

Groundwater Application Review Summary Form

Application # G- 18712

GW Reviewer Jwoody Date Review Completed: 12-19-2018

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.

✓ 12/19/18

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).

MEMO

To: Kristopher Byrd, Well Construction and Compliance Section Manager
From: Joel Jeffery, Well Construction Program Coordinator
Subject: Review of Water Right Application G-18712
Date: December 20, 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: East Airport Well (YAMH 5459 and the repair of YAHM 5459, YAHM 54493):
Based on a review of the Well Reports Applicants Well: East Airport Well seems to protect the groundwater resource.

The construction of Applicants Well: East Airport Well may not satisfy hydraulic connection issues.

PUBLIC INTEREST REVIEW FOR GROUNDWATER APPLICATIONS

TO: Water Rights Section Date 12/19/2018
 FROM: Groundwater Section Jen Woody
 Reviewer's Name
 SUBJECT: Application G- 18712 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: Sarbanand Enterprises, LLC County: Yamhill

A1. Applicant(s) seek(s) 0.31 cfs from 1 well(s) in the Willamette Basin,
Main Stem Willamette River subbasin

A2. Proposed use Irrigation Seasonality: April 1-September 30

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	YAMH 5459/54493	East Airport Well	Alluvium	0.31	T4S/R3W-30 SW NW	1864'S, 621'E fr NW cor S 30
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	158	79	25	10/29/1987	125	0-18	0-100	100-125	110-120	50	23	bail

Use data from application for proposed wells.

A4. **Comments:** none

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 well produces from a confined aquifer, therefore the pertinent rules (OAR 690-502-240) to not apply.

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) 7C, 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 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 wells on this application produce water from the Willamette Aquifer (Woodward et al., 1998), consisting of lenses of sand and gravel interbedded with clays. In this area, the aquifer is 20-40 feet thick; it is overlain by approximately 100 feet of fine-grained Willamette Silt Unit and underlain by Columbia River basalts. The regional water table resides in the Willamette Silt, generally within 10 feet of land surface and the silt acts as a leaky confining unit in relation to the underlying aquifer. Recharge to the aquifer is primarily through the silt unit. Regional discharge is to the Willamette River which is incised completely through the silt unit into the underlying Willamette aquifer. Smaller streams, such as West Fork Palmer Creek, are entrenched in, but do not fully penetrate, the silt unit. Although these smaller streams are hydraulically connected to the underlying aquifer, the connection is very weak because the of the low vertical permeability of the silt that occurs between the streambed and the aquifer. Because the Willamette Confining Unit is confined, pumping impacts will propagate rapidly to aquifer boundaries. The principal boundaries are the Willamette River and the Willamette Silt (diffuse downward seepage over a large area). Smaller streams will be very weak boundaries (diffuse seepage over a small area). Pumping withdrawals will be offset by a decrease in stored water in the aquifer, reduced streamflow in the Willamette River, downward leakage of water from the overlying silt into the aquifer, and reduced streamflow to smaller streams.

Long-term hydrographs in the area show no progressive long-term declines (see Figure 3). Seasonal fluctuations are on the order of 5 feet, approximately 12% of the aquifer thickness. As seasonal fluctuations increase due to increased use, hydraulic interference during the irrigation season will become more pronounced over time and shallow wells may need to be deepened to compensate for these impacts.

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	Willamette Aquifer	<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: There are 100 feet of Willamette Silt overlying and confining the Willamette Aquifer.

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	West Fork Palmer Creek	133	100	3800	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
1	2	Unnamed tributary to Yamhill River	133	130	4300	<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"/>

Basis for aquifer hydraulic connection evaluation: The water level in the subject well is coincident with nearby streambeds, indicating hydraulic connection.

Water Availability Basin the well(s) are located within: Watershed ID #: 30200801 YAMHILL R > WILLAMETTE R - AT MOUTH; Watershed ID #: 188 YAMHILL R > WILLAMETTE R - AB PALMER CR

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?
1	1	<input type="checkbox"/>	<input type="checkbox"/>	N/A	N/A	<input type="checkbox"/>	56.50	<input type="checkbox"/>	<<25%	<input type="checkbox"/>
1	2	<input type="checkbox"/>	<input type="checkbox"/>	N/A	N/A	<input type="checkbox"/>	56.30	<input type="checkbox"/>	<<25%	<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: Impacts to Palmer Creek are evaluated for Watershed ID #: 30200801 YAMHILL R > WILLAMETTE R - AT MOUTH. Impacts to the unnamed tributary to the Yamhill River are evaluated for Watershed ID #: 188 YAMHILL R > WILLAMETTE R - AB PALMER CR.

