

Groundwater Application Review Summary Form

Application # G- 18804

GW Reviewer Travis Brown Date Review Completed: 5/22/2019

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.

in 5/22/19

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).

[illegible]

PUBLIC INTEREST REVIEW FOR GROUNDWATER APPLICATIONS

TO: Water Rights Section Date 5/22/2019
 FROM: Groundwater Section Travis Brown
 Reviewer's Name
 SUBJECT: Application G- 18804 Supersedes review of _____
 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: Kim A and Arturo Garcia County: Marion

A1. Applicant(s) seek(s) 0.24 cfs from 1 well(s) in the Willamette Basin,
Molalla-Pudding subbasin

A2. Proposed use Irrigation (19.0 acres; 47.5 af) 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	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	MARI 8604	1	CRB	0.24 ^c	8S/1W-4 NE-SW	App: 1980' N, 20' W fr S ¼ cor S 4 ^b OWRD: 1920' N, 70' E fr S ¼ cor S 4

* 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	693 ^c	35	18	2/12/1974	78	0-25	+1-50 (6") 70-78 (6")		50-70 (Perf)	50 ^c	50	Air

Use data from application for proposed wells.

A4. **Comments:** The proposed POA/POU are 3.5 miles east of the unincorporated community of Macleay, Oregon.

^a The requested maximum rate of appropriation (0.24 cfs | ~108 gpm) is greater than the reported well yield (50 gpm | ~0.11 cfs) for MARI 8604. The requested maximum rate (0.24 cfs) will be used to evaluate potential effects of the proposed groundwater use.

^b ~~There is a discrepancy between the POA (MARI 8604) location indicated on the application map and that provided in the metes-and-bounds description.~~ Based on the application map, the POA location is ~45 ft east of the metes-and-bounds description using the PLSS projection on the application map. Furthermore, there appears to be a discrepancy between the PLSS projection used in the application map and that used by the Department. The table above contains both the original metes-and-bounds description from the application and the metes-and-bounds description obtained using a georectified image of the application map and the Department's projection of PLSS and Marion County tax lot boundaries. ~~The Department projected location will be used for this review. Should the applicant choose to amend the POA location to correspond with the Department projection, an additional review should not be required.~~

^c Well elevation estimated from LIDAR data of land surface elevation at the POA location indicated on application map (WSI, 2013).

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 requested POA (Well 1 / MARI 8604) is more than ¼ mile from the nearest surface water source. Therefore, per OAR 690-502-0240, the relevant Willamette Basin rules (OAR 690-502-0140) do not apply.

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

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) 7i (Willamette Basalt Condition), large 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 Columbia River Basalt groundwater reservoir between approximately 0 ft. and 100 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. **Special Conditions:**

1. A dedicated water-level measuring tube shall be installed in each well. The measuring tube shall meet the standards described in OAR 690-215-0060. When requested, access to the wells shall be provided to Department staff in order to make water-level measurements.
2. Should the applicant deepen or replace the requested POA well or apply for additional POA wells to be drilled in the future, the applicant shall coordinate with the driller to ensure that drill cuttings are collected at 10-ft intervals and at changes in formation in each well. A split of each sampled interval shall be provided to the Department.
3. Copies of all geologic and hydrogeologic reports completed for the permittee during the development of wells, including geophysical well logs and borehole video logs, shall be provided to the Department. Except for borehole video logs, two paper copies, or a single electronic copy, shall be provided of each report. Digital tables of any data shall be provided upon request.

Groundwater availability remarks: Groundwater for the proposed use cannot be determined to be over-appropriated due to insufficient available data regarding rates of recharge and the current quantity of groundwater withdrawals from the aquifer system.

The requested POA (MARI 8604) appears to produce from the weathered top of the Columbia River Basalt Group (CRBG). The Sand Hollow Basalt of the Frenchman Springs Member of the Wanapum Basalt Formation covers the area of the requested POA. As the last CRBG flow emplaced in this area, the Sand Hollow Basalt is more deeply weathered than other nearby basalts, resulting in an abundance of large, subrounded, hackly boulders (Tolan and Beeson, 1999). Nearby water well logs indicate “decomposed”, “weathered”, or “fractured” basalt to depths of up to ~100 ft below land surface (bls). Most nearby logs indicate some amount of water in this weathered zone, including the requested POA (MARI 8604) which is perforated from 50 to 70 ft bls through brown and black “decomposed rock”.

