



STATE OF WASHINGTON  
DEPARTMENT OF ECOLOGY

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July 1, 2014

City of Kennewick  
ATTN: Bruce Beauchene  
PO Box 6108  
Kennewick, WA 99336

**RE: Temporary Authorization for the Beneficial Use of Water for Municipal Supply  
under Reservoir Application No. R4-35237**

Dear Mr. Beauchene,

This letter constitutes your TEMPORARY PERMIT under Reservoir Application Number R4-35237. This Temporary Permit authorizes the storage, recovery and beneficial use of water for municipal supply in conjunction with previously issued Preliminary Permit for R4-35237, dated March 20, 2014, subject to the provisions include below.

On April 21, 2009, the City of Kennewick, Washington filed Application No. R4-35237 with the Washington State Department of Ecology (Ecology) for a reservoir permit. The source of water includes diversion from the Columbia River under Surface Water Certificate S4-25479C and Surface Water Permit S4-30976P, and withdrawal of groundwater under Groundwater Certificate 3897-A.

The proposed reservoir is an aquifer in Priest Rapids Member of the Wanapum Basalt Formation of the Columbia River Basalt Group. The project entails diversion of source water, treatment at the City of Kennewick's filtration water treatment plant, conveyance through the distribution system, injection into the aquifer, and withdrawal of the stored water for beneficial use. It is anticipated that water may be available for diversion between October 15 and June 15 each year and that the stored water would be recovered during the summer months for municipal supply purposes.

The proposed point of injection and withdrawal of stored water is Kennewick's Aquifer Storage and Recovery (ASR) well located approximately 2,500 feet north and 1000 feet west of the southeast corner of Section 17, T. 8N., R. 29E.W.M. The associated Benton County Tax Parcel No. is 1-1789-400-0001-004. This location is within the NE $\frac{1}{4}$  of the SE $\frac{1}{4}$  of Section 17, T. 8 N., R. 29E.W.M. in an area known as the "Southridge site."

This Temporary Permit is associated with Phase 4 in Amendment No. 1 to the grant agreement (Ecology Grant G0900011) between Ecology and Kennewick. The project is being funded through the Columbia River Basin Development Account administered by Ecology's Office of

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the Columbia River. Work to be performed is described in the *Phase 4 ASR Cycle Testing and Reservoir Permit Application Completion ASR-1 Project Operations and Monitoring Work Plan*, prepared by GSI Water Solutions, Inc., dated February 2014. The workplan is amended as described in letters from Phil Brown, of GSI Water Solutions Inc., to Ecology, dated May 30, 2014 and June 27, 2014. The objectives of the on-going work are to:

- Assess the feasibility of developing a cool water storage zone that will allow the City to use the stored water for municipal drinking water supply.
- Confirm the geochemical compatibility of the two waters and aquifer matrix, and ensure that the recovered water meets the City's needs for municipal supply.
- Assess groundwater quality during intermediate-scale ASR cycle testing to ensure compliance with state groundwater quality standards.
- Establish baseline and trends for pre-ASR static water levels and dynamic (long term recharge and pumping) water levels.
- Track well performance after baseline.
- Assess aquifer hydraulic response to ASR operations.
- Complete intermediate-scale ASR cycle testing that will inform operational objectives for future full-scale testing.

A significant amount of information has been obtained through the grant agreement that Kennewick and Ecology are using to evaluate project operation and environmental impacts and plan future testing. This information will be used to prepare a permit that meets the requirements of Chapter 173-157 WAC, as proposed in Reservoir Permit Application No. R4-35237. This Temporary Authorization will provide additional information and allows Kennewick to beneficially use stored groundwater using the ASR well as the point of withdrawal.

Public notice of Reservoir Application No. R4-35237 was published in the Tri-City Herald of Kennewick, Washington on June 14, 2009 and June 21, 2009. No letters of protest or comments were received during the 30-day protest period.

This project includes injection of chlorinated drinking water from Kennewick's municipal water system into the Wanapum Basalt aquifer. Ecology's Water Quality Program has conducted a review of this project and based on the information provided determined that the benefits of the project outweigh the potential risk of adverse impacts. Kennewick must continue to follow WA DOH and US EPA guidance and requirements to minimize the formation of disinfection bi-products to the maximum extent reasonable. For the Kennewick ASR project, following the disinfection bi-product guidance and requirements is required to meet AKART and qualify to meet the groundwater quality standards for disinfection bi-products through a determination of Overriding Public Interest as recommended in WAC 173-157-200(2) and WAC 173-200-050(3)(b)(vi).

Water is available for groundwater recharge and storage for this Temporary Authorization under the terms and conditions of Surface Water Certificate S4-25479C, Surface Water Permit S4-30976P, Groundwater Certificate 3897-A, and Kennewick's March 14, 2014 Preliminary Permit. Available information indicates that Kennewick's operation of the Southridge ASR facility will not impair existing rights. Storage and withdrawal of groundwater for municipal supply using the ASR well are beneficial uses. Successful operation of Kennewick's Southridge

ASR facility will reduce diversions from the Columbia River during mid to late summer and meet water quality standards while providing Kennewick water to meet peak municipal water demands. Work performed under this Temporary Authorization will further assist Ecology in developing a permit that meets the requirements of Chapters 90.03 RCW, 90.44 RCW, and 90.48 RCW, as proposed in Reservoir Permit Application No. R4-35237. Testing done under this Temporary Authorization is in the public interest and will not be detrimental to the public welfare.