An analytical stream depletion model (Hunt, 2003) was used to estimate potential depletion of West Fork Palmer Creek (SW#1) and the nearest unnamed tributary to the Yamhill River (SW#2) after 30 days of pumping from Well 1. Stream depletion is less than 3% of the pumping rate after 30 days.

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
		%	%	%	%	%	%	%	%	%	%	%	%
Well Q as CFS													
Interference CFS													
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													
		%	%	%	%	%	%	%	%	%	%	%	%
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: N/A

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. However, the Department finds that the proposed use will not have the Potential for Substantial Interference per OAR 690-009.

References Used:

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.

Hunt, B., 2003, Unsteady stream depletion when pumping from semiconfined aquifer: Journal of Hydrologic Engineering, January/February, 2003.

US Geological Survey Topographic Map, Dundee Quadrangle.

OWRD water level and well log databases, includes reported water levels.

Woodward, D.G., and others, 1998. Hydrogeologic Framework of the Willamette Lowland Aquifer System, Oregon and Washington. USGS Professional Paper 1424-B.

D. WELL CONSTRUCTION, OAR 690-200

D1. Well #: _____ Logid: N/A _____

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

Water Availability Analysis Detailed Reports

YAMHILL R > WILLAMETTE R - AB PALMER CR WILLAMETTE BASIN

Water Availability as of 12/19/2018

Watershed ID #: 188 ([Map](#))

Exceedance Level:80%

Date: 12/19/2018

Time: 9:34 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	1,780.00	58.60	1,720.00	0.00	31.00	1,690.00
FEB	2,010.00	56.70	1,950.00	0.00	31.00	1,920.00
MAR	1,710.00	35.00	1,680.00	0.00	31.00	1,640.00
APR	1,030.00	42.20	988.00	0.00	31.00	957.00
MAY	512.00	56.40	456.00	0.00	31.00	425.00
JUN	229.00	77.10	152.00	0.00	31.00	121.00
JUL	107.00	97.20	9.78	0.00	31.00	-21.20
AUG	66.60	86.40	-19.80	0.00	31.00	-50.80
SEP	56.30	56.00	0.31	0.00	31.00	-30.70
OCT	72.70	15.70	57.00	0.00	31.00	26.00
NOV	465.00	32.00	433.00	0.00	31.00	402.00
DEC	1,640.00	55.80	1,580.00	0.00	31.00	1,550.00
ANN	1,150,000.00	40,400.00	1,100,000.00	0.00	22,500.00	1,080,000

Water Availability Analysis Detailed Reports

YAMHILL R > WILLAMETTE R - AT MOUTH WILLAMETTE BASIN

Water Availability as of 12/19/2018

Watershed ID #: 30200801 ([Map](#))

