

**Oregon Water Resources Department  
Water Rights Services Division**

Water Rights Application  
Number G-17454

**Proposed Final Order**

*Summary of Recommendation:* The Department recommends that the attached draft permit be issued with conditions.

*Application History*

On March 16, 2011, NRI Inc and Pyxis Labs submitted an application to the Department for the following water use permit:

- Amount of Water: 0.123 CUBIC FOOT PER SECOND (CFS)
- Use of Water: INDUSTRIAL USE (GEOTHERMAL HEATING & COOLING)
- Source of Water: PRODUCTION WELL 1 (MULT 105704) IN COLUMBIA SLOUGH BASIN
- Injection Site: INJECTION WELL 2 (MULT 106416) IN COLUMBIA SLOUGH BASIN
- Area of Proposed Use: MULTNOMAH COUNTY WITHIN SECTION 23, TOWNSHIP 1 NORTH, RANGE 2 EAST, W.M.

On July 22, 2011, the Department mailed the applicant notice of its Initial Review, determining that "...the appropriation of 0.123 CFS from Production Well 1 (MULT 105704) in Columbia Slough Basin for industrial use (geothermal heating & cooling) is not allowable. However, the Department may find that the proposed use is in the public interest." The applicant did not notify the Department to stop processing the application within 14 days of that date.

On July 26, 2011, 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. No written comments were received within 30 days.

On July 13, 2012, the Department received a request for a basin-program exception pursuant to Oregon Revised Statute (ORS) 536.295.

On November 15, 2012, the Oregon Water Resources Commission approved the applicant's request for a basin-program exception.

In reviewing applications, the Department may consider any relevant sources of information, including the following:

- any applicable basin program
- applicable statutes, administrative rules, and case law

- the amount of water available
- the rate and duty for the proposed use
- any general basin-wide standard for flow rate and duty of water allowed
- the need for a flow rate and duty higher than the general standard
- pending senior applications and existing water rights of record
- any applicable comprehensive plan or zoning ordinance
- recommendations by other state agencies
- the Scenic Waterway requirements of ORS 390.835
- designations of any critical ground water areas
- any comments received

*Findings of Fact*

The Initial Review incorrectly stated that the proposed groundwater appropriation will not have the potential for substantial interference (PSI) with surface water; the correct finding is that the proposed groundwater appropriation will have PSI with surface water, namely the Columbia Slough.

The Department has determined, based upon Oregon Administrative Rule (OAR) 690-009, that Production Well 1 (MULT 105704) will produce ground water from unconfined alluvium within a quarter mile of the banks of surface water and is presumed to be hydraulically connected to the surface water under OAR 690-502-0240. Such hydraulically connected ground water is classified the same as the surface water source under OAR 690-502-0240. The Columbia Subbasin of the Willamette Basin Program does not allow industrial use (geothermal heating & cooling) at any time of the year under OAR 690-502-0150(4). However, on November 15, 2012, the Water Resources Commission approved the applicant's request for a basin-program exception pursuant to ORS 536.295 on the basis that the use will largely be non-consumptive and not likely be regulated for existing water rights. In addition, the Commission determined that the use is consistent with the general policies of the Willamette Basin Program. Therefore, the appropriation of water from Production Well 1 (MULT 105704) in Columbia Slough Basin for industrial use (geothermal heating & cooling) is allowable year-round.

An assessment of ground water availability has been completed by the Department's Ground Water/Hydrology section. A copy of this assessment is in the file. Ground water will likely be available within the capacity of the resource, and if properly conditioned, the proposed use of ground water will avoid injury to existing ground water rights.

Groundwater Findings Under OAR 690-009

The Department determined, consistent with OAR 690-009-0040(4), that the proposed ground water use will have the potential for substantial interference with nearby surface water source(s), namely Columbia Slough. In making this determination, the Department considered whether:

- (a) There is a hydraulic connection from the proposed well(s) to any surface water sources.
- (b) The point of appropriation is a horizontal distance less than one-fourth mile from the surface water source;
- (c) The rate of appropriation is greater than five cubic feet per second, if the point of appropriation is a horizontal distance less than one mile from the surface water source;
- (d) The rate of appropriation is greater than one percent of the pertinent adopted minimum perennial streamflow or instream water right with a senior priority date, if one is applicable, or of the discharge that is equaled or exceeded 80 percent of time, as determined or estimated by the Department, and if the point of appropriation is a horizontal distance less than one mile from the surface water source;
- (e) The ground water appropriation, if continued for a period of 30 days, would result in stream depletion greater than 25 percent of the rate of appropriation, if the point of appropriation is a horizontal distance less than one mile from the surface water source.

For this particular application, the Department determined that there is the potential for substantial interference because of the following items as described above: (a), (b)

In accordance with OAR 690-033-0330, an interagency team reviewed this proposed use for potential adverse impacts on sensitive, threatened and endangered fish populations. This team consisted of representatives from the Oregon Departments of Water Resources (WRD), Environmental Quality (DEQ), Fish and Wildlife (ODFW), and Agriculture. WRD and ODFW representatives included both technical and field staff. The interagency team did not recommend that any additional conditions of use be imposed on this application.

