



STATE OF WASHINGTON

DEPARTMENT OF ECOLOGY

*P.O. Box 47600 • Olympia, Washington 98504-7600
(360) 407-6000 • TDD Only (Hearing Impaired) (360) 407-6006*

June 19, 2018

Mr. James Hay
Robinson Noble
2105 South C Street
Tacoma, WA 98402

Re: Rule-authorization of the proposed Class V UIC well clusters for stormwater management at the Madrona School Replacement in Edmonds, Washington

Dear Mr. Hay:

Thank you for your letter of May 14, 2018 describing Olympic View Water and Sewer District's (OVWSD) concerns with Department of Ecology's (Ecology) decision to allow the use of the drywells by Underground Injection Control (UIC) Program rule authorization.

Your letter suggests the UIC rule authorization is not adequate to ensure wellhead protection and protect groundwater quality. In addition, you seek stormwater sampling to verify all known, available, and reasonable methods of prevention, control and treatment (AKART) as well as groundwater monitoring for the life of the drywells used.

The Madrona School's stormwater wells are considered UIC wells and must meet the UIC Program's rule requirements for authorization. The rule requirements include well registration and confirmation that the fluids leaving the UIC well meet the nonendangerment standard. The nonendangerment standard means the fluids reaching the groundwater do not cause a violation of the Water Quality Standards for Ground Waters of the State of Washington, Chapter 173-200 WAC (GWQS). The UIC rule requires all known, available, and reasonable methods of prevention, control and treatment (AKART) to UIC well discharges of fluids meet the nonendangerment standard.

The Madrona School project is using the presumptive approach to meet the nonendangerment standard. The presumptive approach means the stormwater management techniques applied in accordance with the stormwater manual are presumed to meet the treatment requirement of state law to provide AKART unless discharge monitoring data or other site specific information shows that a discharge causes or contributes to a violation of the GWQS. The proposal meets the requirements of the presumptive approach as outlined in the UIC rule and Ecology's stormwater manuals.

The following best management practices (BMPs) are considered AKART for UIC wells that manage stormwater in order to protect groundwater:

- Separation between the base of the UIC well and the top of the groundwater table.
- Design, construct, operate, and maintain new UIC wells according to the BMPs within applicable Ecology guidance documents at the time of construction (presumptive approach). Ecology BMPs include planning, siting, source control to prevent stormwater contamination, and treatment.
- Meet groundwater protection area requirements as determined by local ordinances and other state rules.

The proposed UIC wells will be completed at a depth of approximately 115 to 120 feet below ground surface (bgs). The top of the regional aquifer is about 167 feet bgs. The UIC wells at the Madrona School are proposed to receive treated and untreated stormwater. According to the UIC registration material provided, the untreated stormwater will drain from nonpollution-generating surfaces which do not require treatment as described in our stormwater manuals.

Stormwater treatment is required for all stormwater draining from a pollution-generating surface. The proposed stormwater treatment are all Ecology-approved and considered AKART. Ecology has not required stormwater monitoring for the Madrona School however, we understand the school has proposed monitoring.

Ecology issues State Waste Discharge permits when there is sufficient evidence to demonstrate a discharge of a pollutant to groundwater exists. We do not have evidence at this time to show a discharge of a pollutant to groundwater has occurred. Below is rule language defining a discharge:

- WAC 173-226-030 Discharge of "pollutant" and "discharge of pollutants" mean the addition of any pollutant or combination of pollutants to waters of the state, respectively.
- Chapter 173-216
173-216-010 State Waste Discharge Permit Program Purpose
(1) The purpose of this chapter is to implement a state permit program, applicable to the discharge of waste materials from industrial, commercial, and municipal operations into ground and surface waters of the state and into municipal sewerage systems.
- 173-216-030(19) "Waste materials" means any discarded, abandoned, unwanted or unrecovered material(s), except the following are not waste materials for the purposes of this chapter:
 - (a) Discharges into the ground or groundwater of return flow, unaltered except for temperature, from a groundwater heat pump used for space heating or cooling: Provided, that such discharges do not have significant potential, either individually, or collectively, to affect groundwater quality or uses.
 - (b) Discharges of stormwater that is not contaminated or potentially contaminated by industrial or commercial sources.

Overriding consideration of public interest (OCPI) is an option when AKART does not provide treatment of wastewater that meets the GWQS and when the other GWQS options do not exist. The GWQS allow exceedances under certain conditions see WAC 173-200 050-(3) (b). A state waste discharge permit would be required, if two consecutive groundwater samples, collected from a down-gradient groundwater monitoring well exceed the GWQS for the same parameter and at the same well.

Ecology's Water Quality Program was involved with permitting of three Aquifer Storage and Recovery projects that demonstrated OCPI. The projects discharged treated drinking water to groundwater through a UIC well, with at least one contaminant concentration exceeding the GWQS. All three projects discharged directly into an aquifer, not to the overlying vadose zone, and the discharge concentrations were known.

Ecology's individual permits are issued for wastewater treatment plants, industries and agricultural businesses that discharge to ground. Monitoring required by a permit has been reduced over time because of the reduction of or lack of contaminants in the down-gradient groundwater at the facilities. As mentioned previously, the presumptive approach used to determine the BMPs at the Madrona School is an approach owners of UIC wells that manage stormwater can use to meet the nonendangerment standard of the UIC rule. The presumptive approach means compliance with the nonendangerment standard is presumed, unless discharge monitoring data or other site specific information shows that a discharge causes or contributes to a violation of chapter 173-200 WA.

A final stormwater system operation and maintenance plan, a landscape management plan, confirmation of the source control BMPs to be implemented, and confirmation that the wells proposed to receive nonpollution-generating stormwater receive stormwater from a nonpollution surface is required before Ecology approval is given.

As it relates to alternate options for stormwater disposal, discharge at the surface was not considered due to flooding and safety concerns, wetlands are generally not allowed for stormwater treatment, and the City of Edmonds did not allow discharging to the adjacent hillside slopes.

Should concerns remain, the State has a process to appeal a rule authorization or a denial of an UIC well use. Appeals must be filed with the Pollution Control Hearings Board (PCHB) within 30 days of the date of receipt of the rule authorization 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 the decision:

- File your appeal and a copy of Ecology's decision with the PCHB. Filing means actual receipt by the PCHB during regular business hours.

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- Serve a copy of your appeal and the permit cover page 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.

If you have any questions or want to discuss the contents of this letter, please contact Mary Shaleen-Hansen at mary.shaleen-hansen@ecy.wa.gov or (360) 407-6143.

Sincerely,



Heather R. Bartlett
Water Quality Program Manager

cc: Lynne Danielson, OVWSD