Exceedance Level:80%

Date: 12/19/2018

Time: 9:35 AM

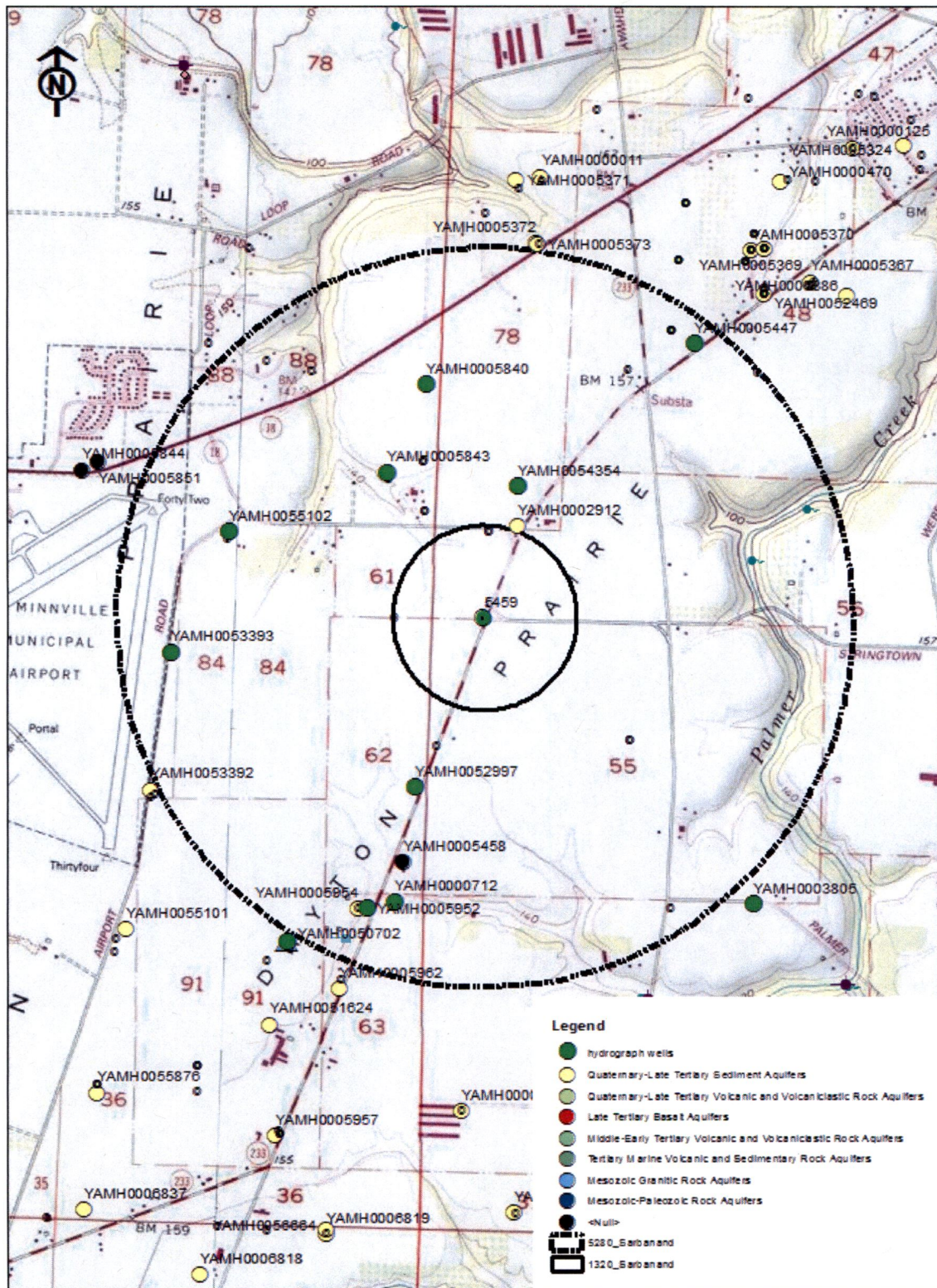
Water Availability Calculation

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	1,840.00	66.70	1,770.00	0.00	31.70	1,740.00
FEB	2,070.00	64.50	2,010.00	0.00	31.70	1,970.00
MAR	1,760.00	40.50	1,720.00	0.00	31.70	1,690.00
APR	1,060.00	48.80	1,010.00	0.00	31.70	980.00
MAY	523.00	66.30	457.00	0.00	31.70	425.00
JUN	232.00	88.70	143.00	0.00	31.70	112.00
JUL	108.00	112.00	-4.14	0.00	31.70	-35.80
AUG	66.90	99.70	-32.80	0.00	31.70	-64.50
SEP	56.50	64.50	-8.02	0.00	31.70	-39.70
OCT	72.50	17.10	55.40	0.00	31.70	23.70
NOV	462.00	38.00	424.00	0.00	31.70	392.00
DEC	1,670.00	63.50	1,610.00	0.00	31.70	1,570.00
ANN	1,180,000.00	46,500.00	1,130,000.00	0.00	23,000.00	1,110,000.00

Figure 2 Well Location Map

G18712 T4S/R3W-Section 30



0 0.125 0.25 0.5 0.75 1 Miles

Figure 3. Water-Level Trends in Nearby Wells. Water levels in nearby alluvial wells are relatively stable, indicating there is capacity for further development of the aquifer.

