

PUBLIC INTEREST REVIEW FOR GROUND WATER APPLICATIONS

TO: Water Rights Section Date October 8, 2004
 FROM: Ground Water/Hydrology Section Michael Zwart
Reviewer's Name
 SUBJECT: Application G- 16318 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 ground water 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: Polehn Family Trust County: Wasco

A1. Applicant(s) seek(s) 1.48 cfs from one well(s) in the Hood Basin,
 _____ subbasin Quad Map: The Dalles South

A2. Proposed use: Irrigation, 118.2 ac (P & S) Seasonality: March 1 to 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	Proposed	1	CRB	1.48	1N/13E-35 SW-SW	660' E, 1005' N fr SW cor S 35
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	900	25	Flow		3-400	0-45	0-45	0-110	None			

Use data from application for proposed wells.

A4. Comments: WASC 2685 was provided as an example, but the applicant will likely drill deeper. A flowing artesian well is expected; likely head of 940 to 960 feet.

A5. Provisions of the Hood Basin rules relative to the development, classification and/or management of ground water hydraulically connected to surface water are, or are not, activated by this application. (Not all basin rules contain such provisions.)
 Comments: _____

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

app no G 16318

C. GROUND WATER/SURFACE WATER CONSIDERATIONS, OAR 690-09-040

C1. 690-09-040 (1): Evaluation of aquifer confinement:

Well	Aquifer or Proposed Aquifer	Confined	Unconfined
1	Basalt of the Columbia River Basalt Group	<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: In this area, basalt aquifers are typically confined. The head is likely to be above land surface by 40 to 60 feet.

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	Fivemile Creek	950	880	300	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
1	2	Japanese Hollow	950	1000	3100	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
1	3	Eightmile Creek	950	900	9700	<input type="checkbox"/>	<input checked="" 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"/>

Basis for aquifer hydraulic connection evaluation: All nearby stream reaches are above the elevation of the shallowest water-bearing zone that is likely targeted. Hydraulic connection is likely at downstream reaches of the creeks and/or the Columbia River. However, I am not able to estimate these distances, due to the uncertain dip of beds. Water level trends at nearby wells also suggest that hydraulic connection is poor or distant from the wells.

Water Availability Basin the well(s) are located within: Fivemile Cr > Eightmile Cr at mouth (30410535).

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?
		<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"/>

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 #		Q _w > 5 cfs?	Instream Water Right ID	Instream Water Right Q (cfs)	Q _w > 1% ISWR?	80% Natural Flow (cfs)	Q _w > 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: This section does not apply.

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													
		%	%	%	%	%	%	%	%	%	%	%	%
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: This section does not apply.

Multiple horizontal lines for data entry.

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 ground water 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 _____

Multiple horizontal lines for SW / GW Remarks and Conditions.

References Used: Local well logs; local knowledge; reviews of nearby files; personal communication with Marc Norton.

Multiple horizontal lines for additional references.

D. WELL CONSTRUCTION, OAR 690-200

D1. Well #: 1 Logid: Proposed

D2. THE WELL does not 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:

- a. constitutes a health threat under Division 200 rules;
- b. commingles water from more than one ground water reservoir;
- c. permits the loss of artesian head;
- d. permits the de-watering of one or more ground water reservoirs;
- e. other: (specify) _____

D4. THE WELL construction deficiency is described as follows: _____

- D5. THE WELL
- a. was, or was not constructed according to the standards in effect at the time of original construction or most recent modification.
 - b. I don't know if it met standards at the time of construction.

