

Public Participation Plan

Reserve Silica Reclamation Site
26000 Black Diamond Ravensdale Road

Solid Waste Management Program

Washington State Department of Ecology
Northwest Region Office
Shoreline, Washington

Publication 25-07-043
April 2025

DEPARTMENT OF ECOLOGY
State of Washington

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This document is available on the Department of Ecology's Reserve Silica Reclamation cleanup site page.[1]

Cover photo credit

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Related Information

- Cleanup site ID: 4728
- Facility site ID: 2041

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Website[2]: Washington State Department of Ecology

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Language Access

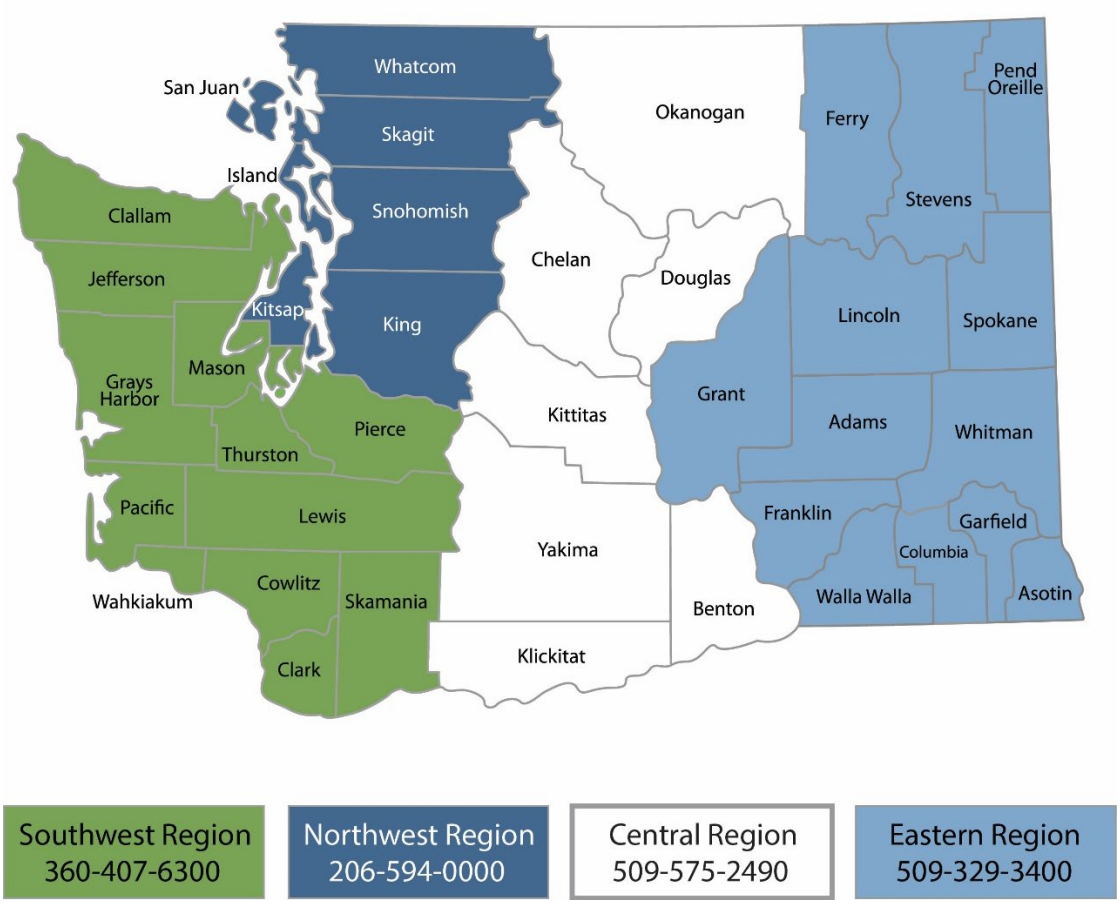
The Department of Ecology offers free translation and interpretation services. If you need help in your preferred language, please call Nancy Lui at 425-393-5679 and request an interpreter, or email nancy.lui@ecy.wa.gov.