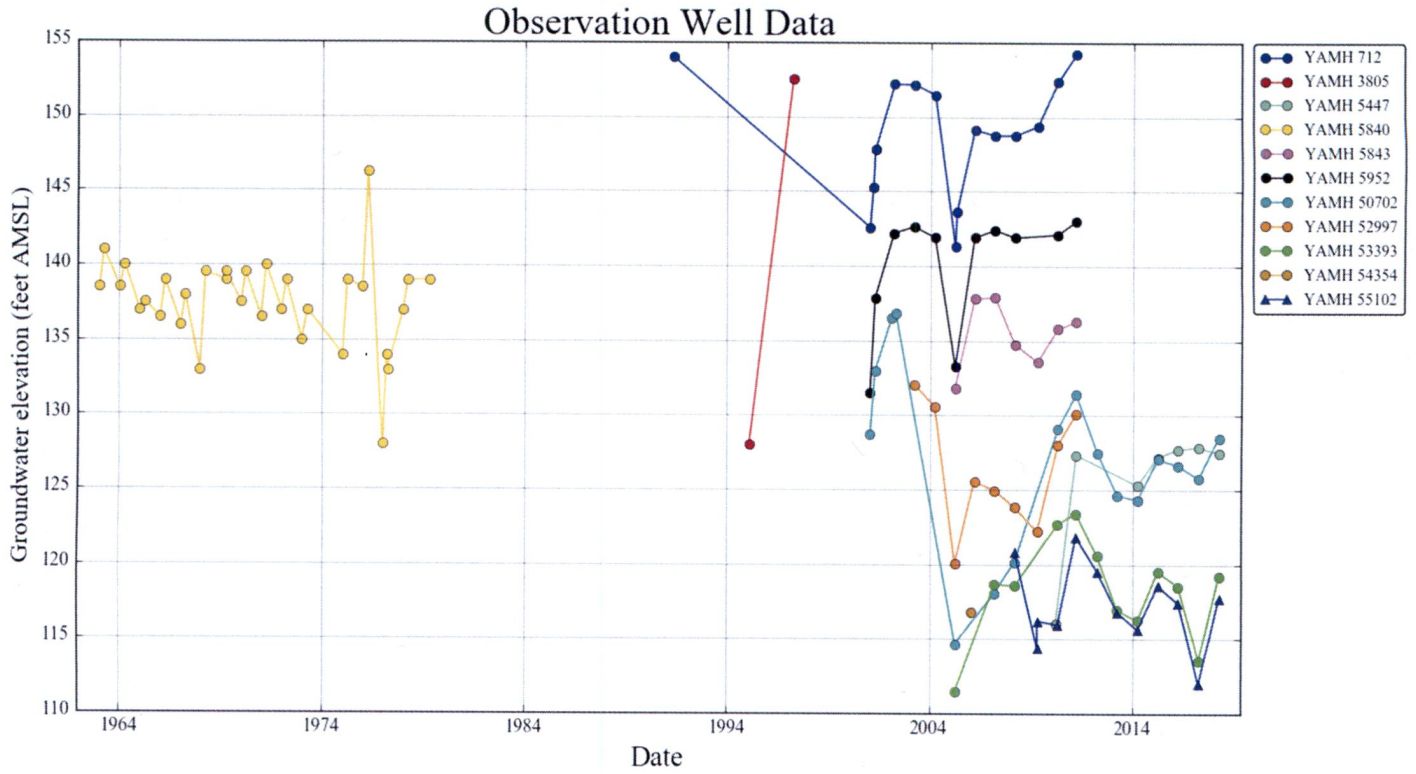
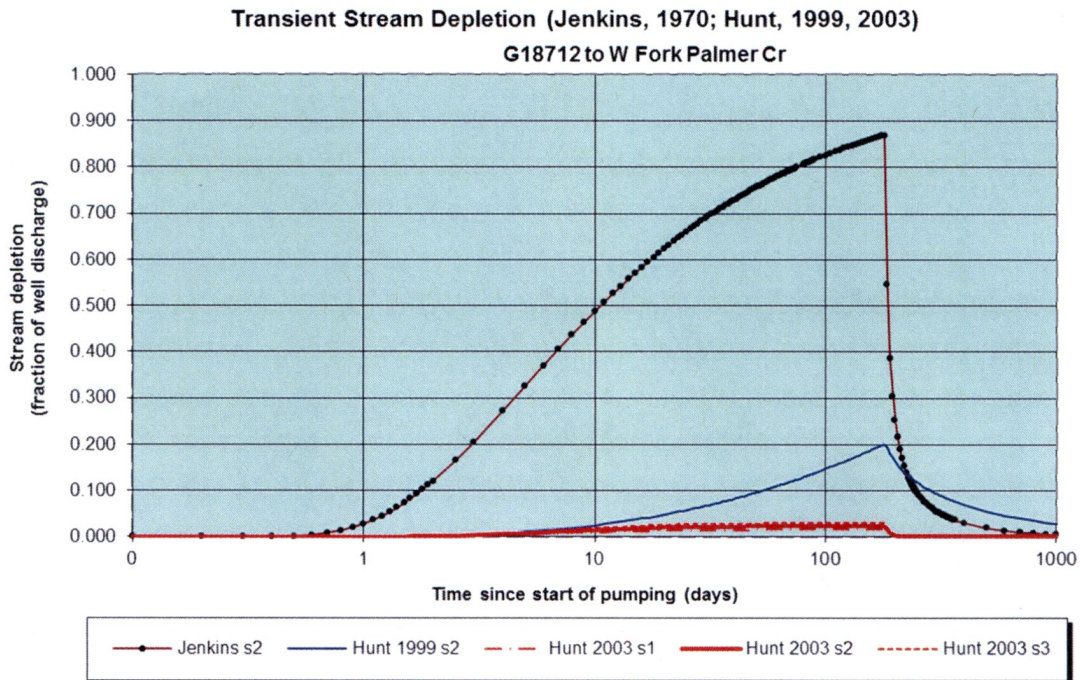


