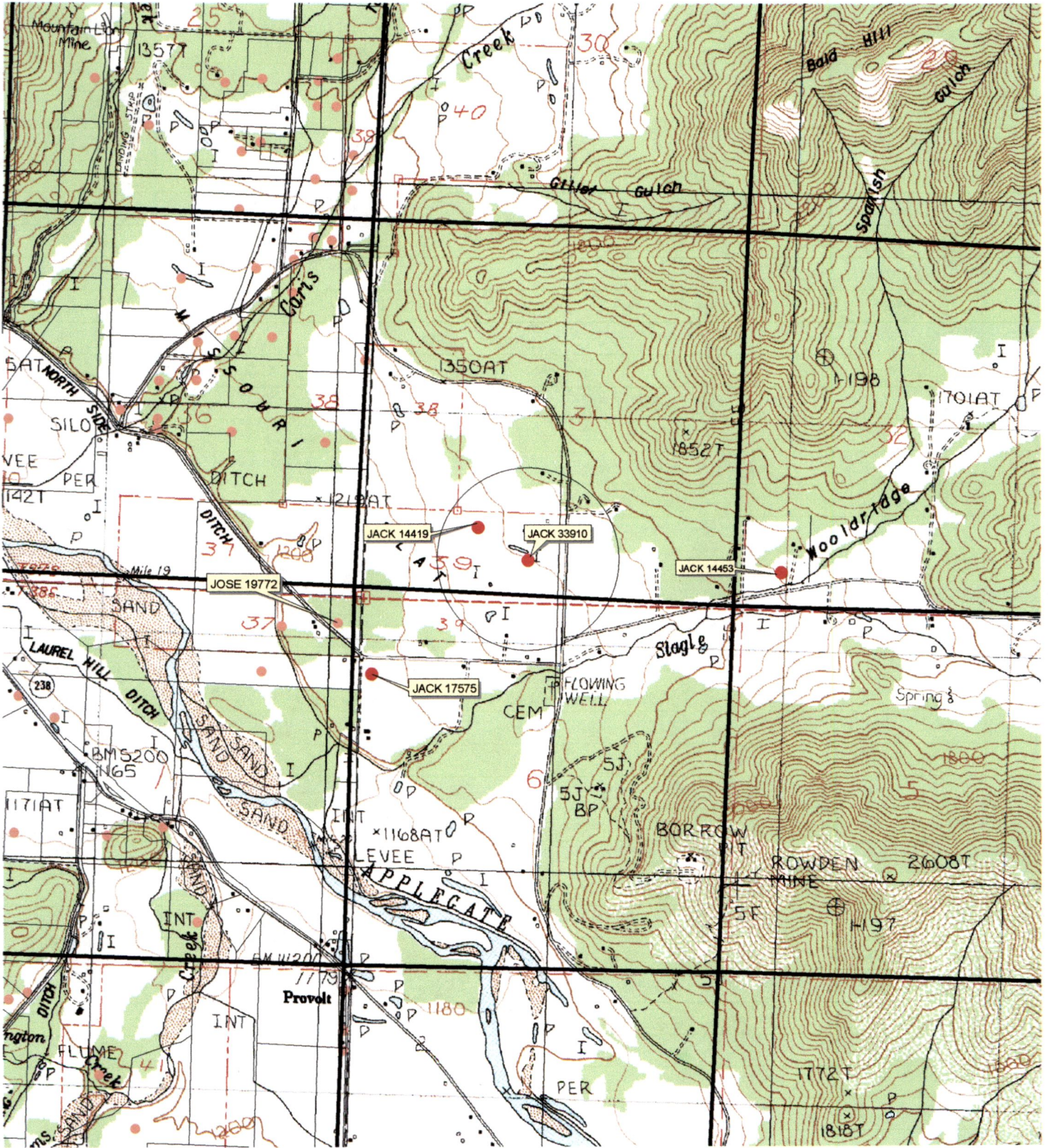


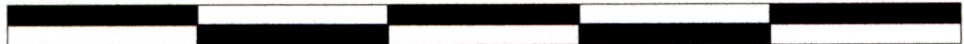




# G-16673 Grapeland Acquisition 37S/04W-31



2000 0 2000 4000 6000 8000 Feet





**PUBLIC INTEREST REVIEW FOR GROUND WATER APPLICATIONS**

TO: Water Rights Section Date June 5, 2006

FROM: Ground Water/Hydrology Section Ivan Gall  
Reviewer's Name

SUBJECT: Application G- 16673 Supersedes review of NA  
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: Grapeland Acquisition County: JACK

