



STATE OF WASHINGTON WATER RIGHT PERMIT

PRIORITY DATE	WATER RIGHT APPLICATION NUMBER
June 1, 2023	G4-33316

NAME AND MAILING ADDRESS	SITE ADDRESS (IF DIFFERENT)
Central Washington University Capital Planning & Projects 400 E University Way Ellensburg, WA 98926	

Total Rate and Quantity Authorized for Withdrawal	
WITHDRAWAL RATE (gpm)	ANNUAL QUANTITY (ac-ft/yr)
2,000	3,228 (non-consumptive)

gpm = Gallons per Minute; ac-ft/yr = Acre-feet per Year

Attention: Groundwater appropriated under the proposed permit will be used to operate a groundwater source heat pump (GSHP). During the operation of the GSHP, groundwater will be extracted, circulated through a non-contact heat exchange, then returned to the same aquifer at the same rate resulting in no diminishment of the source.

Purpose(s)			
PURPOSE	WITHDRAWAL RATE (gpm)	ANNUAL QUANTITY (ac-ft/yr)	PERIOD OF USE
Industrial (Heat Exchange)	2,000	3,228 (non-consumptive)	Continuous

Source Location			
COUNTY	WATERBODY	TRIBUTARY TO	WATER RESOURCE INVENTORY AREA
Kittitas	Groundwater	-	39 – Upper Yakima

SOURCE NAME	PARCEL	WELL TAG	TOWNSHIP	RANGE	SECTION	QQ Q	LATITUDE	LONGITUDE
Well No. 1 (Extraction)	313534	TBD	18 N	18 E	35	NE SE	TBD	TBD
Well No. 2 (Injection)	143534	TBD	18 N	18 E	35	NE SE	TBD	TBD

QQ Q = Quarter Quarter

Datum: NAD83/WGS84

Place of Use
PARCEL(S)
Kittitas County Parcel Nos. 143534, 313534, and 354034

LEGAL DESCRIPTION OF THE AUTHORIZED PLACE OF USE
Town of Eburg College Addition Block 4; Town of Eburg College Addition Block 6; and Town of Eburg College Addition Block 7.
All within the NE¼SE¼, SE¼SE¼ and SE¼NE¼ of Section 35 and the NW¼SW¼, NE¼SW¼, SW¼NW¼ and SE¼NW¼ of Section 36 all within Township 18 N., Range 18 E.W.M., Kittitas County, Washington.

Proposed Works

Central Washington University has applied for an appropriation of public groundwater from one well located on the university campus. The appropriation will be for a non-consumptive use in an open-loop groundwater source heat pump (GSHP) system. The proposed point of withdrawal (extraction well) has yet to be completed but will be drilled to an estimated depth of 800 to 1,100 feet below ground surface (bgs) in a confined aquifer within the Ellensburg Formation. Groundwater will be withdrawn from the extraction well, passed through a non-contact heat exchange, then returned to the same aquifer through an injection well, completed in the same aquifer, located approximately 650 feet south (downgradient) of the extraction well.

Development Schedule

BEGIN PROJECT BY THIS DATE	COMPLETE PROJECT BY THIS DATE	PUT WATER TO FULL USE BY THIS DATE
February 1, 2024	January 1, 2026	January 1, 2030

Attention: These dates represent deadlines that must be met or risk cancellation of this authorization. Submittal of formal documentation for each stage is required. Extensions may be requested.

Measurement of Water Use

HOW OFTEN MUST WATER USE BE MEASURED AND RECORDED?	Weekly
HOW OFTEN MUST WATER USE DATA BE REPORTED TO ECOLOGY?	Annually by January 31
WHAT QUANTITY SHOULD BE REPORTED?	Total annual quantity in acre-feet
WHAT RATE SHOULD BE REPORTED?	Annual peak rate of withdrawal in gpm

Provisions

Wells, Well Logs, and Well Construction Standards

All wells constructed in the state must meet the construction requirements of WAC 173-160 titled "Minimum Standards for the Construction and Maintenance of Wells" and RCW 18.104 titled "Water Well Construction." WAC 173-160-171 requires all wells to locate a minimum distance from sources of contamination and constructed at a location not subject to water ponding or flooding. WAC 173-160-291(3) requires installation and maintenance of a well access port for water level measurement. Installation of an airline or a minimum 1-inch diameter sounding tube is required in the wells. If the inject well is pressured, the water level may be measured by a pressure gauge.

