"/>

**Basis for aquifer confinement evaluation:** Reported water levels in nearby wells are predominantly above the applicable water-bearing zones (Figure 2). Additionally, available well logs in the area indicate a ~60-80 ft thick low permeability clay/silt layer overlying sand and gravel aquifer (Figure 5).

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	Patterson Creek <sup>a</sup>	~135-165 <sup>b</sup>	~140-170 <sup>c</sup>	~10,480	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>

**Basis for aquifer hydraulic connection evaluation:** Measured groundwater elevations near the proposed POA are above or coincident with surface water elevation at Patterson Creek. Groundwater mapping in this area indicates groundwater discharging into local streams (Gannett and Caldwell, 1998; Woodward et al., 1998). The available evidence indicates that the proposed POA would be hydraulically connected to SW1.

<sup>a</sup>Nearest perennial stream identified on USGS Topo Map (2020).

<sup>b</sup>Based on nearby reported water levels (Figure 3) and groundwater mapping (Woodward et al., 1998).

<sup>c</sup>Estimated from LIDAR, within 1 mile of proposed POA (Watershed Sciences, 2009).

**Water Availability Basin the well(s) are located within:** WID #151 PUDDING R > MOLALLA R - AB MILL CR  
**Water Availability Basin the stream(s) are located within:** WID #182 WILLAMETTE R > COLUMBIA R - AB MOLALLA 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 (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?
		<input type="checkbox"/>	<input type="checkbox"/>			<input type="checkbox"/>		<input type="checkbox"/>		<input 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?
			<input type="checkbox"/>			<input type="checkbox"/>		<input type="checkbox"/>		<input type="checkbox"/>
			<input type="checkbox"/>			<input type="checkbox"/>		<input type="checkbox"/>		<input type="checkbox"/>

Comments: \_\_\_\_\_

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
<b>1</b>	<b>1</b>	<1%	<1%	<1%	<1%	<1%	<1%	<1%	<1%	<1%	<1%	<1%	<1%
Well Q as CFS		<b>0.67</b>	<b>0.67</b>	<b>0.67</b>	<b>0.67</b>	<b>0.67</b>	<b>0.67</b>	<b>0.67</b>	<b>0.67</b>	<b>0.67</b>	<b>0.67</b>	<b>0.67</b>	<b>0.67</b>
Interference CFS		<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01
Distributed Wells													
Well	SW#	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec
		%	%	%	%	%	%	%	%	%	%	%	%
Well Q as CFS													
Interference CFS													
		%	%	%	%	%	%	%	%	%	%	%	%
Well Q as CFS													
Interference CFS													
(A) = Total Interf.		<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01
(B) = 80 % Nat. Q		<b>21400</b>	<b>23200</b>	<b>22400</b>	<b>19900</b>	<b>16600</b>	<b>8740</b>	<b>4980</b>	<b>3830</b>	<b>3890</b>	<b>4850</b>	<b>10200</b>	<b>19300</b>
(C) = 1 % Nat. Q		<b>214</b>	<b>232</b>	<b>224</b>	<b>199</b>	<b>166</b>	<b>87.4</b>	<b>49.8</b>	<b>38.3</b>	<b>48.5</b>	<b>103</b>	<b>193</b>	
(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:** Given the large distance between the proposed well and Patterson Creek combined with existing knowledge of the hydrogeologic regime in this area, it is unlikely for the well to cause substantial interference. The anticipated interference with SW1 due to the proposed use was quantitatively estimated using the Hunt (2003) model. Hydraulic parameters used for the analysis were derived from regional data and studies (Pumping Test Reports; Conlon et al., 2005; McFarland and Morgan, 1996) or are within a typical range of values for the given parameter within the hydrogeologic regime (Freeze and Cherry, 1979). Results indicate that interference with SW1 is minimal and is not anticipated to exceed 25 percent of the rate of withdrawal within the first 30 days of continuous pumping.

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 well is hydraulically connected to the Patterson Creek, however the proposed use is assumed to have no Potential for Substantial Interference (PSI) as per OAR 690-009-0040.

**References Used:**

Application File: G-19216

Conlon T.D., Wozniak, K.C., Woodcock, D., Herrera, N.B., Fisher, B.J., Morgan, D.S., Lee, K.K., and Hinkle, S.R., 2005, Ground-Water Hydrology of the Willamette Basin, Oregon: U.S. Geological Survey Scientific Investigations Report 2005-5168, 83 p.

Freeze, R.A. and Cherry, J.A., 1979, Groundwater, Prentice Hall, Englewood Cliffs, New Jersey, 604 p.

Gannett, M.W. and Caldwell, R., 1998, Geologic framework of the Willamette Lowland aquifer system, Oregon and Washington, Professional Paper 1424-A, 32 p: U. S. Geological Survey, Reston, VA.

Hunt, B., 2003, Unsteady stream depletion when pumping from semiconfined aquifer: Journal of Hydrologic Engineering, January/February, Vol 8, p. 12-19.

