

Transmittal

April 11, 2025

From: Shane M. Cochran, R.G.
Wallace Group

Project: Groundwater Permit Amendment Application for OSU-Cascades
Permit No. G-18687

To: Oregon Water Resources Department
725 Summer Street NE, STE A
Salem, OR 97301

Received
APR 14 2025

To Whom It May Concern:

OWRD

Included is the Application for Permit Amendment to Groundwater Permit No. G-18687 for the above project along with a check for the permit fees of \$2,930 per page 3 of the application.

Regards,



Shane Cochran, R.G.

☐ Urgent ☒ For Review ☐ Please Comment ☒ Please Reply ☒ For Your Records

14642 -

Application for Permit Amendment

Part 1 of 5 – Minimum Requirements Checklist



Oregon Water Resources Department
725 Summer Street NE, Suite A
Salem, Oregon 97301-1266
(503) 986-0900
www.oregon.gov/OWRD

This permit amendment application will be returned if Parts 1 through 5 and all required attachments are not completed and included.

For questions, please call (503) 986-0900, and ask for Transfer Section.

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Check all items included with this application. (N/A = Not Applicable)

- ☒ Part 1 – Completed Minimum Requirements Checklist.
- ☒ Part 2 – Completed Application Map Checklist.
- ☒ Part 3 – Application Fee, payable by check to the Oregon Water Resources Department, and completed Fee Worksheet, page 3. Try the new online fee calculator at:
http://apps.wrd.state.or.us/apps/misc/wrd_fee_calculator.
- ☒ Part 4 – Completed Applicant Information and Signature.
- ☒ Part 5 – Information about Permits to be Amended: **Number of permits to be amended:** 1
List the Permits here: G-18687
Please include a separate Part 5 for each permit. (See instructions on page 6)
- ☒ Completed Permit Amendment Application Map (Does not have to be prepared by a Certified Water Right Examiner).
- ☐ ☒ N/A Request for Assignment Form and statutory fee. The request for assignment form has to be completed if the applicant is **not** the permit holder of record and needs to be assigned to the permit; **or** the landowner of the proposed place of use is **not** the permit holder of record and needs to be assigned to the permit (the Request for Assignment Form is available online at <https://www.oregon.gov/OWRD/Forms/Pages/default.aspx>). Assignment is not needed if the applicant is the permit holder of record.
- ☐ ☒ N/A Affidavit(s) of Consent are required from all permit holder(s) of record if the permit is not assigned to the applicant **or** other permit holders of record that are not listed as applicants.
- ☒ ☐ N/A Oregon Water Resources Department's Land Use Information Form with approval and signature (or signed land use form receipt stub) from each local land use authority in which water is to be diverted, conveyed, and/or used. Not required if water is to be diverted, conveyed, and/or used only on federal lands or if **all** of the following apply: a) a change in place of use only, b) no structural changes, c) the use of water is for irrigation only, and d) the use is located within an irrigation district or an exclusive farm use zone.
- ☒ ☐ N/A Water Well Report/Well Log for changes in point(s) of appropriation (well(s)) or additional point(s) of appropriation.
- ☐ ☒ N/A Geologist Report for a change from a surface water point of diversion to a ground water point of appropriation (well), if the proposed well is more than 500 feet from the surface water source and more than 1000 feet upstream or downstream from the point of diversion. (ORS 540.531(2) or (3)).

(For Staff Use Only)

WE ARE RETURNING YOUR APPLICATION FOR THE FOLLOWING REASON(S):

☐ Application fee not enclosed/insufficient ☐ Map not included or incomplete
☐ Land Use Form not enclosed or incomplete
☐ Additional signature(s) required ☐ Part _____ is incomplete
 Other/Explanation _____
 Staff: _____ 503- _____ Date: ____/____/____

Part 2 of 5 – Permit Amendment Map Checklist

Your permit amendment application will be returned if any of the map requirements listed below are not met.

Please be sure that the map you submit includes all the items listed below and meets the requirements of OAR 690-380-3100, however, the map does not have to be prepared by a Certified Water Right Examiner. Check all boxes that apply.

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- ☐ ☒ N/A If **more than three** permits are involved, separate maps for each permit.
- ☒ Permanent quality printed with dark ink on good quality paper.
- ☒ The size of the map can be 8½ x 11 inches, 8½ x 14 inches, 11 x 17 inches, or up to 30 x 30 inches. For 30 x 30 inch maps, one extra copy is required.
- ☒ A north arrow, a legend, and scale.
- ☒ The scale of the map must be: 1 inch = 400 feet, 1 inch = 1,320 feet, the scale of the county assessor map if the scale is not smaller than 1 inch = 1,320 feet, or a scale that has been pre-approved by the Department.
- ☒ Township, Range, Section, ¼ ¼, DLC, Government Lot, and other recognized public land survey lines.
- ☒ Tax lot boundaries (property lines) are required. Tax lot numbers are recommended.
- ☒ Major physical features including rivers and creeks showing direction of flow, lakes and reservoirs, roads, and railroads.
- ☒ Major water delivery system features from the point(s) of diversion/appropriation such as main pipelines, canals, and ditches.
- ☒ Existing place of use that includes separate hachuring for each water use permit, priority date, and use including number of acres in each quarter-quarter section, government lot, or in each quarter-quarter section as projected within government lots, donation land claims, or other recognized public land survey subdivisions. If less than the entirety of the permit is being changed, a separate hachuring is needed for the portion of the permit left unchanged.
- ☒ ☐ N/A If you are proposing a change in place of use, show the proposed place of use with hachuring that includes separate hachuring for each permit, priority date, and use including number of acres in each quarter-quarter section, government lot, or in each quarter-quarter section as projected within government lots, donation land claims, or other recognized public land survey subdivisions.
- ☒ Existing point(s) of diversion or well(s) with distance and bearing or coordinates from a recognized survey corner. This information can be found in your water use permit.
- ☐ ☒ N/A If you are proposing a change in point(s) of diversion or well(s), show the proposed location and label it clearly with distance and bearing or coordinates. If GPS coordinates are used, latitude-longitude coordinates may be expressed as either degrees-minutes-seconds with at least one digit after the decimal (example – 42°32'15.5") or degrees-decimal with five or more digits after the decimal (example – 42.53764°).

