

Groundwater Application Review Summary Form

Application # G- 18657

GW Reviewer Phil Marcy Date Review Completed: 11/27/2018

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.
11/30/18

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).



MEMO

To: Kristopher Byrd, Well Construction and Compliance Section Manager
From: Joel Jeffery, Well Construction Program Coordinator
Subject: Review of Water Right Application G-18657
Date: December 10, 2018

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

Applicant's Well #3 (MALH 54314): Based on a review of the Well Report, Applicant's Well #3 seems to protect the groundwater resource.

The construction of Applicants Well #3 may not satisfy hydraulic connection issues.

PUBLIC INTEREST REVIEW FOR GROUNDWATER APPLICATIONS

TO: Water Rights Section Date 11/27/2018
 FROM: Groundwater Section Phillip I. Marcy
 Reviewer's Name
 SUBJECT: Application G- 18657 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: Linda Bentz County: Malheur

A1. Applicant(s) seek(s) 0.41 cfs from 1 well(s) in the Malheur Basin,
Granite Creek subbasin

A2. Proposed use Irrigation (21.7 acres) Seasonality: March 1st – October 31st (245 days)

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	MALH 54314	3	Alluvium	0.41	24S/39E-6 SW-NW	2605'S, 1265' E fr NW cor S 6
2						

* 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	4502	241	243	03/30/2018	410	0-35	0-40	NA	NA	450	NA	Air

Use data from application for proposed wells.

A4. **Comments:** Well log for proposed POA (MALH 54314) reports production from "broken claystone" at depths between 241-410' BLS. This well is an existing POA on permit G-17567, with an authorized maximum pumping rate of 2.76 cfs.

A5. **Provisions of the** Malheur 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: _____

A6. **Well(s) #** _____, _____, _____, _____, _____, tap(s) an aquifer limited by an administrative restriction.
 Name of administrative area: _____
 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) **7N; "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 _____ groundwater 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 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. **Groundwater availability remarks:** At the current authorized rate of appropriation, water levels appear stable. The proposed POA well is currently under a 7-year measurement condition on permit G-17567. As development commences in this area, continued monitoring of groundwater levels is important. Therefore, if a permit is issued, condition 7N shall be applied.

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	Broken Claystone	<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: Static water level within the well did not rise above the elevation that it was encountered within the well.

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
						<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"/>
						<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: This section does not apply, as there are no perennial streams nearby.

Water Availability Basin the well(s) are located within: Granite Cr> S Fk Malheur R – AB Star Cr (ID# 31011619)

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"/>
		<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), (b), (c) and (d), which are not included on this form. Use additional sheets if calculated flows from more than one WAB are required.

Non-Distributed Wells													
Well	SW#	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec
		%	%	%	%	%	%	%	%	%	%	%	%
Well Q as CFS													
Interference CFS													
Distributed Wells													
Well	SW#	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec
		%	%	%	%	%	%	%	%	%	%	%	%
Well Q as CFS													
Interference CFS													
		%	%	%	%	%	%	%	%	%	%	%	%
Well Q as CFS													
Interference CFS													
		%	%	%	%	%	%	%	%	%	%	%	%
Well Q as CFS													
Interference CFS													
		%	%	%	%	%	%	%	%	%	%	%	%
Well Q as CFS													
Interference CFS													
		%	%	%	%	%	%	%	%	%	%	%	%
Well Q as CFS													
Interference CFS													
(A) = Total Interf.													
(B) = 80 % Nat. Q													
(C) = 1 % Nat. Q													
(D) = (A) > (C)													
(E) = (A / B) x 100		%	%	%	%	%	%	%	%	%	%	%	%