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[1] https://apps.ecology.wa.gov/cleanupsearch/site/4728
[2] www.ecology.wa.gov/contact
[3] https://ecology.wa.gov/ADA

Department of Ecology's Region Offices

Map of Counties Served



Region	Counties served	Mailing Address	Phone
Southwest	Clallam, Clark, Cowlitz, Grays Harbor, Jefferson, Mason, Lewis, Pacific, Pierce, Skamania, Thurston, Wahkiakum	PO Box 47775 Olympia, WA 98504	360-407-6300
Northwest	Island, King, Kitsap, San Juan, Skagit, Snohomish, Whatcom	PO Box 330316 Shoreline, WA 98133	206-594-0000
Central	Benton, Chelan, Douglas, Kittitas, Klickitat, Okanogan, Yakima	1250 W Alder St Union Gap, WA 98903	509-575-2490
Eastern	Adams, Asotin, Columbia, Ferry, Franklin, Garfield, Grant, Lincoln, Pend Oreille, Spokane, Stevens, Walla Walla, Whitman	4601 N Monroe Spokane, WA 99205	509-329-3400
Headquarters	Across Washington	PO Box 47600 Olympia, WA 98504	360-407-6000

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Public involvement in contamination cleanup

The Washington Department of Ecology (Ecology) developed this Public Participation Plan in collaboration with Reserve Silica Corporation and Holcim (US) Inc., the parties responsible for cleanup costs. The goal of this plan is to ensure meaningful community involvement throughout the cleanup of the Reserve Silica Reclamation site (Site).

This plan outlines how Ecology will keep the public informed about contamination investigations and cleanup options at each stage of the process. The plan also details when and how the community can participate in the cleanup process. We encourage the public to engage with the decision-making opportunities and provide input.

Site contacts

To be included in the site record, comments about the cleanup process must be submitted during comment periods. Questions and informal comments, or information about the Site's history, are welcome anytime.

Ecology	Potentially liable persons
Northwest Region Office 15700 Dayton Ave N., Shoreline, WA 98133 PO Box 330316, Shoreline, WA 98133 Phone: 206-594-0000 Alan Noell, Site Manager 425-213-4803, alan.noell@ecy.wa.gov Tim O'Connor, Site Manager 425-398-2695, tim.oconnor@ecy.wa.gov Dave Bennett, Media Manager 360-391-9830, dave.bennett@ecy.wa.gov Nancy Lui, Public Involvement Coordinator 425-393-5679, nancy.lui@ecy.wa.gov	**Reserve Silica Corporation** Marisa Floyd Vice President 505-247 2384, mlfloyd@swcp.com 20 First Plaza Ctr NW, Suite 308 Albuquerque, NM 87102 **Holcim (US) Inc.** Travis Weide, Site Manager 989-358-3321, travis.weide@lafargeholcim.com 1435 Ford Avenue Alpena, MI 49707 **BNSF Railway**

If you are unable to reach these contacts, please visit the cleanup site page[4] for up-to-date contact information.

[4] https://apps.ecology.wa.gov/cleanupsearch/site/4728

Public participation grants

Grants may be available to neighborhood committees, non-profits, and other groups interested in the Site. For contaminated sites, these funds can be used to:

- Hire an expert to help interpret technical information
- Conduct activities that enhance the public's understanding of, and participation in, the cleanup process

For more information about public participation grants, please contact Laura Busby at 360-280-5088 or laura.busby@ecy.wa.gov or Wendy Kovach at 564-250-2909 or wendy.kovach@ecy.wa.gov. You may also visit the Public Participation Grant webpage.[5]

Washington's cleanup law

Ecology uses the Model Toxics Control Act (MTCA)[6] and accompanying regulations for cleanup activities. Passed in 1989, MTCA provides guidelines for contaminated site cleanup in Washington state. This law sets standards to ensure the cleanup protects people and the environment. MTCA requires the creation of this plan.

Model Toxics Control Act

MTCA began in 1988 as a citizen-led effort to clean up contaminated sites in Washington state. The law holds property owners or operators responsible for cleaning up contamination on or coming from their property.

Ecology carries out MTCA, making sure cleanups happen according to state rules and regulations. These rules are found in Chapter 173-340 Washington Administrative Code (WAC).[7] Ecology investigates reports of contamination, and the property is placed on the Contaminated Sites List[8] if the pollution is determined to pose a serious risk to human health or the environment. This starts the cleanup process at the site.