Part 3 of 5 – Fee Worksheet

FEE WORKSHEET for PERMIT AMENDMENT			
1	Base Fee (includes one type of change to one permit for up to 1 cfs)	1	\$1,360
	Types of change proposed: <input checked="" type="checkbox"/> Place of Use <input checked="" type="checkbox"/> Point of Diversion/Appropriation Number of above boxes checked = <u>2</u> (2a) Subtract 1 from the number in line 2a = <u>1</u> (2b) <i>If only one change, this will be 0</i> Multiply line 2b by \$1090 and enter »	2	\$1,090
3	Number of permits included in Permit Amendment <u>1</u> (3a) Subtract 1 from the number in line 3a: <u>0</u> (3b) <i>If only one permit this will be 0</i> Multiply line 3b by \$610 and enter »	3	\$0
4	Do you propose to add or change a well, or change from a surface water POD to a well? <input type="checkbox"/> No: enter 0 <input checked="" type="checkbox"/> Yes: enter \$480 for the 1 st well to be added or changed <u>480</u> (4a) Do you propose to add or change additional wells? <input checked="" type="checkbox"/> No: enter 0 <input type="checkbox"/> Yes: multiply the number of additional wells by \$410 <u>0</u> (4b) Add line 4a to line 4b and enter »	4	\$480
5	Do you propose to change the place of use? <input type="checkbox"/> No: enter 0 on line 5 <input checked="" type="checkbox"/> Yes: enter the cfs for the portions of the permits to be amended (see below*): <u>0</u> (5a) Subtract 1.0 from the number in 5a above: <u>0</u> (5b) If 5b is 0, enter 0 on line 5 » If 5b is greater than 0, round up to the nearest whole number: <u>0</u> (5c) and multiply 5c by \$350, then enter on line 5 »	5	\$0
6	Add entries on lines 1 through 5 above » » » » » » » » » » Subtotal:	6	\$2,930
7	Is this permit amendment: <input type="checkbox"/> necessary to complete a project funded by the Oregon Watershed Enhancement Board (OWEB) under ORS 541.932? <input type="checkbox"/> endorsed in writing by ODFW as a change that will result in a net benefit to fish and wildlife habitat? If one or more boxes is checked, multiply line 6 by 0.5 and enter on line 7 If no box is applicable, enter 0 on line 7 »	7	0
8	Subtract line 7 from line 6 » Permit Amendment Fee:	8	\$2,930

*Example for Line 5a calculation to transfer 45.0 acres of Primary Permit S-12345 (total 1.25 cfs for 100 acres) and 45.0 acres of Supplemental Permit S-87654 (1/80 cfs per acre) on the same land:

1. For irrigation calculate cfs for each permit involved as follows:
 - a. Divide total authorized cfs by total acres in the permit (*for S-12345, $1.25 \text{ cfs} \div 100 \text{ ac}$*); then multiply by the number of acres to be changed to get the application cfs (*$\times 45 \text{ ac} = 0.56 \text{ cfs}$*).
 - b. If the water right permit does not list total cfs, but identifies the allowable use as 1/40 or 1/80 of a cfs per acre; multiply number of acres proposed for change by either 0.025 (1/40) or 0.0125 (1/80). (*For S-87654, $45.0 \text{ ac} \times 0.0125 \text{ cfs/ac} = 0.56 \text{ cfs}$*)
2. Add cfs for the portions of permits on all the land included in the application; however **do not count cfs for supplemental permits on acreage for which you have already calculated the cfs fee for the primary permit on the same land**. The fee should be assessed only once for each "on the ground" acre included in the application. (*In this example, blank 5a would be only 0.56 cfs, since both permits serve the same 45.0 acres. Blank 5b would be 0 and Line 5 would then also become 0*).

Part 4 of 5 – Applicant Information and Signature

Applicant Information

APPLICANT/BUSINESS NAME Jarrod Penttila / Oregon State University-Cascades		PHONE NO. 541-706-2163	ADDITIONAL CONTACT NO.
ADDRESS 1500 SW Chandler Avenue		FAX NO.	
CITY Bend	STATE OR	ZIP 97702	E-MAIL Jarrod.Penttila@OSUCascades.com
BY PROVIDING AN E-MAIL ADDRESS, CONSENT IS GIVEN TO RECEIVE ALL CORRESPONDENCE FROM THE DEPARTMENT ELECTRONICALLY. COPIES OF THE FINAL ORDER DOCUMENTS WILL ALSO BE MAILED.			

Agent Information – The agent is authorized to represent the applicant in all matters relating to this application.

AGENT/BUSINESS NAME Shane Cochran / The Wallace Group		PHONE NO. 541-382-4707	ADDITIONAL CONTACT NO.
ADDRESS 62915 NE 18th Street, Suite 1		FAX NO.	
CITY Bend	STATE OR	ZIP 97701	E-MAIL scochran@wallacegroup-inc.com
BY PROVIDING AN E-MAIL ADDRESS, CONSENT IS GIVEN TO RECEIVE ALL CORRESPONDENCE FROM THE DEPARTMENT ELECTRONICALLY. COPIES OF THE FINAL ORDER DOCUMENTS WILL ALSO BE MAILED.			