McFarland, W.D., and Morgan, D.S., 1996, Description of the Ground-Water Flow System in the Portland Basin, Oregon and Washington, Water Supply Paper 2470-A, 58 p: U. S. Geological Survey, Reston, VA.

Pumping Test Report: MARI 58, MARI 3846, MARI 3894, MARI 4067, MARI 4071, MARI 4160, MARI 51883, MARI 54503, MARI 57212, MARI 60275.

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, American Geophysical Union Transactions, vol. 16, p. 519-524.

USGS, 2020, USGS Topo Map Gervais quadrangle, Oregon, 1:24,000, 7.5 minute topographic series, U.S. Department of the Interior, Reston, VA.

Watershed Sciences, 2009, LIDAR remote sensing data collection, Department of Geology and Mineral Industries, Hood to Coast, Oregon: Portland, OR, May 27.

Woodward, D.G., Gannett, M.W., and Vaccaro, J.J., 1998, Hydrogeologic framework of the Willamette Lowland aquifer system, Oregon and Washington: U.S. Geological Survey Professional Paper 1424-B, 82 p.

**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. Well Location Map

### G-19216 Chemeketa Community College

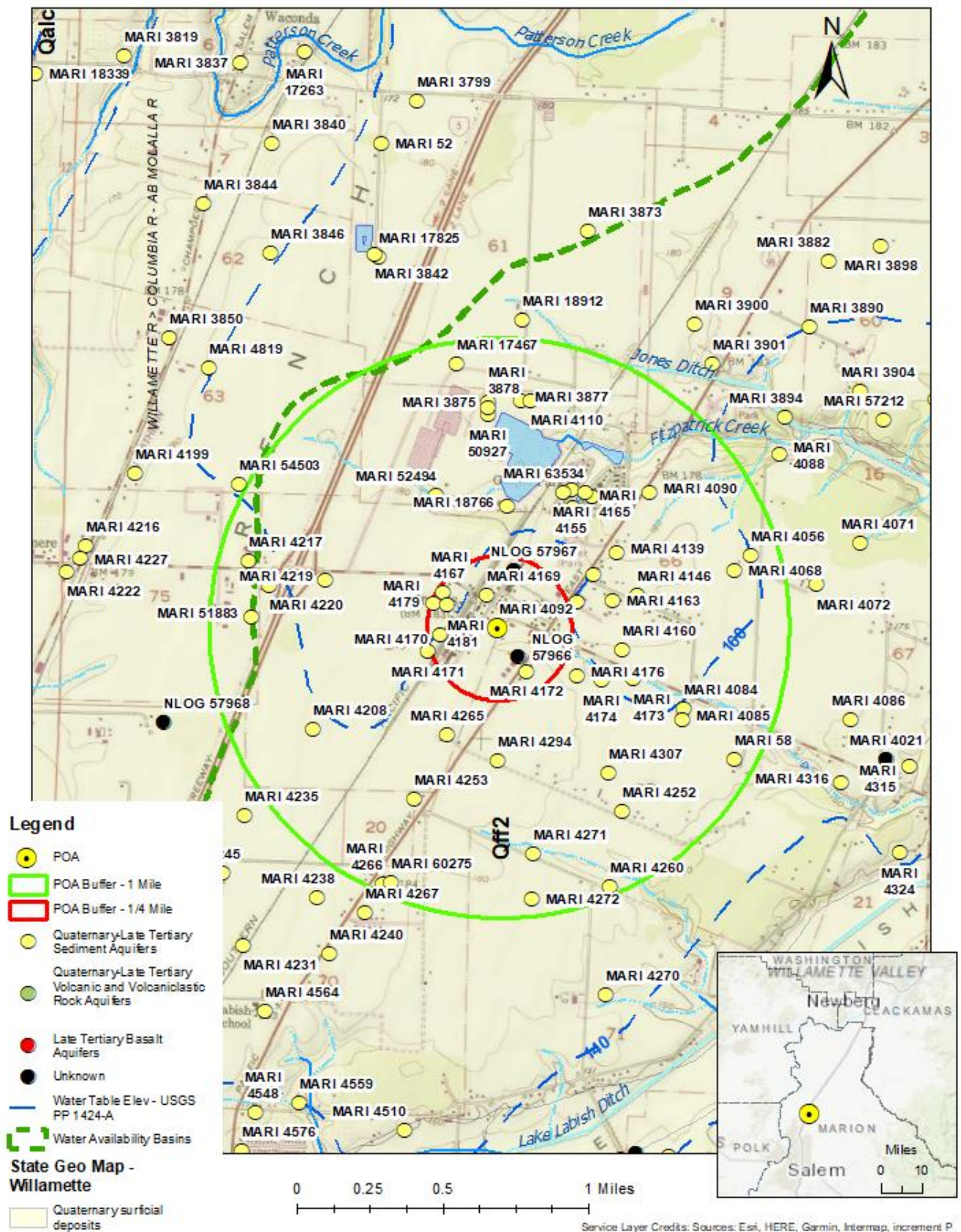


Figure 2a. Well Statistics

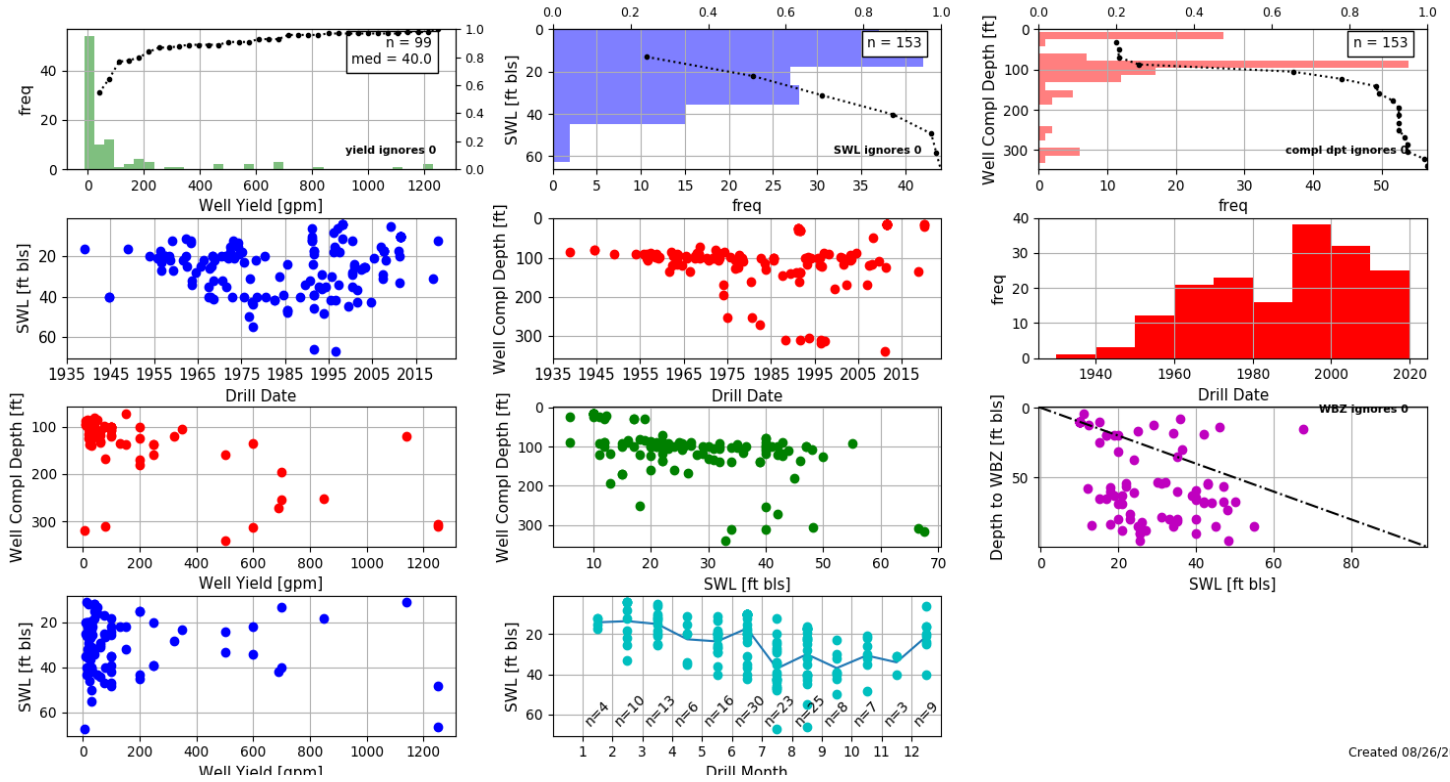


Figure 2b. Well Statistics – Wells >200 ft bls

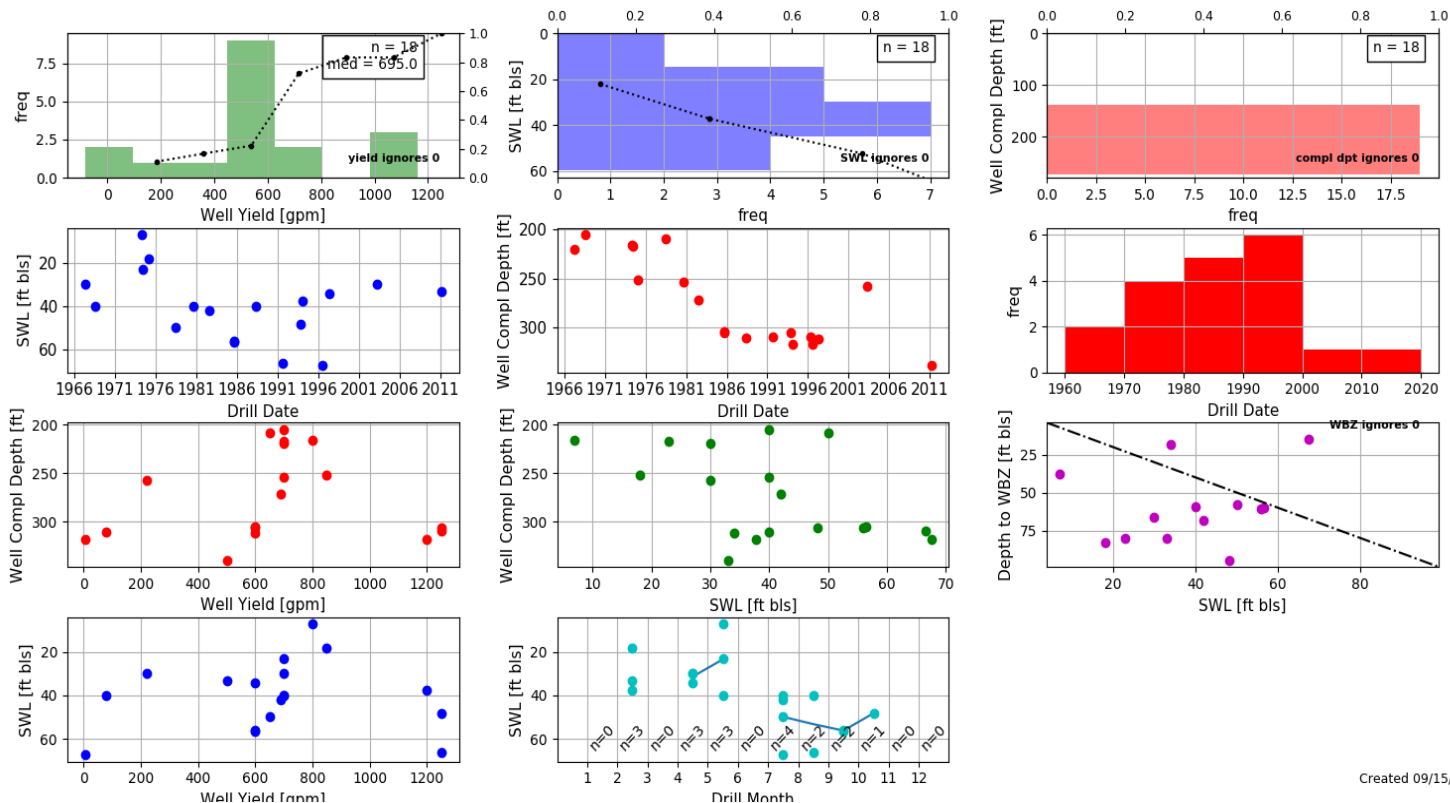


Figure 3a. Water-Level Measurements in Nearby Wells (1961-2022)

