



Water Right Application Initial Review

March 12, 2021

JARROD PENTTILA
OREGON STATE UNIVERSITY - CASCADES
1500 SW CHANDLER AVE
BEND OR 97702

Reference: Application G-18980

This document is to inform you of the preliminary analysis of the water-use permit application and to describe your options. In determining whether an application may be approved, the Department must consider the factors listed below, all of which must be favorable to the proposed use if it is to be allowed. Based on the information supplied, the Water Resources Department has made the following preliminary determinations:

Initial Review Preliminary Determinations (Oregon Administrative Rule (OAR) 690-310-0080)

1. Application G-18980 proposes the appropriation of 2.23 cubic feet per second (CFS) of water from Production Well (DESC 61926/L48750) in Deschutes River Basin for year-round geothermal use (heat exchange). Water appropriated from Production Well (DESC 61926/L48750) is to be injected into the proposed Injection well.
2. The Department has determined that the proposed use of groundwater for a closed-loop heat exchange system, where the water is reinjected back in to the aquifer, is considered non-consumptive.
3. The proposed use is not prohibited by law or rule except where otherwise noted below.
4. Industrial use (including geothermal heat exchange) is allowed under the Deschutes Basin Program (OAR 690-505-0400).
5. If properly conditioned, the proposed use of groundwater will avoid injury to existing groundwater rights and the resource.
6. The Department has determined, based upon OAR 690-09, that the proposed groundwater use will have the potential for substantial interference with Deschutes River. Therefore, in accordance with OAR 690-410-0070(1) and 690-400-0010(11)(a)(B), surface water availability must be considered.

7. Surface water is not available at any time of the year due to senior water rights on Deschutes River and downstream waters.
8. The proposed use of hydraulically-connected groundwater with the potential for substantial interference is not allowable in the Deschutes Basin from April 15 through September 30 of each year. (OAR 690-033-0120(2)(b))
9. The proposed wells are located within the Deschutes Groundwater Study Area. By law, the Department is required to deny the application unless mitigation is provided. The unfavorable finding of the Initial Review may be overcome if mitigation is provided pursuant to the Deschutes Groundwater Mitigation Rules. (OAR 690-505-0500 to -0630)
10. Pursuant to OAR 690-505-0500(1), there is a 200.00 CFS cap on the amount of new groundwater use that may be allocated within the Deschutes Groundwater Study Area. Under the current rules, once the cap is reached, the Department will not be able to propose issuance on any new permits.
11. The Department has determined, because of the non-consumptive nature of the use, the mitigation obligation is 0.00 (AF) annually.
12. If the proposed use is later found to be consumptive, mitigation would be required pursuant to the Deschutes Ground Water Mitigation Rules (OAR 690-505-0500 through 0630). Any mitigation for the proposed use must be located in the General Zone of Impact (located anywhere in the Deschutes Basin above the Madras gage, which is located on the Deschutes River below Lake Billy Chinook).
13. The proposed use is located above the Deschutes Scenic Waterway, as designated under Oregon Revised Statute (ORS) 390.826. The Department has determined, based upon OAR 690-310-0260, that there is a preponderance of evidence that the proposed use of groundwater 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.
14. Documentation has been submitted from the relevant land-use planning jurisdiction that indicates the proposed use is allowed outright.

Summary of Preliminary Determinations
The appropriation of 2.23 CFS of water from Production Well (DESC 61926/L48750) in Deschutes River Basin for geothermal use (heat exchange) is not allowable. However, if you provide sufficient mitigation water to satisfy the mitigation obligation of the proposed use, it may be allowed under OAR 690-505-0610.

Mitigation Obligation Options:

To satisfy the mitigation obligation you can either complete a mitigation project as described in the attached administrative rules, or obtain 0.00 qualifying mitigation credits from an individual or mitigation bank. If you are interested in obtaining mitigation credits, you may want to contact Sarah Henderson, Flow Restoration Program Coordinator, at 503-986-0884 for a list of mitigation credit holders.

If you decide to purchase mitigation credits, you must submit a documentary evidence form demonstrating that you have obtained mitigation credits. The mitigation bank or the individual you have

obtained credits from should provide you with a completed form. Blank forms may be obtained from the Department at the address above, or from the Bend Regional office.

If you are proposing to implement a mitigation project, you must identify and describe the project in sufficient detail so that the Department can make a preliminary determination as to whether the proposed project will likely meet the mitigation obligation. Please contact Sarah Henderson, Flow Restoration Program Coordinator, at 503-986-0884 for further information on mitigation projects, forms, and specific requirements to be included in the proposal.

