Response to Comments

Remedial Investigation & Feasibility Study

Treoil Industries Cleanup Site
4242 Aldergrove Road, Ferndale
Whatcom County

Toxics Cleanup Program
Washington State Department of Ecology
Northwest Region Office
Shoreline, Washington

June 2025

DEPARTMENT OF ECOLOGY
State of Washington

Publication Information

This document is available on the Department of Ecology's Treoil Industries[1] cleanup site webpage.

Cover photo credit

- Treoil Industries site, 2024, WA State Department of Ecology

Related Information

- Cleanup Site ID: 950
- Facility Site ID: 2919

Contact Information

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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 Kristen Forkeutis at 425-240-4353 and request an interpreter, or email Kristen.Forkeutis@ecy.wa.gov.

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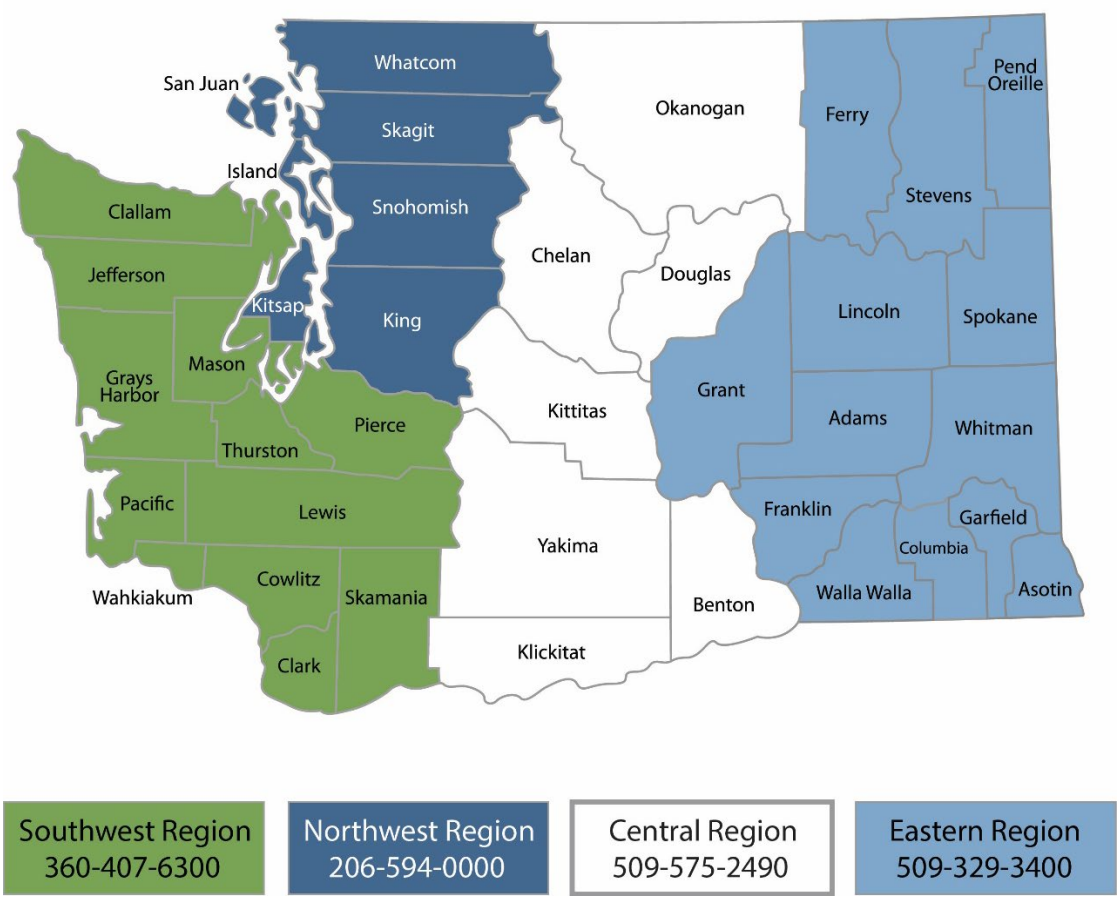
[1] https://apps.ecology.wa.gov/cleanupsearch/site/950
[2] https://ecology.wa.gov/About-us/Who-we-are/Our-Programs/Toxics-Cleanup
[3] https://ecology.wa.gov/ADA