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) _____

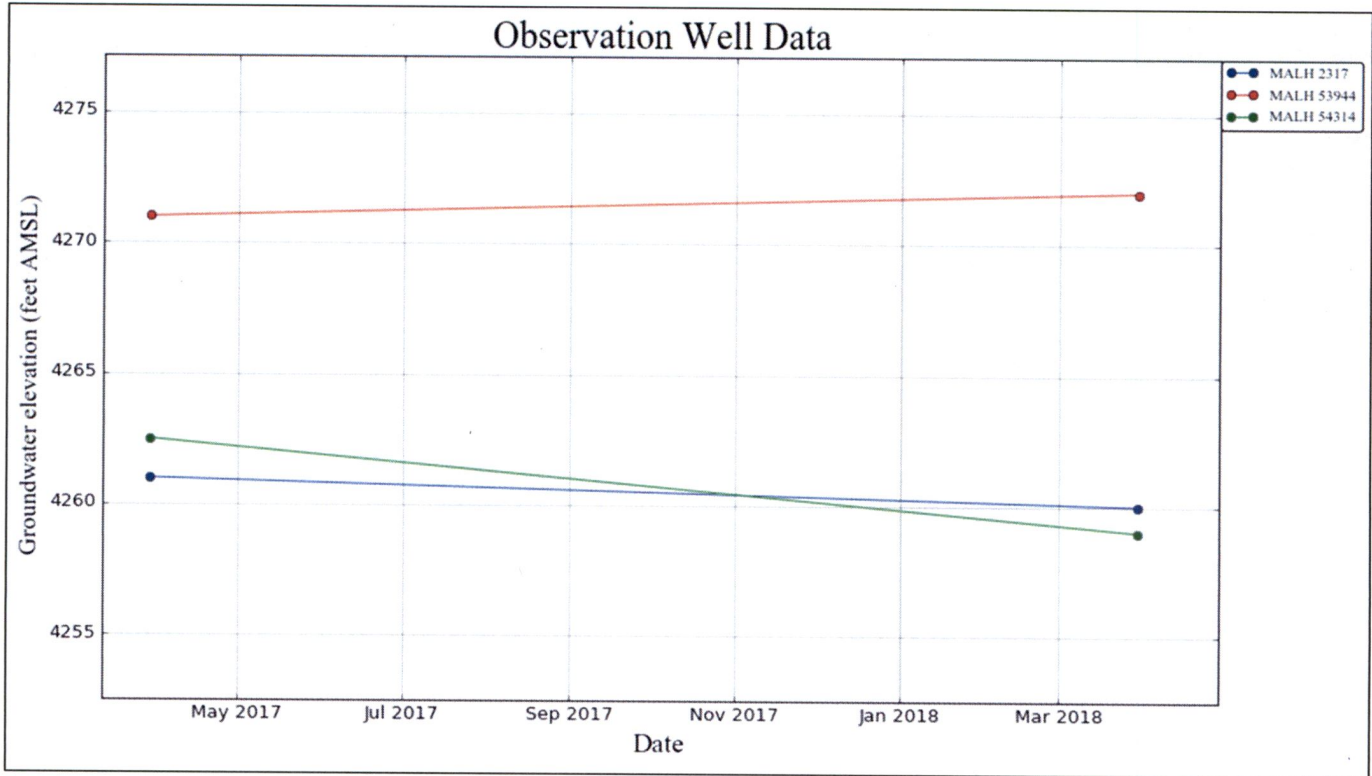
D3. **THE WELL construction deficiency or other comment is described as follows:** _____

D4. **Route to the Well Construction and Compliance Section for a review of existing well construction.**