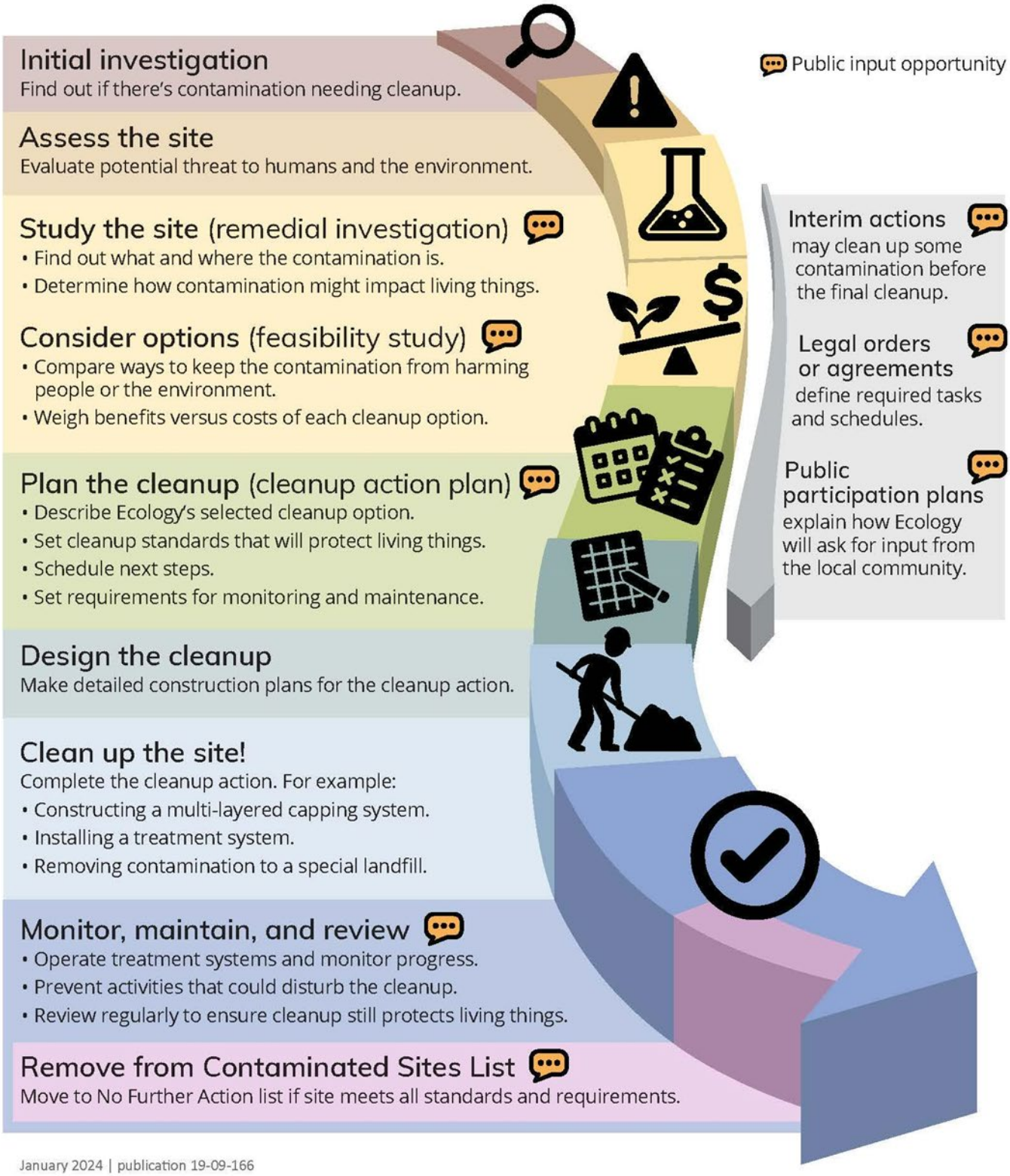
The cleanup process under MTCA includes several steps shown in the infographic below. Public involvement is a key part of MTCA's cleanup process.[9] Nearby residents, businesses, community groups, and other interested parties can review and comment on documents related to steps that make crucial decisions or plans regarding the cleanup.

[5] https://ecology.wa.gov/PPG
[6] https://www.ecology.wa.gov/mtca
[7] https://app.leg.wa.gov/wac/default.aspx?cite=173-340
[8] https://apps.ecology.wa.gov/cleanupsearch/reports/cleanup/contaminated
[9] http://www.ecology.wa.gov/MTCA-process

Washington's Cleanup Process

Public participation plans and comment periods are only required for cleanups under a legal agreement with Ecology. Otherwise, all cleanups follow the same steps. The steps are defined by Washington's cleanup law, the Model Toxics Control Act.

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State Environmental Policy Act

MTCA cleanups also require evaluation under the State Environmental Policy Act (SEPA).[10] Under SEPA, the potential for significant adverse environmental impacts from a project or action must be evaluated by state and local agencies when making decisions. This evaluation is subject to public review and comment in parallel with cleanup documents.