Department of Ecology's Region Offices

Map of Counties Served



Southwest Region 360-407-6300	Northwest Region 206-594-0000	Central Region 509-575-2490	Eastern Region 509-329-3400

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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Outreach Summary

The Treoil Industries cleanup site, located in unincorporated Whatcom County, is undergoing Washington State's formal cleanup process[4] as directed under the Model Toxics Control Act (MTCA[5]). The WA State Department of Ecology is addressing contamination at the site.

Ecology's outreach activities related to this site's 30-day comment period (March 24, 12:00 a.m. - April 22, 11:59 p.m., 2025) included:

- **Fact Sheet:**
  - US mail distribution of a fact sheet providing information about the cleanup documents and the comment period to 341 addresses including neighboring businesses and other interested parties.
  - Email distribution of the fact sheet to over 240 people, including interested individuals, local/county/state/federal agencies, neighborhood associations, and interested community groups.
  - The fact sheet was available digitally through Ecology's cleanup site webpage[6] in English. Language access information was provided in Spanish, Russian, Ukranian, Punjabi, and Arabic.
- **Legal Notices:**
  - Publication of one paid print display ad in the *Bellingham Herald*, dated Sunday, March 23, 2025.
  - Publication of one paid print display ad in the *Ferndale Record*, dated Wednesday, March 26, 2025. This ad was also included in the online e-editions for four weeks
- **Contaminated Site Register newsletter:**
  - Publication of three notices in Ecology's Toxics Cleanup Program Contaminated Site Register newsletter:
    - Comment Period Notice:
      - March 20, 2025
      - April 3, 2025
      - April 17, 2025
  - Visit Ecology's Contaminated Site Register website[7] to download PDFs.

[4] https://ecology.wa.gov/MTCA-process
[5] https://ecology.wa.gov/mtca
[6] https://apps.ecology.wa.gov/cleanupsearch/site/950
[7] https://apps.ecology.wa.gov/publications/UIPages/PublicationList.aspx?IndexTypeName=Program&NameValue=Toxics+Cleanup&DocumentTypeName=Newsletter

- **Media Notification:**
  - Ecology sent a media notice on Thursday, March 20, 2025, to the *Bellingham Herald,* the *Ferndale Record*, *The Cascadia Daily News, My Bellingham Now website,*[8] *Whatcom News website,*[9] *Whatcom Watch website,*[10] *Northwest Citizen news website,*[11] *KGMI 790 AM radio station, Western Washington University's The Front newspaper,*[12] *and Western Washington University's The Planet magazine.*[13]
- **Media Coverage:**
  - *Cascadia Daily News* ran a story[14] on March 20, 2025
  - *My Bellingham Now* ran a story[15] on March 21, 2025
  - *The Northern Light* ran a story[16] on March 26, 2025
  - *Ferndale Record* ran a story[17] on March 27, 2025, and a story[18] on April 9, 2025
- **Blog Post:**
  - Ecology posted a blog[19] on March 20, 2025.
- **On-site Walking Tour:**
  - Ecology collaborated with RE Sources, an Ecology Public Participation Grant[20] recipient, on a video that was shared during the Open House on Wednesday, April 2, 2025 and on Ecology's cleanup site webpage.[21]
- **Websites**:
  - Ecology announced the comment period, posted the fact sheet, and made the review documents available on Ecology's cleanup site webpage[21] and Ecology's Public Inputs & Events webpage.[22]