Explain in your own words what you propose to accomplish with this permit amendment; and why:
Add an additional point of appropriation as a back up well. This well will only be used in a future scenario where the current production well fails.
If you need additional space, continue on a separate piece of paper and attach to the application as "Attachment 1".

☐ Check this box if this project is fully or partially funded by the American Recovery and Reinvestment Act. (Federal stimulus dollars)

Is the applicant the permit holder of record? ☒ Yes ☐ No

If NO, include either:

- ☐ A completed assignment form (with required statutory assignment fee), assigning all or a portion of the permit to the applicant(s), **OR**
- ☐ An affidavit of consent from the permit holder(s) of record that gives permission for the applicant to amend the permit.

Has the Completion ("C") Date of the permit(s) in this application expired? ☐ Yes ☒ No

If YES, this application will not be accepted by the Department.

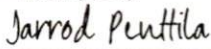
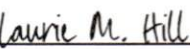
If NO, what are the completion dates of the permit(s)? August 10, 2026

- If the permit completion date expires while the Permit Amendment Application is pending, the Department will not approve the Permit Amendment Application until an Extension of Time Application is approved for the permit.
- You may consider using the Reimbursement Authority process to expedite the processing of this Permit Amendment Application if the completion date of the permit expires within 6 months of the date of filing this application.

By my signature below, I confirm that I understand:

- Prior to Department approval of the permit amendment, I may be required to submit payment to the Department for publication of a notice in a newspaper with general circulation in the area where the permit is located, once per week for two consecutive weeks. If more than one qualifying newspaper is available, I suggest publishing the notice in the following newspaper: _____

I (we) affirm that the information contained in this application is true and accurate.

 Jarrod Penttila Associate Director Capital Planning and
 Applicant Signature: 7555B80C416... Printed Name (and Title if applicable) Date
 2/10/2025 | 08:26
 Laurie M. Hill cbo
 Applicant Signature: 446180422432... Printed Name (and Title if applicable) Date

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Check one of the following:

- ☐ The applicant is responsible for completion of change(s). Notices and correspondence should continue to be sent to the applicant.
- ☒ The permit holder(s) of record will be responsible for completing the proposed change(s) after the final order is issued. Copies of notices and correspondence should be sent to the permit holder(s) of record.

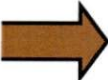
Check the appropriate box, if applicable:

- ☐ Check here if any of the permits proposed for amendment are or will be located within or served by an irrigation or other water district.

IRRIGATION DISTRICT NAME	ADDRESS	
CITY	STATE	ZIP

- ☐ Check here if water for any of the permits supplied under a water service agreement or other contract for stored water with a federal agency or other entity.

ENTITY NAME	ADDRESS	
CITY	STATE	ZIP

 To meet State Land Use Consistency Requirements, you must list all local governments (each county, city, municipal corporation, or tribal government) within whose jurisdiction water will be diverted, conveyed or used.

ENTITY NAME City of Bend	ADDRESS 710 NW Wall Street	
CITY Bend	STATE Oregon	ZIP 97701

ENTITY NAME	ADDRESS	
CITY	STATE	ZIP

ENTITY NAME	ADDRESS	
CITY	STATE	ZIP

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INSTRUCTIONS for editing the Application Form

To add additional lines to tables within the forms or to copy and paste additional Part 5 pages, please **save the application form to your computer**. Unlock the document by using one of the following instructions for your Microsoft Word software version:

Microsoft Word 2003

Unlock the document by one of the following:

- Using the **Tools** menu => click **Unprotect Document**;
- OR**
- Using the **Forms** toolbar => click on the **Protect/Unprotect** icon.

To relock the document to enable the checkboxes to work, you will need to:

- Using the **Tools** menu => click **Protect Document**;
- OR**
- Using the **Forms** toolbar => click on the **Protect/Unprotect** icon.

Microsoft Word 2007

- Unlock the document by clicking the **Review** tab, then click **Protect Document**, then click **Stop Protect**
- To relock the document, click **Editing Restrictions**, then click **Allow Only This Type of Editing**, select **Filling In Forms** from the drop-down menu, then check **Yes, Start Enforcing Protection**.

Microsoft Word 2010

- Unlock the document by clicking the **Review** tab, toggle the **Restrict Editing** icon at the upper right, then click **Stop Protect** at the bottom right. Then uncheck the "**Allow only this type of editing** in the document: **Filling in forms**" in the "Editing restrictions" section on the right-hand list of options.
- To relock the document, check the **Editing Restrictions/Allow Only This Type of Editing/Filling In Forms** box from the drop-down menu, then check **Yes, Start Enforcing Protection**. You do not need to assign a password for the editing restrictions.

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Other Alternatives:

- Photocopy pages or tables in Part 5, ~~mark through~~ any non-applicable information, insert/attach photocopied pages to document in the appropriate location, and manually amend page numbers as necessary (e.g. Page 5 6 of 9 10).
- You may refer to additional attachments that you may include, such as separately produced tables or spreadsheets to convey large numbers of rows of place of use listings, owner/property parcels, etc. You may contact the Department at 503-986-0900 and ask for Transfer Staff if you have questions.

Part 5 of 5 – Water Use Permit Information

Please use a separate Part 5 for each permit being changed. See instructions on page 6, to copy and paste additional Part 5s, or to add additional rows to tables within the form.