This TEMPORARY AUTHORIZATION is subject to the following conditions:

1. This Temporary Authorization becomes effective immediately and will remain in effect until October 31, 2015, unless sooner revoked or revised by the Department of Ecology.
2. All expenses, risks, and liabilities incurred during testing shall be borne by the applicant. If senior water right holders, including wells exempt from permitting under RCW 90.44.050, are adversely affected during any portion of the test, or data collection activities, the test shall be terminated immediately.
3. This Temporary Authorization may be revoked if the applicant fails to comply with the terms and conditions of the March 20, 2014 Preliminary Permit for R4-35237 and this Temporary Authorization.
4. The issuance of this Temporary Authorization in no way guarantees a standard permit will be issued.
5. Groundwater withdrawal for beneficial use from the ASR Well may take place between July 1, 2014 and October 31, 2014.
6. No discharge to surface waters of the state is authorized. Kennewick shall monitor any surface water discharge to ensure that any discharge water infiltrates prior to reaching surface water and does not cause excessive erosion. Water quality field parameters shall be observed during the Pilot Test, per the approved workplan. If any water quality problems are observed during any portion of the test, water quality samples shall be collected for laboratory analyses and/or the test shall be terminated immediately.
7. The anticipated schedule, volume, and rates of recharge, storage, and recovery are listed in the table below.

<b>Recharge</b>	May 12 to July 10, 2014 59 days @ 1,100 gpm 93 MG <sup>1</sup>
<b>Storage</b>	July 10 to July 14, 2014 4 days
<b>Recovery</b>	July 14 to Oct. 3, 2014 81 days @ 600 gpm <sup>2</sup> 70 MG <sup>3</sup>
<b>Residual</b>	23 MG <sup>3</sup>
<b>Duration</b>	140 days <sup>3</sup>
<b>Schedule<sup>1</sup></b>	May 12 to Oct. 3, 2014

- a. Recharge rates will vary between 1,400 and 1,000 gpm depending on pressure demands in the City's supply system. Recharge will cease when 1,000 gpm

causes low pressure conditions. The assumed average rate is 1,100 gpm, though actual recharge duration and stored volume will vary depending on weather-related demand conditions. This Temporary Authorization extends to October 31, 2014.

- b. 600 gpm is the assumed average recovery rate over a 24-hour summer day. Actual demand could result in different average rates and result in a different duration of pumping.
  - c. The recovery duration and volume are assumed, based on the 600 gpm average pumping rate assumption and a thermal recovery efficiency of 75%.
8. The operator of the system under this authorization shall have a copy of this Temporary Authorization and be aware of the parameters and provisions and operate accordingly.
  9. All water level, flow rate, temperature, pressure, water quality, and other relevant data collected as part of the ASR Cycle and Pilot Testing shall be provided to Ecology in electronic format (i.e., spreadsheet) with the Draft Phase 4 report.
  10. This Temporary Authorization shall in no way excuse the permittee from compliance with any applicable federal, state, or local statutes, ordinances, or regulations including those administered by other programs of the Department of Ecology.
  11. The issuance of this Temporary Authorization does not convey a right of access to or other right to use land, which you do not legally possess. Obtainment of such a right is a private matter between the applicant and owner of that land.
  12. The water sources and/or transmission facilities may not be located entirely upon the land owned by the applicant. Therefore, the applicant is advised that issuance of a permit by the Department of Ecology for appropriation of waters in question does not convey a right of access to, or other right to use, land which the applicant does not legally possess.
  13. Ecology personnel, upon presentation of proper credentials, shall have access at reasonable times, to the records of water use and data collection that are kept to meet the above conditions, and to inspect at reasonable times any measuring device used to meet the above conditions, but only to the extent otherwise allowed by law.

#### **YOUR RIGHT TO APPEAL**

You have a right to appeal this decision to the Pollution Control Hearings Board (PCHB) within 30 days of the date of receipt of this decision. The appeal process is governed by Chapter 43.21B RCW and Chapter 371-08 WAC. "Date of receipt" is defined in RCW 43.21B.001(2).

To appeal you must do the following within 30 days of the date of receipt of this decision:

- File your appeal and a copy of this decision with the PCHB (see addresses below). Filing means actual receipt by the PCHB during regular business hours.
- Serve a copy of your appeal and this decision on Ecology in paper form - by mail or in person. (See addresses below.) E-mail is not accepted.

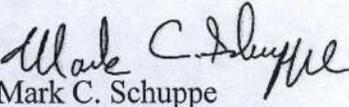
You must also comply with other applicable requirements in Chapter 43.21B RCW and Chapter 371-08 WAC.

**ADDRESS AND LOCATION INFORMATION**

Street Addresses	Mailing Addresses
<b>Department of Ecology</b> Attn: Appeals Processing Desk 300 Desmond Drive SE Lacey, WA 98503	<b>Department of Ecology</b> Attn: Appeals Processing Desk PO Box 47608 Olympia, WA 98504-7608
<b>Pollution Control Hearings Board</b> 1111 Israel Road SW Ste 301 Tumwater, WA 98501	<b>Pollution Control Hearings Board</b> PO Box 40903 Olympia, WA 98504-0903

*For additional information visit the Environmental Hearings Office Website: <http://www.eho.wa.gov>  
To find laws and agency rules visit the Washington State Legislature Website: <http://www.leg.wa.gov/CodeReviser>*

Sincerely,

  
Mark C. Schuppe  
Operations Manager  
Office of Columbia River

DN:MCS:RAZ (140701)

Enclosures: Your Right To Be Heard

By certified mail: 7010 0290 0000 7131 4409

cc: Philip Rigdon, Director, Natural Resources Division, Yakama Nation