NO PST

TO: Water Rights Section Date **June 18, 2003**

FROM: Ground Water/Hydrology Section **Douglas Woodcock** DW
Reviewer's Name

SUBJECT: Application G- **15793** Supersedes review of **April 9, 2003 (Gall)**
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: **Weathers**

A1. Applicant(s) seek(s) **.045** cfs from **1** well(s) in the **Rogue** Basin,
subbasin Quad Map: **Shady Cove**

A2. Proposed use: **Irr, 3 ac** Seasonality: **Mar 1- Oct 31**

A3. Well and aquifer data **(attach and number logs for existing wells; mark proposed wells as such under logid)**:

Well	Logid	Proposed Aquifer*	Proposed Rate(cfs)	Location (T/R-S QQ-Q)	Location, metes and bounds, example: 2250' N, 1200' E fr NW cor S 36
1	**JACK 55505**	**BEDROCK**	**0.045**	**35S/01W-08 NE-SW**	**1600'N, 475'W fr S1/4 cor S 8**
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	Casing Intervals	Liner Intervals	Perforations Or Screens	Well Yield	Draw Down	Test Type
1	**1390**	**84**	**33**	**6/19/02**	**180**	**0-18**	**0-18**	**4-180**	**140-180**	**40**	**180**	**A**
			29.92	**2/3/03**						**20**	**9**	**P**

Use data from application for proposed wells.

A4. Comments: **Additional water level data from an aquifer test**

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:

Application G-__15793_____ continued Date____June 18, 2003_____

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, 7F, 7J**;
   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 _____ ground water 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 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: **Condition: Require permittee to install and maintain a properly functioning, totalizing flow meter.**

See Ferrero Geologic report for aquifer test data

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**	☒	☐
		☐	☐
		☐	☐

Basis for aquifer confinement evaluation: **Aquifer is, at least locally, more confined than unconfined based upon water level rise above the water bearing zone and approximately 28 ft of "bed ash" above WBZ.**

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? YES	NO	ASSUMED	Potential for Subst. Interfer. Assumed? YES	NO
1	1	**Rogue River**	**1357**	**1295**	**2125**	☒	☐	☐	☐	☒
						☐	☐	☐	☐	☐
						☐	☐	☐	☐	☐
						☐	☐	☐	☐	☐
						☐	☐	☐	☐	☐
						☐	☐	☐	☐	☐
						☐	☐	☐	☐	☐
						☐	☐	☐	☐	☐
						☐	☐	☐	☐	☐
						☐	☐	☐	☐	☐
						☐	☐	☐	☐	☐

Basis for aquifer hydraulic connection evaluation: **Rogue River is the regional discharge for GW in the area. Bedrock geology is continuous to and under the Rogue River from the site. Static water level in the well is above the stage of the river.**

C3a. **690-09-040 (4):** Evaluation of stream impacts for <u>each well</u> 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	☐	☐	**59816**	**1,000**	☐	**1020**	☐	**0**	☐
		☐	☐			☐		☐		☐
		☐	☐			☐		☐		☐
		☐	☐			☐		☐		☐
		☐	☐			☐		☐		☐
		☐	☐			☐		☐		☐
		☐	☐			☐		☐		☐
		☐	☐			☐		☐		☐
		☐	☐			☐		☐		☐

Application G- 15793 continued Date June 18, 2003

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?
			☐			☐		☐		☐
			☐			☐		☐		☐
			☐			☐		☐		☐
			☐			☐		☐		☐

Comments: **Well is hydraulically connected but the use does not exceed the prescriptive standards of (4).**

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), (c) and (d), which are not included on this form. For simple analytical models, model non-distributed wells once as a single well at the full rate using the closest hydraulically connected stream beyond one mile. For distributed wells, model each well once at the identified rate per well using the closest hydraulically connected stream beyond one mile. Adjust aquifer parameters to reflect uncertainties in streambed conductance, partial penetration, etc. Calculate the difference of the **1% WAB flow – Interference as CFS**. Negative numbers indicate those months where calculated interference exceeds 1% of natural stream flow. Under "basis" identify which WAB was used and attach the ground water model parameters/results and water availability table to this review.

