

# Groundwater Application Review Summary Form

Application # G- 18511

GW Reviewer J. Woody Date Review Completed: 4-10-2018

### 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, [Signature]

# MEMO

**To:** Kristopher Byrd, Well Construction and Compliance Section Manager  
**From:** Joel Jeffery, Well Construction Program Coordinator  
**Subject:** Review of Water Right Application G-18511  
**Date:** September 19, 2018

The attached application was forwarded to the Well Construction and Compliance Section by Water Rights. Jen Woody reviewed the application. Please see Jen's Groundwater Review and the Well Logs.

Applicant's Well #1 (LINN 10808): Based on a review of the Well Report, Applicant's Well #1 does not appear to comply with current minimum well construction standards (See OAR 690 Division 210). According to the report, bentonite grout was used as an annular seal material. Bentonite grout is not an approved sealing material for water supply wells. In order to meet minimum well construction standards, the well must be resealed to a minimum depth of 18 feet below land surface with an approved grout.

My recommendation is that the Department **not issue** a permit for Applicant's Well #1 (LINN 10808) unless it is brought into compliance with current minimum well construction standards or information is provided showing that it is in compliance with current minimum well construction standards.

Bringing Applicant's Well #1 into compliance with minimum well construction standards may not satisfy hydraulic connection issues.

RECEIVED

JUN 22 1981

WATER RESOURCES DEPT SALEM, OREGON

LINN 10808

State Well No. 125/4w-33

State Permit No.

WATER WELL REPORT STATE OF OREGON

(1) OWNER:

Name William E. Radke Address 31014 Green Valley Rd., Shedd, Or. City State

(2) TYPE OF WORK (check):

New Well [X] Deepening [ ] Reconditioning [ ] Abandon [ ]

If abandonment, describe material and procedure in Item 12.

(3) TYPE OF WELL:

Rotary Air [ ] Driven [ ] Rotary Mud [ ] Dug [ ] Bored [ ]

(4) PROPOSED USE (check):

Domestic [ ] Industrial [ ] Municipal [ ] Irrigation [X] Test Well [ ] Other [ ] Thermal: [ ] Withdrawal [ ] ReInjection [ ]

(5) CASING INSTALLED:

Steel [ ] Threaded [ ] Plastic Welded [X] .0250 Gauge Diam. from +16" ft. to 118'08" ft.

LINER INSTALLED:

Diam. from ft. to ft. Gauge

(6) PERFORATIONS:

Perforated? [X] Yes [ ] No Type of perforator used Acetylene Torch Size of perforations 1/2 in. by 12 in. 70 perforations from 106'08" 116'08" ft.

(7) SCREENS:

Well screen installed? [ ] Yes [X] No Manufacturer's Name Type Model No. Diam. Slot Size Set from ft. to ft.

(8) WELL TESTS:

Drawdown is amount water level is lowered below static level pump test made? [ ] Yes [X] No If yes, by whom? gal./min. with ft. drawdown after hrs. Air test gal./min. with drill stem at ft. hrs. Bailer test 88 gal./min. with 4 ft. drawdown after 1 1/2 hrs. Surface flow g.p.m. Temperature of water Depth artesian flow encountered ft.

(9) CONSTRUCTION:

Special standards: Yes [X] No [ ] Well seal—Material used Bentonite Well sealed from land surface to 18 ft. Diameter of well bore to bottom of seal 12 in. Diameter of well bore below seal 8 in. Number of sacks of cement used in well seal 700# Bentonite sacks How was cement grout placed? Placed with a grout pump from the 18' level to the ground surface. Was pump installed? Type HP Depth ft. Was a drive shoe used? [X] Yes [ ] No Plugs Size: location ft. Did any strata contain unusable water? [ ] Yes [X] No Type of Water? depth of strata Method of sealing strata off Was well gravel packed? [ ] Yes [X] No Size of gravel: Gravel placed from ft. to ft.

(10) LOCATION OF WELL:

County Linn Driller's well number 1/4 1/4 Section 33 T. 12S R. 4W W.M. Tax Lot # Lot Blk Subdivision Address at well location:

(11) WATER LEVEL: Completed well.