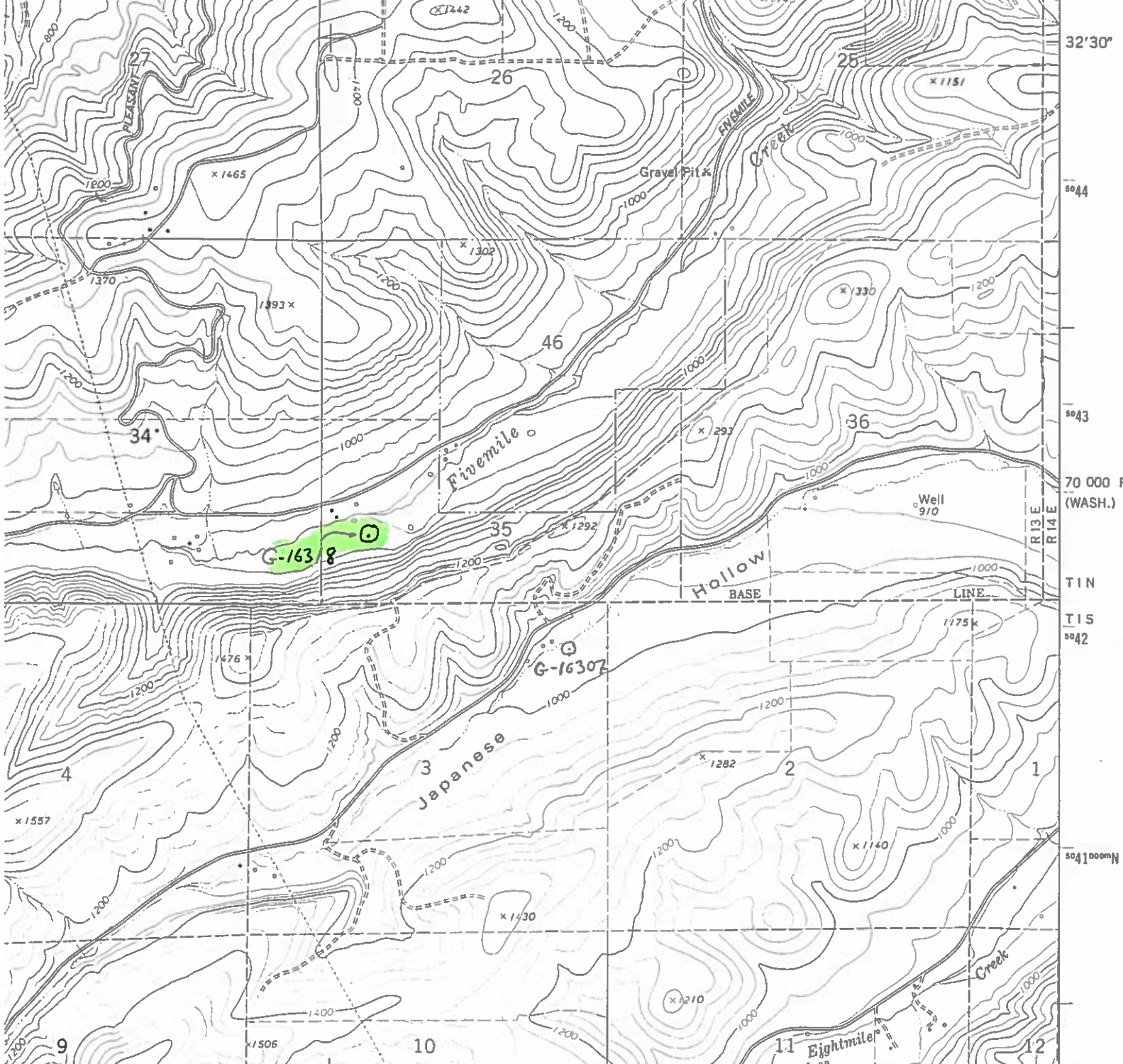
D6. Route to the Enforcement Section. I recommend withholding issuance of the permit until evidence of well reconstruction is filed with the Department and approved by the Enforcement Section and the Ground Water Section.

THIS SECTION TO BE COMPLETED BY ENFORCEMENT PERSONNEL

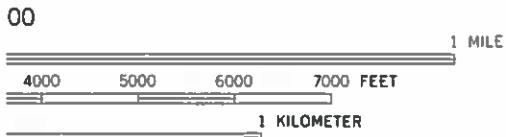
D7. Well construction deficiency has been corrected by the following actions: _____

_____, 200_____
(Enforcement Section Signature)

D8. Route to Water Rights Section (attach well reconstruction logs to this page).