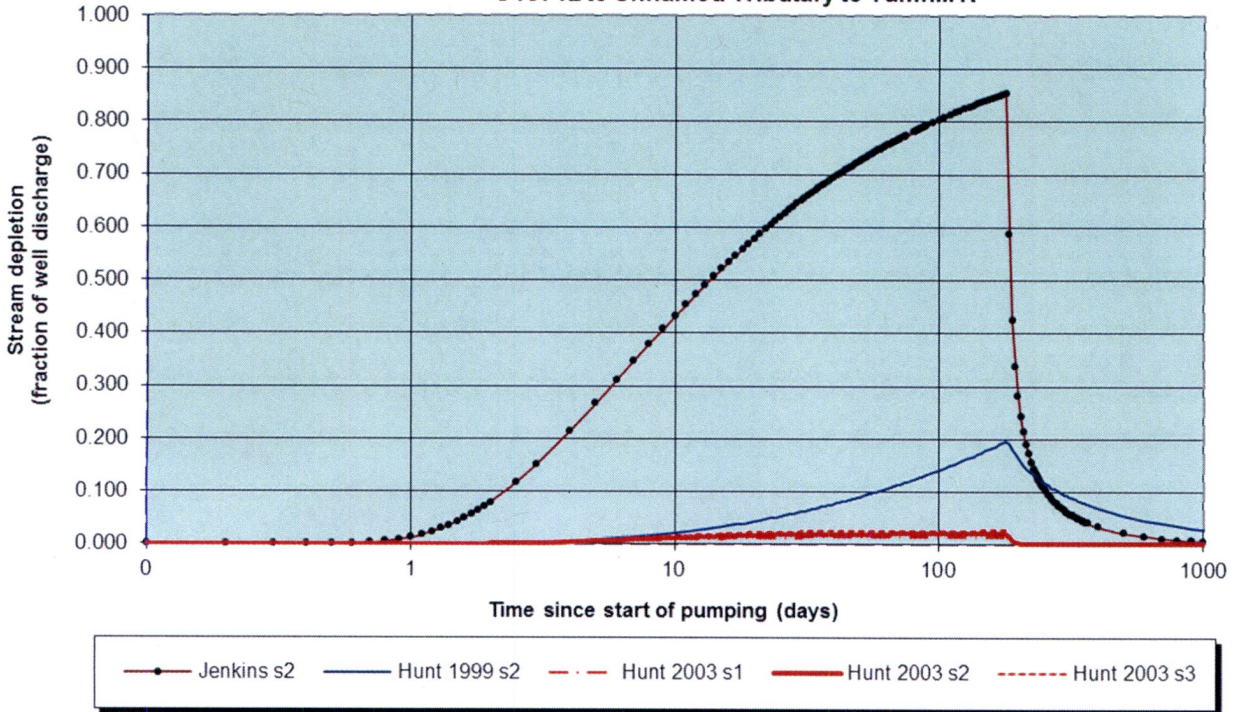
Figure 5. Stream Depletion Model (Hunt 2003) inputs and results.