A1. Applicant(s) seek(s) 0.23 cfs from 1 well(s) in the Rogue Basin,  
Applegate River (Slagle Creek) subbasin Quad Map: Applegate

A2. Proposed use: Irrigation Seasonality: April 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	JACK 33910	1	bedrock	0.39	37S/04W-31	720' S, 520' W fr NE cor Davidson DLC 39
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	1320	105	10	10/31/77	200	0-95?	0-100	NA		60	60	A

Use data from application for proposed wells.

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

A5.  **Provisions of the Rogue** \_\_\_\_\_ 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: \_\_\_\_\_  
 \_\_\_\_\_

**B. GROUND WATER AVAILABILITY CONSIDERATIONS, OAR 690-310-130, 400-010, 410-0070**

B1. Based upon available data, I have determined that ground water\* 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 ground water 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 ground water 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 ground water resource; or
- d.  will, if properly conditioned, avoid injury to existing ground water rights or to the ground water resource:
  - i.  The permit should contain condition #(s) 7B, 7C, 7F;
  - 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 ground water production from no deeper than \_\_\_\_\_ ft. below land surface;
- b.  Condition to allow ground water production from no shallower than \_\_\_\_\_ ft. below land surface;
- c.  Condition to allow ground water production only from the fractured bedrock ground water reservoir;
- 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 Ground Water 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. Ground water availability remarks: \*\*\* Require applicant to install a properly functioning, totalizing flow meter on the point of appropriation.**

Well yields in the area are relatively good, being generally greater than 10 gpm and as high as 100+ gpm. Well depths are generally less than 250 feet. Overall, the fractured bedrock aquifer has better than average yields for this area.

According to Tom Wiley – DOGAMI, bedrock in the area consists of meta-sediments with some intrusives. The area lies near the contact between the granitic pluton and the meta-sediments. Some meta-volcanics have also been mapped in the area, and may appear as “sandstone” in well logs. The end of Slagle Creek Road is the contact between the granitic rocks and the meta-sediments.

The groundwater section database does not contain any permit condition reporting information for this area. There are several groundwater rights in the area. I have received no well interference complaints from this area.

\_\_\_\_\_  
\_\_\_\_\_  
\_\_\_\_\_  
\_\_\_\_\_  
\_\_\_\_\_  
\_\_\_\_\_  
\_\_\_\_\_  
\_\_\_\_\_  
\_\_\_\_\_  
\_\_\_\_\_



**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	Bedrock	<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"/>

**Basis for aquifer confinement evaluation:** Relatively shallow depth to first water, well-fractured nature of aquifer. Aquifer likely progressively more confined with depth.

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	Slagle Creek	1310	1300	1600	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
1	2	Applegate River	1310	1155	4900	<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"/>

**Basis for aquifer hydraulic connection evaluation:** Aquifer head greater than surface water stage, groundwater discharge to streams known from late-summer flows.

**Water Availability Basin the well(s) are located within:** APPLEGATE R > ROGUE R - 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?
1	1	<input type="checkbox"/>	<input type="checkbox"/>	na	na	<input type="checkbox"/>	na	<input type="checkbox"/>	<25%*	<input type="checkbox"/>
1	2	<input type="checkbox"/>	<input type="checkbox"/>	MF249	120	<input type="checkbox"/>	45.8	<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"/>
		<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 <sub>w</sub> > 5 cfs?	Instream Water Right ID	Instream Water Right Q (cfs)	Q <sub>w</sub> > 1% ISWR?	80% Natural Flow (cfs)	Q <sub>w</sub> > 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:** \*Given the two surface water boundaries, the complex nature of the fractured bedrock aquifer, and unknown hydraulic conductivity and storage values, making a suitable estimate from the Jenkins or Hunt analytical models is not appropriate at this time. Many of the model assumptions are not met within this hydrogeological scenario.

