

If the Department determines that the presumption is established and not overcome, the Department shall issue a proposed final order recommending issuance of the permit, subject to any appropriate modifications or conditions.

FINDINGS OF FACT

Application History

1. On May 12, 2020, Jarrod Penttila and Oregon State University – Cascades filed a complete application for the following water use:

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

Use: GEO-THERMAL USE (HEAT EXCHANGE)

Rate: 2.23 CUBIC FEET PER SECOND (CFS)

Period of Use: JANUARY 1 THROUGH DECEMBER 31

County: DESCHUTES COUNTY

Place of Use: SECTION 6, TOWNSHIP 18 SOUTH, RANGE 12 EAST, W.M.

2. On March 12, 2021, the Department mailed the applicant notice of its Initial Review, determining that 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. The applicant did not notify the Department to stop processing the application within 14 days of that date. The Initial Review included the Notice of Mitigation Obligation for the proposed groundwater use, pursuant to the Deschutes Groundwater Mitigation Rules (OAR 690-505).
3. On March 16, 2021, the Department gave public notice of the application in its weekly notice. The public notice included a request for comments, and information for interested persons about obtaining future notices and a copy of the Proposed Final Order.
4. On March 16, 2021, the Department received the applicant’s Response to Notice of Mitigation Obligation Credit or Project Option, wherein the applicant acknowledged that they intend to provide mitigation in the amount of 0.00 AF within 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). The Department has determined, because of the non-consumptive nature of the use, the mitigation obligation is 0.00 AF annually.

Presumption Criteria (a) - Consistency with Basin Program

5. The proposed groundwater use is located within the Deschutes Groundwater Study Area, and is subject to the Deschutes Groundwater Mitigation Rules (OAR 690-505).
6. Industrial use (including geo-thermal heat exchange) is allowed under the Deschutes Basin Program (OAR 690-505-0400). ORS 537.621(3)(b); OAR 690-310-0150(2)(b)

7. Pursuant to OAR 690-505-0500(1), there is a 200.00 CFS limit on the amount of new groundwater use that may be allocated within the Deschutes Groundwater Study Area. Any water allocated under this application will not exceed the limit.
8. The mitigation obligation for the proposed use is 0.00 acre feet (AF), which represents the Department's determination of the consumptive portion of the proposed use. Each mitigation credit is equivalent to 1.0 AF of mitigation water. Because the proposed use includes groundwater to be reinjected into a second well, the Department has determined the use is non-consumptive. OAR 690-505-0610(5)
9. Mitigation shall be provided 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).

Presumption Criteria (b) - Water Availability

10. An assessment of groundwater availability has been completed by the Department. A copy of this assessment is in the file and can be viewed on the Department's website. The proposed use of groundwater will, if properly conditioned, avoid injury to existing groundwater rights and the groundwater resource. ORS 537.621(3)(c); OAR 690-310-0150(2)(c)

Presumption Criteria (c) - Injury Determination

11. The proposed groundwater use is junior to existing water rights downstream in the Deschutes River Basin. Therefore, the proposed use, if authorized, will not injure other water rights. ORS 537.621(3)(d); OAR 690-310-0150(2)(e)

Presumption Criteria (d) - Whether the use complies with rules of the Commission

12. Documentation has been submitted from the relevant land-use planning jurisdiction that indicates the proposed use is allowed outright. ORS 537.621(3)(b); OAR 690-310-0150(2)(b)
13. The proposed groundwater use is not within a designated critical groundwater area. ORS 537.620(4)(a), 537.621(3)(a); OAR 690-310-0150(2)(a)
14. Because the use is non-consumptive, the proposed use will have not the potential for substantial interference with the Deschutes River (OAR 690-009). ORS 537.621(3)(b); OAR 690-009-0040(4).
15. The Department finds that the mitigation proposed by the applicant will satisfy the mitigation required under OAR Chapter 690, Division 505; therefore, pursuant to OAR 690-505-0630, that mitigation effectively eliminates the potential for substantial interference with surface water.