Mitigation credits must be obtained and/or a mitigation project must be completed before a permit can be issued.

At this time, you must decide whether to proceed or to withdraw the application.

- To Proceed - If you choose to proceed with the application you do not have to notify the Department, **however, you will need to submit a completed Response to Notice of Mitigation Obligation (NOMO) form (attached) prior to the issuance of a Proposed Final Order.** The application will be placed on the Department's Public Notice to allow others the opportunity to comment. After the comment period and receipt of the NOMO form, the Department will complete a public interest review and issue a Proposed Final Order.
- To Withdraw - You may withdraw the application and receive a refund (minus a \$260 processing charge per application). You must notify the Department **in writing** by **March 26, 2021**. For your convenience you may use the enclosed "STOP PROCESSING" form.

If a permit is issued, it will likely include the following conditions:

1. Construction of the well shall begin 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 construction deadline to begin is missed.
2. 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 not be valid, unless the Department authorizes the change in writing.
3. **Water Use Measurement, Recording, and Reporting Condition:**
 - 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 used each month, and shall submit an annual report which includes the recorded 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.

6. Static Water Level Condition:

The Department requires the water user to obtain, from a qualified individual (see below), and report annual static water levels for each well on the permit. The static water level shall be measured in the month of March. Reports shall be submitted to the Department within 30 days of measurement.

The permittee shall report an initial March static water-level measurement once well construction is complete and annual measurements thereafter. Annual measurements are required whether or not the well is used. The first annual measurement will establish a reference level against which future measurements will be compared. However, the Director may establish the reference level based on an analysis of other water-level data. The Director may require the user to obtain and report additional water levels each year if more data are needed to evaluate the aquifer system.

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. Measurements shall be submitted on forms provided by, or specified by, the Department. Measurements shall be made with equipment that is accurate to at least the standards specified in OAR 690-217-0045. The Department requires the individual performing the measurement to:

- A. Associate each measurement with an owner's well name or number and a Department well log ID; and
- B. Report water levels to at least the nearest tenth of a foot as depth-to-water below ground surface; and
- C. Specify the method of measurement; and
- D. Certify the accuracy of all measurements and calculations reported to the Department.

The water user shall discontinue use of, 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 restricted use shall continue until the water level rises above the decline level which triggered the action or 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 impacting the resource or causing substantial interference with senior water rights. The water user shall not 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.

4. Scenic Waterway Condition:

Use of water under authority of this permit may be regulated if analysis of data available after the permit is issued discloses that the appropriation 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 in effect as of the priority date of the right or as those quantities may be subsequently reduced.

5. Well Identification Tag Condition:

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.

7. Injection Plan Condition:

The water user shall develop a plan to monitor and report the impact of water use under this permit. The plan shall be submitted to the Department before water use begins under this permit and shall be subject to the approval of the Department (OAR 690-230-0115).

8. Injection Well Condition:

Prior to use of water under this permit, the permit holder must register the injection activity with the Oregon Department of Environmental Quality's Underground Injection Control Program, which can be contacted at 2020 SW 4th Ave, Ste 400, Portland OR 97201, or 503-229-5263.

9. Non-Consumptive Use Condition:

This permit is valid if, and only if, 100 percent of the groundwater extracted from the production wells for use under this permit is reinjected back into the authorized injection well in a manner that can be confirmed by the reported flow meter data. Any volume of groundwater diverted from these wells for use under any other water rights must be measured with a dedicated flowmeter at the point where diversion takes place. If this condition is not met, the use is invalid and subject to regulation, including possible, immediate cancellation of the permit.

Groundwater Mitigation Conditions:

1. Mitigation Obligation: 0.00 AF of mitigation water in the General Zone of Impact (located anywhere in the Deschutes Basin above the Madras gage, which is located on the Deschutes River below Lake Billy Chinook).
2. Mitigation Source: obtain 0.00 AF of mitigation water or equivalent mitigation credits that meet the requirements of OAR 690-505-0610(2)-(5).

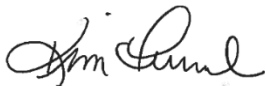
3. Mitigation water must be legally protected instream in the General Zone of Impact for the life of the permit and subsequent certificate(s). Regulation of the use and/or cancellation of the permit, or subsequent certificate(s) will occur if the required mitigation is not maintained.
4. The permittee shall provide additional mitigation if the Department determines that average annual consumptive use of the subject appropriation has increased beyond the originally mitigated amount.
5. If mitigation is from a secondary right for stored water from a storage project not owned or operated by the permittee, the use of water under this right is subject to the maintenance and terms and conditions of a valid contract or satisfactory replacement, with the owner/operator of the storage project, a copy of which must be on file in the records of the Water Resources Department.
6. Failure to comply with these mitigation conditions shall result in the Department regulating the groundwater permit, or subsequent certificate(s), proposing to deny any permit extension application for the groundwater permit, and proposing to cancel the groundwater permit, or subsequent certificate(s).