7) 42 43 10' 1 830 000 FEET (WASH.) 121°07'30"



1.40 FEET
 DATUM OF 1929
 INCHES IN FEET
 TYPICAL POOL ELEVATION 72 FEET
 TYPICAL POOL ELEVATION 160 FEET



QUADRANGLE LOCATION

MAP ACCURACY STANDARDS
 COLORADO 80225, OR RESTON, VIRGINIA 22092
 ADDITIONAL SYMBOLS IS AVAILABLE ON REQUEST

ENDERSBY 0.7 MI. INTERIOR-GEOLOGICAL SURVEY, RESTON, VIRGINIA-1978 121°07'30"

ROAD CLASSIFICATION

- Primary highway, hard surface _____
- Light-duty road, hard or improved surface _____
- Secondary highway, hard surface _____
- Unimproved road _____
- Interstate Route
- ◻ U. S. Route
- State Route

THE DALLES SOUTH, OREG.—WASH.
 SW/4 THE DALLES 15' QUADRANGLE
 N4530—W12107.5/7.5

1977

AMS 1775 II SW—SERIES V892

DUPLICATE

Ground Water



Oregon Water Resources Department
(503) 378-8455 • 158 12th St. NE, Salem, OR 97310



Hydrograph for State Well WASC 2672, State Observation Well # 1030

Well Location	1.00N
Oregon Water Resources Department Well Log ID	
Oregon Water Resources Department State Observation Well Number	
Well depth, in feet below land surface	
Land surface elevation, in feet above mean sea level	
Primary use of well	not