PERMIT # G-18687

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Table 1. Location of Authorized and Proposed Point(s) of Diversion (POD) or Appropriation (POA)

(Note: If the POD/POA name is not specified in the permit, assign it a name or number here.)

POD/POA Name or Number	Is this POD/POA Authorized by the permit or is it Proposed?	If POA, OWRD Well Log ID# (or Well ID Tag # L-___)	Tw	Rng	Sec	¼	¼	Tax Lot, DLC or Gov't Lot	Measured Distances (from a recognized survey corner)
Production Well	<input checked="" type="checkbox"/> Authorized <input type="checkbox"/> Proposed	DESC 61926	18	S	12	E	6	NE SW	181206 00 01000 80 FEET SOUTH AND 1120 FEET EAST FROM NW CORNER, NE 1/4 SW 1/4, SECTION 6
Injection Well	<input checked="" type="checkbox"/> Authorized <input type="checkbox"/> Proposed	DESC 62359	18	S	12	E	6	SE NW	181206 00 00111 475 FEET NORTH AND 600 FEET EAST FROM NW CORNER, NE 1/4 SW 1/4, SECTION 6
Production Well 2	<input type="checkbox"/> Authorized <input checked="" type="checkbox"/> Proposed		18	S	12	E	6	NW SE	181206 CO 00100 320 FEET SOUTH AND 510 FEET EAST FROM NW CORNER, NW 1/4 SE 1/4, SECTION 6
	<input type="checkbox"/> Authorized <input type="checkbox"/> Proposed								

Check all type(s) of change(s) proposed below (change "CODES" are provided in parentheses):

- ☒ Place of Use (POU) ☐ Point of Appropriation/Well (POA)
☐ Point of Diversion (POD) ☒ Additional Point of Appropriation (APOA)
☐ Additional Point of Diversion (APOD) ☐ Surface water POD to Ground Water POA (SW/GW)

Will all of the proposed changes affect the entire water use permit?

- ☒ Yes Complete only the proposed ("to" lands) section of Table 2 on the next page. Use the "CODES" listed above to describe the proposed changes.
☐ No Complete all of Table 2 to describe the portion of the permit to be changed.

For a change in place of use:

Does the permit holder of record own or control the land TO which the place of use is being moved?

☒ Yes ☐ No

If NO, the landowner of the land TO which the place of use is being **moved must be assigned to the permit as a permit holder of record** by submitting a completed Request for Assignment form and the required statutory fee for an assignment.

Is the proposed place of use contiguous to the authorized place of use? ☒ Yes ☐ No

The permitted place of use can be moved only to lands that are contiguous to the authorized place of use **unless** the change to non-contiguous lands is in furtherance of mitigation or conservation efforts undertaken for the purposes of benefiting a species listed as sensitive, threatened, or endangered under ORS 496.171 to 496.192 or the federal Endangered Species Act of 1973 (16 U.S.C. 1531 to 1544), as determined by the listing agency. Contiguous land being either adjacent land or land separated from the land to which a permit is authorized by roads, utility corridors, irrigation ditches or publicly owned rights of way.

Please use and attach additional pages of Table 2 as needed.
See page 6 for instructions.

Do you have questions about how to fill-out the tables?
Contact the Department at 503-986-0900 and ask for Transfer

Table 2. Description of Changes to Water Use Permit # G-18687

List the change proposed for the acreage in each ¼ ¼. If more than one change is proposed, specify the acreage associated with each change.
If there is more than one POD/POA involved in the proposed changes, specify the acreage associated with each POD/POA.

AUTHORIZED (the "from" or "off" lands) The listing that appears on the certificate BEFORE PROPOSED CHANGES List only that part or portion of the water right that will be changed.										Proposed Changes (see "CODES" from previous page)	PROPOSED (the "to" or "on" lands) The listing as it would appear AFTER PROPOSED CHANGES are made.													
Twp	Rng	Sec	¼ ¼	Tax Lot	Gvt Lot or DLC	Acre (if applicable)	POD(s) or POA(s) (name or number from Table 1)	Priority Date	Twp		Rng	Sec	¼ ¼	Tax Lot	Gvt Lot or DLC	Acre (if applicable)	POD(s) or POA(s) to be used (from Table 1)	Priority Date						
EXAMPLE																								
2	S	9	E	15	NE	NW	100		15.0	POD #1 POD #2		POU/POD	2	S	9	E	15	NW	NW	100	1	10.0	POD #5	
"	"	"	"	"	"	"	"	"	EXAMPLE	"		"	2	S	9	E	15	SW	NW	200		5.0	POD #6	
18	S	12	E	6	NE	SW				Production Well	05/12/20		18	S	12	E	6	NE	SW	1000			Production Well	05/12/20
18	S	12	E	6	SE	NW				Injection Well	05/12/20		18	S	12	E	6	SE	NW	111			Injection Well	05/12/20
												APOA	18	S	12	E	6	NW	SE	100			Production Well 2 Production Well	
TOTAL ACRES											TOTAL ACRES													

Additional remarks: Acreage not applicable, non-consumptive geothermal heat exchanger. APOA of 'Production Well 2' in addition to current authorized POA 'Production Well'.

Please use and attach additional pages of Table 2 as needed.
See page 6 for instructions.

Do you have questions about how to fill-out the tables?
Contact the Department at 503-986-0900 and ask for Transfer

Table 2. Description of Changes to Water Use Permit # G-18687

List the change proposed for the acreage in each ¼ ¼. If more than one change is proposed, specify the acreage associated with each change.
If there is more than one POD/POA involved in the proposed changes, specify the acreage associated with each POD/POA.