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[8] https://mybellinghamnow.com/
[9] https://whatcom-news.com/
[10] https://whatcomwatch.org/
[11] https://www.nwcitizen.com/
[12] https://www.thefrontonline.com/
[13] https://www.theplanetmagazine.net/
[14] https://www.cascadiadaily.com/2025/mar/20/ecology-invites-public-input-on-plan-to-clean-up-ferndale-industrial-site/#:~:text=The%20Washington%20State%20Department%20of%20Ecology%20is%20asking,soil%20and%20may%20have%20seeped%20into%20the%20groundwater
[15] https://mybellinghamnow.com/news/297792-public-comment-period-to-open-for-ferndale-treoil-industries-cleanup-site/
[16] https://www.thenorthernlight.com/stories/public-comment-opens-on-treoil-site,37469
[17] https://www.lyndentribune.com/ferndale_record/public-comment-period-open-for-ferndale-environmental-clean-up/article_59d6fbc1-0ef8-4713-90dc-494f52c3857d.html
[18] https://www.lyndentribune.com/ferndale_record/community-learns-about-environmental-cleanup/article_531385f8-8e69-4528-9352-2dc395a9d8b4.html
[19] https://ecology.wa.gov/blog/march-2025/cleaning-up-studies-of-treoil-site-now-available-for-comment
[20] https://ecology.wa.gov/About-us/Payments-contracts-grants/Grants-loans/Find-a-grant-or-loan/Public-participation-grants
[21] https://apps.ecology.wa.gov/cleanupsearch/site/950
[22] https://ecology.wa.gov/Events/Search/Listing

- **Document Repositories:**
    - Copies of the review documents and fact sheets were available for review at the Ferndale Library.
    - Outreach materials also directed the reader to contact Kristen Forkeutis, Outreach Specialist, for document review assistance.

Comment Summary

From March 24, 12:00 a.m. to April 22, 11:59 p.m., 2025, Ecology solicited comments on a draft remedial investigation and draft feasibility study. The remedial investigation details the types and locations of contamination at the site, while the feasibility study explains the different cleanup methods, called alternatives, including Ecology's preferred cleanup alternative. The WA State Department of Ecology is addressing contamination at the site.

Ecology received five formal comments during the 30-day comment period.

Table 1: List of Commenters

	First Name	Last Name	Agency/Organization/Business	Submitted By
1	Anna	Bursch		Individual
2	Liisa	Wale		Individual
3	Kim	Clarkin		Individual
4	Lyle	Anderson		Individual
5	Kristin	Lowell	Lummi Natural Resources (LNR)	Tribe

Next Steps

Ecology has reviewed and considered the comments received on the Remedial Investigation and Feasibility Study. Based on Ecology's evaluation of the comments, no significant changes to the documents were necessary.

Ecology will finalize the documents and proceed with the cleanup for this site. See the graphic below and visit Ecology's cleanup process webpage[23] to learn more about Washington's cleanup process.

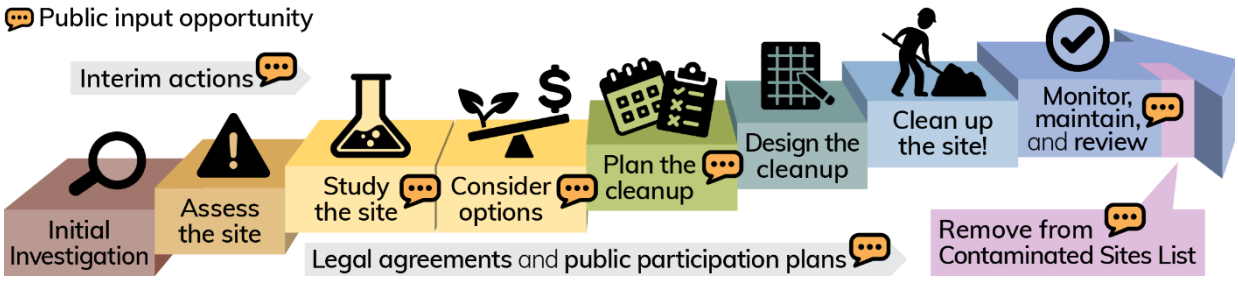

Figure 1: Washington's cleanup process

Public Comments and Responses

The public comments are presented below, along with Ecology's responses. The Appendix contains the comments in their original format.