Depth at which water was first found 33 to 51 ft. Static level 16 ft. below land surface. Date 6-11-81 Artesian pressure lbs. per square inch. Date

(12) WELL LOG:

Diameter of well below casing 8" Depth drilled 155 ft. Depth of completed well 155 ft. Formation: Describe color, texture, grain size and structure of materials; and show thickness and nature of each stratum and aquifer penetrated, with at least one entry for each change of formation. Report each change in position of Static Water Level and indicate principal water-bearing strata.

Table with 4 columns: MATERIAL, From, To, SWL. Rows include Top Soil, Brown Clay, Dark Brown Clay, Brown Sand & Gravel, Brown Clay & Gravel, Blue Clay, Black Sandy Clay, Gray Clay, Gray Clay & Gravel, Blue Sandy Clay & Gravel, Black Sand & Gravel, Gray Clay, Dark Gray Clay.

Work started 6-1 19 81 Completed 6-11 19 81 Date well drilling machine moved off of well 6-15 19 81

Drilling Machine Operator's Certification:

This well was constructed under my direct supervision. Materials used and information reported above are true to my best knowledge and belief. [Signed] Merle Warren Date 6/15/81 (Drilling Machine Operator) Drilling Machine Operator's License No. 436

Water Well Contractor's Certification:

This well was drilled under my jurisdiction and this report is true to the best of my knowledge and belief. Merle Warren Well Drilling, Inc. Name (Person, firm or corporation) (Type or print) Address 3411 Hwy. 99E, Tangent, Or. 97389. [Signed] Merle Warren (Water Well Contractor) Contractor's License No. 182 Date 6-15, 1981

NOTICE TO WATER WELL CONTRACTOR The original and first copy of this report are to be filed with the

WATER RESOURCES DEPARTMENT, SALEM, OREGON 97310 within 30 days from the date of well completion.

SP\*12658-690

**PUBLIC INTEREST REVIEW FOR GROUNDWATER APPLICATIONS**

TO: Water Rights Section Date 4/10/2018  
 FROM: Groundwater Section Jen Woody  
 Reviewer's Name  
 SUBJECT: Application G- 18511 Supersedes review of n/a  
 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: William Radke County: Linn

A1. Applicant(s) seek(s) 0.20 cfs from 1 well(s) in the Willamette Basin,  
 \_\_\_\_\_ subbasin

A2. Proposed use Irrigation of 16 acres Seasonality: March 1- October 31

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	LINN 10808	1	Alluvial Aquifer	0.20	12S/4W-33 SE ¼ NE ¼	238' S, 574' E fr NE cor DLC 42, JH Brattain
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	255	33	16	06/11/1981	155	0-18	0-118	n/a	106-116	88	4	bailer

Use data from application for proposed wells.

A4. **Comments:** \_\_\_\_\_  
 \_\_\_\_\_

A5.  **Provisions of the Willamette (690-502)** \_\_\_\_\_ 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 well is greater than ¼ mile from the Willamette River, so relevant basin rules are not activated.

A6.  **Well(s) #** \_\_\_\_\_, \_\_\_\_\_, \_\_\_\_\_, \_\_\_\_\_, \_\_\_\_\_, tap(s) an aquifer limited by an administrative restriction.  
 Name of administrative area: \_\_\_\_\_  
 Comments: N/A

**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) medium water use reporting conditions, 7C;
  - 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 is located in an area that contains fine-grained sediments from land surface to a depth of 20-30 feet. A 20-40 feet thick sand and gravel layer underlies the fine-grained sediments. 100-140 feet of mostly fine-grained sediments containing thin sand lenses is found at beneath the sand and gravel. This is likely the Lower Sedimentary Unit of Conlon et al. (2005). Most nearby wells produce water from the sand and gravel layer.

As shown in Figure 3, water level data from a nearby well (LINN 10817) show long-term stability.

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**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
<b>1</b>	<b>Alluvium</b>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
		<input type="checkbox"/>	<input type="checkbox"/>
		<input type="checkbox"/>	<input type="checkbox"/>
		<input type="checkbox"/>	<input type="checkbox"/>
		<input type="checkbox"/>	<input type="checkbox"/>

**Basis for aquifer confinement evaluation:** The water level is reported to rise above the water bearing zone per the well log, indicating the aquifer is more confined than unconfined.