Site information

Site description



The Reserve Silica Reclamation site (Site) is located at 26000 Black Diamond Ravensdale Road, between Ravensdale and Black Diamond, Washington. The Site is in a historical mining area where coal and sandstone have been mined from a tilted bedrock formation south of Ravensdale Lake and Ravensdale Creek. Two surface mining pits – the Lower Disposal Area (LDA) and Dale Strip Pit (DSP) – were reclaimed with cement kiln dust and mining spoils between 1979 and 1988 under the permitting authorities of two King County agencies, currently known as King County Department of Local Services and Public Health – Seattle & King County (Public Health).

Cement kiln dust (CKD) is a waste product from cement processing. CKD reacts with water to form calcium hydroxide, which can increase the pH to greater than 12 standard units, creating caustic water. Caustic water has seeped from the LDA since the 1980s. The cleanup Site is associated with the release of contamination from the CKD fill.

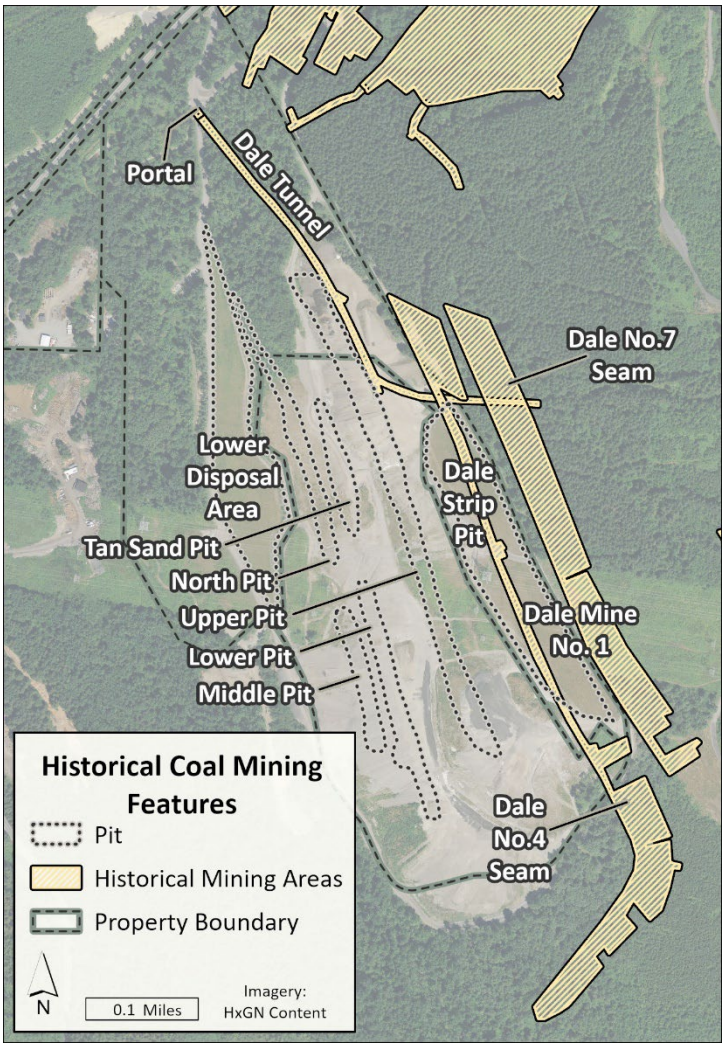
The responsible parties have managed the caustic seepage under the permitting authorities of Public Health and Ecology's Water Quality Program. Ecology determined that Reserve Silica Corporation (Reserve Silica) and Holcim (US), Inc. (Holcim) were potentially liable persons (PLPs) for the release of hazardous substances in September 2017 and that BNSF Railway (BNSF) was a PLP in March 2018. Reserve Silica Corporation and Ravensdale 6 LLC (wholly owned subsidiaries of Reserve Industries Corporation) own the parcels that contain the LDA and DSP. Industrial Mineral Products, Inc., a predecessor company to Reserve Silica, hauled CKD generated by Ideal Basic Industries, Inc., a predecessor company to Holcim, for disposal on BNSF property.

[10] https://app.leg.wa.gov/WAC/default.aspx?cite=197-11

Mining and reclamation history



Underground and surface coal mining were performed near the Site between the early 1900s and approximately 1950. Coal exists in tilted bedrock layers that exist between sandstone and siltstone layers. The Dale No. 1 Workings were advanced from the portal on the Site property to mine the Dale Nos. 4 and 7 coal seams between 1924 and 1933. Surface mining of the DSP to access the Dale No. 4 seam was performed between 1945 and 1948. Groundwater within the coal seams discharges through the underground mining works to the mine portal. Coal processing facilities were located north of the Site on the hillside near Black Diamond Ravensdale Road from 1926 until being demolished in 1955.