Output for Stream Depletion, Scenerio 2 (s2):						Time pump on (pumping duration) = 180 days						
Days	30	60	90	120	150	180	210	240	270	300	330	360
J SD	68.9%	77.7%	81.7%	84.1%	85.8%	87.0%	19.1%	11.0%	7.7%	5.8%	4.6%	3.8%
H SD 1999	6.7%	10.8%	13.9%	16.3%	18.4%	20.2%	15.1%	12.5%	10.8%	9.5%	8.6%	7.8%
H SD 2003	2.22%	2.32%	2.35%	2.38%	2.42%	2.45%	0.27%	0.20%	0.19%	0.19%	0.19%	0.19%
Qw, cfs	0.310	0.310	0.310	0.310	0.310	0.310	0.310	0.310	0.310	0.310	0.310	0.310
H SD 99, cfs	0.021	0.034	0.043	0.051	0.057	0.063	0.047	0.039	0.033	0.030	0.027	0.024
H SD 03, cfs	0.007	0.007	0.007	0.007	0.007	0.008	0.001	0.001	0.001	0.001	0.001	0.001

Parameters:		Scenario 1	Scenario 2	Scenario 3	Units
Net steady pumping rate of well	Qw	0.31	0.31	0.31	cfs
Time pump on (pumping duration)	tpon	180	180	180	days
Perpendicular from well to stream	a	3800	3800	3800	ft
Well depth	d	125	125	125	ft
Aquifer hydraulic conductivity	K	50	50	50	ft/day
Aquifer saturated thickness	b	30	30	30	ft
Aquifer transmissivity	T	1500	1500	1500	ft*ft/day
Aquifer storativity or specific yield	S	0.001	0.001	0.001	
Aquitard vertical hydraulic conductivity	Kva	0.01	0.01	0.01	ft/day
Aquitard saturated thickness	ba	100	100	100	ft
Aquitard thickness below stream	babs	3	3	3	ft
Aquitard porosity	n	0.2	0.2	0.2	
Stream width	ws	10	15	20	ft

Transient Stream Depletion (Jenkins, 1970; Hunt, 1999, 2003)
G18712 to Unnamed Tributary to Yamhill R



Output for Stream Depletion, Scenerio 2 (s2):						Time pump on (pumping duration) = 180 days						
Days	30	60	90	120	150	180	210	240	270	300	330	360
J SD	65.0%	74.9%	79.4%	82.1%	83.9%	85.3%	21.4%	12.4%	8.6%	6.5%	5.2%	4.3%
H SD 1999	6.2%	10.3%	13.3%	15.8%	17.8%	19.7%	15.1%	12.5%	10.8%	9.5%	8.6%	7.9%
H SD 2003	1.94%	2.04%	2.07%	2.10%	2.13%	2.16%	0.25%	0.18%	0.18%	0.18%	0.18%	0.18%
Qw, cfs	0.310	0.310	0.310	0.310	0.310	0.310	0.310	0.310	0.310	0.310	0.310	0.310
H SD 99, cfs	0.019	0.032	0.041	0.049	0.055	0.061	0.047	0.039	0.033	0.030	0.027	0.024
H SD 03, cfs	0.006	0.006	0.006	0.007	0.007	0.007	0.001	0.001	0.001	0.001	0.001	0.001

Parameters:		Scenario 1	Scenario 2	Scenario 3	Units
Net steady pumping rate of well	Qw	0.31	0.31	0.31	cfs
Time pump on (pumping duration)	tpon	180	180	180	days
Perpendicular from well to stream	a	4300	4300	4300	ft
Well depth	d	125	125	125	ft
Aquifer hydraulic conductivity	K	50	50	50	ft/day
Aquifer saturated thickness	b	30	30	30	ft
Aquifer transmissivity	T	1500	1500	1500	ft*ft/day
Aquifer storativity or specific yield	S	0.001	0.001	0.001	
Aquitard vertical hydraulic conductivity	Kva	0.01	0.01	0.01	ft/day
Aquitard saturated thickness	ba	100	100	100	ft
Aquitard thickness below stream	babs	3	3	3	ft
Aquitard porosity	n	0.2	0.2	0.2	
Stream width	ws	10	15	20	ft

YAMH 5459
YAMH 5459

4/3W-3060

YAMH
5459

STATE OF OREGON
WATER WELL REPORT
(as required by ORS 537.765)

WATER RESOURCES DEPT.