Comment from: Anna Bursch

The penalty of 900,000 given by the department of Ecology to Treoil Industries is insufficient considering the egregious and repeated negligence shown by Treoil industries. Treoil Industries was given ample opportunity to improve their hazardous waste management. Instead of taking these opportunities to repair their mistakes, with no respect for their neighbors, Treoil Industries willfully and knowingly continued to pollute the environment by abandoning thousands of gallons of hazardous materials to spill and mix with rainwater. Treoil industries was only fined 900,000 dollars. The total cost of the cleanup was 4.3 million dollars. The cost of the cleanup falls burden on the community, the state, the country and their tax payers. Treoil Industries' debt to its community and the amount required for justice to be served is far greater than 900,000 dollars.

[23] https://ecology.wa.gov/MTCA-process

Response:

Thank you for your comment.

EPA conducted two removal actions (in 2017 and 2022). As you mentioned, the total cost associated with this effort is around 4.3 million. It is our understanding that EPA also has filed a lien against the property to recover the costs of their cleanup work. Please contact Brooks Stanfield, EPA On-Scene Coordinator (stanfield.brooks@epa.gov, 206-553-4423 or 206-379-2996) for more information.

The Department of Ecology's Hazardous Waste and Toxic Reduction Program also issued a penalty on Treoil Industries. Treoil did not appeal the December 2023 penalty and have not paid it to date. Last fall, Ecology filed a lien against the property for the penalty amount plus interest. If the property is sold, Ecology will have a right to recover the lien amount from proceeds of the sale. Contact John Level, Assistant Attorney General (john.level@atg.wa.gov, 360 586-6753) for more information.

The penalty is based on the following Ecology findings:

Violation 1:

WAC 173-303-170(1)(a) and by reference WAC 173-303-070(3): Failure to designate dangerous waste. Treoil did not designate any of their dangerous waste. Furthermore, after the first EPA emergency removal in 2017, the owner allowed additional accumulation of dangerous waste on site.

Violation 2:

WAC 173-303-141(1): Failure to properly dispose of all dangerous waste from the site at a permitted Treatment Storage and Disposal (TSD) facility. Treoil failed to properly dispose of all dangerous waste from the site at a permitted TSD facility. Furthermore, after the first EPA emergency removal in 2017, the owner allowed additional accumulation of dangerous waste on site.

When Ecology's Hazardous Waste and Toxics Reduction Program issues a penalty, they consider several factors such as the compliance history of the facility, the severity of the violations, the threat to human health and the environment, the degree of good faith exhibited by the responsible party to work with Ecology to address the violations, and the financial benefit of not complying with the rules and regulations that the facility took advantage of.

The Department of Ecology is attempting to coordinate with the Treoil property owner and continues to work with the Whatcom County Health and Community Services to find ways to secure the property so that it is not used as an illegal dumping ground.

Comment from: Liisa Wale

Hello -

Thank you to Department of Ecology for the work and follow through up to this point regarding Treoil Industries Site in Ferndale, WA. Even though work has been done I feel that there is more work and investigating needing to happen. While reading through some of the documents provided a few things that really stood out to me are 1) was any work done to find out about contamination on adjacent properties, 2)has air quality been tested not just at the property but also in the area outside the property, and 3) has water quality been tested "down stream" throughout the area.

I feel like one could focus on cleaning up the site, but my concern also is for the community that is near by. How is the water and air quality in areas around and outside Treoil site? Has health studies been done of the community that lives nearby and are there any noticeable changes due to being exposed to the toxic site. Of course, that may mean working with other State and Federal Agencies to determine that. I also hear that Herring population has been impacted around the coast line nearby. This not only impacts the land and animals but people's lively hood who fish and rely on the waters for food.