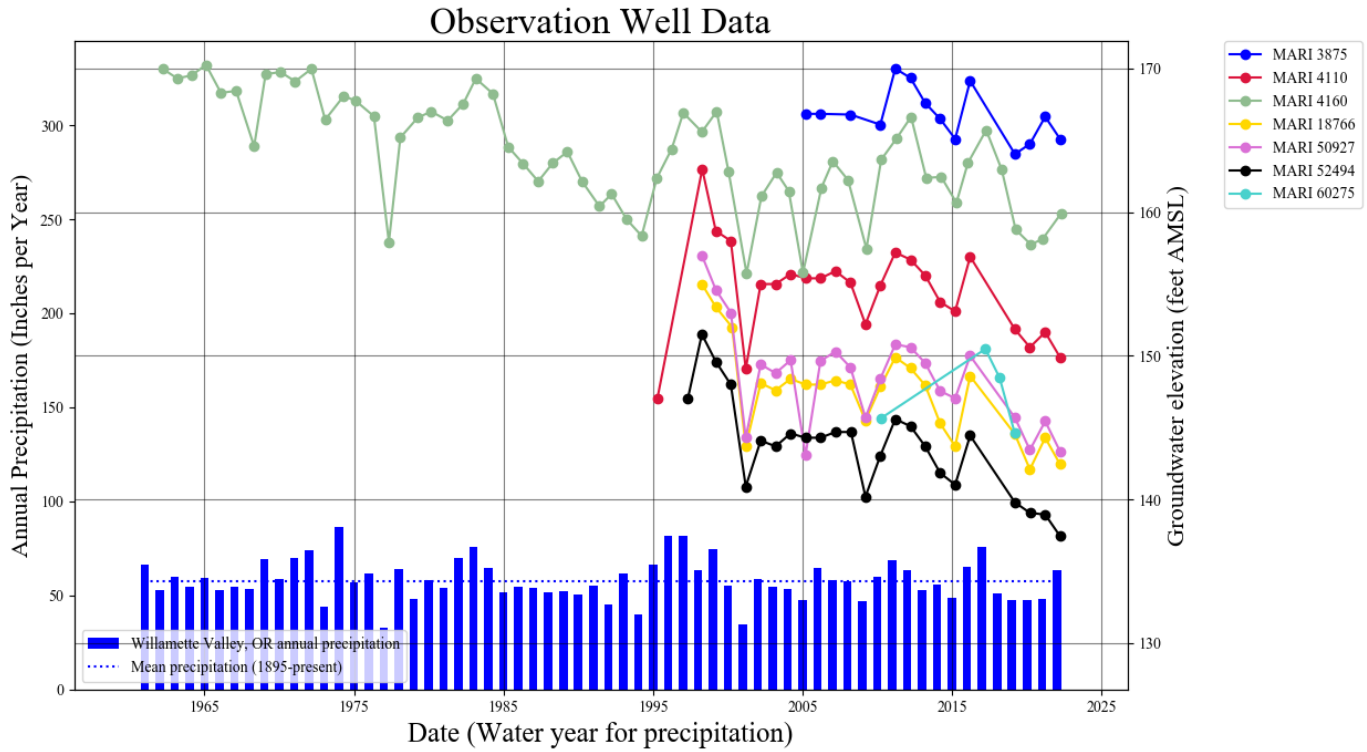
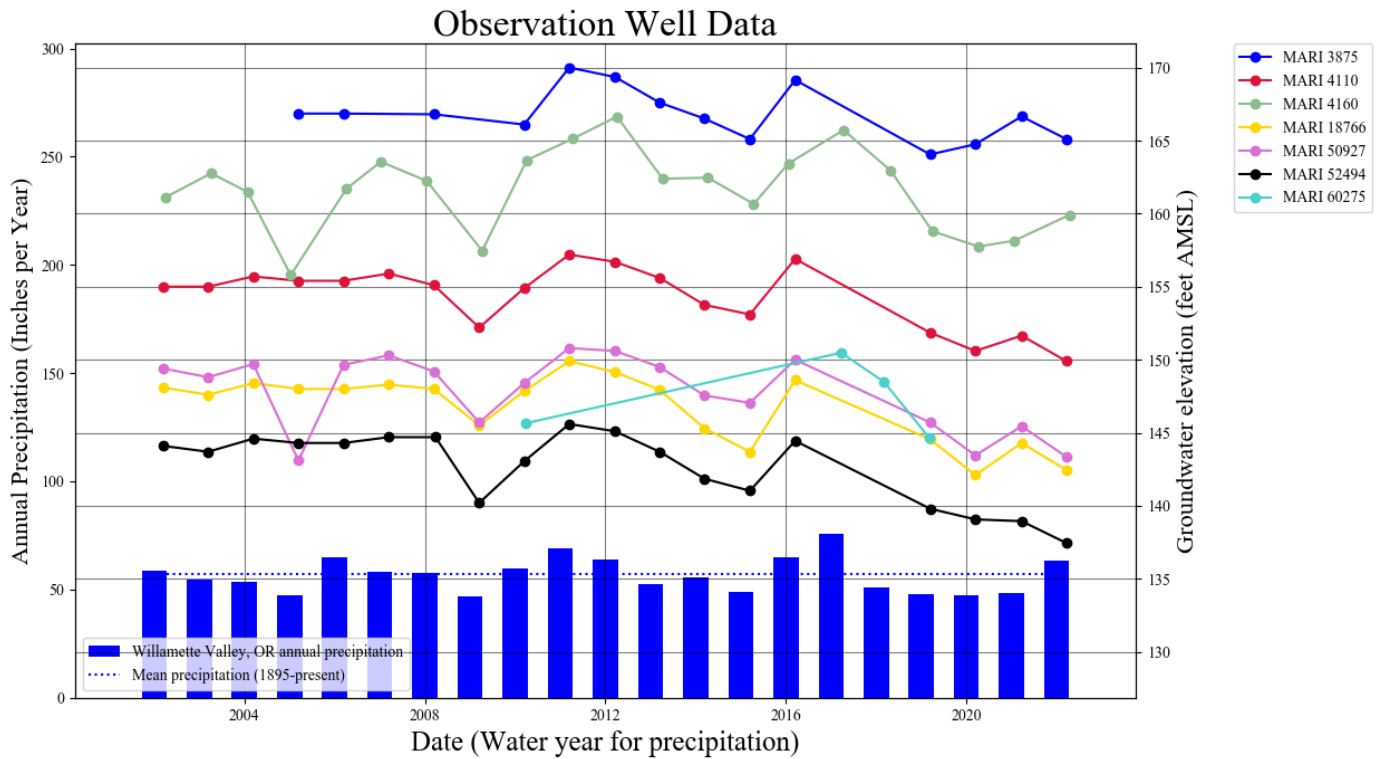


Figure 3b. Water-Level Measurements in Nearby Wells (2002-2022)



**Figure 4. Well Interference Analysis**

Input Data:	Var Name	Scenario 1	Scenario 2	Scenario 3	Units
Total pumping time	t		365		d
Radial distance from pumped well:	r		630		ft
Pumping rate	Q		300		gpm
Hydraulic conductivity	K	12	35	61	ft/day
Aquifer thickness	b		100		ft
Storativity	S_1		0.0001		
	S_2		0.0005		
Transmissivity Conversions	T_f2pd	1200	3500	6100	ft <sup>2</sup> /day
	T_ft2pm	0.83333333	2.4305556	4.2361111	ft <sup>2</sup> /min
	T_gpdpft	8976	26180	45628	gpd/ft