The requested POA is on a local topographic high. Its reported water level and water-bearing zone are also significantly above the elevation of nearby streams, meaning the local weathered basalt aquifer cannot be recharged with water from more distant sources. As such, recharge to the saturated zone tapped by the requested POA is likely almost entirely dependent on local infiltration. This will limit the amount of available groundwater and make the aquifer highly sensitive to seasonal and annual

variations in precipitation, which consequently increases the risk of overdraft – particularly for irrigation use. Groundwater observation well data is not available for this aquifer or this area; therefore, the conditions in B(1)(d), B(2)(c), and B(3) Special Conditions, above, are recommended for any permit issued for the proposed use.

The nearest known senior groundwater right is MARI 66618, an exempt domestic well ~1,280 ft southeast of the requested POA and completed in the same shallow, weathered basalt aquifer. Due to the complex hydrogeologic nature of the subject aquifer, there is not an appropriate analytical model with which to quantitatively evaluate potential injury to MARI 66618. However, the recommended conditions should provide protection for senior groundwater users.

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	Weathered CRB	☒	☐

Basis for aquifer confinement evaluation: Although there do not appear to be any significant shallow confining units indicated on nearby well logs, the reported static water levels for shallow (<100 ft bls) water-bearing zones are generally above the noted top of the shallowest water-bearing zone (OWRD Well Log Query). This may indicate that the aquifer is locally confined or semi-confined by the clay-mineral products of the deeply-weathered top of the Sand Hollow Basalt, while the underlying fractured and less-weathered basalt is more permeable.

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	South Fork Pudding River	~675	~479-568	~2,080	☒	☐	☐	☐	☒
1	2	Pudding River	~675	~543-624	~3,140	☒	☐	☐	☐	☒
1	3	Unnamed Tributary to Pudding River	~675	~562-600	~4,430	☒	☐	☐	☐	☒

Basis for aquifer hydraulic connection evaluation: The reported static water level in the requested POA (MARI 8604) is above the elevation of nearby surface water. Several springs are also mapped issuing from the surrounding hillsides at elevations similar to the water-bearing zone noted in the well log for MARI 8604 (USGS, 2017; OWRD WRIS). The preponderance of evidence indicates hydraulic connection between the requested POA (MARI 8604) and nearby surface water.

Water Availability Basin the well(s) are located within: PUDDING R > MOLALLA R – AB HOWELL PRAIRIE

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	☐	☐	N/A	N/A	☐	22.70	☒	a	☒
1	2	☐	☐	IS73536A	1.8	☒	22.70	☒	a	☒
1	3	☐	☐	N/A	N/A	☐	22.70	☒	a	☒

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: C3a: The requested maximum rate of appropriation (0.24 cfs) exceeds 1 percent (0.227 cfs) of the natural streamflow which is equalled or exceeded 80 percent of time (22.70 cfs) for the Water Availability Basin (WAB) containing SW 1-3. On this basis, the potential for substantial interference (PSI) is assumed per OAR 690-09-0040(4)(c). (See Water Availability Table, attached).

In addition, the requested maximum rate of appropriation (0.24 cfs) exceeds 1 percent (0.018 cfs) of the applicable instream water right (WS73536A, 1.8 cfs) for SW 2 (Pudding River). PSI is therefore also assumed on this basis, per OAR 690-09-0040(4)(c).

^a Due to the steep gradient of the local aquifer, there is not an appropriate hydrologic model to assess potential interference with (depletion of) nearby surface water.

C3b: Not applicable.

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													
(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: Not applicable.

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:** PSI is assumed for SW 1-3 based on the requested maximum rate of appropriation (0.24 cfs). The applicant would need to reduce the requested maximum rate of appropriation to less than 0.018 cfs to avoid PSI with SW 2 (Pudding River).