Sandstone was surface mined near the Site between 1968 and 2007. Sandstone was mined from the LDA and several surface mining pits south and east of the Site. The sandstone was processed on the parcel north of the Black Diamond Ravensdale Road. The sand processing plant was decommissioned in 2015.

Surface mining pits are reclaimed to restore the original landform. The LDA was filled with CKD and mine spoils between June 1979 and October 1982, and the DSP was filled with CKD and mine spoils between November 1982 and May 1988. Additional fill was placed in the DSP through 1989. The Upper Pit, North Pit (including the Tan Sand Pit), and Lower Pit (including the Middle Pit) have been reclaimed with mine spoils and non-reactive inert waste materials. Reserve Silica continues to accept inert waste in the sand mining pits.

Permitting authorities

Surface mining and reclamation activities have been permitted by the Washington State Department of Natural Resources (DNR) and King County. DNR cancelled the Surface Mine Reclamation Permit in 2010 because there was no ongoing or planned surface mining. King County has issued grading permits since 1971. The LDA was filled with CKD starting in June 1979. Public Health issued a Special Landfill Permit in October 1981 that authorized the disposal of CKD into the LDA and DSP through 1988.

The current permits include:

- King County Department of Local Services issues Grading Permit No. GRDE15-0011 for the Reserve Silica fill site.
- Public Health issues Post-Closure Care and Maintenance Permit No. PR0015708 for the closed CKD landfills.
- Public Health issues Inert Waste Landfill Permit No. PR0082027 for the disposal of inert waste in the reclaimed surface mines.
- Ecology issues Sand and Gravel General Permit No. WAG503029 for the discharge of stormwater at the mining site.
- Ecology issues draft State Waste Discharge Permit No. ST0501373 for the treatment and discharge of seepage water from the LDA. Ecology anticipates finalizing the permit in the summer of 2025. Ecology provided a public notice for the permit and will provide a 30-day public comment period before finalization.

Interim cleanup activities

Caustic seepage has been conveyed towards a borrow pit or the Infiltration Ponds since 1981, where the seepage was neutralized in groundwater. In 2002, Reserve Silica executed an Agreement to allow Holcim to conduct monitoring and cleanup activities for the CKD landfills.

The monitoring and cleanup activities for the LDA and DSP include:

- 2002-Present: Groundwater and surface water have been monitored quarterly to assess the impacts of the CKD.
- 2007: The cover of the LDA was upgraded to divert and drain stormwater and reduce infiltration into the CKD.
- 2010-2011: The cover of the DSP was upgraded to drain stormwater and reduce infiltration into the CKD.
- 2008-2015: The seepage collection and conveyance system was constructed and expanded along the northwest part of the LDA.
- 2013: A groundwater diversion trench was constructed along the southern boundary of the LDA to reduce groundwater flow into the LDA.
- 2017-2018: Chain-link fencing was installed to restrict access to the seepage area and high pH surface water in the seepage collection trench, South Pond, and Infiltration Ponds.

- 2018-Present: The seepage treatment system has neutralized and removed metals from the seepage before discharge to the Infiltration Ponds. Carbon dioxide sparging neutralizes the water and sand filtration, and iron filings remove metals from solution.



Construction of groundwater diversion trench at the southern boundary of Lower Disposal Area



Seepage treatment system that neutralizes the pH and lowers the concentrations of arsenic