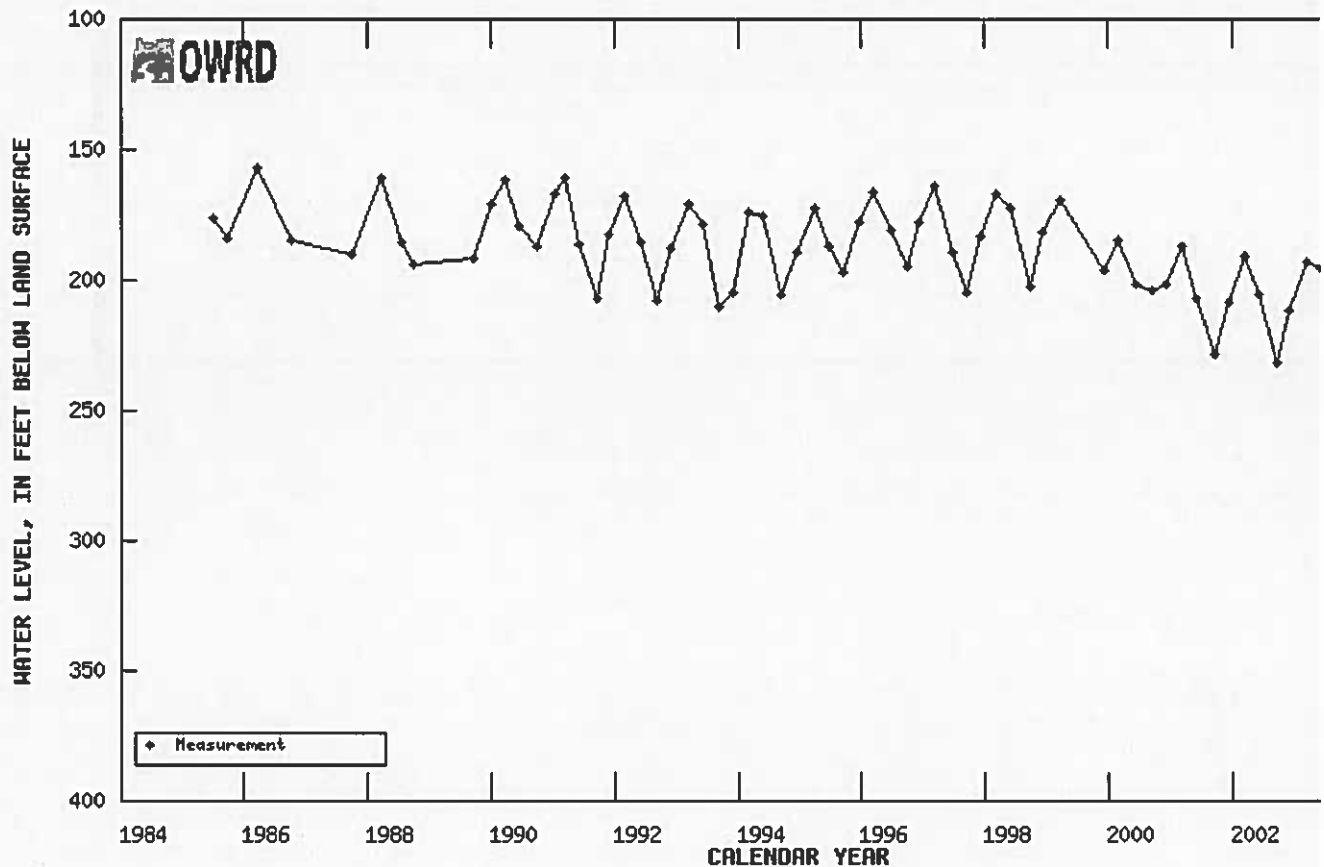








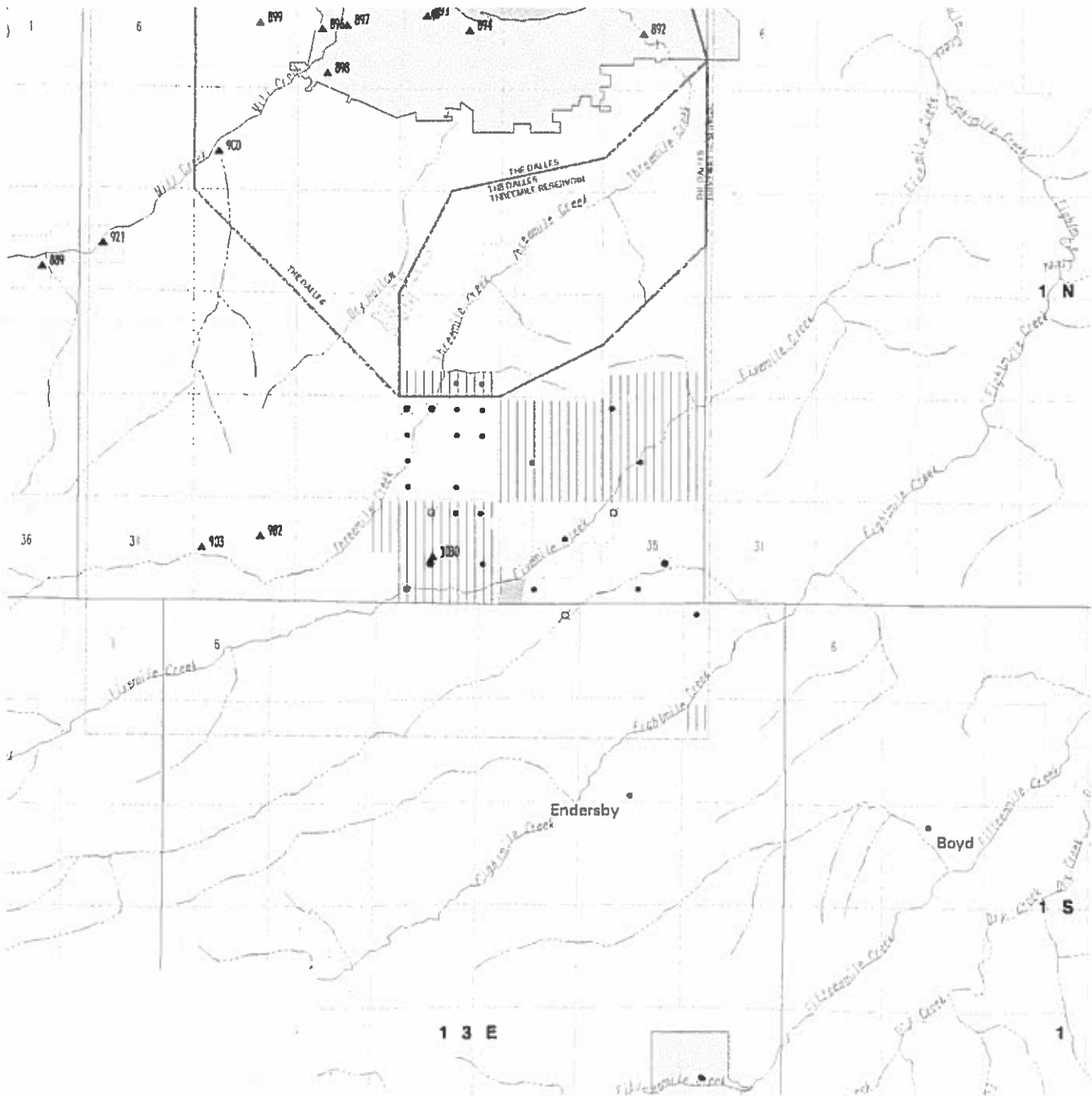


Table showing water-level data for State Well WASC 2672, State Observation Well # 1030

Wells in the vicinity of application G 16318

- | | | | |
|---|---|---|---|
|  Application well(s) in this 1/4-1/4 section |  Well(s) identified in this 1/4-1/4 section from OWRD's well log database within 1 mi. radius of application well(s) |  Conditioned, permitted well(s) in this 1/4-1/4 section within 5 mi. radius of application well(s) |  Critical GW Area |
|  Well(s) identified in this section from OWRD's well log database within 1 mi. radius of application well(s) |  Permitted well(s) in this 1/4-1/4 section within 1 mi. radius of application well(s) |  OWRD Observation well and well-id within 5 mi. radius of application well(s) |  Regulated GW Area |



WELL LOGS WITHIN 1 MILE OF APPLICATION G 16318

ABANDON: 0
 RECONDITIONED: 7
 REPAIRED: 3
 CONVERSION: 0
 DEEPENINGS: 10
 NEW CONSTRUCT: 54

COMMUNITY USE: 0
 DOMESTIC USE: 56
 INDUSTRIAL USE: 1
 INJECTION USE: 0
 IRRIGATION USE: 15
 THERMAL USE: 0
 LIVESTOCK USE: 0

