

**Water Right Conditions  
Tracking Slip**

*Groundwater/Hydrology Section*

FILE # G-16009

ROUTED TO: Water Rights

TOWNSHIP/

RANGE-SECTION: 40S/8 E-22 6d

CONDITIONS ATTACHED?  Yes  no

REMARKS OR FURTHER INSTRUCTIONS:

\_\_\_\_\_

\_\_\_\_\_

\_\_\_\_\_

Reviewer: Michael Zwart

TO: Water Rights Section Date July 29, 2003

FROM: Ground Water/Hydrology Section Michael Zwart  
Reviewer's Name

SUBJECT: Application G- 16009 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: Fraser Bros. LLC, Margaret Sackos

A1. Applicant(s) seek(s) 2.23 cfs from one well(s) in the Powder Basin,  
Powder River subbasin Quad Map: Baker City

A2. Proposed use: Irrigation, 167.0 acres 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	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	<b>Proposed</b>	<b>Alluvium</b>	<b>2.23</b>	<b>8S/40E-22 SE-NW</b>	<b>1425' E, 1345' S fr NW cor Sec. 22</b>
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	3351	?	?		50	0-23	0-50	None	40-50	1000		

Use data from application for proposed wells.

A4. Comments: **All construction information is from application. A letter, dated May 19, 2003 was sent by the applicant explaining the proposed construction. I propose that Enforcement staff review this construction to determine whether it would meet current standards. Based on the proposed construction and review of nearby well logs, I believe that it is highly unlikely that the proposed well could produce 1000 gpm. The proposed design appears inefficient and not deep enough to tap the higher yielding sands and gravels that occur generally below a clay or sandy clay layer that extends to about 70 to 100 feet. See BAKE 50499 for an example of a nearby high production well that is perforated no shallower than 70 feet.**

A5.  Provisions of the Powder 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: \_\_\_\_\_  
\_\_\_\_\_



**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	Sand and gravel of the Powder River alluvial fan	<input checked="" type="checkbox"/>	<input type="checkbox"/>
		<input type="checkbox"/>	<input type="checkbox"/>
		<input type="checkbox"/>	<input type="checkbox"/>

Basis for aquifer confinement evaluation: This and all following findings are made under the presumption that the recommended well construction condition is used. I believe that the sands and gravels below a clay layer that may extend to a depth of 70 to over 100 feet below land surface are under semiconfined to confined conditions.

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	Baldock Slough	3340	3348	4200	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
1	2	Highway 203 Pond	3340	3349	2200	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
1	3	Powder River	3340	3349	5900	<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"/>
						<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>

Basis for aquifer hydraulic connection evaluation: GW Elev is estimated. See previous comments; note that the findings above presume the use of a well construction condition recommended on page 2.

Identify the Water Availability Sub-Basin the well(s) are located within: Baldock Slough: 30920330; Powder R.: 30920327

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 #	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: 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), (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													



**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) See remarks on page 1 regarding proposed construction.

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

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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: \_\_\_\_\_

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\_\_\_\_\_, 200\_\_\_\_\_  
(Enforcement Section Signature)

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

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**STATE OF OREGON  
WATER RESOURCES DEPARTMENT**

**INTEROFFICE MEMO**

To: FILE

Date: April 4, 1996

From: MICHAEL ZWART <sup>MTZ</sup>

Subject: APPLICATION G-14098, MICHAEL H. AND ANN TRINDLE

This application proposes to use 2.0 cfs of groundwater from one proposed well for irrigation of 58.95 acres. The well is estimated to be completed to a depth of 100 feet and will likely penetrate an aquifer developed in sand and gravel. The aquifer appears to be unconfined at shallow depths, but rising static water levels with depth in some nearby wells may indicate that the deeper zones are semi-confined to confined. The well is 1120 feet or more from Baldock Slough. If the proposed well is constructed to case off (and preferably seal off) the shallow water-bearing zones, then there is no potential for substantial interference with the nearby reach of the slough.

Permit condition 7B is recommended, as is a special well construction condition allowing groundwater production from no shallower than 60 feet.



WELL LOGS WITHIN 1 MILE OF APPLICATION G 16009

ABANDON: 0  
 RECONDITIONED: 4  
 REPAIRED: 2  
 CONVERSION: 0  
 DEEPENINGS: 5  
 NEW CONSTRUCT: 48  
  
 COMMUNITY USE: 0  
 DOMESTIC USE: 53  
 INDUSTRIAL USE: 0  
 INJECTION USE: 0  
 IRRIGATION USE: 18  
 THERMAL USE: 0  
 LIVESTOCK USE: 0

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PERMITTED WELLS WITHIN 1 MILE OF APPLICATION G 16009

\$RECNO	APPLICATION	PERMIT	CLAIM	LOC-QQ	USE_CODE
1	G	4274	G 4025	0 8.00S40.00E15NENW	IS
2	G	5447	G 5363	0 8.00S40.00E14SENE	IR
3	G	3949	G 3706	0 8.00S40.00E14SWNE	IR
4	G	6600	G 6185	0 8.00S40.00E16SWNE	IS
4	G	6600	G 6185	0 8.00S40.00E16SWNE	IR
5	G	2772	G 2572	0 8.00S40.00E15SESW	IS
6	G	3662	G 3438	0 8.00S40.00E23NWNW	IR
6	S	54003	S 40266	0 8.00S40.00E23NWNW	IS
7				8.00S40.00E22SENE	
8	G	6752	G 6073	0 8.00S40.00E26SWNW	IS
8	G	12448	G 12423	0 8.00S40.00E26SWNW	IR
8	G	6752	G 6073	0 8.00S40.00E26SWNW	IS
9	G	2261	G 2077	0 8.00S40.00E27SWNE	IS
9	G	2261	G 2077	0 8.00S40.00E27SWNE	IS
10	G	1941	G 1784	0 8.00S40.00E27NESE	IS
11	G	9347	G 8769	0 8.00S40.00E28NWSE	IS
12		0	0	0 8.00S40.00E28NESW	IR
12		0	0	0 8.00S40.00E28NESW	IR
12		0	0	0 8.00S40.00E28NESW	IR
12	G	9347	G 8769	0 8.00S40.00E28NESW	IS
13	G	14098	G 12999	0 8.00S40.00E27SESE	IS
14	G	11022	G 10404	0 8.00S40.00E35NENW	IS
15	G	12891	G 13111	0 8.00S40.00E34NENE	IR
15	G	12891	G 13111	0 8.00S40.00E34NENE	IS
15	G	12891	G 13111	0 8.00S40.00E34NENE	IM
16	G	12891	G 13111	0 8.00S40.00E34NWNW	IR
16	G	12891	G 13111	0 8.00S40.00E34NWNW	IS
16	G	12891	G 13111	0 8.00S40.00E34NWNW	IM
16	G	12891	G 13111	0 8.00S40.00E34NWNW	IM
16	G	12891	G 13111	0 8.00S40.00E34NWNW	IS
16	G	12891	G 13111	0 8.00S40.00E34NWNW	IR

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CONDITIONED WELLS WITHIN 5 MILES OF APPLICATION G 16009

\$RECNO	APPLICATION	PERMIT	LOC-QQ	CONDITION-CODE
1			8.00S40.00E27SESE	

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APPLICATION G 16009 FALLS WITHIN THESE QUAD(S)

BAKER

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