Seepage collection ditch along the northwest side of the Lower Disposal Area

Remedial Investigation findings

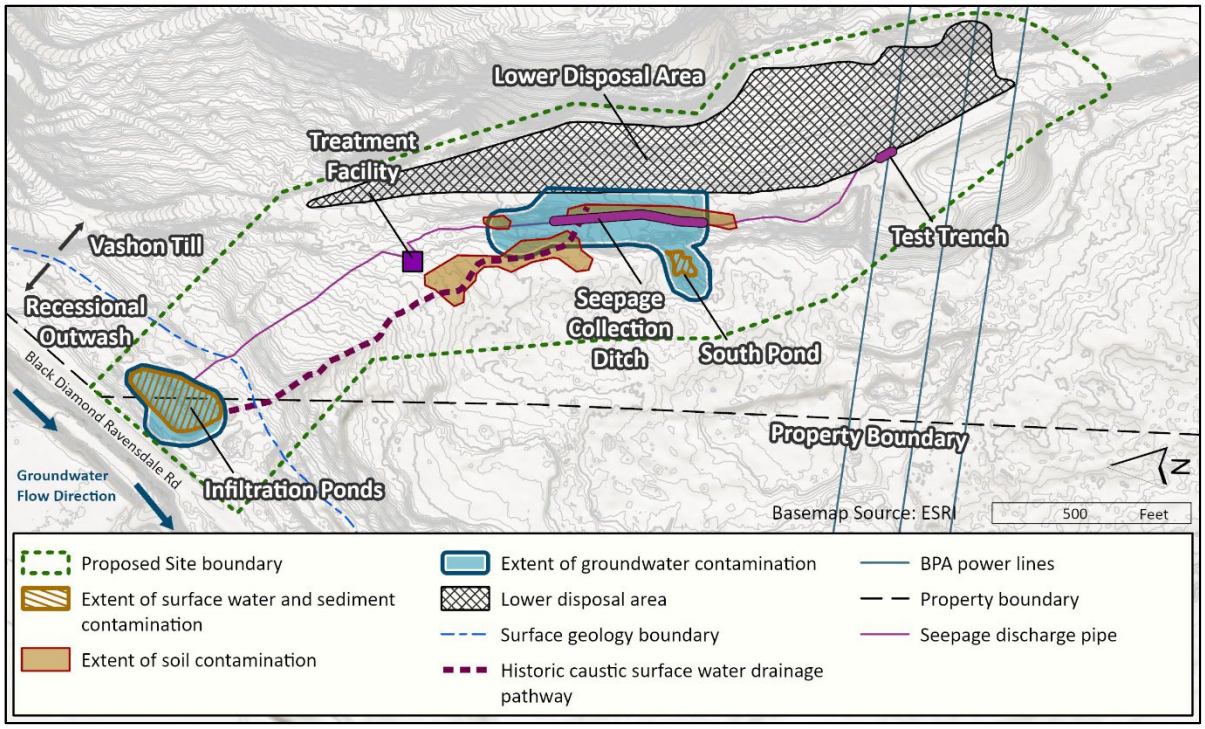
The Draft Remedial Investigation findings include:

- High pH groundwater is generated within the LDA and DSP when water interacts with the CKD. The solubility of metal compounds both within and beyond the LDA is influenced by the pH. Antimony, arsenic, lead, and vanadium were found to exceed cleanup levels developed for the groundwater, surface water, soil, and sediment.
- The siltstone and sandstone bedrock beneath the LDA and DSP are low-permeability formations that inhibit the flow of groundwater. No impacts of the CKD were observed in bedrock monitoring wells or bedrock soil samples collected beneath the most impacted areas of the LDA.
- Electromagnetic geophysical surveys readily detect high pH groundwater within 15 to 40 feet of the surface. High pH groundwater was found to discharge through a constructed berm beneath a haul road on the northwest side of the LDA. Residual high pH groundwater was also found near the Infiltration Ponds after the start-up of the treatment system. High pH groundwater does not extend laterally from the DSP.
- Less caustic groundwater is generated in the DSP than in the LDA because less water infiltrates and accumulates within the DSP.

The caustic groundwater in the DSP discharges vertically through the underlying coal seams and underground mining works, where the groundwater discharges through the mine portal. The groundwater is buffered by the low-sulfur coal and diluted by the mine water before discharge. The DSP has been closed for more than 35 years, and the groundwater that discharges through the mine portal has been monitored for more than 20 years. Although the potassium concentrations are consistent with CKD exposure, the pH and concentrations of the metals comply with the groundwater and surface water cleanup levels for the Site. The DSP has been removed from the Site boundary because there has been no release of contamination from the landfill.

- The LDA boundary extends farther southeast than previously indicated. CKD was disposed of in the Bonneville Power Administration (BPA) right-of-way, and less soil cover was placed in the BPA right-of-way because reforestation was not possible. The upgraded soil cover that was placed in 2007 does not extend beneath and beyond the haul road underneath the BPA transmission lines.
- High pH groundwater and surface water are released beneath the haul road on the northwest side of the LDA. The contamination extends through low-permeability Vashon till soil, to the South Pond, and historical surface water drainage pathways. Elevated concentrations of antimony, arsenic, lead, and vanadium were detected above the site cleanup levels near these features. The elevated concentrations of vanadium are limited to the highest pH areas near the source. The South Pond is seasonally dry, and no surface water has been observed to discharge.
- High pH surface water has been directed to the Infiltration Ponds since 1981. The Infiltration Ponds are located in the Vashon recessional outwash formation at the base of the elevated mining area. High pH surface water infiltrated into groundwater within the recessional outwash from approximately 1981 to 2018. The high pH water was buffered by the neutral groundwater, and the concentrations of metals decreased below the groundwater cleanup levels in the neutral water. The extent of the high pH groundwater and elevated concentrations of antimony and arsenic has significantly decreased since the startup of the seepage collection system in September 2018.