AUTHORIZED (the "from" or "off" lands) The listing that appears on the certificate BEFORE PROPOSED CHANGES List only that part or portion of the water right that will be changed.										Proposed Changes (see "CODES" from previous page)	PROPOSED (the "to" or "on" lands) The listing as it would appear AFTER PROPOSED CHANGES are made.									
Twp	Rng	Sec	¼ ¼	Tax Lot	Gvt Lot or DLC	Acres (if applicable)	POD(s) or POA(s) (name or number from Table 1)	Priority Date	Twp		Rng	Sec	¼ ¼	Tax Lot	Gvt Lot or DLC	Acres (if applicable)	POD(s) or POA(s) to be used (from Table 1)	Priority Date		
EXAMPLE																				
2	S	9	E 15 NE NW	100		15.0	POD #1 POD #2		POU/POD	2	S	9	E 15 NW NW	100	1	10.0	POD #5			
"	"	"	" " " "	"	"	EXAMPLE	"		"	2	S	9	E 15 SW NW	200		5.0	POD #6			
18	S	12	E 6 SE NW					05/12/20	POU	18	S	12	E 6			111	Lot 5			
									POU (continued)	18	S	12	E 6			2100	Lot 6			
									POU (continued)	18	S	12	E 6 SE NW	111/1000/110						
									POU (continued)	18	S	11	E 6 NE SW	1000/100						
									POU (continued)	18	S	11	E 6 SW NE	719						
									POU (continued)	18	S	11	E 6 NW SE	719/100						
									POU (continued)	18	S	11	E 1 SE NE	4300						
									POU (continued)	18	S	11	E 1 NE SE	12300						
TOTAL ACRES							TOTAL ACRES													

Additional remarks: POU change from T18S R12E Section 6 SENW to expand to eight tax lots, map & TL 181101D012300, 181101A004300, 1812060000111, 181206C002100, 1812060001000, 1812060000110, 181206A000719, 181206C000100.

Permit # G-18687

Are there other water rights certificates, water use permits or ground water registrations associated with the "from" or "to" lands? ☐ Yes ☒ No

If YES, list the other certificate, permit, or ground water registration numbers: _____



If the permit(s) are for irrigation or supplemental irrigation use, other water rights existing on the same land for irrigation that are subject to transfer must either change concurrently or be cancelled. Any change to a water right certificate or ground water registration must be filed separately in a water right transfer application or ground water registration modification application, respectively.

For a change in point(s) of appropriation (well(s)) or additional point(s) of appropriation:

- ☒ Well log(s) are attached for each authorized and proposed well(s) that are clearly labeled and associated with the corresponding well(s) in Table 1 above and on the accompanying application map. (**Tip:** You may search for well logs on the Department's web page at: http://apps.wrd.state.or.us/apps/gw/well_log/Default.aspx)

AND/OR

- ☒ Describe the construction of the authorized and proposed well(s) in Table 3 for any wells that do not have a well log. For *proposed wells not yet constructed or built*, provide "a best estimate" for each requested information element in the table. The Department recommends you consult a licensed well driller, geologist, or certified water right examiner to assist with assembling the information necessary to complete Table 3.

Table 3. Construction of Point(s) of Appropriation

Any well(s) in this listing must be clearly tied to corresponding well(s) described in Table 1 and shown on the accompanying application map. Failure to provide the information will delay the processing of your transfer application until it is received. The information is necessary for the department to assess whether the proposed well(s) will access the same source aquifer as the authorized point(s) of appropriation (POA). The Department is prohibited by law from approving POA changes that do not access the same source aquifer.

Proposed or Authorized POA Name or Number	Is well already built? (Yes or No)	If an existing well, OWRD Well ID Tag No. L-_____	Total well depth	Casing Diameter	Casing Intervals (feet)	Seal depth(s) (intervals)	Perforated or screened intervals (in feet)	Static water level of completed well (in feet)	Source aquifer (sand, gravel, basalt, etc.)	Well - specific rate (cfs or gpm). If less than full rate of water right
Production Well 2	No		503'	12"		0-70'	403'-503'		Basalt	1200 gpm

Notes: This is a best estimate of the well and is subject to changes. The 1200 gpm is the current allotted water volume for the existing permit.

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Land Use Information Form



Oregon Water Resources Department
725 Summer Street NE, Suite A
Salem, Oregon 97301-1266
(503) 986-0900
www.oregon.gov/OWRD

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NOTE TO APPLICANTS

In order for your application to be processed by the Oregon Water Resources Department (OWRD), this Land Use Information Form must be completed by a local government planning official in the jurisdiction(s) where your water right will be diverted, conveyed, used, and developed. The planning official may choose to complete the form while you wait or return the "Receipt Acknowledging Request for Land Use Information" to you. Applications received by OWRD without the Land Use Information Form, or the signed receipt, will be returned to you. **IMPORTANT:** Please note that while OWRD can accept a signed receipt as part of intake for an application for a new permit to use or store water, a completed Land Use Information Form is required for OWRD's acceptance of all other applications. Please be aware that your application cannot be approved without land use approval.

This form is NOT required if:

- 1) Water is to be diverted, conveyed, and used on federal lands only; **OR**
- 2) The application is for a water right transfer, allocation of conserved water, exchange, permit amendment, or ground water registration modification, and **all** of the following apply:
 - a. The existing and proposed water use is located entirely within lands zoned for exclusive farm-use or within an irrigation district;
 - b. The application involves a change in place of use only;
 - c. The change does not involve the placement or modification of structures, including but not limited to water diversion, impoundment, distribution facilities, water wells and well houses; **and**
 - d. The application involves irrigation water uses only.

