

**CERTIFIED MAIL**

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City of North Bend  
c/o Mr. Ron Garrow  
P.O. Box 896  
North Bend, WA 98045

Dear Mr. Garrow:

**Re: PRELIMINARY PERMIT to Drill and Test a Mitigation Well(s) Under Ground Water Application G1-26617A (City of North Bend)**

This letter serves as a Preliminary Permit to drill the necessary well(s) and to perform testing on a mitigation plan proposed under Ground Water Application G1-26617A. **Please read this letter carefully. In accordance with RCW 90.03.290 failure to comply with the conditions of this Preliminary Permit shall result in the cancellation of the Preliminary Permit and the associated water right application.**

The study that will be undertaken through this preliminary permit is Phase II of the cost reimbursement agreement between the City of North Bend and the Department of Ecology. Through this cost reimbursement agreement, Pacific Groundwater Group has been hired as a consultant to process this new water right application for the Department of Ecology. Golder Associates Inc. has been hired by the City of North Bend to perform the hydrogeologic work.

G1-26617A requests the withdrawal of public ground water for municipal supply for the area served by the City of North Bend. Given the desire by the City to have a non-interruptible water right, the City has proposed a number of mitigation strategies. Under an earlier preliminary permit to test a mitigation well (TW4) Golder Associates Inc., Pacific Groundwater Group, and the Department of Ecology agreed on the scope of testing and analysis described in the *Draft Study Plan, Testing and Mitigation Analysis, City of North Bend, Water Right Application G1-26617* prepared by Golder Associates Inc. and dated July 24, 2003 and also a document titled, *Attachment A: PGG/WDOE Comments with Golder Acknowledgements (Highlighted in the Text)* prepared by Golder Associates, Inc. and dated July 31, 2003. For the sake of this preliminary permit the two documents above shall be referred to as the **2003 Mitigation Well Testing Plan**. Section 2 and comments relating to Section 2 of the documents above are the aquifer testing plan. Although the well name, location, construction details, and observation wells will be

different for the new site, the remainder of this section, including the aquifer test analysis, hydrogeologic conceptual model update, feasibility assessment, outline system design, and technical memorandum subsections should be followed.

It is recognized that field conditions for the aquifer testing may vary from those anticipated in the *2003 Mitigation Well Testing Plan*. The testing should be performed during the low-flow season. It is not intended that the Application would be cancelled if the field conditions anticipated in the *2003 Mitigation Well Testing Plan* are not matched by the testing actually performed. However, variations in field conditions and testing from the *2003 Mitigation Well Testing Plan* should be explained by the Applicant and/or its consultants.

The proposed mitigation well(s) will be drilled and completed under this preliminary permit. The proposed well will be located within Section 14, T23N, R8E, W.M., in King County. It is proposed that this well will be screened in a deep confined to semi-confined aquifer beneath a glacial till aquitard, which will separate it from the shallow unconfined aquifer. Pump test water will be carried through a pipe and discharged to the Middle Fork Snoqualmie River.

The City will also be drilling an observation well near the proposed mitigation well in order to increase the accuracy of their test results and refine their conceptual model of the hydrogeology of the system. It is proposed that this well will be completed in the shallow aquifer at a depth of approximately 50 feet.

The City should make an attempt to monitor any nearby wells in the deep and shallow aquifers to increase the quantity of data collected that can be used for analysis.

Under the authority of chapter 90.03.290 RCW and chapter 90.44.060 RCW, the Department of Ecology may issue a preliminary permit requiring the applicant to conduct studies, surveys, and investigations necessary to provide the information needed to properly assess the subject application.

The main purpose of this preliminary permit is two-fold. First, this permit is intended to determine hydraulic properties of that portion of the aquifer tapped by the City's proposed mitigation well. The aquifer test conducted under this permit should provide information that can be used to determine the ability of the aquifer to transmit and store water, the extent of the aquifer, and also the potential for adverse effects on existing wells created by the proposed withdrawal. Secondly, this permit is intended to determine how the flow of water in the Snoqualmie River will be affected by pumping of the mitigation well and discharge into the river. The magnitude and timing of these affects will determine if the mitigation strategy is feasible. The aquifer testing analysis described

in the *2003 Mitigation Well Testing Plan* should be followed for this round of testing.

**Ecology may require additional data collection, beyond the scope of this preliminary permit, before a decision can be made regarding your water right application.**

You are hereby granted a PRELIMINARY PERMIT to proceed with the drilling and testing of a well or multiple wells if needed. This letter serves as a PRELIMINARY PERMIT subject to existing rights and the following conditions:

1. **This PRELIMINARY PERMIT becomes effective immediately and will remain in effect until December 31, 2006, unless sooner revoked by the Department of Ecology.**
2. All water wells constructed within the state shall meet the minimum standards for construction and maintenance as provided under chapter 18.104 RCW (Washington Water Well Construction Act of 1971) and chapter 173-160 WAC (Minimum Standards for Construction and Maintenance of Water Wells).
3. In accordance with WAC 173-160-205 wells shall not be located within certain minimum distances of potential sources of contamination. In general wells shall be located at least 100 feet from a sewer, septic tank, privy, or other source of contamination. Wells shall not be located within 1,000 feet of a solid waste landfill. Minimum distances shall also comply with state and local health regulations.
4. An access port(s) shall be installed and maintained in the mitigation well. The access port(s) shall be of sufficient size to accommodate measuring equipment. In order to facilitate accurate recovery data collection, the system shall have the means to prevent water from flowing back into the well when the pump is shut off.
5. A sufficient number of monitor wells completed in the deep aquifer should be monitored in order to get an accurate estimate of the storage coefficient of the aquifer and to facilitate with aquifer boundary identification and the impairment analysis. A sufficient number of monitor wells completed in the shallow aquifer should be monitored to help quantify the effect of pumping on the shallow aquifer and river.
6. Water level in the pumping well and monitor wells (both deep and shallow aquifers), precipitation, river water level and discharge, and barometric pressure data shall be collected prior to the start of pumping, through the duration of