References Used:

Application File: G-18804

OWRD Well Log Query: MARI 6420, 8602, 8611, 8616, 19531, 52064, 59317, 63639, 66618

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.

Gannett, M.W. and Caldwell, R., 1998, Geologic framework of the Willamette Lowland aquifer system, Oregon and Washington: U.S. Geological Survey Professional Paper 1424-A, 32 p.

McFarland, W.D., and Morgan, D.S., 1996, Description of the Ground-Water Flow System in the Portland Basin, Oregon and Washington: U.S. Geological Survey Water Supply Paper 2470-A, 58 p.

Reidel, S.P., Johnson, V.G., and Spane, F.A., 2002, Natural gas storage in basalt aquifers of the Columbia Basin, Pacific Northwest USA—A guide to site characterization: Richland, Wash., Pacific Northwest National Laboratory, 277 p.

Tolan, Terry L. and Beeson, Marvin H., 1999, Geologic Map of the Stayton NE 7.5 Minute Quadrangles, Northwest Oregon: A Digital Database: USGS Open File Report 99-141.

United States Geological Survey, 2013, National Elevation Dataset (NED) [DEM geospatial data]. 1/9th arc-second, updated 2013.

United States Geological Survey, 2017, Stayton NE quadrangle, Oregon [map]. 1:24,000, 7.5 minute topographic series, U.S. Department of the Interior, Reston, Virginia.

Woodward, D.G., Gannett, M.W., and Vaccaro, J.J., 1998, Hydrogeologic framework of the Willamette Lowland aquifer system, Oregon and Washington: U.S. Geological Survey Professional Paper 1424-B, 82 p.

WSI, 2013, OLC Clackamol, Portland, OR, September 30.

D. WELL CONSTRUCTION, OAR 690-200

D1. Well #: _____ Logid: _____

D2. THE WELL does not appear to meet current well construction standards based upon:

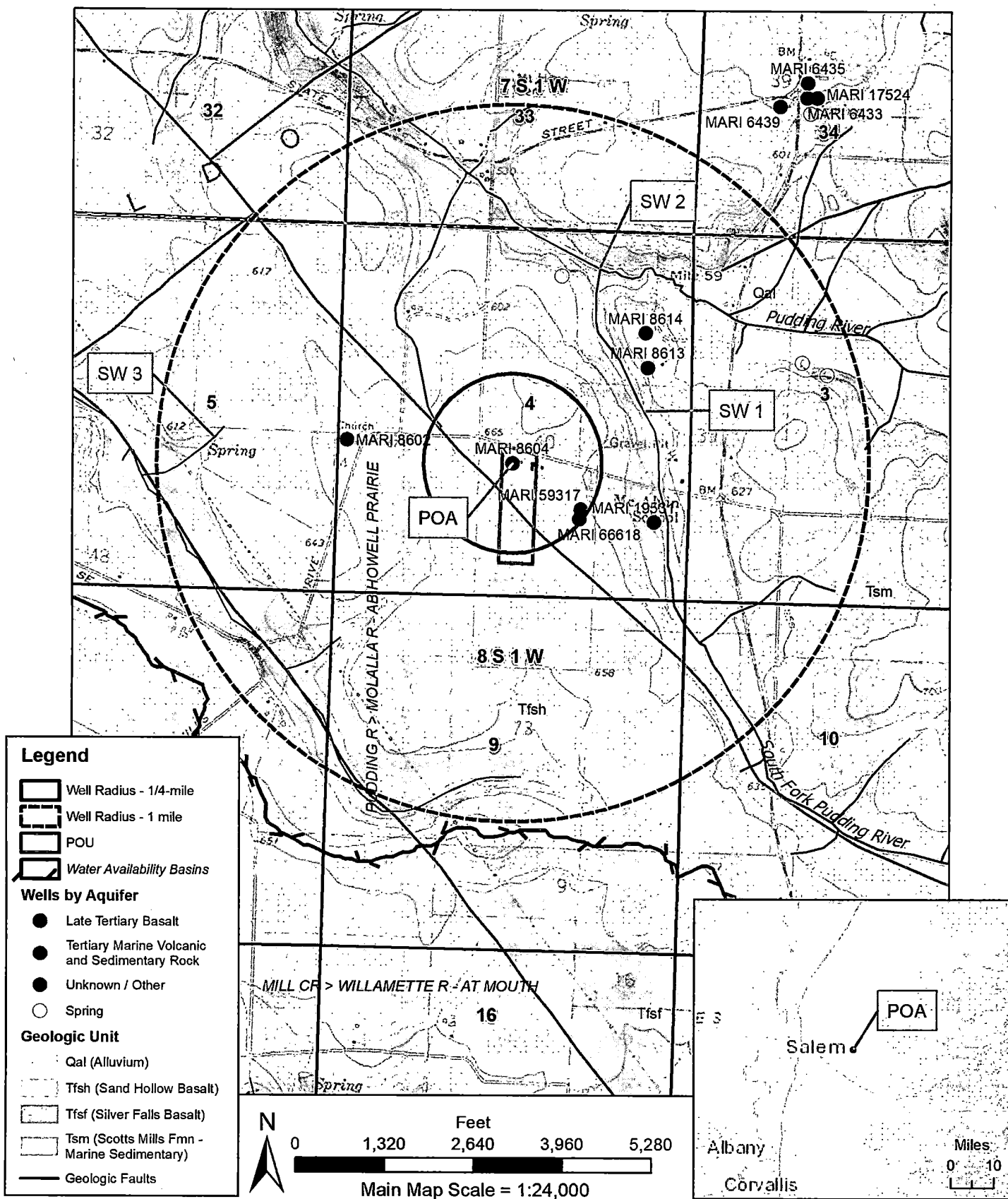
- a. ☐ review of the well log;
- b. ☐ field inspection by _____;
- c. ☐ report of CWRE _____;
- d. ☐ other: (specify) _____