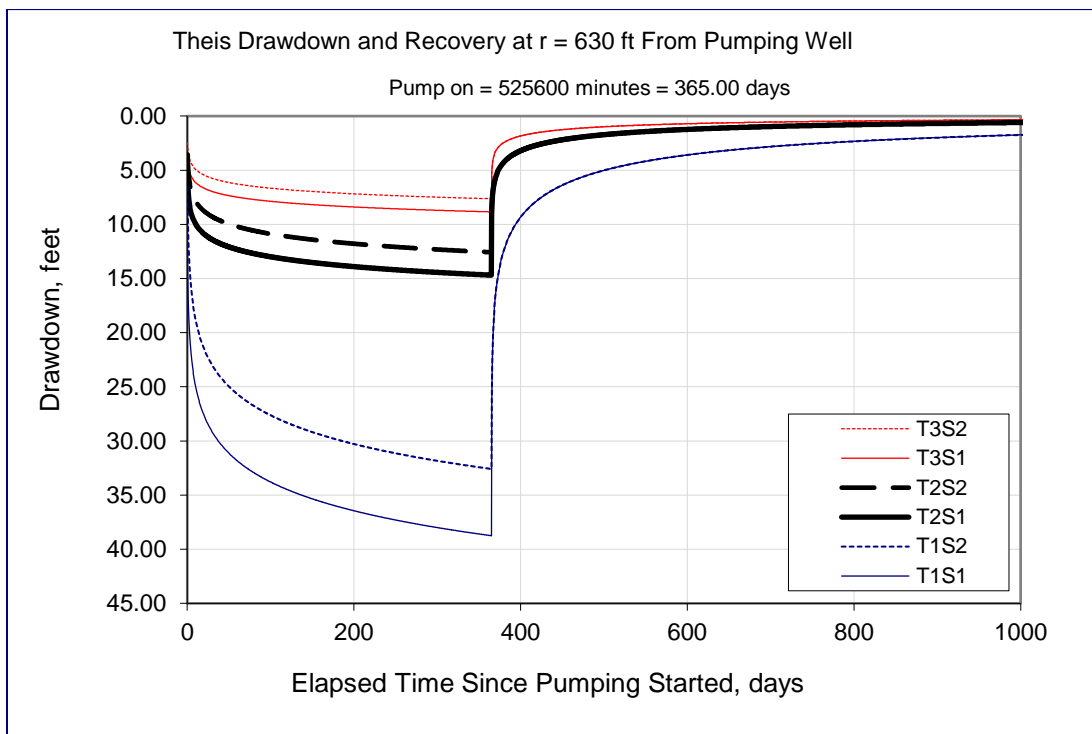
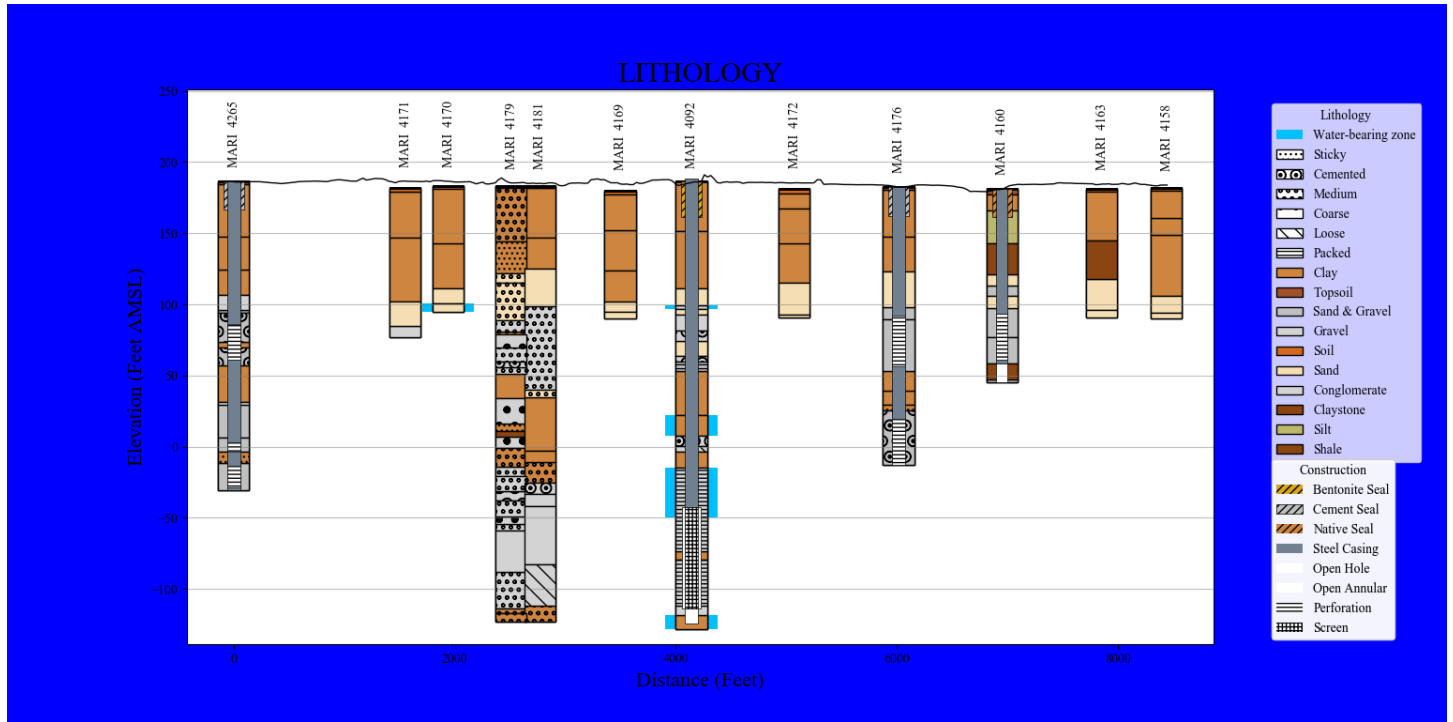