Non-Distributed Wells

Well	SW#	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec
1	**1**			**0.0**	**.02**	**.05**	**.09**	**.13**	**.17**	**.20**	**.24**	**.26**	**.27**
		.27	**.24**										
Well Q as CFS		**.045**	**.045**	**.045**	**.045**	**.045**	**.045**	**.045**	**.045**	**.045**	**.045**	**.045**	**.045**
Interference CFS		**.012**	**.011**	**0**	**.001**	**.002**	**.004**	**.006**	**.007**	**.009**	**.011**	**.012**	**.012**

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													

	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec
Total Interf. CFS	**.012**	**.011**	**0**	**.001**	**.002**	**.004**	**.006**	**.007**	**.009**	**.011**	**.012**	**.012**
1 % WAB Nat. Q	**1860**	**2260**	**2300**	**2420**	**2500**	**1670**	**1250**	**1080**	**1020**	**1080**	**1210**	**1620**
1%WAB – Interf.	**1860**	**2260**	**2300**	**2420**	**2500**	**1670**	**1250**	**1080**	**1020**	**1080**	**1210**	**1620**

Basis for impact evaluation: **Calculated numbers from an analytical model (model parameters attached). A hydraulic conductivity of 200 gpd/ft2 was taken from the aquifer test data. The K value for this modeling exercise was knocked back to 2 gpd/ft2 to reflect the assumptions of the model.**

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**

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).**

DETAILED REPORT ON THE WATER AVAILABILITY CALCULATION
Water Availability as of 6/18/2003 for
ROGUE R > PACIFIC OCEAN - AB HOG CR

Watershed ID #: 31530708 Basin: ROGUE Exceedance Level: 80
Time: 08:55 Date: 06/18/2003

Month	Natural Stream Flow	CU + Stor Prior to 1/1/93	CU + Stor After 1/1/93	Expected Stream Flow	Reserved Stream Flow	Instream Water Rights	Net Water Available
1	1860.00	790.00	0.30	1070.00	0.00	0.00	1070.00
2	2260.00	1600.00	0.40	659.00	0.00	0.00	659.00
3	2300.00	1370.00	0.40	931.00	0.00	0.00	931.00
4	2420.00	863.00	0.29	1560.00	0.00	0.00	1560.00
5	2500.00	306.00	0.26	2190.00	0.00	0.00	2190.00
6	1670.00	316.00	0.02	1350.00	0.00	0.00	1350.00
7	1250.00	321.00	0.02	929.00	0.00	0.00	929.00
8	1080.00	315.00	0.02	765.00	0.00	0.00	765.00
9	1020.00	303.00	0.02	717.00	0.00	0.00	717.00
10	1080.00	243.00	0.02	837.00	0.00	0.00	837.00
11	1210.00	287.00	0.02	923.00	0.00	0.00	923.00
12	1620.00	303.00	0.14	1320.00	0.00	0.00	1320.00
Stor	1640000	419000	115	1220000	0	0	1220000

Input Data:

Variable	Name	Minimum	"Best"	Maximum	Unit
Well Owner or Well Number	Well		**Weathers**		
X Coord. for X-Section (Head Distribution)	x		**0**		[ft]
Perpendicular Distance From Well to Stream	a		**2,125**		[ft]
Net Steady Pumping Rate	Q		**20**		[gpm]
Hydraulic Conductivity	K	**0.20**	**2.00**	**20.00**	[gpd/ft*ft]
Aquifer Thickness	b	**25**	**25**	**25**	[ft]
Well Depth	d		**180**		[ft]
Storativity	S		**0.00100**		
Effective porosity	n		**0.01000**		
Hydr. Grad. Perpend. to Stream (must be > 0)	i	**0.00095**	**0.00095**	**0.00095**	
Time Since Pumping Started	time		**30.00**		[days]

Output Data:

General Output:						
Transmissivity	T	**5**	**50**	**500**	[gpd/ft]	= K*b
Hydraulic Conductivity	K	**0.20**	**2.00**	**20.00**	[gpd/ft*ft]	
		0.03	**0.27**	**2.67**	[ft/day]	
		9.38E-08	**9.38E-07**	**9.38E-06**	[m/s]	
Average linear velocity	ALV	**0.00**	**0.03**	**0.25**	[ft/day]	= K*i/n
		0.93	**9.28**	**92.78**	[ft/yr]	
Ambient Flux at River per Foot	dQ	**0.0000**	**0.0000**	**0.0003**	[gpm/ft]	= K*b*i