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
<b>1</b>	<b>1</b>	<b>Muddy Creek</b>	<b>239</b>	<b>235</b>	<b>4000</b>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
						<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
						<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
						<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
						<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
						<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
						<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
						<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>

**Basis for aquifer hydraulic connection evaluation:** Groundwater elevation is coincident with Muddy Creek, indicating groundwater is connected to nearby streams. Published water table maps show that groundwater flows towards, and discharges into, perennial streams and their tributaries (Woodward et al., 1998).

**Water Availability Basin the well(s) are located within:** Watershed ID #: 30200303, MUDDY CR > E CHANNEL - 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 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?
<b>1</b>	<b>1</b>	<input type="checkbox"/>	<input type="checkbox"/>	<b>N/A</b>	<b>N/A</b>	<input type="checkbox"/>	<b>14.90</b>	<input checked="" type="checkbox"/>	<b>&lt;25%</b>	<input checked="" type="checkbox"/>
		<input type="checkbox"/>	<input type="checkbox"/>			<input type="checkbox"/>		<input type="checkbox"/>		<input type="checkbox"/>
		<input type="checkbox"/>	<input type="checkbox"/>			<input type="checkbox"/>		<input type="checkbox"/>		<input type="checkbox"/>
		<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"/>
		<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:** Stream depletion was calculated using the ranges of S, Kv of the streambed, Kh of the Lower Sedimentary Unit as described in Conlon et al. (2005) and pump test data from LINN 10812. Results, shown in Figure 5, show stream depletion is less than 25% at 30 days for the range of available aquifer parameters.

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.

<b>Non-Distributed Wells</b>													
Well	SW#	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec
		%	%	%	%	%	%	%	%	%	%	%	%
Well Q as CFS													
Interference CFS													
<b>Distributed Wells</b>													
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													
		%	%	%	%	%	%	%	%	%	%	%	%
Well Q as CFS													
Interference CFS													
		%	%	%	%	%	%	%	%	%	%	%	%
Well Q as CFS													
Interference CFS													
(A) = Total Interf.													
(B) = 80 % Nat. Q													
(C) = 1 % Nat. Q													



(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:** \_\_\_\_\_  
 \_\_\_\_\_  
 \_\_\_\_\_  
 \_\_\_\_\_  
 \_\_\_\_\_  
 \_\_\_\_\_  
 \_\_\_\_\_  
 \_\_\_\_\_  
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 \_\_\_\_\_  
 \_\_\_\_\_

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 proposed well would be producing from an aquifer that has been found to be hydraulically connected to surface water at a distance of less than 1 mile. However, the department is unable to find sufficient evidence that the proposed use will have the Potential for Substantial Interference per OAR 690-009.

**References Used:** \_\_\_\_\_  
Conlon and Others, 2005, Ground-Water Hydrology of the Willamette Basin, Oregon, Scientific Report 2005-5168, USGS.  
 \_\_\_\_\_  
Gannett and Caldwell, 1998, Geologic Framework of the Willamette Lowland Aquifer System, Oregon and Washington, USGS Professional Paper 1424-A  
 \_\_\_\_\_  
OWRD groundwater level database, accessed 4/10/2018.  
 \_\_\_\_\_  
Woodward, Gannett and Vaccaro, 1998, Hydrogeologic Framework of the Willamette Lowland Aquifer System, Oregon and Washington, USGS Professional Paper 1424-B  
 \_\_\_\_\_  
U.S. Geological Survey Topographic Maps, Peoria Quadrangle.  
 \_\_\_\_\_  
 \_\_\_\_\_

**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.**

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Figure 1. Water Availability Tables

## Water Availability Analysis Detailed Reports

### MUDDY CR > E CHANNEL - AT MOUTH WILLAMETTE BASIN

Water Availability as of 4/10/2018

Watershed ID #: 30200303 ([Map](#))