Figure 5. Well Logs



**Figure 6. Stream Depletion Model Parameters and Output**

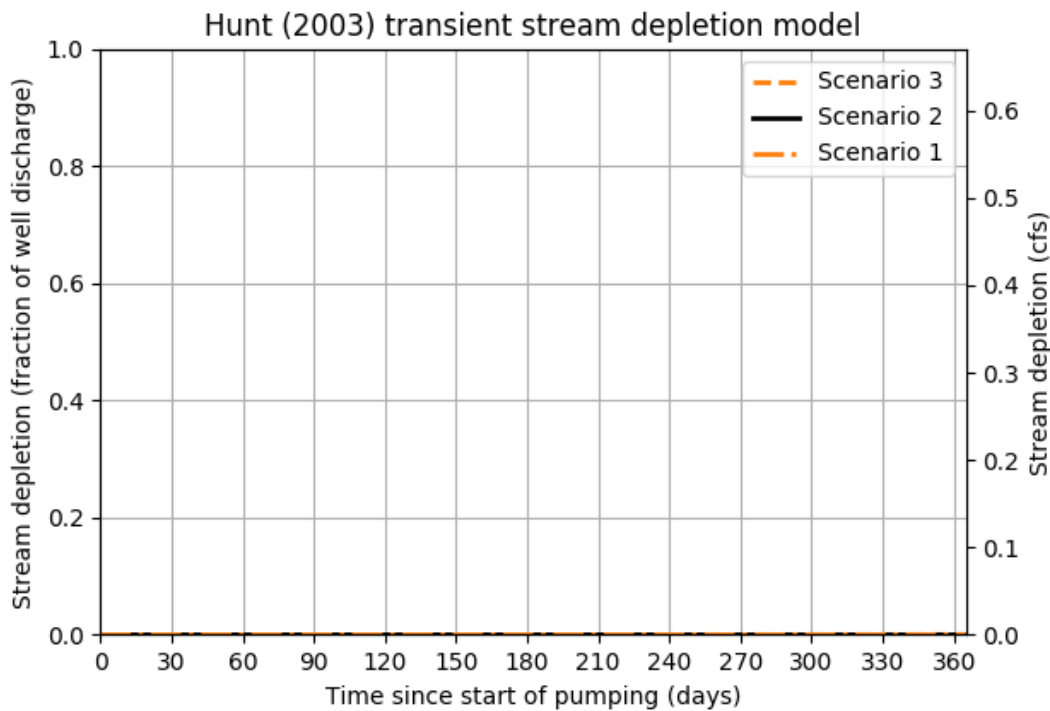
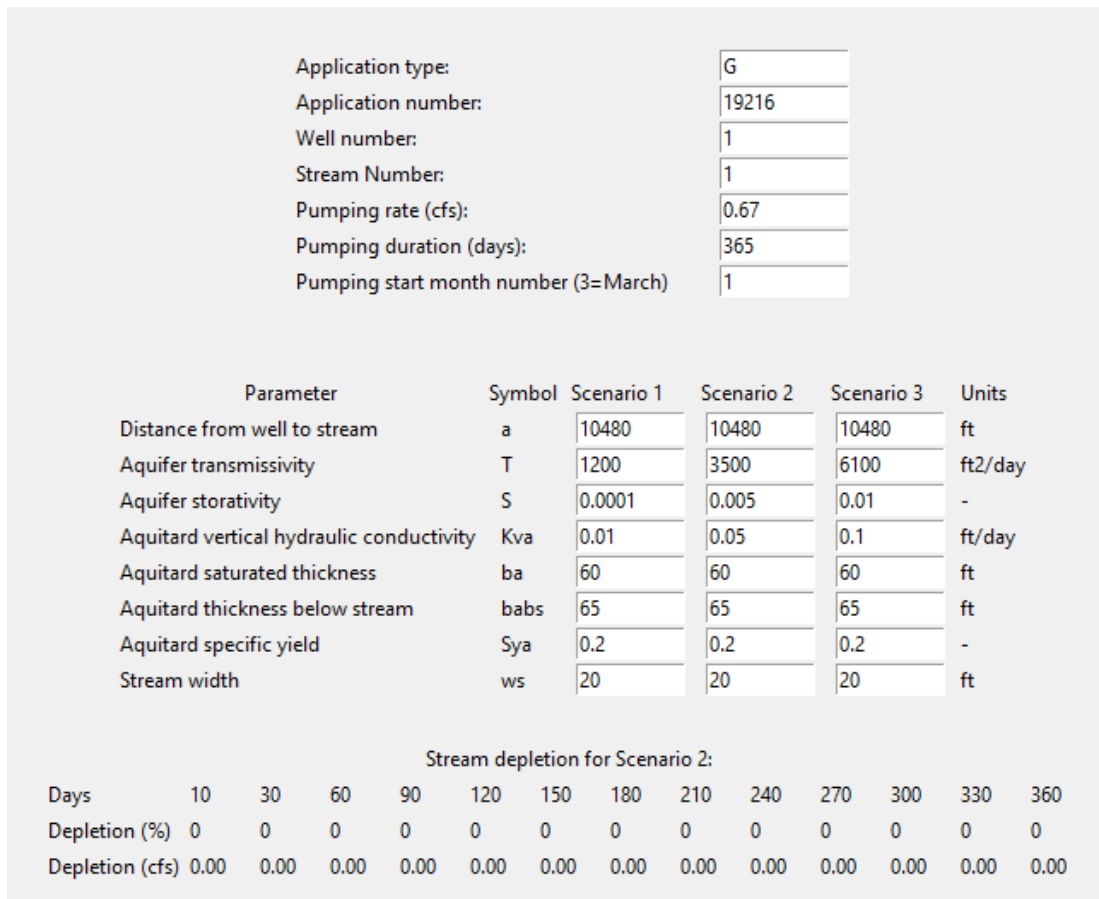