- The proposed Site boundary includes the LDA, the extent of contamination, the Infiltration Ponds, and the groundwater monitoring network.



Area community

The Site is in a historical coal mining area with a mix of mining, forestry, and residential zoning.

The entire Site is located within the City of Kent's Wellhead Protection Area and the Infiltration Ponds are within the 5-year capture zone of the Kent Springs wellfield. As indicated in their Wellhead Protection Program Update,[11] the City of Kent wants to be notified of permitting activity, track the cleanup of MTCA sites, and be notified of hazardous materials spills.

The Greater Maple Valley Unincorporated Area Council[12] has facilitated communication about the permitting and cleanup activities for this Site.

Ecology will reach out to cultural community organizations as part of our outreach and provide information in other languages according to federal guidance.[13] We strive to make our public

[11] City of Kent Wellhead Protection Program Update, January 2022, https://apps.ecology.wa.gov/cleanupsearch/document/144528
[12] Greater Maple Valley Unincorporated Area Council, http://gmvuac.org/
[13] https://www.federalregister.gov/documents/2004/06/25/04-14464/guidance-to-environmental-protection-agency-financial-assistance-recipients-regarding-title-vi

participation efforts as inclusive as possible and welcome your input about how to best reach the nearby community.

To request help in Spanish or in another language, call Nancy Lui at 425-393-5679, and wait on the line while we get an interpreter connected.

The following federally recognized Tribes potentially rely on resources that could be affected by the contamination:

- Muckleshoot Indian Tribe
- Puyallup Tribe of Indians
- Squaxin Island Tribe
- Suquamish Tribe
- Tulalip Tribes

Ecology will ensure that the Tribes will be engaged with any decision-making process for this Site and have ample opportunity to be involved throughout the process on a government-to-government basis.

Public participation activities

Members of the public may ask questions, submit informal comments, or share site information at any time. Interested parties do not need to wait for a formal public comment period to contact Ecology.

However, to be included in the formal site record, comments about the site investigation, cleanup alternatives, or cleanups must be submitted during formal comment periods. In addition, the public is invited to review site documents before they become final. This is the most direct and influential way to learn more about the site and be involved in the cleanup's decision-making.

How we share information with the community

During specific stages of the cleanup, Ecology will mail notices about public comment periods to addresses surrounding the site. The mailing list area will vary depending on the type of contamination and where it's located. However, the list will at least include addresses within a 1/4-mile radius of the site and other interested organizations and individuals. These notices will provide general information about the site, contact information for submitting comments, and times and locations of public meetings or hearings, or how to request one if not yet scheduled.

Comment period notices will be available online and at document repositories, such as the library closest to the site, for example. Notices may also be posted in various locations throughout the community, such as local businesses, schools, or post offices.

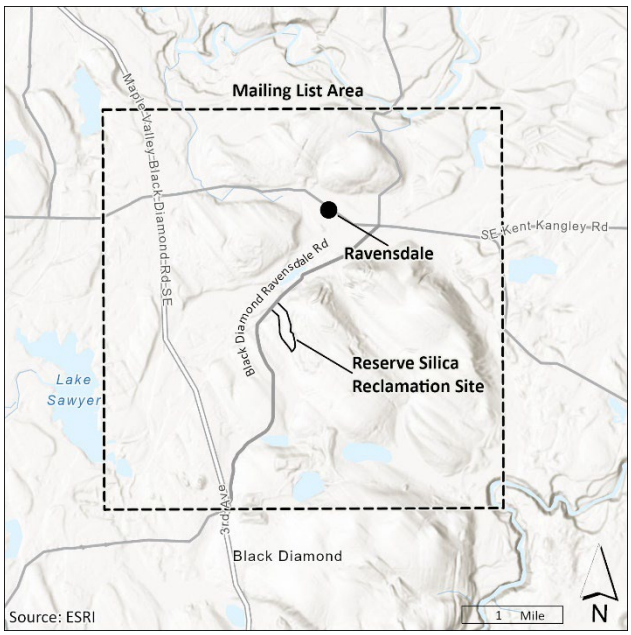
Ecology may also develop documents outside of comment periods to keep the community updated on the Site's status. These informational documents will be available online. Printed copies may be mailed to the nearby community if we feel the message warrants the associated cost and resources.