Transient Stream Depletion Output:						
k	SDTr_k	56.2948	5.6295	0.5629		= ((a^2*S)/(4Tt))*7.48
Transient Stream Depletion (Theis/Jenkins)	SDTr	**0.00**	**0.00**	**0.29**		= erfc SQRT(a*a*S)/4Tt)
Transient Induced Infiltration (Theis/Jenkins)	IITr					

TO: Water Rights Section APRIL 09, 2003

FROM: Ground Water/Hydrology Section IVAN GALL
Reviewer's Name

SUBJECT: Application G- 15793 Supersedes review of AUGUST 15 2002
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: DAVID E. & NORMA J. WEATHERS

A1. Applicant(s) seek(s) 0.045 cfs from 1 well(s) in the ROGUE Basin, ROGUE subbasin Quad Map: SHADY COVE

A2. Proposed use: IRRIGATION 3 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	Proposed Aquifer*	Proposed Rate(cfs)	Location (T/R-S QQ-Q)	Location, metes and bounds, example: 2250' N, 1200' E fr NW cor S 36
1	JACK 55505	BEDROCK	0.045	35S/01W-08ca	1600'N, 475'W Fr S¼ cor S8
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	Casing Intervals	Liner Intervals	Perforations Or Screens	Well Yield	Draw Down	Test Type
1	1390	84	33	06/19/2002	180	0-18	+2-18	4-180	140-180	40	180	AIR
			29.92	02/03/2003	DATA	FROM	AQUIFER	TEST		20	9	PUMP

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: OAR 690-515-0000 Upper Rogue Basin

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

Application G- 15793 continued APRIL 09, 2003

B. GROUND WATER AVAILABILITY CONSIDERATIONS, OAR 690-310-130 (b) (c)

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;

b. ☐ **will not *or*** ☒ **will** likely be available in the amounts requested without injury to prior ground water rights;

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, 7F, 7J;
   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 _____ ground water 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 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: CONDITION: Require permittee to install and maintain a properly functioning, totalizing flow meter.

*See Ferrero Geologic Report for aquifer testing data

Application G- 15793 continued APRIL 09, 2003

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	☒	☐
		☐	☐
		☐	☐

Basis for aquifer confinement evaluation: Aquifer, at least locally, is likely more confined than unconfined based on water level rise abv. wbz and approx. 28 feet of "bed ash" above wbz.

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.

Well	SW #	Surface Water Name	GW Elev ft msl	SW Elev ft msl	Distance (ft)	Hydraulically Connected? YES	NO	ASSUMED	Potential for Subst. Interfer. Assumed? YES	NO
1	1	ROGUE RIVER	1357	1295	~~1950~~ 2125	☒	☐	☐	☐	☒
						☐	☐	☐	☐	☐
						☐	☐	☐	☐	☐
						☐	☐	☐	☐	☐
						☐	☐	☐	☐	☐
						☐	☐	☐	☐	☐
						☐	☐	☐	☐	☐
						☐	☐	☐	☐	☐
						☐	☐	☐	☐	☐
						☐	☐	☐	☐	☐
						☐	☐	☐	☐	☐

Basis for aquifer hydraulic connection evaluation: Rogue River is the regional discharge ~~area~~ location for ground water in the area. Bedrock geology is continuous to and under the Rogue River from the site. Static water levels in well greater than stage of Rogue River.

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. If Q is not distributed by well, use full rate for each well. If modeled, include description and model parameters in Comments (C3b). Any checked ☒ box indicates the well is assumed to have the potential to cause substantial interference with surface water.