Figure 7a. Water Availability Report – WID # 151

## Water Availability Analysis Detailed Reports

PUDDING R > MOLALLA R - AB MILL CR  
WILLAMETTE BASIN

Water Availability as of 9/20/2022

Watershed ID #: 151 ([Map](#))

Exceedance Level:

Date: 9/20/2022

Time: 3:40 PM



### 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	1,040.00	125.00	915.00	0.00	36.00	879.00
FEB	1,180.00	114.00	1,070.00	0.00	36.00	1,030.00
MAR	1,010.00	76.50	933.00	0.00	36.00	897.00
APR	787.00	52.40	735.00	0.00	36.00	699.00
MAY	425.00	50.90	374.00	0.00	36.00	338.00
JUN	224.00	73.00	151.00	0.00	36.00	115.00
JUL	109.00	115.00	-5.88	0.00	36.00	-41.90
AUG	71.00	94.10	-23.10	0.00	36.00	-59.10
SEP	67.30	53.40	13.90	0.00	36.00	-22.10
OCT	91.60	11.50	80.10	0.00	36.00	44.10
NOV	363.00	48.60	314.00	0.00	36.00	278.00
DEC	957.00	118.00	839.00	0.00	36.00	803.00
ANN	706,000.00	56,300.00	650,000.00	0.00	26,100.00	626,000.00

Figure 7b. Water Availability Report – WID # 182

## Water Availability Analysis Detailed Reports

WILLAMETTE R > COLUMBIA R - AB MOLALLA R  
WILLAMETTE BASIN

Water Availability as of 9/21/2022

Watershed ID #: 182 ([Map](#))  
Date: 9/21/2022

Exceedance Level: 80%   
Time: 12:02 AM



### 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	21,400.00	2,300.00	19,100.00	0.00	1,500.00	17,600.00
FEB	23,200.00	7,480.00	15,700.00	0.00	1,500.00	14,200.00
MAR	22,400.00	7,260.00	15,100.00	0.00	1,500.00	13,600.00
APR	19,900.00	6,910.00	13,000.00	0.00	1,500.00	11,500.00
MAY	16,600.00	4,250.00	12,300.00	0.00	1,500.00	10,800.00
JUN	8,740.00	1,980.00	6,760.00	0.00	1,500.00	5,260.00
JUL	4,980.00	1,810.00	3,170.00	0.00	1,500.00	1,670.00
AUG	3,830.00	1,650.00	2,180.00	0.00	1,500.00	680.00
SEP	3,890.00	1,390.00	2,500.00	0.00	1,500.00	997.00
OCT	4,850.00	751.00	4,100.00	0.00	1,500.00	2,600.00
NOV	10,200.00	886.00	9,310.00	0.00	1,500.00	7,810.00
DEC	19,300.00	971.00	18,300.00	0.00	1,500.00	16,800.00
ANN	15,200,000.00	2,250,000.00	13,000,000.00	0.00	1,090,000.00	11,900,000.00