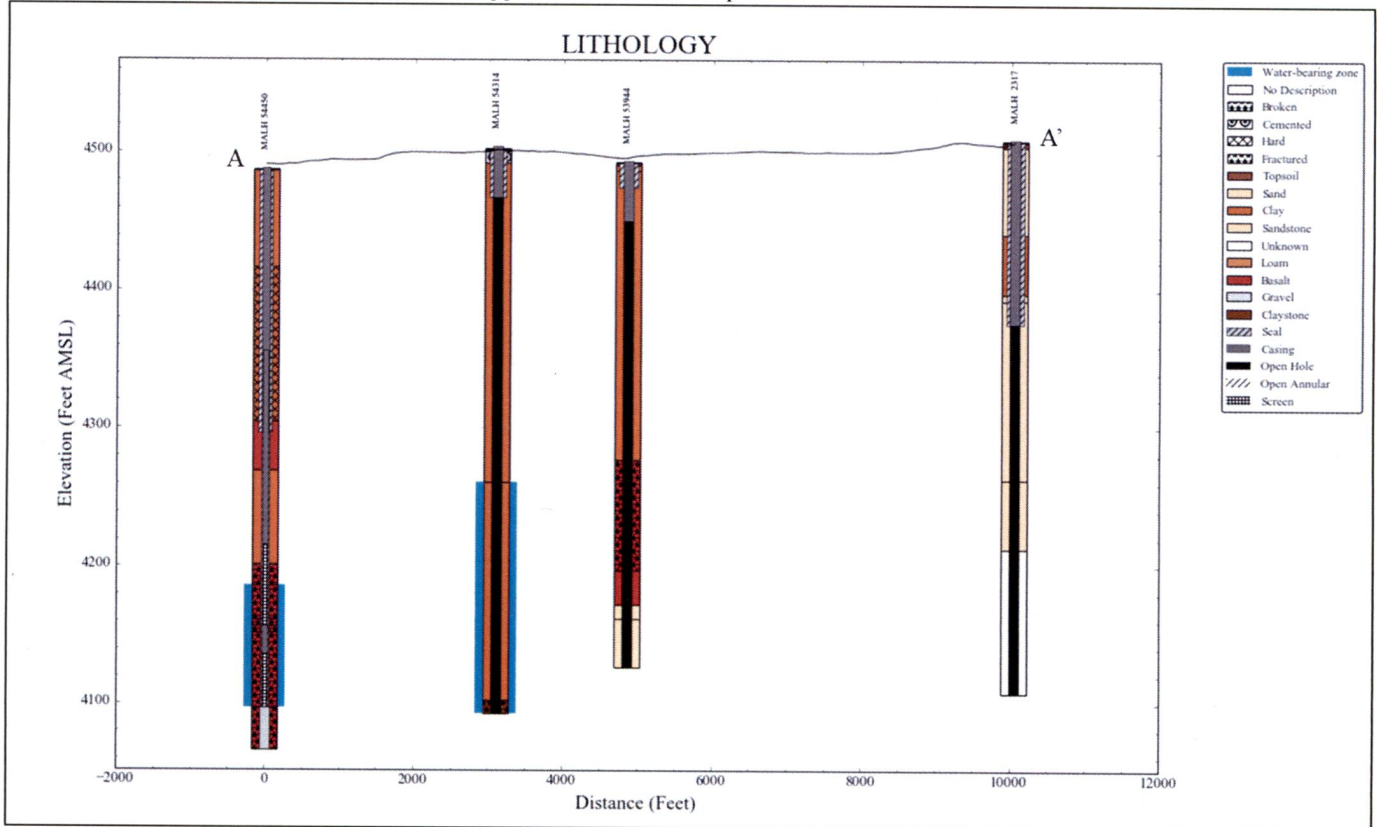
Water Availability Tables

DETAILED REPORT ON THE WATER AVAILABILITY CALCULATION						
watershed ID #: 31011619		GRANITE CR > S FK MALHEUR R - AB STAR CR			Exceedance Level: 80	
Time: 9:56 AM		Basin: MALHEUR			Date: 11/27/2018	
Month	Natural Stream Flow	Consumptive Use and Storage	Expected Stream Flow	Reserved Stream Flow	Instream Requirements	Net water Available
Monthly values are in cfs. Storage is the annual amount at 50% exceedance in ac-ft.						
JAN	0.25	0.86	-0.61	0.00	0.00	-0.61
FEB	0.55	3.98	-3.43	0.00	0.00	-3.43
MAR	1.45	9.96	-8.51	0.00	0.00	-8.51
APR	2.64	14.30	-11.60	0.00	0.00	-11.60
MAY	1.08	13.60	-12.60	0.00	0.00	-12.60
JUN	0.58	9.89	-9.31	0.00	0.00	-9.31
JUL	0.18	3.28	-3.10	0.00	0.00	-3.10
AUG	0.07	1.31	-1.24	0.00	0.00	-1.24
SEP	0.05	0.70	-0.65	0.00	0.00	-0.65
OCT	0.08	0.49	-0.41	0.00	0.00	-0.41
NOV	0.08	0.26	-0.18	0.00	0.00	-0.18
DEC	0.12	0.56	-0.44	0.00	0.00	-0.44
ANN	896	3,570	0	0	0	0