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

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) 7J \_\_\_\_\_;
  - ii.  The permit should contain special condition(s) as indicated in "Remarks" below;

C6. **SW / GW Remarks and Conditions** The Applegate River, a regional groundwater discharge area due to its position in the flow system, is likely to be impacted the greatest from the proposed groundwater use. Slagle Creek is a much smaller drainage and much less incised into the local geology, and is likely dry during the late summer months. The distance between the proposed wells and the river will somewhat delay the impact.  
Potential for substantial interference was not found as the proposed POA is greater than one-quarter mile from surface water and the rate of appropriation does not exceed one percent of the 80% natural streamflow or instream water right.

**References Used:** USGS Applegate topographic map, 1:24,000.  
OWRD GRID well log database and interactive mapping.  
Wiley, Tom, May 2006, verbal communication.

**D. WELL CONSTRUCTION, OAR 690-200**

D1. Well #: \_\_\_\_\_ Logid: \_\_\_\_\_

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).**



Water Availability as of 6/ 1/2006 for

**APPLEGATE R > ROGUE R - AT MOUTH**

Watershed ID #: 249 Basin: ROGUE Exceedance Level: 80

Time: 13:23 Date: 06/01/2006

Select an Item Number for More Details

Item #	Watershed ID #	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	Sto
1	266	YES	YES	YES	YES	YES	YES	NO	NO	NO	YES	NO	YES	YES
2	31531008	NO	NO	NO	NO	YES	NO	NO	NO	NO	NO	NO	NO	YES
3	31531001	NO	NO	NO	NO	YES	NO	NO	NO	NO	NO	NO	NO	YES
4	31531002	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	YES
5	249	<b>NO</b>	<b>NO</b>	<b>NO</b>	<b>NO</b>	<b>NO</b>	<b>NO</b>	<b>NO</b>	<b>NO</b>	<b>NO</b>	<b>NO</b>	<b>NO</b>	<b>NO</b>	<b>YES</b>

DETAILED REPORT ON THE WATER AVAILABILITY CALCULATION

Water Availability as of 6/ 1/2006 for

**APPLEGATE R > ROGUE R - AT MOUTH**

Watershed ID #: 249 Basin: ROGUE Exceedance Level: 80

Time: 13:23 Date: 06/01/2006

Month	Natural Stream Flow	Consumptive Use and Storage	Expected Stream Flow	Reserved Stream Flow	Instream Requirements	Net Water Available
1	373.00	4.97	368.00	0.00	300.00	68.00
2	674.00	438.00	235.00	0.00	300.00	-64.70
3	792.00	437.00	354.00	0.00	340.00	14.40
4	662.00	459.00	203.00	0.00	340.00	-137.00
5	591.00	41.60	549.00	0.00	360.00	189.00
6	222.00	57.20	165.00	0.00	360.00	-195.00
7	91.80	75.50	16.20	0.00	120.00	-104.00
8	59.00	62.70	-3.74	0.00	120.00	-124.00
9	<b>45.80</b>	41.90	3.87	0.00	120.00	-116.00
10	56.00	15.30	40.70	0.00	360.00	-319.00
11	146.00	3.48	143.00	0.00	360.00	-217.00
12	244.00	4.26	240.00	0.00	300.00	-60.30
Stor-50%	421000	97484	323000	0	204000	160000

DETAILED REPORT OF **INSTREAM** REQUIREMENTS

Water Availability as of 6/ 1/2006 for

**APPLEGATE R > ROGUE R - AT MOUTH**

Watershed ID #: 249 Basin: ROGUE Exceedance Level: 80

Time: 13:23 Date: 06/01/2006

APP #	MF	249	0	0	0	0	0	0	MAXIMUM
1	300.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	300.00
2	300.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	300.00
3	340.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	340.00
4	340.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	340.00
5	360.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	360.00
6	360.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	360.00
7	120.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	120.00
8	120.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	120.00
9	<b>120.00</b>	0.00	0.00	0.00	0.00	0.00	0.00	0.00	120.00
10	360.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	360.00
11	360.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	360.00
12	300.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	300.00



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

# WATER WELL REPORT

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

STATE OF OREGON

(Please type or print)  
(Do not write above this line)

JACK  
33910

State Well No. 3754W-310  
State Permit No.