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	☐	☐	59816	1,000	☐	1020	☐		☐
		☐	☐			☐		☐		☐
		☐	☐			☐		☐		☐
		☐	☐			☐		☐		☐
		☐	☐			☐		☐		☐
		☐	☐			☐		☐		☐
		☐	☐			☐		☐		☐
		☐	☐			☐		☐		☐
		☐	☐			☐		☐		☐
		☐	☐			☐		☐		☐
		☐	☐			☐		☐		☐

Application G- 15793 continued APRIL 09, 2003

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?
			☐			☐		☐		☐
			☐			☐		☐		☐
			☐			☐		☐		☐
			☐			☐		☐		☐

Comments: ✓

C4a. **690-09-040 (5):** Estimated impacts on surface water sources as percent or qualitative fraction* of proposed pumping rate. Limit evaluation to one year of pumping.

Well	SW#	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec
1	1	VL	VL	L	L	L	L	L	L	L	L	VL	VL

*VL = Very Low (<5%), L = Low (5-25%), I = Intermediate (25-75%), H = High (>75%).

Basis for impact evaluation: See Ferrero Geologic Report - Rental well located ~430 FT from applicants well, showed 1 ft of drawdown after pumping 20gpm for 23.5 hours - Static wl in Eggleston well much deeper, suggesting multiple wbz's in area

C4b. **690-09-040 (5):** Evaluation of paragraphs under subsection 5. A determination of ☒ **Low** denotes no connection or a very indirect connection between surface water and ground water; ☒ **High** denotes hydraulic connection that would likely reduce surface water availability in the first year of pumping. Do not equate "Low" and "High" between C4a and C4b.

(a) The potential to reduce surface water availability in ROGUE RIVER is ☐ **Low** *or* ☒ **High**
The potential to reduce surface water availability in _____ is ☐ **Low** *or* ☐ **High**
The potential to reduce surface water availability in _____ is ☐ **Low** *or* ☐ **High**
The potential to reduce surface water availability in _____ is ☐ **Low** *or* ☐ **High**

Basis: Rogue R. is regional gw discharge point. Static gw elev. in applicant's well is ~62 ft higher than river stage. Bedrock geology appears to be continuous up to, and under, the Rogue River from the subject well.

(b) **The potential to impair or detrimentally affect the public interest is to be determined by the Water Rights Section.**

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C4b. **690-09-040 (5):**. Evaluation of paragraphs under subsection 5 continued.

(c) The **percentage** of appropriation in the first year of use that will be at the expense of surface water 25%

Basis: Simplified analyses using aquifer transmissivity and storage estimates show stream depletion exceeding 5% in 30 days, 25% in 90 days.

(d) The timing of interference will be ☒ **immediate** (within one year), *or* ☐ **delayed**;

Basis: Relatively shallow flow system, ~2125 feet to river. Well use will very likely capture ground water that would eventually discharge to Rogue River. Limited storage in fractured bedrock aquifer increases stream depletion.

(e) The potential for cumulative adverse impacts: A graphical distribution of POAs and summary of permitted rights ☐ **are** *or* ☒ **are not** available at this time of review.

Impacted stream	Impacted basin or sub-basin	Existing Ground Water Rights (cfs)

Comments:

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) 7B, 7F, 7J, require flowmeter (totalizing);
ii. ☐ The permit should contain special condition(s) as indicated in "Remarks" below;
iii. ☐ The permit should be conditioned as indicated in item 6 below;

C6. ☐ **If the well is not reconstructed**, it will interfere with surface water. Well reconstruction, as follows, will adequately protect surface water from interference. If the ground water use under this permit is found to have the potential for substantial interference with surface water, I recommend withholding issuance of the permit until evidence of well reconstruction is filed with the Department and approved by the Ground Water Section.:

The well should be reconstructed as follows:

C7. **SW / GW Remarks**

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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) _____

N/A

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).**

TO: Water Rights Section AUGUST 15, 2002

FROM: Groundwater/Hydrology Section IVAN GALL
Reviewer's Name

SUBJECT: Application G- 15793

GROUNDWATER/SURFACE WATER CONSIDERATIONS

1. PER THE _____ Basin rules, one or more of the proposed POA's is/is not within _____ feet/mile of a surface water source (_____) and taps a groundwater source hydraulically connected to the surface water.