Exceedance Level:80%

Date: 4/10/2018

Time: 7:59 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	178.00	2.69	175.00	0.00	0.00	175.00
FEB	203.00	2.47	201.00	0.00	0.00	201.00
MAR	174.00	1.26	173.00	0.00	0.00	173.00
APR	91.30	1.13	90.20	0.00	0.00	90.20
MAY	52.50	1.71	50.80	0.00	0.00	50.80
JUN	35.30	2.52	32.80	0.00	0.00	32.80
JUL	26.10	3.36	22.70	0.00	0.00	22.70
AUG	20.30	2.81	17.50	0.00	0.00	17.50
SEP	14.90	1.95	12.90	0.00	0.00	12.90
OCT	15.20	0.85	14.40	0.00	0.00	14.40
NOV	29.00	1.06	27.90	0.00	0.00	27.90
DEC	113.00	2.46	111.00	0.00	0.00	111.00
ANN	114,000.00	1,470.00	112,000.00	0.00	0.00	112,000.00

Figure 2. Well Location Map

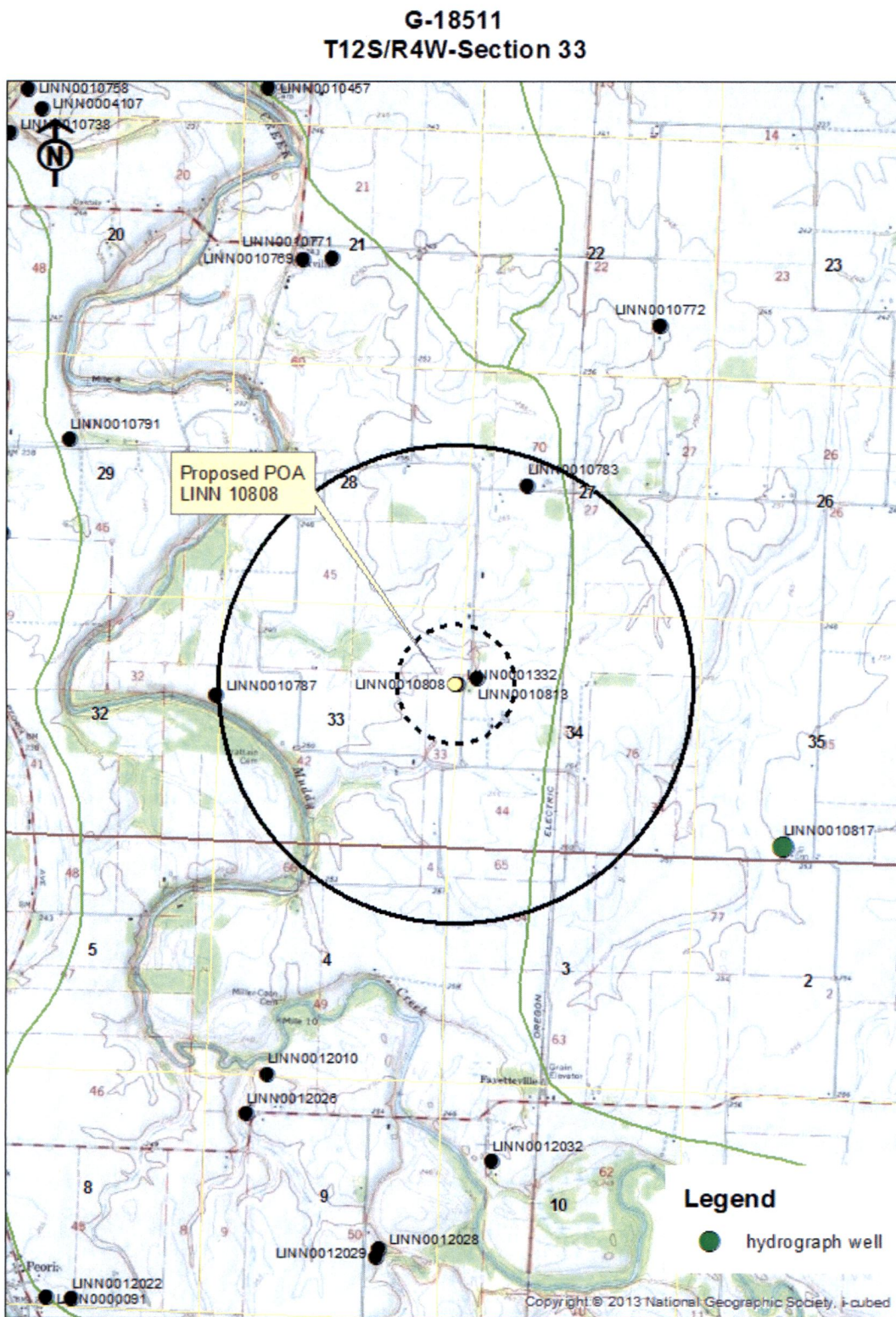


Figure 3. Water level data at nearby well, LINN 10817, show long-term stability in the alluvial aquifer.