RECEIVED

NOV 14 1977

**(1) OWNER:**

Name Dick Troon WATER RESOURCES DEPT.  
Address 1475 Kubli Road SALEM, OREGON  
Grants Pass, OR 97526

**(2) TYPE OF WORK (check):**

New Well  Deepening  Reconditioning  Abandon   
If abandonment, describe material and procedure in Item 12.

**(3) TYPE OF WELL:**

Rotary  Driven   
Cable  Jetted   
Dug  Bored

**(4) PROPOSED USE (check):**

Domestic  Industrial  Municipal   
Irrigation  Test Well  Other

**CASING INSTALLED:**

Threaded  Welded   
" Diam. from 0 ft. to 100 ft. Gage 2.50  
" Diam. from ft. to ft. Gage  
" Diam. from ft. to ft. Gage

**PERFORATIONS:**

Perforated?  Yes  No.

Type of perforator used \_\_\_\_\_  
Size of perforations in. by in.  
perforations from ft. to ft.  
perforations from ft. to ft.  
perforations from ft. to ft.

**(7) SCREENS:**

Well screen installed?  Yes  No

Manufacturer's Name \_\_\_\_\_  
Type \_\_\_\_\_ Model No. \_\_\_\_\_  
Diam. Slot size Set from ft. to ft.  
Diam. Slot size Set from ft. to ft.

**(8) WELL TESTS:**

Drawdown is amount water level is lowered below static level

Was a pump test made?  Yes  No If yes, by whom?  
Yield: gal./min. with ft. drawdown after hrs.  
" " " " "  
" " " " "  
AIR test 60 gal./min. with 60 ft. drawdown after 1 hrs.  
Artesian flow g.p.m.  
perature of water Depth artesian flow encountered ft.

**(9) CONSTRUCTION:**

Well seal—Material used Cement Grout  
Well sealed from land surface to 95 ft.  
Diameter of well bore to bottom of seal 10 in.  
Diameter of well bore below seal 5 in.  
Number of sacks of cement used in well seal 24 sacks  
How was cement grout placed? Grout pump and drop pipe.  
Was a drive shoe used?  Yes  No Size: location ft.  
Did any strata contain unusable water?  Yes  No  
Type of water? \_\_\_\_\_ depth of strata \_\_\_\_\_  
Method of sealing strata off \_\_\_\_\_  
Was well gravel packed?  Yes  No Size of gravel: \_\_\_\_\_  
Gravel placed from ft. to ft.

**(10) LOCATION OF WELL:**

County JACKSON Josephine Driller's well number  
NE 1/4 SW 1/4 Section 31 T. 37 R. 4w W.M.  
Bearing and distance from section or subdivision corner

**(11) WATER LEVEL: Completed well.**

Depth at which water was first found 105 ft.  
Static level 10 ft. below land surface. Date 10/31/77  
Artesian pressure lbs. per square inch. Date

**(12) WELL LOG:**

Diameter of well below casing 6  
Depth drilled 200 ft. Depth of completed well 200 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.

MATERIAL	From	To	SWL
Clay, brown & decomposed granite	0	90	
Granite, brown med hard w/fractures	90	125	
Granite, gray hard w/fract.	125	200	10

Work started 10/31 1977 Completed 11/2 1977  
Date well drilling machine moved off of well 11/2 1977

**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] \_\_\_\_\_ Date 11/3, 1977  
(Drilling Machine Operator)

Drilling Machine Operator's License No. 695

**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.

Name McClanahan Well Drilling  
(Person, firm or corporation) (Type or print)

Address 141 NE Beacon Drive Grants Pass, OR

[Signed] \_\_\_\_\_  
(Water Well Contractor)

Contractor's License No. 614 Date November 3, 1977