Postal mailing list

Ecology maintains a mailing list with relevant local, state, federal, and tribal government contacts and residents and businesses within an approximate 16-square mile area near the Site.

Ecology sends public comment notices when draft documents are available.

We will add additional people, organizations, tribes, agencies, and other interested parties to the mailing list as requested. If you would like to be added to the mailing list for this Site, please contact Nancy Lui at 425-393-5679 or nancy.lui@ecy.wa.gov.



Contaminated Site Register

Public comment periods, events, and other cleanup notices are published in Ecology's *Contaminated Site Register*.[14] To receive the *Contaminated Site Register* by email, please subscribe online,[15] or contact Sarah Kellington at sarah.kellington@ecy.wa.gov or 360-280-3167.

Newspaper display ads or legal notices

We announce public comment periods and events for this Site in ads or notices published in the *Voice of the Valley* and *Covington Reporter* newspapers. We will also publish notice on our Public Input & Events Listing.[16]

Email lists

Ecology maintains an email list to update interested persons about this Site. If you would like to be added to the email list for this Site, please contact Nancy Lui at 425-393-5679 or nancy.lui@ecy.wa.gov and reference Reserve Silica Reclamation Site.

[14] https://ecology.wa.gov/Regulations-Permits/Guidance-technical-assistance/Site-Register-lists-and-data
[15] https://ecology.wa.gov/site-register
[16] https://ecology.wa.gov/Events/Search/Listing

Ecology's website and social media platforms

We maintain a website for the Reserve Silica Reclamation Site.[17] The website provides site information, and you may download cleanup documents.

We may also share information about cleanup sites through news releases, blogs, and social media.[18]

Automatic site update

You can subscribe to this site from our Reserve Silica Reclamation webpage. You'll receive a weekly email if we change the site's status, add documents to the site's webpage, or open a comment period.

Places to see print documents

During public comment periods, you can find print documents at the following locations:

Ecology Northwest Region Office Central Records
15700 Dayton Ave N., Shoreline, WA 98133
Phone: 206-594-4000

To schedule an appointment, please contact Michael Hart at 206-833-8973 or michael.hart@ecy.wa.gov.

Maple Valley Library
Address: 21844 SE 248th St, Maple Valley, WA 98038
Phone: (425) 432-4620

How you can share information with us

We hold public comment periods and sometimes public events to give you a chance to share your thoughts, opinions, and concerns about cleanup at a site. We may also identify public concerns and cleanup goals by meeting with and soliciting information from interested community members and organizations. To collaborate with us about this Site, please contact Alan Noell at 425-213-4803 or alan.noell@ecy.wa.gov.

Public comment periods

Ecology hosts public comment periods for a minimum of 30 days to allow interested members of the public to comment on draft documents, legal agreements, and proposed cleanup actions. If there is significant interest, Ecology may extend the public comment period. When Ecology oversees State Environmental Policy Act (SEPA) determinations, we hold comment periods for at least two weeks and may extend to 30 days or more when other cleanup documents are concurrently available for review.

[17] https://apps.ecology.wa.gov/cleanupsearch/site/4728
[18] https://ecology.wa.gov/About-us/Get-to-know-us/News

Following a comment period, we publish all the input we received and respond to significant comments and questions, as appropriate. If the comments result in significant changes to the cleanup documents, then the documents will be revised and re-issued for public review. If the comments do not result in significant changes, the documents will become final.

Public events

We hold public meetings, workshops, open houses, and hearings based on community interest. At meetings, workshops, and open houses, attendees can ask questions, learn more about the site, and submit written comments when a comment period is open. At a public hearing, verbal comments are transcribed for the record, and Ecology responds to them after the comment period in our response to comments.

If we have not scheduled an event, we will hold one if 10 people request it. This may cause us to extend a public comment period, so the event occurs during it.

Events are held online or at locations close to the site that meet Americans with Disabilities Act standards. Public events are always announced in advance using a variety of methods.

Plan amendments

Ecology developed this plan following MTCA regulations (WAC 173-340-600). We review it as the cleanup progresses and amend it as necessary. You may suggest amendments to Alan Noell at 425-213-4803.

This plan intends to provide the public with information on opportunities for public involvement and comment. The outreach activities discussed reflect Ecology's current plans to keep the public informed. It also provides ways for those interested in the site to communicate their concerns and questions to us.

If you feel the planned outreach activities and mechanisms found in this plan are insufficient or would like to modify them in some way, please contact us. We will work to find solutions. We can implement new activities or outreach tools right away, with or without amending this plan.