(1) OWNER:
Name John STOLLER
Address 15041 STOLLER RD
City DAYTON State OR Zip 97114

LOCATION OF WELL by legal description:

County YAMHILL Latitude _____ Longitude _____
Township 4 N or S Range 3 E or W WM.
Section 30 SW 1/4 NW 1/4
Tax Lot _____ Lot _____ Block _____ Subdivision _____
Street Address of Well (or nearest address) DAYTON, OR. CRUKSHANK RD #2

(2) TYPE OF WORK:
 New Well Deepen Recondition Abandon

(3) DRILL METHOD
 Rotary Air Rotary Mud Cable
 Other _____

(4) PROPOSED USE:
 Domestic Community Industrial Irrigation
 Thermal Injection Other FARM USE

(5) BORE HOLE CONSTRUCTION:
Special Construction approval Yes No Depth of Completed Well 120 ft.
Explosives used Yes No Type _____ Amount _____

HOLE SEAL
Diameter From To Material From To Amount
1" 0 125 Cement 0 18 15 sacks or pounds

How was seal placed: Method A B C D E
 Other _____
Backfill placed from _____ ft. to _____ ft. Material _____
Gravel placed from 18 ft. to 125 ft. Size of gravel 3/8" P

(6) CASING/LINER:
Diameter From To Gauge Steel Plastic Welded Threaded
Casing: 6" #1 125
 +1 100
 SDR 26 PVC 120
 100 125
Liner: 200 PSI

Location of shoe(s) _____

(7) PERFORATIONS/SCREENS:
 Perforations Method SKIL SAW
 Screens Type _____ Material _____
From To Slot size Number Diameter Tele/pipe size Casing Liner
110 120 1/4x6 40

(8) WELL TESTS: Minimum testing time is 1 hour
 Pump Bailer Air Flowing Artesian
Yield gal/min Drawdown Drill stem at Time
50 23 _____ 1 hr.

Temperature of water _____ Depth Artesian Flow Found _____
Was a water analysis done? Yes By whom _____
Did any strata contain water not suitable for intended use? Too little
 Salty Muddy Odor Colored Other _____
Depth of strata: _____

(10) STATIC WATER LEVEL:
25 ft. below land surface. Date 10/29/87
Artesian pressure _____ lb. per square inch. Date _____

(11) WATER BEARING ZONES:
Depth at which water was first found 79

From	To	Estimated Flow Rate	SWL
79	84	2.3	
95	102	9.11	
105	110	15	
105	121	45	

(12) WELL LOG: Ground elevation _____

Material	From	To	SWL
TOP SOIL	0	1	
BROWN CLAY	1	14	
STICKY BLUE CLAY	14	43	
BLUE CLAY w/ SOME FINE SAND	43	79	
Med Sand in CLAY	79	84	
BLUE CLAY	84	95	
BLUE CLAY w/ COARSE SAND	95	102	
STICKY BLUE CLAY	102	105	
CLAY w/ GRAVEL & SAND	105	110	
COARSE GRAVEL & SAND in CLAY	110	121	25
STICKY BLUE CLAY	121	125	

Date started 10/26/87 Completed 10/29/87

(unbonded) Water Well Constructor Certification:
I certify that the work I performed on the construction, alteration, or abandonment of this well is in compliance with Oregon well construction standards. Materials used and information reported above are true to my best knowledge and belief.
Signed David J. Paysinger WWC Number 1438 Date 10/29/87

(bonded) Water Well Constructor Certification:
I accept responsibility for the construction, alteration, or abandonment work performed on this well during the construction dates reported above. All work performed during this time is in compliance with Oregon well construction standards. This report is true to the best of my knowledge and belief.
Signed Robert J. Hulbert WWC Number 417 Date 10-29-87

YAMH 54493

State of Oregon
WATER WELL REPORT (as required by ORS 537.765)

Page 1 of 1

State Well ID L82396
Start Card # 184204

(1) OWNER: Well No. 2455
Name EVERGREEN AGRICULTURAL ENT.
Address 3850 NE THREE MILE LANE
City MCMINNVILLE St OR Zip 97128

(9) LOCATION OF WELL by legal description:
County YAMHILL Lat. 45° 11' 77" Long. 123° 06' 79"
Township 4 S Range 3 W WM.
Section 30 NW 1/4 NW 1/4
Tax Lot 4425 Lot 100 Block Subdivision
Street Address of Well (or nearest Address)
CRUICKSHANK RD DAYTON, OR

(2) TYPE OF WORK: ~~RECONDITION~~ repair
(3) DRILL METHOD: NA
(4) PROPOSED USE: DOMESTIC

(10) STATIC WATER LEVEL:
_____ ft. below land surface. Date _____
Artesian pressure _____ lb per square in. Date _____