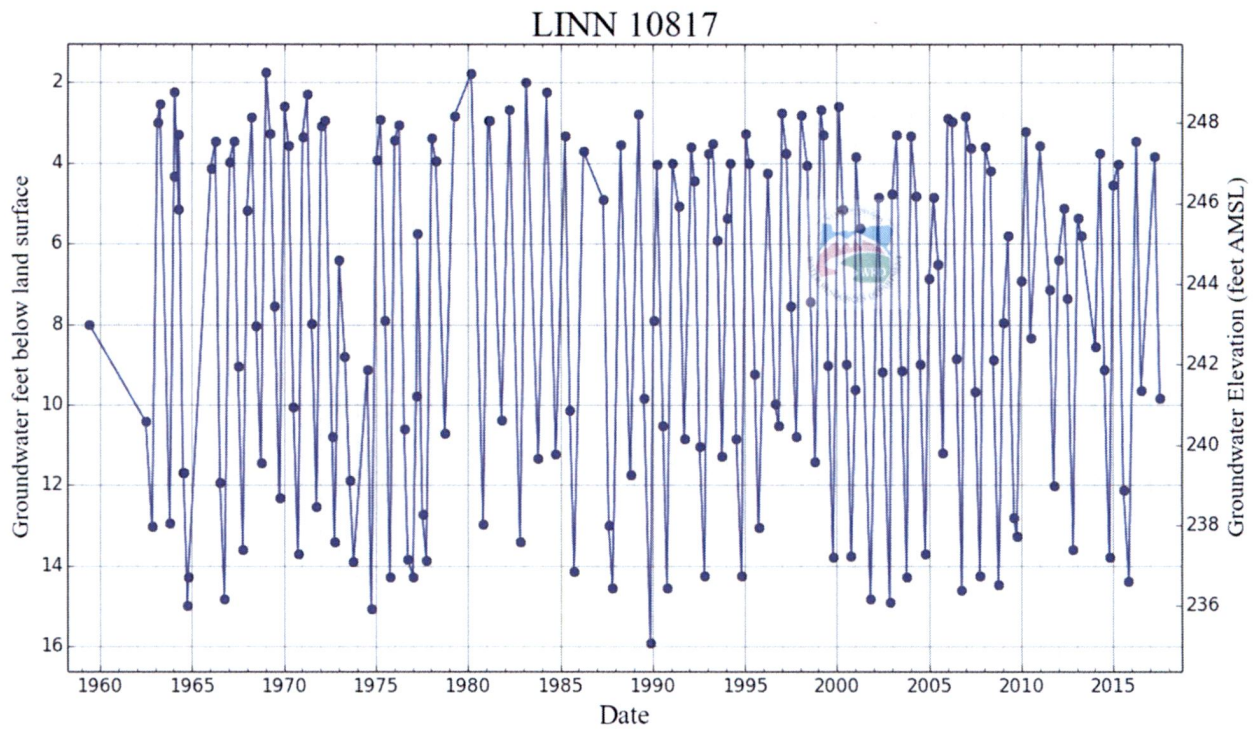


Figure 4. Well Log Statistics T12S/R4W-Sections 27, 28, 33, 34.