The water source identified in the application may be affected by an Agricultural Water Quality Management Area Plan. These plans are developed by the Oregon Department of Agriculture (ODA) with the cooperation of local landowners and other interested stakeholders, and help to ensure that current and new appropriations of water are done in a way that does not adversely harm the environment. You are encouraged to explore ODA's Water Quality Program web site at <http://www.oregon.gov/ODA> to learn more about the plans and how they may affect the proposed water use.

If you have any questions:

Feel free to contact me at Kim.R.French@oregon.gov or 503-986-0816 if you have any questions regarding the contents of this letter or the application. Please include the application number in all correspondence. General questions about water rights and water use permits should be directed to our customer service staff at 503-986-0900. When corresponding by mail, please use this address: Kim French, Oregon Water Resources Department, 725 Summer St NE Ste A, Salem OR 97301-1266. Our fax number is 503-986-0901.

Sincerely,



Kim French
Water Right Application Specialist
Oregon Water Resources Department

Enclosures: Application Process Description, Stop Processing Request Form, Response to Notice of Mitigation Obligation; and Deschutes Mitigation Rules

APPLICATION FACT SHEET

Application File Number: G-18980

Applicant: JARROD PENTTILA AND OREGON STATE UNIVERSITY - CASCADES

County: DESCHUTES

Watermaster: JEREMY GIFFIN, 11, SCR

Priority Date: MAY 12, 2020

Source: PRODUCTION WELL (DESC 61926/L48750) IN DESCHUTES RIVER BASIN

Use: GEOTHERMAL USE (HEAT EXCHANGE)

Quantity: 2.23 CUBIC FEET PER SECOND

Basin Name & Number: DESCHUTES, #5

WAB: DESCHUTES R > COLUMBIA R - AB TUMALO CR

WELL LOCATION(S):

POA Name	Twp	Rng	Mer	Sec	Q-Q	Measured Distances
INJECTION WELL	18 S	12 E	WM	6	SE NW	475 FEET NORTH AND 600 FEET EAST FROM NW CORNER, NESW, SECTION 6
PRODUCTION WELL	18 S	12 E	WM	6	NE SW	80 FEET SOUTH AND 1120 FEET EAST FROM NW CORNER, NESW, SECTION 6

PLACE OF USE:

Twp	Rng	Mer	Sec	Q-Q
18 S	12 E	WM	6	SE NW

PUBLIC NOTICE DATE: March 16, 2021

14 DAY STOP PROCESSING DEADLINE DATE: March 26, 2021

30 DAY COMMENT DEADLINE DATE: April 15, 2021

**RESPONSE TO NOTICE OF MITIGATION OBLIGATION
CREDIT OR PROJECT OPTION**

A mitigation obligation may be satisfied by obtaining mitigation credits, providing for implementation of a mitigation project, or both (OAR 690-505-0610(2)). Please read and complete this acknowledgment of mitigation obligation and return it to the Department.

Applicant(s): JARROD PENTTILA AND OREGON STATE UNIVERSITY - CASCADES

Applicant's agent (*if applicable*): SHANE COCHRAN

Application number: G-18980

Proposed Use: GEOTHERMAL USE (HEAT EXCHANGE) – NON-CONSUMPTIVE

Period of Use: JANUARY 1 THROUGH DECEMBER 31

Rate requested: 2.23 CUBIC FEET PER SECOND

Volume requested: 1606.0 ACRE-FEET

Mitigation Obligation: 0.00 ACRE-FEET

Zone of Impact: General Zone of Impact (located anywhere in the Deschutes Basin above the Madras gage, which is located on the Deschutes River below Lake Billy Chinook)

Please read and initial the following statements:

_____ I/We intend to provide mitigation in the amounts noted above and in the appropriate zone of impact.

_____ I/We understand that mitigation must be provided within five years of issuance of the final order.

The source of mitigation water will be (please check):

_____ Purchase mitigation credits and / or _____ A mitigation project resulting in credits

Please describe the type of project (e.g., transfer, etc.) and any associated water-right certificate, if known:

I understand that I must provide mitigation credits in the amount noted, or a suitable replacement mitigation that meets the requirements of OAR 690-505-0610(2)-(5) in the appropriate zone of impact.