Groundwater Protection Zone Requirements

The wells shall only produce groundwater and inject return groundwater to the deep zone of the Upper Ellensburg Formation. The deep zone of the Upper Ellensburg Formation occurs at depths between approximately 800 feet to 1,100 feet in the subsurface. The deep zone of the Upper Ellensburg Formation depths are estimates and may vary depending on the drilling location and surface elevation. The applicant and well driller are responsible for logging and identifying the stratigraphic units of the deep zone of the Upper Ellensburg Formation during well construction.

When a drilling schedule is established and/or the Notice of Intent to Construct a Well (NOI) is submitted to Ecology, the applicant shall notify the Well Construction Coordinator at the Department of Ecology, Union Gap, WA, to review the preliminary well design and arrange for well construction inspections. If you have any questions, please contact the Water Resources Help Desk at 509-575-2597.

Sealing Requirements

WAC 173-160-181 requires the wells to be sealed to preserve the natural barriers to groundwater movement between aquifers and the wells may not interconnect aquifers. The groundwater production well must be sealed from ground surface to the deep zone of the Upper Ellensburg Formation. The injection well will be constructed with a continuous seal from the deep zone of the Upper Ellensburg Formation to ground surface. The injection well sealing material will be neat cement and installed using a pressure grout method. The injection well will be engineered and constructed for pressurized well injection conditions, in a manner equivalent to the requirements for a flowing artesian well in WAC 173-160-251.

Water Metering

The Department requires the water user to measure the quantity of water withdrawn and injected from the wells using a water meter. The water metering and water use information will be reported to the department, as required in WAC 173-160-131. Water measuring reports shall reference the well tag number.

Measurements, Monitoring, Metering, and Reporting

An approved measuring device must be installed and maintained for each of the sources identified by this water right in accordance with the rule “Requirements for Measuring and Reporting Water Use”, chapter 173-173 WAC, which describes the requirements for data accuracy, device installation and operation, and information reporting. It also allows a water user to petition the Department of Ecology (Ecology) for modifications to some of the requirements.

Recorded water use data shall be submitted electronically by January 31 each year. To set up an Internet reporting account, contact the Regional Office. If you do not have Internet access, you can still submit hard copies by contacting the Regional Office for forms to submit your water use data.

Underground Injection Control Program

The subject injection system shall be registered with Ecology’s Underground Injection Control Program¹ prior to discharge of any water withdrawn under Chapter 173-218 WAC.

Water Use Efficiency

Use of water under this authorization shall be contingent upon the water right holder’s maintenance of efficient water delivery systems and use of up-to-date water conservation practices consistent with established regulation requirements and facility capabilities.

Proof of Appropriation

Consistent with the development schedule given in this report (unless extended by Ecology), the water right holder must file a Notice of Proof of Appropriation (PA) of Water with Ecology. The PA documents the project is complete and all the water needed has been put to full beneficial use (perfected). To verify the extent of water use under this permit, an inspection of water use is typically required, known as a “proof exam”. After filing the PA, the water right holder’s next step is to hire a Certified Water Rights Examiner (CWRE) to conduct this proof exam. A list of CWREs is provided to the water right holder upon filing the PA with Ecology. The final water right document, a water right certificate, then may issue based upon the findings of the CWRE. Statutory county and state filing fees may apply prior to certificate issuance.

¹ <https://ecology.wa.gov/Regulations-Permits/Guidance-technical-assistance/Underground-injection-control-program>

Schedule and Inspections

Department of Ecology personnel, upon presentation of proper credentials, shall have access at reasonable times, to the project location, and to inspect at reasonable times, records of water use, wells, diversions, measuring devices and associated distribution systems for compliance with water law.

This Permit Subject to Cancellation

This permit shall be subject to cancellation should the permittee fail to comply with the above development schedule and/or to give notice to the Department of Ecology on forms provided by the Department documenting such compliance.

Given under my hand and the seal of this office at Union Gap, WA this 6th day of February, 2024.

Department of Ecology

OK CK

by Heather Simmons
Heather Simmons, Section Manager
Central Regional Office
Water Resources Program