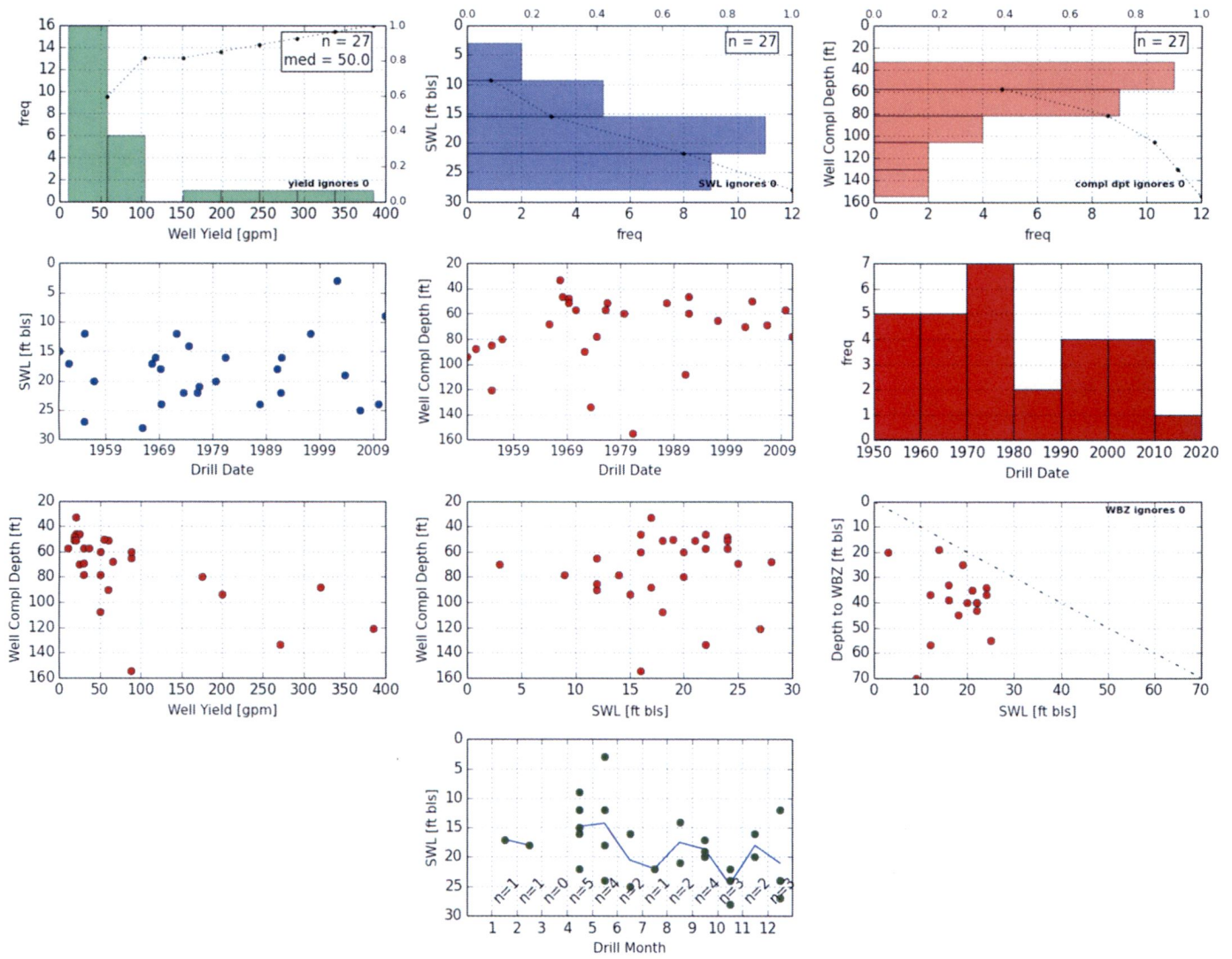
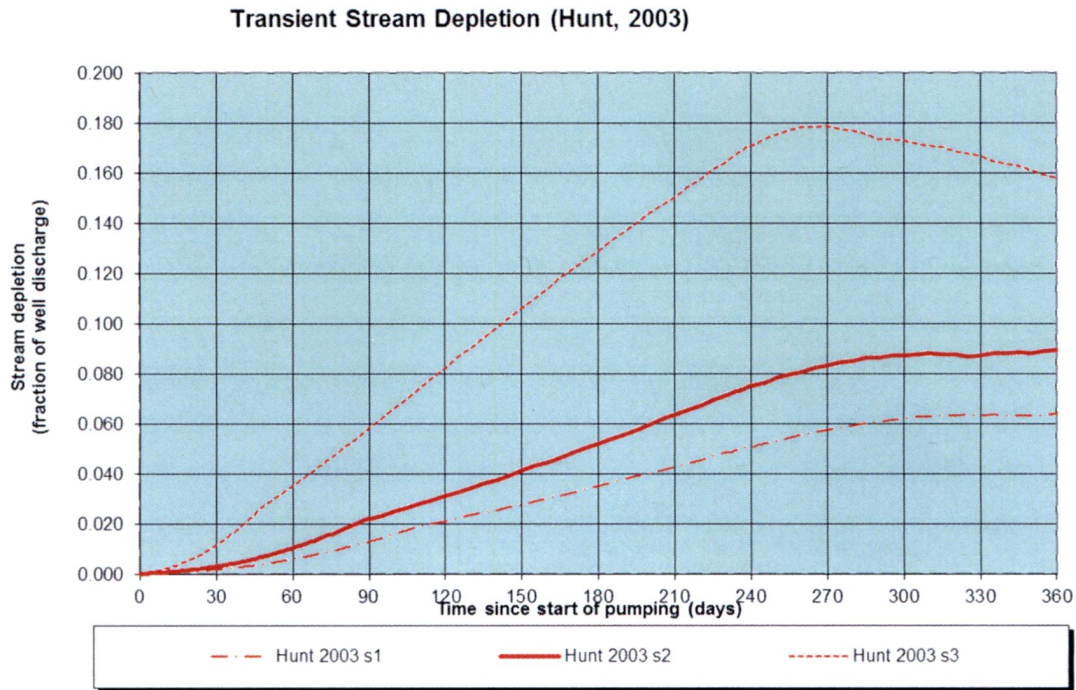