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.

Well Location Map

G-18804 Garcia



Service Layer Credits: Sources: Esri, HERE, Garmin, Intermap, increment P Corp., GEBCO, USGS, FAO, NPS, NRCAN, GeoBase, IGN, Kadaster NL, Ordnance Survey, Esri Japan, METI, Esri China (Hong Kong), swisstopo, © OpenStreetMap contributors, and the GIS User Community

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Water Availability Tables

Water Availability Analysis

Detailed Reports

PUDDING R > MOLALLA R - AB HOWELL PRAIRIE
WILLAMETTE BASIN

Water Availability as of 5/20/2019

Watershed ID #: 152 ([Map](#))

Exceedance Level: 80%

Date: 5/20/2019

Time: 5:27 PM

Water Availability Calculation

Consumptive Uses and Storages

Instream Flow Requirements

Reservations

Water Rights

Watershed Characteristics

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	603.00	69.80	533.00	0.00	10.00	523.00
FEB	649.00	60.90	588.00	0.00	10.00	578.00
MAR	587.00	39.90	547.00	0.00	10.00	537.00
APR	451.00	21.20	430.00	0.00	10.00	420.00
MAY	235.00	14.10	221.00	0.00	10.00	211.00
JUN	111.00	28.90	82.10	0.00	10.00	72.10
JUL	43.60	44.30	-0.68	0.00	10.00	-10.70
AUG	24.70	36.70	-12.00	0.00	10.00	-22.00
SEP	22.70	21.90	0.84	0.00	10.00	-9.16
OCT	38.90	3.96	34.90	0.00	10.00	24.90
NOV	233.00	18.60	214.00	0.00	10.00	204.00
DEC	608.00	63.80	544.00	0.00	10.00	534.00
ANN	385,000.00	25,600.00	360,000.00	0.00	7,240.00	353,000.00

MEMO

OK
HJC

To: Kris Byrd, Manager Well Construction and Compliance Section
From: Joel Jeffery, Well Construction Coordinator
Subject: Review of Water Right Application G-18804
Date: May 29, 2019

The attached application was forwarded to the Well Construction and Compliance Section by Water Rights. Travis Brown reviewed the application. Please see Travis's Groundwater Review and the Well Log.