Determination of Presumption that a proposed groundwater use will ensure the preservation of the public welfare, safety and health

Based on the review of the presumption criteria (a)-(d) above, the presumption has been established. ORS 537.621(2); OAR 690-310-0150(2)(g)

Further evaluation of the proposed use

16. Comments were received from David Arnold by the close of the comment period. OAR 690-310-0140(3)(a)
17. In summary, the commenter expressed concern about contamination in the type of system being installed. The Department had considered the comments. The attached draft permit has been conditioned to develop a plan to monitor and report the impact of water use in compliance with ORS 690-230 (*Standards and procedures for low-temperature geothermal production and injection wells and effluent disposal systems*).
18. Information available in Department files, received from other interested agencies, and other available information does not provide a preponderance of evidence that the proposed use would not ensure the preservation of the public welfare, safety and health under ORS 537.525. OAR 690-310-0140(3)

Other Criteria and Requirements

19. The applicant proposed methods to measure the amount of water diverted, prevent damage to aquatic life and riparian habitat, prevent discharge of contaminated water to a surface stream, or to prevent damage to public uses of any affected surface waters. These measures are adequate at this time. OAR 690-310-0150(2)(j)
20. The Department requested comments on the application and proposed mitigation from the Oregon Departments of Fish and Wildlife, Environmental Quality, State Lands, Parks and Recreation, and Agriculture pursuant to the Deschutes Groundwater Mitigation Rules. No issues were raised in that review that require conditioning of the attached draft permit.
21. The applicant has not provided the Department with documentary evidence that the qualifying mitigation credits have been obtained.
22. Pursuant to ORS 390.835(9), the proposed use shall be denied unless mitigation is provided. Without the required mitigation, there is a preponderance of evidence that the proposed use will measurably reduce surface water flows necessary for the Deschutes River Scenic Waterway. The applicant must mitigate for the proposed use.
23. In order to obtain a permit, documentary evidence of mitigation credits must be submitted to the Department within five years of the issuance of a Final Order approving the proposed groundwater use.
24. The proposed use complies with rules of the Water Resources Commission not otherwise described above.

CONCLUSION OF LAW

1. The proposed use, as conditioned, would ensure the preservation of the public welfare, safety and health as described in ORS 537.525.

NOTE: When issuing permits, ORS 537.628(1) authorizes the Department to include limitations and conditions which have been determined necessary to protect the public welfare, safety and health.

PROPOSED ORDER

The Department recommends approval of Application G-18980 and issuance of a permit consistent with the attached draft permit.

DATED May 25, 2021

Alyssa Mucken
Water Rights Section Manager, for
Thomas M. Byler, Director
Oregon Water Resources Department

Protests

Under the provisions of ORS 537.153(7) (for surface water) or ORS 537.621(8) (for groundwater), you can protest this Proposed Final Order. Protests must be received by the Water Resources Department no later than **July 9, 2021**.

IMPORTANT: Due to COVID-19, the Department's office is closed to walk-in services. The Department encourages the submission of protests by U.S. mail. Please consider mailing early to ensure the Department receives the protest by the deadline specified above.

Protests must be in writing and include the following:

- Your name, address, and telephone number;
- A description of your interest in the Proposed Final Order, and, if you claim to represent the public interest, a precise statement of the public interest represented;
- A detailed description of how the action proposed in the Proposed Final Order would impair or be detrimental to your interest;
- A detailed description of how the Proposed Final Order is in error or deficient, and how to correct the alleged error or deficiency;
- Any citation of legal authority to support your protest, if known;
- To affect the department's determination that the proposed use in this application will, or will not, ensure the preservation of the public welfare, safety and health as described in ORS 537.525, ORS 537.621(2)(b) requires that a protest demonstrate, by a preponderance of evidence any of the following: (a) One or more of the criteria for establishing the presumption are, or are not, satisfied; or (b) The specific aspect of the public welfare, safety and health under ORS 537.525 that would be impaired or detrimentally affected, and specifically how the identified aspect of the public welfare, safety and health under ORS 537.525 would be impaired or be adversely affected;
- If you are the applicant, the protest fee of \$410 required by ORS 536.050; and
- If you are not the applicant, the protest fee of \$810 required by ORS 536.050 and proof of service of the protest upon the applicant.
- If you are the applicant, a statement of whether or not you are requesting a contested case hearing.