(5) BORE HOLE CONSTRUCTION:

Special Construction Approval NO	Depth of Compl. Well	125 ft
Explosives used NO	Type _____	Amount _____
HOLE SEAL		
Diam.	From To	Material From To Amount
11	0 4	BENTONITE CHIP 0 4 3 SAX

(11) WATER BEARING ZONES:

Depth at which water was first found	NA	From	To	Est Flow Rate	SWL
_____	_____	_____	_____	_____	_____
_____	_____	_____	_____	_____	_____
_____	_____	_____	_____	_____	_____

Seal placement method POURED/HYDRATED
Backfill: from _____ ft to _____ ft Material _____
Gravel: from _____ ft to _____ ft Size _____

(12) WELL LOG:
Ground elevation 154

Material	From	To	SWL
REPAIRED 6" PVC CASING CHIPPED AT GROUND LEVEL BY FARM TRACTOR. DUG AROUND CASING TO REMOVE CEMENT SEAL TO INSPECT CASING FOR DAMAGE. NO DAMAGE FOUND BEYOND CHIP AT GROUND LEVEL. CASING TRIMMED 2' BELOW SURFACE AND COUPLER GLUED ALONG WITH 4' PIECE OF SCH 40 6". 10" STEEL PROTECTIVE CASING INSTALLED AROUND PVC. BENTONITE CHIPS PLACED AROUND AND IN BETWEEN BOTH CASINGS. ID BADGE ATTACHED TO EXTERIOR OF 10" CASING. BOTH CASINGS CAPPED. ORIGINAL LOG YAMH5459	_____	_____	_____

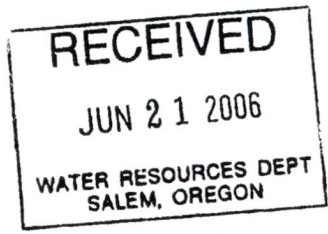
(6) CASING/LINER:

Casing	Diam.	From To	Gauge	Material	Connection
6	+2	2	SCH40	PLASTIC	WELDED
10	+2.5	4	.25	STEEL	WELDED

Liner _____
Final Location of shoe(s) _____

DAVE PAYSINGER, BLUE WATER DRILLING CO.
(503) 868-7878

Date started 06/02/06 Completed 06/03/06



(7) PERFORATIONS/SCREENS:

From	To	Slot Size	Number	Diam.	Material	Tele/pipe Size	Casing/liner
_____	_____	_____	_____	_____	_____	_____	_____

(unbonded) Water Well Constructor Certification: I certify that the work I performed on the construction, alteration, or abandonment of this well is in compliance with Oregon water supply well construction standards. Materials used and information reported above are true to my best knowledge and belief.

Signed _____ WWC Number _____
Date _____

(8) WELL TESTS: Minimum testing time is 1 hour

Test type	Yield GPM	Draw-down	Drill stem at	Time 1 hr.
_____	_____	_____	_____	_____

Temperature of water _____ Depth Artesian Flow Found _____
Was water analysis done? NO By whom _____
Reason for water not suitable for use _____
Depth of strata _____

(bonded) Water Well Constructor Certification: I accept responsibility for the construction, alteration, or abandonment work performed on this well during the construction dates reported above. All work performed during this time is in compliance with Oregon water supply well construction standards. This report is true to the best of my knowledge and belief.

Signed *David B. Paysinger* WWC Number 1438
Date 06/06/06

YAMH 5459

For Official Use Only:

Received Date:

01/06/98

County Well Log ID No.

YAMH 48
~~YAMH 5459 5459~~

Well Identification Tag No.

L 21406

WELL IDENTIFICATION APPLICATION FORM

BUYER/CURRENT WELL OWNER:

Name: CURT JOHNSTON

Mailing Address: 11320 SE LAFAYETTE HIGHWAY

City: DAYTON State: OR Zip: 97114 Phone:

WELL LOCATION:

County: YAMHILL Owner's Well Number: B

Township: 4 N or S SOUTH Range: 3 E or W WEST Section: 31 NE 1/4 SW 1/4

Tax Lot #: 1100 Type of Well: water supply monitoring

Backup for A

Street Address of Well (if different from above): 11320 SE LAFAYETTE HIGHWAY

DAYTON, OR 97114

WELL INFORMATION: (do not complete remainder of application if well log is available)

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:

Lisa Juul
Well Identification Program
Oregon Water Resources Department
158 12th Street NE
Salem, OR 97310