2. BASED UPON OAR 690-09 currently in effect, I have determined that the proposed groundwater use

   a._____ will have the potential for substantial interference with the nearest surface water source, namely _____; or
   b. X will not have the potential for substantial interference with the nearest surface water source, namely ROGUE RIVER; or
   c._____ will, if properly conditioned, adequately protect the surface water from interference:
      i._____The permit should contain condition #(s) _____; or
      ii_____ The permit should contain special condition(s) as indicated in "Remarks" below;
      iii_____The permit should be conditioned as indicated in item 4 below; or
   d._____ will, with well reconstruction, adequately protect the surface water from substantial interference.

GROUNDWATER AVAILABILITY CONSIDERATIONS

3. BASED UPON available data, I have determined that groundwater for the proposed use
   a._____will likely be available in the amount requested without injury to prior rights and/or is within the capacity of the resource; or
   b. X will not be available in the amount requested without injury to prior rights and/or is within the capacity of the resource; or
   c._____will, if properly conditioned, avoid injury to existing rights or to the groundwater resource:
      i._____ The permit should contain condition #(s) _____;
      ii._____ The permit should contain special condition(s) as indicated in "Remarks" below;
      iii._____The permit should be conditioned as indicated in item 4 below; or

4. **a.**_____THE PERMIT should allow groundwater production from no deeper than _____ feet below land surface;
   b._____The permit should allow groundwater production from no shallower than _____ feet below land surface;
   c._____The permit should allow groundwater production only from the _____ groundwater reservoir between approximately _____ feet and _____ feet below land surface;
   d._____Well reconstruction is necessary to accomplish one or more of the above conditions.
   e._____One or more POA's commingle two or more sources of water. The applicant must select one source of water per POA and specify the proportion of water to be produced from each source.

REMARKS:

RECEIVED
AUG 19 2002
WATER RESOURCES DEPT.
SALEM, OREGON

(Well Construction Considerations on Reverse Side)

WELL CONSTRUCTION (If more than one well doesn't meet standards, attach an additional sheet.)

5. THE WELL which is the point of appropriation for this application 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)_____

N/A

6. THE WELL construction deficiency:
   a._____constitutes a health threat under Division 200 rules;
   b._____commingles water from more than one groundwater reservoir;
   c._____permits the loss of artesian head;
   d._____permits the de-watering of one or more groundwater reservoirs;
   e._____other: (specify) _____

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

8. THE WELL a._____ was constructed according to the standards in effect at the time of original construction or most recent modification.
   b._____ was not constructed according to the standards in effect at the time of original construction or most recent modification.
   c._____ I do not know if it met standards at the time of construction.

N/A

RECOMMENDATION:

A.____I recommend including the following condition in the permit: "No water may be appropriated under terms of this permit until the well(s) has been repaired to conform to current well construction standards and proof of such repair is filed with the Enforcement Section of the Water Resources Department."

B.____I recommend withholding issuance of the permit until evidence of well reconstruction is filed with the Enforcement Section of the Water Resources Department.

C.____REFER this review to Enforcement Section for concurrence.

THIS SECTION TO BE COMPLETED BY ENFORCEMENT PERSONNEL

I concur in G/H's recommendation A or B above relating to conditioning or withholding the permit.

_____ _____, 200___
(Signature)

I do not concur in G/H's recommendation A or B above relating to conditioning or withholding the permit for the following reasons: _____
_____
_____

_____ _____, 200___
(Signature)

Water Resources Department

MEMO AUGUST 15, 2002

TO **Application G-** 15793

FROM **GW:** IVAN GALL
(Reviewer's Name)

SUBJECT **Scenic Waterway Interference Evaluation**

☒ Yes
☐ No

The source of appropriation is within or above a Scenic Waterway

☒ Yes
☐ No

Use the Scenic Waterway condition (Condition 7J).

PREPONDERANCE OF EVIDENCE FINDING: (Check box only if statement is true)

☒ At this time the Department is unable to find that there is a preponderance of evidence that the proposed use of ground water will measurably reduce the surface water flows necessary to maintain the free-flowing character of a scenic waterway in quantities necessary for recreation, fish and wildlife.

FLOW REDUCTION: *(To be filled out only if Preponderance of Evidence box is not checked)*

Exercise of this permit is calculated to reduce monthly flows in _____ Scenic Waterway by the following amounts expressed as a proportion of the consumptive use by which surface water flow is reduced.

Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec