



STATE OF WASHINGTON  
**DEPARTMENT OF ECOLOGY**

PO Box 47600, Olympia, WA 98504-7600 • 360-407-6000

August 20, 2024

Nicholas Echelbarger  
Mill Creek Crossing LLC  
31 NW Cherry Loop  
Shoreline, WA 98177  
Sent via email: [nick@ech-cpm.com](mailto:nick@ech-cpm.com)

Re: UIC Site 38840 – Underground Injection Control (UIC) Program Well Registration for  
Voluntary or Independent Cleanup Sites, Mill Creek Crossing (Site),  
18001 Bothell Everett Highway, Bothell, WA

Dear Nicholas Echelbarger:

Ecology's UIC Program has reviewed your UIC registration for the above-mentioned Site. Based on the information provided in the registration and the additional information provided per Ecology's request, the UIC wells are **Conditionally Rule-Authorized**, and a State Waste Discharge Permit is not required to operate the wells under WAC 173-218 authorities.

The UIC registration number is 38840. The Site has been undergoing Ecology's Voluntary Cleanup Program (VCP) technical reviews and assistance for assessment and remediation of tetrachloroethene (PCE) impacts to soil and groundwater associated with release(s) of chlorinated solvents from a former dry-cleaning facility. The scope of work for the proposed in-situ chemical reduction (ISCR) injection event was not submitted to Ecology's VCP for review and approval. If the ISCR work is to be eventually evaluated by the State to make a determination whether the ISCR has met the substantive requirements of the Model Toxics Control Act (MTCA), the Voluntary Cleanup Program (VCP) will make that evaluation. The Facility Site Identification Number is 19816.

Review of the 223-002 – UIC Registration Site – Facility Info 2024-07-15 document, uploaded to UIC registration 38840 on July 15, 2024, prepared by Pacific Crest Environmental LLC (Work Plan) and other information provided in UIC registration 38840, indicates that a total volume of 16 gallons of zero valent iron (ZVI) will be mixed with 1,179 gallons of potable water (2.5% ZVI mixture) for a total injectate mass of 1,195 pounds that will be injected at four well locations. The proposed injections will be targeted to depth range of 10- to 20-feet below ground surface (bgs) at the location of UIC well VMW-1, 5- to 39-feet bgs at the location of UIC well DPE-1, 5-

to 37-feet bgs at the location of UIC well DPE-3, and 5- to 38-feet bgs at the location of UIC well DPE-4. The ISCR injectate will be applied via gravity flow into each UIC well.

The injections are an approved one-time injection event estimated to be completed in one day. Information provided by the applicant in UIC registration 38840 indicates that a repeat injection event may be performed based on performance monitoring results. Any repeat injection events would require additional review and rule authorization from Ecology's UIC Program before being completed.

The groundwater monitoring program will include the following:

- Groundwater samples are proposed to be collected from monitoring wells MW-2, MW-3, MW-4, MW-6, MW-7, and MW-8 following approximately 30-days, 120-days, 210-days, and 300-days after completion of the injection event. Water level measurements will be collected in the monitoring wells prior to sampling.
- Groundwater samples will be field screened for ferrous iron using a Hach Ferrous Iron Color Disc Test Kit in accordance with the manufacturer's guidelines. The collected groundwater samples will be analyzed for tetrachloroethene (PCE), trichloroethene (TCE), cis-1,2-dichloroethene (c-DCE), trans-1,2-dichloroethene (t-DCE), and vinyl chloride (VC).

#### **Conditional Rule-Authorization - Conditions of Use**

There are inherent environmental risks associated with injecting compounds into groundwater. It is incumbent upon the owner and their representative to carefully characterize, manage, and monitor the Site surface and subsurface conditions to minimize risk and prevent unforeseen degradation of groundwater quality and other environmental risks.

Ecology will Rule-Authorize a UIC registration to operate when the two UIC Program requirements for Rule Authorization are met:

1. Registration of UIC wells (prior to use), and
2. The UIC well must meet the nonendangerment standard (WAC 173-218-080).

As stand-alone UIC wells, the wells do not meet the nonendangerment standard for Rule Authorization. Additional conditions are needed to allow for conditional rule-authorization and the remedial work to proceed.



The following Site-specific UIC Program requirements for **Conditional Rule-Authorization** include:

- The injections are a one-time event. Should additional injections be needed, the owner must notify Ecology's UIC Program of proposed additional work and receive an additional Conditionally Rule-Authorization for any additional injection events.
- Onsite groundwater is not approved for use to mix with the remediation products for injection into the UIC wells.
- The injection activities must follow the proposed Work Plan and the scope of work presented in UIC registration 38840. Any deviations from the approved work plans or other agreements are not allowed unless Ecology's UIC Program has pre-approved those changes in writing.
- The injections must not cause a further degradation to groundwater quality criteria at the down-gradient monitoring points per state or federal applicable criteria. If such groundwater degradation occurs, the injection activities must discontinue; any environmental release must be reported no later than 24-hours from the release discovery at [Reporting An Environmental Issue](#)<sup>1</sup> or call 1-800-645-7911.
- Additionally, notification to Ecology's UIC Program of any change in UIC well status is a required element of this registration.
- The planned injection event start date is for September 10, 2024.

The Site will be **Conditionally Rule-Authorized** for as long as the nonendangerment standard of WAC 173-218-080 will continue to be met and the above items have been completed. Failure to capture any of the performance data required or cause a violation of the applicable cleanup standards may result in a denial, modification, or termination of the UIC registration.

The VCP Site Cleanup Manager will have final authority to determine if the IRCA described in the work plan have met the substantive requirement of the MTCA if such an opinion is requested. Ecology's UIC Program will not make that determination.

At any time if the nonendangerment standard cannot be met, Ecology may require you to apply for, and obtain, a State Waste Discharge Permit for the continued use of the proposed treatment compounds. You would need to obtain a formal waste discharge approval for this project through Ecology's State Waste Discharge Permit Program or Toxics Cleanup Program.

The owner is responsible to keep the UIC registration information current and retain all registration documents, plans, modeling, monitoring results, interim, and final reports. Upon Ecology request, the owner shall provide these documents to the UIC Program.

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<sup>1</sup> <https://ecology.wa.gov/footer-pages/report-an-environmental-issue>

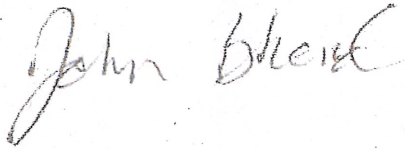
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This UIC registration was evaluated under the presumptive approach, Ecology's UIC Program has determined the conditions described in the UIC registration and other submitted documents to be truthful and factual when making the determination the injections will be protective of the Site groundwater quality and will meet the nonendangerment standard requirements of WAC 173-218-080. Any material misrepresentations or omissions of fact supplied in this application may result in the denial or revocation of this registration authorization. Ecology's UIC Program has the authority to rescind a rule authorization if Ecology determines the system no longer meets the nonendangerment standard.

Please contact John Bhend at [UICwells@ecy.wa.gov](mailto:UICwells@ecy.wa.gov) if you have any questions. You can find additional information on the UIC Program can at our website:

[Ecology's Underground Injection Control Program](#)

Sincerely,

A handwritten signature in dark ink, appearing to read "John Bhend". The signature is fluid and cursive, with the first name "John" being more prominent than the last name "Bhend".

John Bhend, LG  
Statewide UIC Program Coordinator  
Water Quality Program

cc: Andy Lakha, Lakha Properties Mill Creek LLC, [andy@lakhainvestments.com](mailto:andy@lakhainvestments.com)  
William Carroll, Pacific Crest Environmental LLC, [w.carroll@pcenv.com](mailto:w.carroll@pcenv.com)  
Christopher Maurer, Ecology VCP, [cm461@ecy.wa.gov](mailto:cm461@ecy.wa.gov)