Figure 5. Stream Depletion



Output for Stream Depletion, Scenerio 2 (s2):						Time pump on (pumping duration) = 240 days						
Days	30	60	90	120	150	180	210	240	270	300	330	360
J SD	80.6%	86.2%	88.7%	90.2%	91.2%	92.0%	92.6%	93.1%	12.9%	7.6%	5.4%	4.1%
H SD 1999	63.4%	73.2%	77.8%	80.6%	82.6%	84.0%	85.1%	86.1%	23.4%	14.2%	10.2%	7.9%
H SD 2003	0.31%	1.04%	2.21%	3.12%	4.14%	5.21%	6.36%	7.52%	8.33%	8.74%	8.73%	8.94%
Qw, cfs	0.200	0.200	0.200	0.200	0.200	0.200	0.200	0.200	0.200	0.200	0.200	0.200
H SD 99, cfs	0.127	0.146	0.156	0.161	0.165	0.168	0.170	0.172	0.047	0.028	0.020	0.016
H SD 03, cfs	0.001	0.002	0.004	0.006	0.008	0.010	0.013	0.015	0.017	0.017	0.017	0.018

Parameters:		Scenario 1	Scenario 2	Scenario 3	Units
Net steady pumping rate of well	Qw	0.20	0.20	0.20	cfs
Time pump on (pumping duration)	tpon	240	240	240	days
Perpendicular from well to stream	a	4000	4000	4000	ft
Well depth	d	155	155	155	ft
Aquifer hydraulic conductivity	K	160	220	500	ft/day
Aquifer saturated thickness	b	20	20	20	ft
Aquifer transmissivity	T	3200	4400	10000	ft*ft/day
Aquifer storativity or specific yield	S	0.001	0.001	0.001	
Aquitard vertical hydraulic conductivity	Kva	0.25	0.33	0.67	ft/day
Aquitard saturated thickness	ba	30	30	30	ft
Aquitard thickness below stream	babs	3	3	3	ft
Aquitard porosity	n	0.2	0.2	0.2	
Stream width	ws	20	20	20	ft
Streambed conductance (lambda)	sbc	1.666667	2.200000	4.466667	ft/day
Stream depletion factor	sdf	5.000000	3.636364	1.600000	days

# Standard Application Completeness Checklist

Minimum Requirements (OAR 690-310-0040)(ORS 537.400)

This is the checklist used by WRD staff

Yes No

Application 6-18511 County ~~WASCO~~ Linn Priority Date 5.15.17

Township 12S Range 4W Section 33

Amount 40 gpm Use IRR WM Dist. # 2

Applicant Name JD McGee for William Padke

Receipt No. 123417 Caseworker Assigned:  Barbe  Kim  Lisa  Scott

Contact info: Applicant/Organization Name and Mailing Address

Signature (in ink) of all applicants or the applicant's authorized agent (include title or authority if for an organization or corporation).