Because the proposed use of ground water has the potential for substantial interference with surface water, an assessment of surface water availability has been completed utilizing discharge data produced by the U.S. Geological Survey, a copy of which is in the file. The assessment determined that water is available for further appropriation during the full season requested. In addition, the local watermaster confirmed that water is available in the Columbia Slough.

Senior water rights exist on Production Well 1 (MULT 105704) in Columbia Slough Basin, or on downstream waters.

Production Well 1 (MULT 105704) in Columbia Slough Basin is not within or above a State Scenic Waterway.

The Department finds that the amount of water requested, 0.123 CFS, is an acceptable amount.

The proposed ground water use is not within a designated critical ground water area.

*Conclusions of Law*

Under the provisions of ORS 537.621, the Department must presume that a proposed use will ensure the preservation of the public welfare, safety and health if the proposed use is allowed in the applicable basin program established pursuant to ORS 536.300 and 536.340 or given a preference under ORS 536.310(12), if water is available, if the proposed use will not injure other water rights and if the proposed use complies with rules of the Water Resources Commission.

The proposed use is not allowed by the Willamette Basin Program, however, the Water Resources Commission approved the applicant's request for a basin-program exception pursuant to ORS 536.295.

Water is available for the proposed use.

The proposed use will not injure other water rights.

The proposed use complies with other rules of the Water Resources Commission not otherwise described above.

The application is in compliance with the State Agency Coordination Program regarding land use.

No proposed flow rate and duty of water higher than the general basin-wide standard is needed.

For these reasons, the required presumption has been established.

Under the provisions of ORS 537.621, once the presumption has been established, it may be overcome by a preponderance of evidence that either:

- (a) One or more of the criteria for establishing the presumption are not satisfied; or
- (b) The proposed use would not ensure the preservation of the public welfare, safety and health as demonstrated in comments, in a protest . . . or in a finding of the department that shows:

- (A) The specific aspect of the public welfare, safety and health under ORS 537.525 that would be impaired or detrimentally affected; and
- (B) Specifically how the identified aspect of the public welfare, safety and health under ORS 537.525 would be impaired or be adversely affected.

In this application, all criteria for establishing the presumption have been satisfied, as noted above. The presumption has not been overcome by a preponderance of evidence that the proposed use would impair or be detrimental to the public interest.

The Department therefore concludes that the proposed use would ensure the preservation of the public welfare, safety and health as described in ORS 537.525.

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. The attached draft permit is conditioned accordingly.

#### Recommendation

The Department recommends that the attached draft permit be issued with conditions.

DATED January 15, 2013



E. Timothy Wallin, Water Rights Program Manager  
for Phillip C. Ward, Director

## Protests

Under the provisions of ORS 537.153(7) (for surface water) or ORS 537.621(8) (for ground water), you can protest this Proposed Final Order. Protests must be received in the Water Resources Department no later than **March 1, 2013**. Protests must be in writing, and must 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 \$300 required by ORS 536.050; and
- If you are not the applicant, the protest fee of \$600 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. If you do not request a hearing, the Department will presume that you do not wish to contest the findings of the Proposed Final Order.

- *If you do not protest this Proposed Final Order and if no substantive changes are made in the Final Order, you will not have an opportunity for judicial review, protest or appeal of the Final Order when it is issued.*

#### Requests for Standing

Under the provisions of ORS 537.153(7) (for surface water) or ORS 537.621(8) (for ground water), 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 **March 1, 2013**. 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;
- A statement that the requester supports the Proposed Final Order as issued;
- A detailed statement of how the requester would be harmed if the Proposed Final Order is modified; and
- A standing fee of \$150. If a hearing is scheduled, an additional fee of \$350 must be submitted along with a request for intervention.

After the protest period has ended, the Director will either issue a Final Order or schedule a contested case hearing. The contested case hearing will be scheduled only if a protest has been submitted and either:

- upon review of the issues, the director finds that there are significant disputes related to the proposed use of water, or
- the applicant requests a contested case hearing within 30 days after the close of the protest period.

If you do not request a hearing within 30 days after the close of the protest period, or if you withdraw a request for a hearing, notify the Department or the administrative law judge that you will not appear or fail to appear at a scheduled hearing, the Director may issue a Final Order by default. If the Director issues a Final Order by default, the

Department designates the relevant portions of its files on this matter, including all materials that you have submitted relating to this matter, as the record for purpose of proving a *prima facie* case upon default.

You may be represented by an attorney at the hearing. Legal aid organizations may be able to assist a party with limited financial resources. Generally, partnerships, corporations, associations, governmental subdivisions or public or private organizations are represented by an attorney. However, consistent with OAR 690-002-0020 and OAR 137-003-0555, an agency representative may represent a partnership, corporation, association, governmental subdivision or public or private organization if the Department determines that appearance of a person by an authorized representative will not hinder the orderly and timely development of the record in this case.