Applicant's Well #1 (MARI 8604): Based on a review of the Well Report, Applicant's Well #1 does not appear to comply with current minimum well construction standards (See OAR 690 Division 210). According to the Water Supply Well Report, only 2 sacks of cement were used for the well seal, a calculated 5 sacks of cement should have been used. In addition, the diameter of the well bore to the bottom of the seal is listed as 9 inches, the well bore from land surface to the bottom of the seal should be a minimum of 10 inches.

In order to meet minimum well construction standards, Applicant's Well #1 must be completely resealed by a licensed and bonded driller with the correct amount of grout.

My recommendation is that the Department **not issue a permit** for Applicant's Well #1 (MARI 8604) unless it is brought into compliance with current minimum well construction standards or information is provided showing that it is in compliance with current minimum well construction standards.

Bringing Applicant's Well #1 into compliance with minimum well construction standards may not satisfy hydraulic connection issues.

Approved: 

MEMO

To: Kristopher Byrd, Well Construction and Compliance Section Manager
From: Travis Kelly, Well Construction Program Coordinator
Subject: Re-Review of Water Right Application G-18804
Date: July 8, 2020

The attached application was forwarded to the Well Construction and Compliance Section by the Groundwater Section. Travis Brown reviewed the application. Please see Travis's Groundwater Review and the Well Reports.

Applicant's Well #1 (MARI 8604(Original)/MARI 69256(Alteration)): Based on a review of the Well Reports, Applicant's Well #1 seems to protect the groundwater resource.

The construction of Applicant's Well #1 may not satisfy hydraulic connection issues.

(Do not write above this line)

State Well No.

State Permit No.

SP*45656-119

MARI 8604

WELL IDENTIFICATION FORM

Owner's Well Number: _____

CURRENT WELL OWNER:

Phone 585-0052

Name: ROBERT INMANN

Mailing Address: 12020 WALDO HILL DR.

City: SALEM State: OR Zip: 97301

If a well report is available for this well, please attach a copy of it to this form and return. It is not necessary for you to complete the remainder of the form if the well report is attached. If well report is not available, please complete the remainder of the form to the best of your ability.

RECEIVED
JAN - 9 1998
WATER RESOURCES DEPT
SALEM, OREGON

WELL LOCATION:

County: MARION Latitude: _____ Longitude: _____

Township: 8S N or S, Range: 1W E or W Section: 4 1/4 1/4

Tax Lot Number: 1600

Street Address of Well (if different from above): SAME

WELL INFORMATION:

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:

Oregon Water Resources Department
158 12th Street NE
Salem, OR 97310

(Office use only)

Well Identification Number: 22988

MARI 69256
WESTERBERG DRILLING INC.

PO BOX 1228
MOLALLA, OR 97038

STATE OF OREGON
WATER SUPPLY WELL REPORT
 (as required by ORS 537.765 & OAR 690-205-0210)

WELL I.D. LABEL# 132674
START CARD # 216837
ORIGINAL LOG # MARION 8604

(1) LAND OWNER Owner Well I.D. _____
 First Name Arturo & Kim Last Name Garcia
 Company _____
 Address 12020 Waldo Hills
 City Salem State OR Zip 97317

(2) TYPE OF WORK ☐ New Well ☐ Deepening ☐ Conversion
☒ Alteration (complete 2a & 10) ☐ Abandonment (complete 5a)

(2a) PRE-ALTERATION
 Dia + From To Gauge Stl Plstc Wld Thrd
 Casing: 6 ☒ 1 78 250 ☒ ☐ ☒ ☐
 Material From To Amt sacks/lbs
 Seal: _____

(3) DRILL METHOD
☒ Rotary Air ☐ Rotary Mud ☐ Cable ☐ Auger ☐ Cable Mud
☐ Reverse Rotary ☐ Other _____

(4) PROPOSED USE ☒ Domestic ☒ Irrigation ☐ Community
☐ Industrial/ Commercial ☐ Livestock ☐ Dewatering
☐ Thermal ☐ Injection ☐ Other _____

(5) BORE HOLE CONSTRUCTION Special Standard ☐ (Attach copy)
 Depth of Completed Well 110 ft.