NOTE TO LOCAL GOVERNMENTS

The person presenting the attached Land Use Information Form is applying for a new water right or modifying an existing water right. The Oregon Water Resources Department (OWRD) requires applicants to obtain land use information to ensure the water right does not result in land uses that are incompatible with your comprehensive plan. Please complete the form and return it to the applicant for inclusion in their application. **NOTE:** For new water right applications only, if you are unable to complete this form while the applicant waits, you may complete the "Receipt Acknowledging Request for Land Use Information" and return it to the applicant.

You will receive notice via OWRD's weekly Public Notice once the applicant formally submits their request to OWRD. The notice will give more information about OWRD's water right process and provide additional comment opportunities. If you previously only completed the receipt for an application for a new permit to use or store water, you will have 30 days from the Public Notice date to complete the Land Use Information Form and return it to OWRD. Your attention to this request for information is greatly appreciated. If you have questions concerning this form, please contact OWRD's Customer Service Group at 503-986-0900 or WRD_DL_customerservice@water.oregon.gov.

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Received
APR 14 2025
OWRD

Land Use Information Form



Oregon Water Resources Department
725 Summer Street NE, Suite A
Salem, Oregon 97301-1266
(503) 986-0900
www.oregon.gov/OWRD

Received
APR 14 2025

NAME Jarrod Penttila / Oregon State University-Cascades			PHONE 541.706.2163
MAILING ADDRESS 1500 SW Chandler Avenue			
CITY Bend	STATE OR	ZIP 97702	EMAIL Jarrod.Penttila@OSUCascades.com

A. Land and Location

Please include the following information for all tax lots where water will be diverted (taken from its source), conveyed (transported), and/or used or developed. Applicants for municipal use, or irrigation uses within irrigation districts, may substitute existing and proposed service-area boundaries for the tax-lot information requested below.

Township	Range	Section	¼ ¼	Tax Lot #	Plan Designation (e.g., Rural Residential/RR-5)	Water to be:	Proposed Land Use:
18 S	12 E	6	NW SE	100	Mixed Urban	<input type="checkbox"/> Diverted <input type="checkbox"/> Conveyed <input checked="" type="checkbox"/> Used	non-consumptive geotherm heat
						<input type="checkbox"/> Diverted <input type="checkbox"/> Conveyed <input type="checkbox"/> Used	
						<input type="checkbox"/> Diverted <input type="checkbox"/> Conveyed <input type="checkbox"/> Used	
						<input type="checkbox"/> Diverted <input type="checkbox"/> Conveyed <input type="checkbox"/> Used	

List all counties and cities where water is proposed to be diverted, conveyed, and/or used or developed:

Nonconsumptive use in Deschutes County, Bend, Oregon.

NOTE: A separate Land Use Information Form must be completed and submitted for each county and city, as applicable.

B. Description of Proposed Use

Type of application to be filed with the Oregon Water Resources Department:

- ☐ Permit to Use or Store Water
 ☐ Water Right Transfer
 ☒ Permit Amendment or Ground Water Registration Modification
☐ Limited Water Use License
 ☐ Exchange of Water
 ☐ Allocation of Conserved Water

Source of water: ☐ Reservoir/Pond ☒ Ground Water ☐ Surface Water (name) _____

Estimated quantity of water needed: 0 ☐ cubic feet per second ☐ gallons per minute ☒ acre-feet

Intended use of water: ☐ Irrigation ☐ Commercial ☐ Industrial ☐ Domestic for _____ household(s)
☐ Municipal ☐ Quasi-Municipal ☐ Instream ☒ Other non-consumptive geotherm heat

Briefly describe:

Non-consumptive water use for low-temperature-geothermal-heat-exchanger.

Note to applicant: For new water right applications only, if the Land Use Information Form cannot be completed while you wait, please have a local government representative sign the receipt on the bottom of page 4 and include it with the application filed with the Oregon Water Resources Department.

See Page 4 →

Received
APR 14 2025
OWRD

For Local Government Use Only

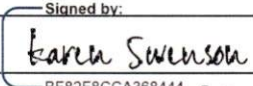
The following section must be completed by a planning official from each county and city listed unless the project will be located entirely within the city limits. In that case, only the city planning agency must complete this form. This deals only with the local land use plan. Do not include approval for activities such as building or grading permits.

Please check the appropriate box below and provide the requested information

- ☒ Land uses to be served by the proposed water use(s), including proposed construction, are allowed outright or are not regulated by your comprehensive plan. Cite applicable ordinance section(s): Ordinance 2309
- ☐ Land uses to be served by the proposed water use(s), including proposed construction, involve discretionary land-use approvals as listed in the table below. (Please attach documentation of applicable land-use approvals which have already been obtained. Record of Action/land-use decision and accompanying findings are sufficient.) **If approvals have been obtained but all appeal periods have not ended, check "Being Pursued."**

Type of Land-Use Approval Needed (e.g., plan amendments, rezones, conditional-use permits, etc.)	Cite Most Significant, Applicable Plan Policies & Ordinance Section References	Land-Use Approval:	
		<input type="checkbox"/> Obtained <input type="checkbox"/> Denied	<input type="checkbox"/> Being Pursued <input type="checkbox"/> Not Being Pursued
	Received	<input type="checkbox"/> Obtained <input type="checkbox"/> Denied	<input type="checkbox"/> Being Pursued <input type="checkbox"/> Not Being Pursued
	APR 14 2025	<input type="checkbox"/> Obtained <input type="checkbox"/> Denied	<input type="checkbox"/> Being Pursued <input type="checkbox"/> Not Being Pursued
	OWRD	<input type="checkbox"/> Obtained <input type="checkbox"/> Denied	<input type="checkbox"/> Being Pursued <input type="checkbox"/> Not Being Pursued

Local governments are invited to express special land use concerns or make recommendations to the Oregon Water Resources Department regarding this proposed use of water in the box below or on a separate sheet.