Requests for Standing

Under the provisions of ORS 537.153(7) (for surface water) or ORS 537.621(8) (for groundwater), persons other than the applicant who support a Proposed Final Order can request standing for purposes of participating in any contested case proceeding on the Proposed Final Order or for judicial review of a Final Order.

Requests for standing must be received in the Water Resources Department no later than **July 9, 2021**. Requests for standing must be in writing, and must include the following:

- The requester's name, mailing address and telephone number;
- If the requester is representing a group, association or other organization, the name, address and telephone number of the represented group;

DRAFT

This is not a permit.

DRAFT

STATE OF OREGON

COUNTY OF DESCHUTES

DRAFT PERMIT TO APPROPRIATE THE PUBLIC WATERS

THIS DRAFT PERMIT IS HEREBY ISSUED TO

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

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

APPLICATION FILE NUMBER: G-18980

SOURCE OF WATER: PRODUCTION WELL (DESC 61926/L48750) IN DESCHUTES RIVER BASIN

PURPOSE OR USE: GEO-THERMAL USE (HEAT EXCHANGE)

MAXIMUM RATE: 2.23 CUBIC FEET PER SECOND

PERIOD OF USE: JANUARY 1 THROUGH DECEMBER 31

DATE OF PRIORITY: MAY 12, 2020

AUTHORIZED POINT OF APPROPRIATION:

POA Name	Twp	Rng	Mer	Sec	Q-Q	Measured Distances
Production Well	18 S	12 E	WM	6	NE SW	80 FEET SOUTH AND 1120 FEET EAST FROM NW CORNER, NESW, SECTION 6

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

AUTHORIZED PLACE OF USE:

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

PERMIT SPECIFIC CONDITIONS

1. 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.

2. Water Use Measurement, Recording, and Reporting:

- 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.

3. Static Water Level Measurements:

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. Injection Plan:

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).

5. Injection Well Registration:

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.

6. Non-Consumptive Use:

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.

4. Well Identification Tag:

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.

5. Scenic Water Way:

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.

6. Groundwater Mitigation:

- A. Mitigation Obligation: 0.00 acre-feet 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).
- B. Mitigation Source: suitable mitigation from mitigation credits, or one or more mitigation projects.
- C. 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.
- D. The permittee shall provide additional mitigation if the Department determines that average annual consumptive use of the appropriation has increased beyond that used to compute the volume of mitigation water originally.
- E. 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.
- F. 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).

STANDARD CONDITIONS

1. 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.
2. 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.
3. 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.
4. 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.
5. 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.
6. 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.

DEVELOPMENT AND COMPLETION TIMELINE REQUIREMENTS

7. 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.
8. 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.
9. 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.

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

Issued _____

DRAFT - THIS IS NOT A PERMIT

Dwight French
Water Right Services Division Administrator, for
Thomas M. Byler, Director
Oregon Water Resources Department

Mailing List for PFO/Draft Permit Copies

Application G-18980

PFO Date May 25, 2021

Original mailed via CERTIFIED MAIL to applicant:

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

Copies Mailed

By: _____

(SUPPORT STAFF)

on: _____

Sent via auto email:

1. Applicant - jarrod.penttila@osucascades.com
2. Agent – Shane Cochran - scochran@wallacegroup-inc.com
3. WRD - Jeremy Giffin - # 11
4. WRD – Surface Water Section
5. DRC – Genevieve Hubert – gen@deshutesriver.org
6. ODFW – Eric Moberly – eric.r.moberly@state.or.us
7. ODFW – Danette Faucera – Danette.L.FAUCERA@odfw.oregon.gov
8. DEQ – Smita Mehta, Eastern Region – 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– sarah.a.henderson@oregon.gov

Application Specialist: Kim French