BORE HOLE **SEAL** sacks/
 Dia From To Material From To Amt lbs
 10 0 26 Bentonite 0 5 3 S
 6 26 110 Calculated 2.1
 Cement 5 26 10 S
 Calculated 5.8

How was seal placed: Method ☐ A ☐ B ☒ C ☐ D ☐ E
☒ Other Bentonite Poured & Probed

Backfill placed from _____ ft. to _____ ft. Material _____

Filter pack from _____ ft. to _____ ft. Material _____ Size _____

Explosives used: ☐ Yes Type _____ Amount _____

(5a) ABANDONMENT USING UNHYDRATED BENTONITE
 Proposed Amount Pounds Actual Amount Pounds

(6) CASING/LINER Original - See MARI 8604
 Casing Liner Dia + From To Gauge Stl Plstc Wld Thrd
 Shoe ☐ Inside ☐ Outside ☐ Other Location of shoe(s) _____
 Temp casing ☐ Yes Dia _____ From + _____ To _____

(7) PERFORATIONS/SCREENS Perforations Method Original - See MARI 8604
 Screens Type _____ Material _____
 Perf/S Casing/Screen
 green Liner Dia From To Scrn/slot Slot # of Tele/
 width length slots pipe size

(8) WELL TESTS: Minimum testing time is 1 hour
☐ Pump ☐ Bailer ☒ Air ☐ Flowing Artesian
 Yield gal/min Drawdown Drill stem/Pump depth Duration (hr)
 7.5 N/A 110 2

Temperature 56 °F Lab analysis ☐ Yes By _____
 Water quality concerns? ☐ Yes (describe below) TDS amount 150 ppm
 From To Description Amount Units

(9) LOCATION OF WELL (legal description)
 County MARION Twp 8 S N/S Range 1 W E/W WM
 Sec 4 NE 1/4 of the SW 1/4 Tax Lot 1600
 Tax Map Number _____ Lot _____
 Lat _____ " or _____ DMS or DD
 Long _____ " or _____ DMS or DD
☒ Street address of well ☐ Nearest address

12020 Waldo Hills, Salem, OR 97317

(10) STATIC WATER LEVEL
 Date SWL (psi) + SWL (ft)
 Existing Well / Pre-Alteration 05-18-2020 31
 Completed Well 05-19-2020 31
 Flowing Artesian? ☐ Dry Hole? ☐

WATER BEARING ZONES Depth water was first found Original
 SWL Date From To Est Flow SWL (psi) + SWL (ft)
 05-19-2020 Original 7.5 31

(11) WELL LOG Ground Elevation _____
 Material From To
 This work was done to satisfy a well construction condition for water right application #18804
 RECEIVED
 JUN 08 2020
 OWRD

Date Started 05-18-2020 Completed 05-19-2020

(unbonded) Water Well Constructor Certification

I certify that the work I performed on the construction, deepening, 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 the best of my knowledge and belief.

License Number 1358 Date 05-20-2020

Signed _____

(bonded) Water Well Constructor Certification

I accept responsibility for the construction, deepening, 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.

License Number 688 Date 06-02-2020

Signed _____

Contact Info (optional) _____

MARI 8604

WELL IDENTIFICATION FORM

Owner's Well Number: _____

CURRENT WELL OWNER:

Phone 585-0052

Name: ROBERT INMANN

Mailing Address: 12020 WALDO HILL DR.

City: SALEM State: OR Zip: 97301

If a well report is available for this well, please attach a copy of it to this form and return. It is not necessary for you to complete the remainder of the form if the well report is attached. If well report is not available, please complete the remainder of the form to the best of your ability.

WELL LOCATION:

County: MARION Latitude: _____ Longitude: _____

Township: 8S N or S, Range: 1W E or W Section: 4 1/4 1/4

Tax Lot Number: 1600

Street Address of Well (if different from above): SAME

WELL INFORMATION:

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:

Oregon Water Resources Department
158 12th Street NE
Salem, OR 97310

(Office use only)

Well Identification Number: 22988

RECEIVED
JAN - 9 1998
WATER RESOURCES DEPT
SALEM, OREGON