PERMITTED WELLS WITHIN 1 MILE OF APPLICATION G 16318

\$RECNO	APPLICATION	PERMIT	CLAIM	LOC-QQ	USE_CODE
1	G	13673	G 12708	0 1.00N13.00E27NWNW	IC
1	G	13690	G 12929	0 1.00N13.00E27NWNW	IR
1	G	13690	G 12929	0 1.00N13.00E27NWNW	IS
1	G	15254	G 15184	0 1.00N13.00E27NWNW	IS
1	G	15254	G 15184	0 1.00N13.00E27NWNW	DN
1	S	22295	S 17580	0 1.00N13.00E27NWNW	IR
1	S	39834	S 29656	0 1.00N13.00E27NWNW	IR
2	G	8638	G 8294	0 1.00N13.00E27NENW	FR
2	G	8638	G 8294	0 1.00N13.00E27NENW	IC
2	G	7186	G 6618	0 1.00N13.00E27NENW	IS
3	G	10667	G 9762	0 1.00N13.00E34NENW	IR
4	G	2699	G 2511	0 1.00N13.00E36NWNW	IS
4	G	2699	G 2511	0 1.00N13.00E36NWNW	IR
5	G	134	G 38	0 1.00N13.00E36NWSE	IR
5	G	406	G 281	0 1.00N13.00E36NWSE	IR
6	G	1354	G 1233	0 1.00N13.00E34NESW	IR
7	G	6620	G 6198	0 1.00N13.00E34SWSW	IR
8	G	16307	0	0 1.00S13.00E 3NENE	IR

NO CONDITIONED WELLS WITHIN 1 MILE OF APPLICATION G 16318

APPLICATION G 16318 FALLS WITHIN THESE QUAD(S)

THE DALLES SOUTH

The following OWRD Groundwater Management Areas are within the map extent:

\$RECNO	NAME1	NAME2	SUB-AREA	STATUS
1	THE DALLES			CRIT
2	THE DALLES	THREEMILE RESERVOIR		CRIT