Applicant(s)

or

Applicant's agent

Date_____

Telephone Number:_____

Mail to: Attn: Kim French
 Oregon Water Resources Department
 725 Summer St NE Suite A
 Salem OR 97301-1266

OR

Email to: Kim.R.French@oregon.gov

Mailing List for IR Copies

Application G-18980

IR Date: March 12, 2021

Original and map mailed to applicant:

JARROD PENTTILA
OREGON STATE UNIVERSITY - CASCADES
1500 SW CHANDLER AVE
BEND OR 97702

Copies Mailed
By: _____ (SUPPORT STAFF)
On: _____ (DATE)

Sent via auto email:

1. Applicant - jarrod.penttila@osucascades.com
2. Agent – Shane Cochran - scochran@wallacegroup-inc.com
3. WRD – Watermaster Jeremy Giffin #11
4. WRD – Surface Water Section
5. DRC – Genevieve Hubert – gen@deshutesriver.org
6. ODFW District Biologist – Brett Hodgson – brett.l.hodgson@state.or.us
7. ODFW – Danette Faucera – danette.l.faucera@state.or.us
8. DEQ – Eric Nigg & Smita Mehta, Eastern Region – eric.nigg@state.or.us, smita.mehta@state.or.us
9. DSL – Sheena Miltenberger – sheena.miltenberger@dsl.state.or.us

Copies sent to:

1. WRD - File G-18980
2. WRD – Sarah Henderson

Application Specialist: Kim French

APPLICATION PROCESS DESCRIPTION FOR GROUNDWATER, SURFACE WATER AND REGULAR RESERVOIR APPLICATIONS

In order to use the waters of Oregon, an application must be submitted and a permit obtained from the Water Resources Department. The water must be used for beneficial purpose without waste. For more information about water right topics, weekly public notice, forms and fees please visit our web site at www.wrd.state.or.us

1. Pre-application considerations

- Follow instructions in the application packet.
- If you have questions about completing an application or would like to arrange a pre-application conference contact the Department's Water Rights Customer Service Group at (503) 986-0801.

2. Application filing

- Application with fee is received by the Department.
- Department determines completeness of application.
- If use is not allowed by statute (ORS 538), the application and fees are returned to the applicant.
- An incomplete application and fees are returned to the applicant.
- Only a complete application receives a tentative priority date, is assigned a caseworker, and moves forward for processing.

3. Initial Review (IR)

- Caseworker reviews application by considering basin plans, water availability, statutory restrictions, and all other appropriate factors.
- Caseworker sends IR report to Applicant.
- Contact the Caseworker if you have questions about the IR.
- Four days after date of the IR, it is included in Department's weekly Public Notice.
- Public comments must be submitted within 30 days after the Public Notice.
- **An administrative hold** may be requested in writing by Applicant.

4. Proposed Final Order (PFO)

- Caseworker evaluates application against required criteria and develops draft permit, if appropriate.
- PFO includes instructions for filing of protests.
- Caseworker considers public comments and mails PFO to Applicant.
- The PFO is included in Department's weekly Public Notice.
- Public protests to the PFO must be submitted within 45 days after the Public Notice.

5. Final Order (FO)

- If no protest is filed, Final Order is issued.

The protest process

If one or more protests are filed, the process consists of:

- settlement discussion;
- contested case hearing;
- proposed Order;
- period of time to file exceptions; or
- Possible hearing by Water Resources Commission.
- Final Order is issued.

Permit holder responsibilities

- Comply with all water use conditions of the permit.
- Advise Department of address change or assignment to new permit holder.
- If need arises, request extension of time or authorize cancellation of permit.
- Submit timely claim of beneficial use (COBU) to the Department.
- Most permits require COBU to be prepared by a Certified Water Right Examiner.
- Permits may be canceled by the permit holder or by the Department for failure to comply with or one or more permit conditions.

STOP PROCESSING REQUEST FORM

FOR GROUNDWATER, SURFACE WATER AND REGULAR RESERVOIR APPLICATIONS

- Stop processing deadline is within 14 days of Initial Review.
- Applicant notification to withdraw Water Right Application **G-18980**.

After reviewing the Initial Review for my application, I request that processing be stopped and the fees be refunded (minus a \$260 examination fee). I understand that without a valid permit I may not legally use the water as requested in my application.

Signature _____ Date _____

Signature _____ Date _____

- Under ORS 537.150 (5) and 537.620 (5), timely submission of this request authorizes that the water right application process be stopped and all filing fees (except \$260 examination fee) be returned.
- This notice must be received at Water Resources Department by:

March 26, 2021

- Return the notice to:

OWRD, Water Right Services Division
STOP PROCESSING
725 Summer Street, NE, Suite A
Salem OR, 97301-1271