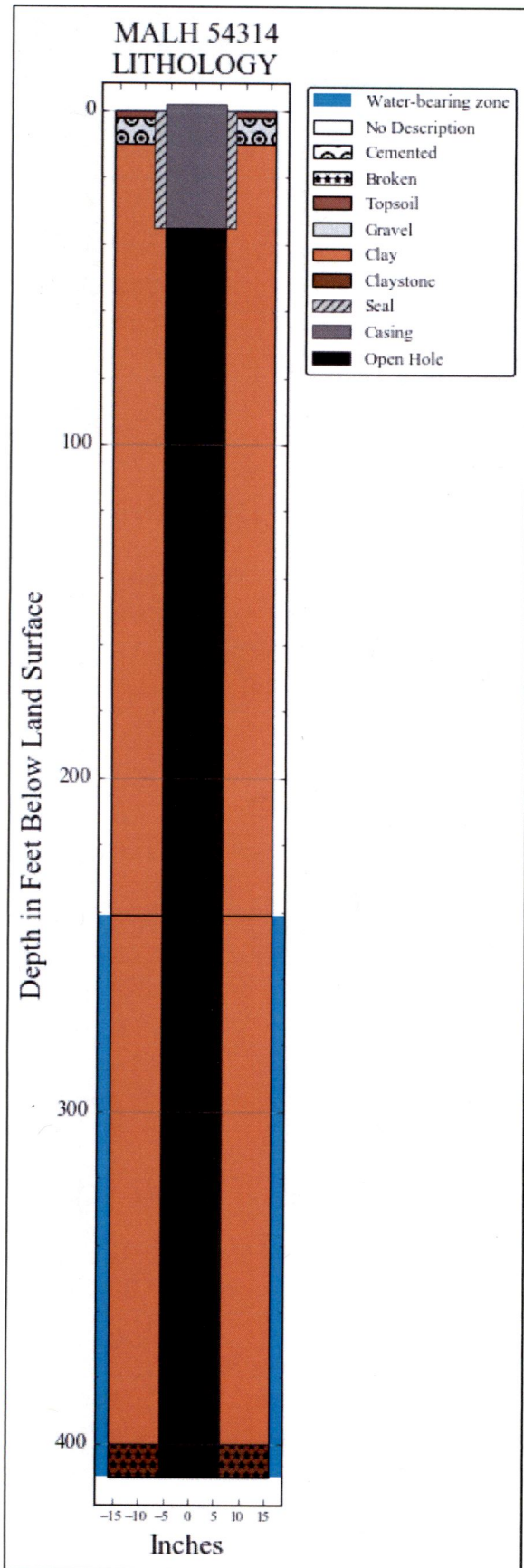
Water-Level Trends in Nearby Wells



Permit condition measurements for all three approve POA wells on permit G-17567 show no discernable decline.



The log report for the proposed POA well (MALH 54314) does not report volcanic rock, however the two wells adjacent report volcanic rock at similar elevations.



STATE OF OREGON

COUNTY OF MALHEUR

PERMIT TO APPROPRIATE THE PUBLIC WATERS

THIS PERMIT IS HEREBY ISSUED TO

V BOX LAND & LIVESTOCK
PO BOX 156
JUNTURA, OR 97911

The specific limits and conditions of the use are listed below.

APPLICATION FILE NUMBER: G-17865

SOURCE OF WATER: WELL 1 (MALH 2317/54243), WELL 2 (MALH 53944/L107673)
AND WELL 3 IN GRANITE CREEK BASIN

PURPOSE OR USE: IRRIGATION OF 220.9 ACRES

MAXIMUM RATE: 2.76 CUBIC FEET PER SECOND

PERIOD OF USE: MARCH 1 THROUGH OCTOBER 31

DATE OF PRIORITY: MAY 22, 2014

WELL LOCATION:

WELL 1 (MALH 2317/54243): NE ¼ SW ¼, SECTION 7, T24S, R39E, W.M.;
350 FEET SOUTH AND 2470 FEET EAST FROM W1/4 CORNER, SECTION 7

WELL 2 (MALH 53944/L107673): NE ¼ SW ¼, SECTION 6, T24S, R39E, W.M.;
3075 FEET SOUTH AND 2585 FEET EAST FROM NW CORNER, SECTION 6

WELL 3: SW ¼ NW ¼, SECTION 6, T24S, R39E, W.M.; 2560 FEET SOUTH AND
900 FEET EAST FROM NW CORNER, SECTION 6

The amount of water used for irrigation under this right, together with the amount secured under any other right existing for the same lands, is limited to a diversion of ONE-EIGHTIETH of one cubic foot per second and 3.0 acre-feet for each acre irrigated during the irrigation season of each year.

THE PLACE OF USE IS LOCATED AS FOLLOWS:

NE ¼ NW ¼ 13.6 ACRES
NW ¼ NW ¼ 36.7 ACRES
SW ¼ NW ¼ 36.8 ACRES
SE ¼ NW ¼ 13.6 ACRES
NE ¼ SW ¼ 19.5 ACRES
NW ¼ SW ¼ 40.6 ACRES

impacting the resource or senior water rights. The water user shall in no instance allow excessive decline, as defined in Commission rules, to occur within the aquifer as a result of use under this permit. If more than one well is involved, the water user may submit an alternative measurement and reporting plan for review and approval by the Department.

Well 3 shall be constructed to produce groundwater only from the bedrock aquifer encountered between 235 and 360 feet below land surface. If any water-bearing zones are encountered in alluvium at shallower depths, the well shall be continuously cased and continuously sealed to a depth no less than 20 feet below the bottom of the water-bearing zone encountered.

Prior to using water from any well listed on this permit, the permittee shall ensure that the well has been assigned an OWRD Well Identification Number (Well ID tag), which shall be permanently attached to the well. The Well ID shall be used as a reference in any correspondence regarding the well, including any reports of water use, water level, or pump test data.

STANDARD CONDITIONS

Failure to comply with any of the provisions of this permit may result in action including, but not limited to, restrictions on the use, civil penalties, or cancellation of the permit.

If the number, location, source, or construction of any well deviates from that proposed in the permit application or required by permit conditions, this permit may be subject to cancellation, unless the Department authorizes the change in writing.

If substantial interference with surface water or a senior water right occurs due to withdrawal of water from any well listed on this permit, then use of water from the well(s) shall be discontinued or reduced and/or the schedule of withdrawal shall be regulated until or unless the Department approves or implements an alternative administrative action to mitigate the interference. The Department encourages junior and senior appropriators to jointly develop plans to mitigate interferences.

The well(s) shall be constructed and maintained in accordance with the General Standards for the Construction and Maintenance of Water Supply Wells in Oregon. The works shall be equipped with a usable access port adequate to determine water-level elevation in the well at all times.

If the riparian area is disturbed in the process of developing a point of appropriation, the permittee shall be responsible for restoration and enhancement of such riparian area in accordance with ODFW's Fish and Wildlife Habitat Mitigation Policy OAR 635-415. For purposes of mitigation, the ODFW Fish and Wildlife Habitat Mitigation Goals and Standards, OAR 635-415, shall be followed.

The use may be restricted if the quality of downstream waters decreases to the point that those waters no longer meet state or federal water quality standards due to reduced flows.

Where two or more water users agree among themselves as to the manner of rotation in the use of water and such agreement is placed in writing and filed by such water users with the watermaster, and such rotation system does not infringe upon such prior rights of any water user not a party to such rotation plan, the watermaster shall distribute the water according to such agreement.

Prior to receiving a certificate of water right, the permit holder shall submit to the Water Resources Department the results of a pump test meeting the Department's standards for each point of appropriation (well), unless an exemption has been obtained in writing under OAR 690-217. The Director may require water-level or pump-test data every ten years thereafter.

This permit is for the beneficial use of water without waste. The water user is advised that new regulations may require the use of best practical technologies or conservation practices to achieve this end.