*This document was prepared by Kerry Kavanagh. If you have any questions about any of the statements contained in this document I am most likely the best person to answer your questions. You can reach me at 503-986-0816.*

*If you have questions about how to file a protest or a request for standing, please refer to the respective sections in this Proposed Final Order entitled "Protests" and "Requests for Standing". If you have previously filed a protest and want to know its status, please contact Patricia McCarty at 503-986-0820.*

*If you have other questions about the Department or any of its programs please contact our Customer Service Group at 503-986-0801. Address all other correspondence to:*

*Water Rights Section, Oregon Water Resources Department, 725 Summer St NE Ste A, Salem OR 97301-1266, Fax: 503-986-0901.*



DRAFT

This is not a permit.  
STATE OF OREGON

DRAFT

COUNTY OF MULTNOMAH

DRAFT PERMIT TO APPROPRIATE THE PUBLIC WATERS

THIS DRAFT PERMIT IS HEREBY ISSUED TO

NRI INC  
19004 NE SAN RAFAEL  
PORTLAND, OR 97230

PYXIS LABS  
12423 NE WHITAKER WAY  
PORTLAND, OR 97230

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

APPLICATION FILE NUMBER: G-17454

SOURCE OF WATER: WELL 1 (MULT 105704) IN COLUMBIA SLOUGH BASIN

PURPOSE OR USE: INDUSTRIAL USE (GEOTHERMAL HEATING & COOLING)

MAXIMUM RATE/VOLUME: 0.123 CUBIC FOOT PER SECOND

PERIOD OF USE: YEAR ROUND

DATE OF PRIORITY: MARCH 16, 2011

WELL LOCATIONS:

PRODUCTION WELL 1 (MULT 105704) - NW  $\frac{1}{4}$  NW  $\frac{1}{4}$ , SECTION 23, T1N, R2E,  
W.M.; 155 FEET SOUTH AND 870 FEET EAST FROM NW CORNER, SECTION 23

INJECTION WELL 2 (MULT 106416) - NW  $\frac{1}{4}$  NW  $\frac{1}{4}$ , SECTION 23, T1N, R2E,  
W.M.; 120 FEET SOUTH AND 765 FEET EAST FROM NW CORNER, SECTION 23

THE PLACE OF USE IS LOCATED AS FOLLOWS:

NW  $\frac{1}{4}$  NW  $\frac{1}{4}$   
SECTION 23  
TOWNSHIP 1 NORTH, RANGE 2 EAST, W.M.

Measurement, recording and reporting conditions:

- A. Before water use may begin under this permit, the permittee shall install a totalizing flow meter at each production well and injection well. The permittee shall maintain the meters in good working order.
- B. The permittee shall keep a complete record of the amount of water diverted each month, and shall submit a report which includes the recorded report water-use measurements to the

Application G-17454 Water Resources Department

PERMIT DRAFT

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.

- C. The permittee shall allow the watermaster access to the meters; provided however, where any meter is located within a private structure, the watermaster shall request access upon reasonable notice.
- D. The Director may provide an opportunity for the permittee to submit alternative measuring and reporting procedures for review and approval.

Use of water under this permit shall be non-consumptive; all pumped water shall be injected into the same (originating) aquifer.

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.

Prior to receiving a certificate of water right, the permit holder shall submit documentation affirming that any applicable additional requirements of the Department's Division 230 rules have been met.

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 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 in accordance with the General Standards for the Construction and Maintenance of Water Wells in Oregon. The works shall be equipped with a usable access port, and may also include an air line and pressure gauge 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.

Completion of construction and 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

DRAFT - THIS IS NOT A PERMIT

E. Timothy Wallin, Water Rights Program Manager  
for Phillip C. Ward, Director

# Mailing List for PFO Copies

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Application #G-17454

PFO Date January 15, 2013

**Original mailed to applicant:**

NRI INC  
19004 NE SAN RAFAEL  
PORTLAND, OR 97230

PYXIS LABS  
12423 NE WHITAKER WAY  
PORTLAND, OR 97230

Copies Mailed By: _____ (SUPPORT STAFF) on: _____ (DATE)
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**SENT VIA EMAIL:**

1. WRD - Watermaster # 20

Copies sent to:

1. WRD - File # G-17454
2. WRD - Water Availability: Ken Stahr

Protest/ Standing Dates checked _____
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Copies sent to Other Interested Persons (CWRE, Agent, Well Driller, Commenter, etc.)

4. DEQ, Water Quality Division, Barbara Priest, 811 SW 6<sup>th</sup>, Portland OR 97204-1390
5. Pyxis Labs, 12423 NE Whitaker Way, Portland, OR 97230
6. Geonomics Development, 1940 Sylvan Way, West Linn, OR 97068

CASEWORKER : Kerry Kavanagh