Name: Karen Swenson Title: Senior Planner
 Signature:  Date: 1/9/2025 | 12:14:32 PST
 Governmental Entity: City of Bend Phone: 541-388-5567

Receipt Acknowledging Request for Land Use Information

Note to Local Government Representative:

Please complete this form and return it to the applicant. **For new water right applications only**, if you are unable to complete this form while the applicant waits, you may complete this receipt and return it to the applicant. If you sign the receipt, you will have 30 days from the date of OWRD's Public Notice of the application to submit the completed Land Use Information Form to Oregon Water Resources Department. Please note while OWRD can accept a signed receipt as part of intake for an application for a new permit to use or store water, a completed Land Use Information Form is required for all other applications.

Applicant Name: _____
 Staff Name: _____ Title: _____
 Staff Signature: _____ Date: _____
 Governmental Entity: _____ Phone: _____

STATE OF OREGON

DESC 61926

WELL I.D. LABEL# L 48750

WATER SUPPLY WELL REPORT

START CARD # 1045085

(as required by ORS 537.765 & OAR 690-205-0210)

3/23/2020

ORIGINAL LOG #

(1) LAND OWNER

Owner Well I.D. _____

First Name JARROD

Last Name PENTTILA

Company OREGON STATE UNIVERSITY

Address 1500 SW CHANDLER AVE.

City BEND State OR Zip 97702

(2) TYPE OF WORK

☒ New Well ☐ Deepening ☐ Conversion

☐ Alteration (complete 2a & 10) ☐ Abandonment (complete 5a)

(2a) PRE-ALTERATION

Casing: Dia + From To Gauge Stl Plstc Wld Thrd

Material From To Amt sacks/lbs

Seal: _____

(3) DRILL METHOD

☒ Rotary Air ☐ Rotary Mud ☐ Cable ☐ Auger ☐ Cable Mud

☐ Reverse Rotary ☐ Other _____

(4) PROPOSED USE

☐ Domestic ☐ Irrigation ☐ Community

☐ Industrial/ Commercial ☐ Livestock ☐ Dewatering

☒ Thermal ☐ Injection ☒ Other TEST WELL

(5) BORE HOLE CONSTRUCTION

Special Standard ☐ (Attach copy)

Depth of Completed Well 512.00 ft.

BORE HOLE			SEAL			sacks/
Dia	From	To	Material	From	To	lbs
16	0	70	Bentonite Chips	0	70	92 S
12	70	512			Calculated	80.63
					Calculated	

How was seal placed: Method ☒ B ☐ C ☐ D ☐ E

☒ Other Poured in place

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

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

Explosives used: ☐ Yes Type _____ Amount _____

(5a) ABANDONMENT USING UNHYDRATED BENTONITE

Proposed Amount

Actual Amount

(6) CASING/LINER

Casing Liner Dia + From To Gauge Stl Plstc Wld Thrd

<input checked="" type="checkbox"/>	<input type="checkbox"/>	10	<input checked="" type="checkbox"/>	3	412	.250	<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"/>	<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"/>

Shoe ☐ Inside ☐ Outside ☐ Other Location of shoe(s) _____

Temp casing ☐ Yes Dia _____ From + _____ To _____

(7) PERFORATIONS/SCREENS

Perforations Method

Screens Type Johns

Material Stainless Steel

Perf/	Casing/	Screen			Scrn/slot	Slot	# of	Tele/
Screen	Liner	Dia	From	To	width	length	slots	pipe size
Screen	Casing	12	412	512	.1			

(8) WELL TESTS: Minimum testing time is 1 hour

☒ Pump ☐ Bailer ☐ Air ☐ Flowing Artesian

Yield gal/min	Drawdown	Drill stem/Pump depth	Duration (hr)
1200	13.3	410	2

Temperature 50 °F Lab analysis ☒ Yes By Water Systems Engineering

Water quality concerns? ☐ Yes (describe below) TDS amount 76 mg/L

From	To	Description	Amount	Units

(9) LOCATION OF WELL (legal description)

County DESCHUTES Twp 18.00 S N/S Range 12.00 E E/W WM

Sec 6 NE 1/4 of the SW 1/4 Tax Lot 100

Tax Map Number 181206C000100 Lot _____

Lat _____ " or 44.04403200 DMS or DD

Long _____ " or -121.33428200 DMS or DD

☒ Street address of well ☐ Nearest address

1500 SW CHANDLER AVE., BEND OR 97702

(10) STATIC WATER LEVEL

Date SWL(psi) + SWL(ft)

Existing Well / Pre-Alteration			
Completed Well	11/22/2019		248.5

Flowing Artesian? ☐ Dry Hole? ☐

WATER BEARING ZONES

Depth water was first found 270.00

SWL Date From To Est Flow SWL(psi) + SWL(ft)

11/12/2019	250	512	1200		<input checked="" type="checkbox"/>
					248.45

(11) WELL LOG

Ground Elevation 3676.00

Material	From	To
Brown Sand	0	10
Pumice	10	20
Tuff	20	50
Scoria with Basalt	50	90
Black Sand	90	100
Basalt	100	110
Scoria with Basalt	110	220
Basalt	220	230
Basalt & Scoria	230	250
Sandy Basalt	250	260
Basalt & Scoria	260	270
Basalt	270	340
Basalt & Scoria	340	380
Basalt	380	400
Scoria	400	415
Basalt	415	495
Basalt & Scoria	495	512

Date Started 10/28/2019

Completed 3/14/2020

(unbonded) Water Well Constructor Certification

I certify that the work I performed on the construction, deepening, alteration, or abandonment of this well is in compliance with Oregon water supply well construction standards. Materials used and information reported above are true to the best of my knowledge and belief.