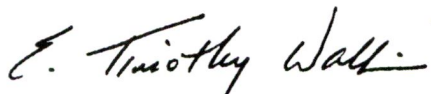
By law, the land use associated with this water use must be in compliance with statewide land-use goals and any local acknowledged land-use plan.

Construction of the well shall be made within five years of the date of permit issuance. The deadline to begin construction may not be extended. This permit is subject to cancellation proceedings if the begin construction deadline is missed.

Complete application of the water shall be made within five years of the date of permit issuance. If beneficial use of permitted water has not been made before this date, the permittee may submit an application for extension of time, which may be approved based upon the merit of the application.

Within one year after making beneficial use of water, the permittee shall submit a claim of beneficial use, which includes a map and report, prepared by a Certified Water Rights Examiner.

Issued *MARCH 30 2016*



E. Timothy Wallin, Water Rights Program Manager
for Thomas M. Byler, Director

SW ¼ SW ¼ 28.0 ACRES
SE ¼ SW ¼ 12.3 ACRES
SECTION 6

NE ¼ NW ¼ 0.7 ACRE
NW ¼ NW ¼ 19.1 ACRES
SECTION 7

TOWNSHIP 24 SOUTH, RANGE 39 EAST, W.M.

Measurement devices, and recording/reporting of annual water use conditions:

- A. Before water use may begin under this permit, the permittee shall install a totalizing flow meter at each point of appropriation. The permittee shall maintain the device in good working order.
- B. The permittee shall allow the watermaster access to the device; provided however, where any device is located within a private structure, the watermaster shall request access upon reasonable notice.
- C. The permittee shall keep a complete record of the volume of water diverted each month, and shall submit a report which includes water-use measurements to the Department annually, or more frequently as may be required by the Director. Further, the Director may require the permittee to report general water-use information, including the place and nature of use of water under the permit.
- D. The Director may provide an opportunity for the permittee to submit alternative measuring and reporting procedures for review and approval.

Static Water Level Conditions

To monitor the effect of water use from the well(s) authorized under this permit, the Department requires the water user to obtain, from a qualified individual (see below), and report annual static water-level measurements. The static water level shall be measured in the month of March. Reports shall be submitted to the Department within 30 days of measurement.

Measurements must be made according to the following schedule:

Before Use of Water Takes Place

Initial and Annual Static Water Level Measurements

The Department requires the permittee to report an initial water-level measurement in the month specified above once well

construction is complete, and annually thereafter until use of water begins; and

After Use of Water has Begun

Seven Consecutive Annual Static Water Level Measurements

Following the first year of water use, the user shall report seven consecutive annual static water-level measurements. The first of these seven annual measurements will establish the reference level against which future annual measurements will be compared. Based on an analysis of the data collected, the Director may require the user to obtain and report additional annual static water-level measurements beyond the seven year minimum reporting period. The additional measurements may be required in a different month. If the measurement requirement is stopped, the Director may restart it at any time.

All measurements shall be made by a certified water rights examiner, registered professional geologist, registered professional engineer, licensed well constructor or pump installer licensed by the Construction Contractors Board and be submitted to the Department on forms provided by the Department. The Department requires the individual performing the measurement to:

- A. Identify each well with its associated measurement;
- B. Measure and report water levels to the nearest tenth of a foot as depth-to-water below ground surface;
- C. Specify the method used to obtain each well measurement; and
- D. Certify the accuracy of all measurements and calculations reported to the Department.

The Department may require the discontinuance of groundwater use, or reduce the rate or volume of withdrawal, from the well(s) if any of the following events occur:

- A. Annual water-level measurements reveal an average water-level decline of three or more feet per year for five consecutive years; or
- B. Annual water-level measurements reveal a water-level decline of 15 or more feet in fewer than five consecutive years; or
- C. Annual water-level measurements reveal a water-level decline of 25 or more feet; or
- D. Hydraulic interference leads to a decline of 25 or more feet in any neighboring well with senior priority.

The period of non-use or restricted use shall continue until the water level rises above the decline level which triggered the action or until the Department determines, based on the permittee's and/or the Department's data and analysis, that no action is necessary because the aquifer in question can sustain the observed declines without adversely