- pumping, and through recovery. The pre-pumping data collection is necessary to determine ground water level trends that can be removed from the data before analysis. The length of the pre-pumping data collection needs to be for a sufficient length of time to capture any trends and must be spatially distributed to identify trends in both the deep and shallow aquifer close to the mitigation well and farther away.
7. Any pressure transducers used should either be vented to the atmosphere or corrected for barometric influence if unvented.
  8. The Middle Fork Snoqualmie River water level and discharge information can be observed and obtained from <http://wa.waterdata.usgs.gov/nwis/uv?12141300> for the real time USGS gage #12141300 Middle Fork Snoqualmie River near Tanner.
  9. The aquifer testing shall be conducted under the supervision of a Washington State licensed hydrogeologist. **Please notify Ecology 72 hours in advance of the date and time when the pumping phase of the test is to begin, when the pumping phase of the test has been completed, and when monitoring of the recovery phase of the test has been completed.**
  10. It is anticipated that the well will be tested at a constant pumping rate of 1000 to 2000 gallons per minute (gpm). While 1000 to 2000 gpm is the planned pumping rate for the test a higher or lower rate may be used. The test should be performed at or above the anticipated mitigation pumping rate if possible. It is unknown if the tested rate will be adequate for mitigation of the proposed water right until the pump test data has been analyzed. The main pumping portion of the test is anticipated to last for 60-days continuously. WRIS Information Bulletin No. 30 (copy enclosed) may be used as a guideline for designing and conducting the aquifer test. Depth to water should be measured in feet, using 10ths and 100ths of a foot rather than inches. In preparation for the 60-day constant-rate pumping test, a step-rate pumping test and 24-hour constant rate pumping test are scheduled to be performed.
  11. Pumped water, produced during the test, shall **not** be put to a beneficial use before being discharged. The water shall be directly carried by pipeline from the well to the point of release into the Middle Fork Snoqualmie River. Ecology's Water Quality Program has required you to make sure that the water discharged is in compliance with the surface water quality standards/criteria and implement Best Management Practices to control turbidity at the discharge point. The Washington State Department of Fish and Wildlife will likely require that you obtain a Hydraulic Project Approval **prior** to constructing the discharge structure

into or adjacent to the Middle Fork Snoqualmie River.

12. The water source and/or water transmission facilities are not wholly located upon land owned by the applicant. Issuance of this preliminary permit by this department does not convey a right of access to, or other right to use, land which the applicant does not legally possess. Obtaining such a right is a private matter between applicant and owner of that land.
13. When the aquifer test is complete, the data shall be analyzed and all pertinent information compiled into a completion report submitted to the Department of Ecology, Northwest Regional Office. The report produced under this preliminary permit shall contain at least the information described in the **2003 Mitigation Well Testing Plan**.

The report shall also include the following:

- A well construction report (well log) for the proposed mitigation well and all observation wells (if available). This must include the total depth and screened interval depths for all wells, as well as the pump intake depth for the proposed mitigation well.
  - Distance from the pumping well to each monitor well and a map indicating all monitor well locations and the location of any wells that might be impaired.
  - Copies of the original field data sheets and a discussion of the methods and calculations employed during determination of aquifer characteristics and discharge measurements.
  - Elevations for all measuring points and method used for determining.
  - All data collected pursuant to this preliminary permit shall be submitted to Ecology in electronic form (such as a spreadsheet) along with a hard copy.
14. In addition to the above, a complete water well report for the well shall be submitted by the driller to the Department of Ecology within thirty (30) days of completion.
  15. All expenses, risks, and liabilities incurred during well testing shall be borne by the applicant. If senior water right holders, including surface water bodies and wells exempt from permitting under RCW 90.44.050 are adversely affected during any portion of the aquifer test, the test shall be terminated immediately.

16. This PRELIMINARY PERMIT grants the right to use this well for testing purposes only. No further use will be allowed from the well until such time as specific approval has been granted. Approval will not be considered until such time as the above conditions have been met.
17. The granting of this PRELIMINARY PERMIT shall not be construed, by inference or otherwise, that subject application will ultimately be approved. **If the applicant fails to comply with the terms of this PRELIMINARY PERMIT, it, and the associated water right application, shall be canceled.**

Any person wishing to appeal this action may obtain review by submitting a written request, within thirty (30) days of receipt of this order, to the Washington Pollution Control Hearings Board, P.O. Box 40903, Lacey, Washington 98504-0903. Concurrently send to the Department of Ecology, Water Resources Appeal Coordinator, P.O. Box 47600, Olympia, Washington 98504-7600, a copy of the request for review. Your appeal alone will not stay the effectiveness of this decision. Stay requests must be submitted in accordance with RCW 43.21B.320. These procedures are consistent with the provisions of Chapter 43.21B RCW.

Should you have any questions regarding this PRELIMINARY PERMIT please contact Andy Dunn at (425) 649-7274.

Sincerely,

Daniel L. Swenson  
Section Supervisor  
Water Resources

Enclosures:      WRIS Information Bulletin 30  
                            Groundwater Bulletin No. 1

I certify that I mailed this preliminary permit or an identical copy thereof, postage prepaid, to the addressee this \_\_\_\_\_ day of \_\_\_\_\_ 2005.

\_\_\_\_\_ (Signature)