Property ownership: Does the applicant own all the land for the proposed project? Y / N

If No:

The affected landowner's name and mailing address must be listed

A signed statement declaring the existence of either written authorization or an easement permitting access to land crossed by the proposed ditch canal or other work must be submitted.

For a SW Application: Source of water must be indicated.

If the source is stored water, is the stored water component filled out and does the applicant own the reservoir or include a non-expired agreement for stored water? (ORS 537.400)

*NOTE: A surface water application cannot be filed at the same time as a Reservoir or Alt Reservoir if it will be for the use of the stored water under the PROPOSED Reservoir application, Exp. Secondary (E2)(ORS 537.147).*

If for stored water not under contract, is the source authorized under a permit, certificate, or decree?

Permit or Certificate issued? Y / N Permit or Certificate # \_\_\_\_\_

For a GW Application: Well Development Tables completed and/or a well log report included (if existing)

Proposed water use

Amount of water from each source in GPM, CFS, or AF

Period of use indicated

If for supplemental irrigation, primary acreage or underlying permit or certificate number listed (Primary and Supplemental Irrigation counts as 2 uses)

Water Management Section (Estimates if the water system has not been designed)

Resource Protection Section (N/A for Groundwater)

For all standard reservoir applications: Preliminary plans and specifications including dam height, width, crest width and surface area for each reservoir.

Project schedule (If system is already completed, indicate "existing.") ✓ (sort of)



- Supplemental data sheets enclosed (if needed)
- Form M (Municipal or Quasi-Municipal)
- Spring Description Sheet (if source is a spring)

N/A

A completed **Land-Use Form** or receipt signed and dated by the appropriate planning department officials. *Please be certain that the Land-Use form lists all lands involved and all uses proposed. Date of signature must be within the past 12 months.*

A **Legal Description** of all the properties involved where water is diverted, crossed, and used. The Legal description includes a metes and bounds or other government survey description. A copy of the deed, land sales contract or title insurance policy can provide this information, or applicant may submit a lot book report prepared by a title company. Copies of tax bills are not acceptable.

TBD

The proposed source **IS / IS NOT** (circle one) restricted or withdrawn from further appropriation. *NOTE: If it is withdrawn under ORS 538, then return application and fees. If it is withdrawn by other means, accept the application and a negative IR will be issued.*

The **map** must meet all the minimum requirements of OAR 690-310-0050.

- Township, Range, Section
- Location of main canals, ditches, pipelines or flumes (if POA/POD is outside of POU)
- Place of use, 1/4-1/4's and tax lot clearly identified
- Even map scale not less than 4" = 1 mile (1" = 1320 ft.); examples: 1" = 100 ft., 1" = 200 ft.
- Location of *each* diversion point, well or dam by reference to a recognized public land survey corner. Multiple wells shall be uniquely labeled, and identified on well logs if existing.
- Reference corner on map
- North Directional Symbol
- Number of acres per 1/4-1/4 if for irrigation, nursery, or agriculture
- For a standard reservoir application to store  $\geq 9.2$  acre feet AND having a dam height  $\geq 10$  feet, map must be prepared by a CWRE

see print out

**Fees:**

Base Fee	\$ _____	Permit Recording Fees	\$ _____
1 <sup>st</sup> CFS @ \$300	\$ _____	Mitigation Fee	\$ _____
____ add'l CFS @ \$300 ea	\$ _____	Rec Fee Total	\$ _____
____ AF up to 20 AF @ \$30 ea	\$ _____	Rec Fee Paid	\$ _____
____ add'l AF @ \$1 ea	\$ _____		
____ add'l <input type="checkbox"/> pod/poa <input type="checkbox"/> use @ _____ ea	\$ _____		
____ add'l res @ \$125 ea	\$ _____		
Exam Fee Total	\$ _____	Total Fees	\$ <u>1700</u>
Exam Fee Paid	\$ _____	Paid	\$ <u>1700</u>
		Amount Due	\$ _____

Reviewed by: B

Date: 5/15/17