License Number _____ Date _____

Signed _____

(bonded) Water Well Constructor Certification

I accept responsibility for the construction, deepening, alteration, or abandonment work performed on this well during the construction dates reported above. All work performed during this time is in compliance with Oregon water supply well construction standards. This report is true to the best of my knowledge and belief.

License Number 1796 Date 3/23/2020

Signed CHRIS HUMPHRIES (E-filed) 14642

Contact Info (optional) Chirs Humphries Jensen Drilling Company

WATER SUPPLY WELL REPORT -
continuation page

DESC 61926

















WELL I.D. LABEL# L48750

START CARD # 1045085

ORIGINAL LOG #

3/23/2020

(2a) PRE-ALTERATION

Dia	+	From	To	Gauge	Stl	Plstc	Wld	Thrd
								
								
								
								

Material	From	To	Amt	sacks/lbs
----------	------	----	-----	-----------

(5) BORE HOLE CONSTRUCTION

BORE HOLE			SEAL				sacks/
Dia	From	To	Material	From	To	Amt	lbs
					Calculated		
					Calculated		
					Calculated		
					Calculated		
					Calculated		

FILTER PACK

From	To	Material	Size

(6) CASING/LINER

Casing	Liner	Dia	+	From	To	Gauge	Stl	Plstc	Wld	Thrd
--------	-------	-----	---	------	----	-------	-----	-------	-----	------

(7) PERFORATIONS/SCREENS

[illegible]

(8) WELL TESTS: Minimum testing time is 1 hour

Yield gal/min	Drawdown	Drill stem/Pump depth	Duration (hr)
---------------	----------	-----------------------	---------------

Water Quality Concerns

From	To	Description	Amount	Units

(10) STATIC WATER LEVEL

[illegible]

(11) WELL LOG

[illegible]

Comments/Remarks

Well was drilled as a test Well and following the pump test a decision to upgrade it and keep the well. It was determined that stainless steel riser was required rather than the carbon steel 12 inch that the well was drilled with so there was quite a lag in work following the pump test to completion of the well. **when the well was close to being complete with 12 inch steel and 12 inch telescoping screen they informed us that the well had to be comprised of all stainless steel – so we installed 10 inch stainless steel with a internal k-packer and a shoulder that landed on the 12 inch telescoping screen and removed the 12 inch steel casing.** revised 6/15/2021

14642 -

WATER SUPPLY WELL REPORT - Map with location identified must be attached and shall include an approximate scale and north arrow

DESC 61926

3/23/2020

Received

APR 14 2025

OWRD

Map of Hole

STATE OF OREGON WELL LOCATION MAP

This map is supplemental to the WATER SUPPLY WELL REPORT

Oregon Water Resources Department

725 Summer St NE, Salem OR 97301
(503)986-0900



LOCATION OF WELL

Latitude: 44.044032 Datum: WGS84

Longitude: -121.334282

Township/Range/Section/Quarter-Quarter Section:

WM18.00S12.00E6NESW

Address of Well:

1500 SW CHANDLER AVE., BEND OR 97702

Well Label: 48750

Printed: March 23, 2020

DISCLAIMER: This map is intended to represent the approximate location the well. It is not intended to be construed as survey accurate in any manner.

Provided by well constructor



14642 -

WATER SUPPLY WELL REPORT - Map with location identified must be attached and shall include an approximate scale and north arrow

DESC 62359

11/27/2020

Received

APR 14 2025

OWRD

Map of Hole

STATE OF OREGON WELL LOCATION MAP

This map is supplemental to the WATER SUPPLY WELL REPORT

Oregon Water Resources Department

725 Summer St NE, Salem OR 97301
(503)986-0900



LOCATION OF WELL

Latitude: 44.04560800 Datum: WGS84

Longitude: -121.33672500

Township/Range/Section/Quarter-Quarter Section:

WM18.00S12.00E6SENW

Address of Well:

1500 SW CHANDLER AVE., BEND OR 97702

Well Label: 139051

Printed: November 27, 2020

DISCLAIMER: This map is intended to represent the approximate location the well. It is not intended to be construed as survey accurate in any manner.

Provided by well constructor



14642 -

Elevation ~3675

Depth (ft.) 0

Top of 12" S.S. casing above ground surface (AGS)

16" diameter surface seal (bentonite) to 70' below ground surface (BGS)

12" or 14" diameter boring from 70' to 503' BSG

12" diameter S.S. casing from AGS to 503' BGS

12" diameter screen, 0.1" wound openings, 403' to 503' BSG

← bottom of screen at 503' BSG

Received
APR 14 2025
OWRD

50

100

150

200

250

300

350

400

450

500
503



HORIZONTAL SCALE (INCHES)



VERTICAL SCALE (FEET)

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WALLACE
GROUP
NORTHWEST GEOSYSTEM EXPERTS

WELL LOG
PROPOSED PRODUCTION WELL
OSU CASCADES
21500 SW CHANDLER AVENUE
BEND, OREGON

14642

PROJECT NO.:	24194(1)
DRAWN ON:	12/26/2024
DRAWN BY:	AGW
CHECKED BY:	SMC

FIGURE

1