Response:

Thank you for your comment.

First, we want to let you know that EPA has conducted two removal actions. The first removal action was in 2017 and the second in 2022. These two cleanup actions removed a substantial amount of contamination from the Treoil site. As a result, any potential threat of the contamination at Treoil migrating to the Strait of Georgia has been removed. Here are some of the numbers from EPA's two removal actions:

EPA's 2017 removal actions removed:

- 93,000 gallons of liquid tall oil and tall oil derivative wastes
- 275 tons of contaminated soil, sludge and debris
- 6,750 gallons of crude glycerin
- 430 containers, 35 drums and nine cylinders of hazardous chemicals
- Eight cubic yards of asbestos containing material

EPA's 2022 removal action removed:

- 97,400 gallons of oily liquid from secondary containment
- 18,000 gallons of hazardous liquids
- 3,316 tons of solidified material
- 4,800 gallons of pumpable oily material
- 1,890 gallons of corrosive liquids
- Eight cubic yards of solidified hazardous materials

After EPA's two removal actions, Ecology conducted a Remedial Investigation (RI) in August 2023 to evaluate the nature and extent of the contamination left at the Treoil property. The results of the investigation indicated that contamination consists of heavy petroleum and metals located within the bounds of the Treoil property. There is no evidence that adjacent properties have been impacted. These contaminants are found mostly in the top two feet of the soil at various spots. Heavy petroleum and metals do not volatilize (or evaporate into the air), which means the soil does not contain volatile contaminants that can evaporate and enter the air. Therefore, air quality testing was deemed unnecessary.

There was no true surface water present on site during the RI in August 2023. During the fieldwork ("dry Season"), grab water samples were collected at the only two locations where standing water had accumulated on Site. During the "wet season" in December 2024, Ecology also collected grab water samples (HA-W-02+duplicate, HA-W-04, and HA-W-05) from the drainage system, one ponded water sample from a depression west of Warehouse B (HA-PW-01), and one background sample (HA-W01) from a drainage channel adjacent to the BNSF railroad east of the property (see RI Figure 2). No significant contamination was found in the water samples. Based on this, we can make the determination that downstream water quality is not currently being impacted by Treoil contamination.

Further, Treoil property is in an area designated for industrial use. There are no residential houses, schools or playgrounds nearby. Typically, cleanup sites do not precipitate the need for an environmental health related assessment, unless there is a direct exposure pathway to contamination.

The Toxics Cleanup program is responsible for addressing contamination within the area defined as the site. The program is not responsible for assessing general air quality and water quality in the region. To learn more about how Ecology manages air quality and water quality, please visit the following resources:

- Air quality - Washington State Department of Ecology.[24]
- AirQualityWA - Site Map.[25]
- Water quality - Washington State Department of Ecology.[26]

Additionally, the WA State Dept of Health is the agency responsible for assessing community health. To learn more about environmental health, we encourage you to visit the WA State Dept of Health Washington Tracking Network.[27]

Regarding the Cherry Point Aquatic Reserve and its herring population, we suggest visiting the WA State Dept of Natural Resources Cherry Point Aquatic Reserve webpage.[28] and reviewing the Cherry Point Aquatic Reserve Management Plan document.

[24] https://ecology.wa.gov/Air-Climate/Air-quality
[25] https://enviwa.ecology.wa.gov/mobile/
[26] https://ecology.wa.gov/Water-Shorelines/Water-quality
[27] https://doh.wa.gov/data-and-statistical-reports/washington-tracking-network-wtn
[28] https://www.dnr.wa.gov/managed-lands/aquatic-reserves/cherry-point-aquatic-reserve

Comment from: Kim Clarkin

Thank you for the April 2 great display about TreOil and conversation about the process and the RI and its conclusions. I really appreciated being able to talk personally with people who investigated the site, and who have been working on this frustrating issue for many years. My comments:

1. The clean up is being designed under the assumption that the concrete foundations are adequate caps and will protect the soil/throughflow from contamination permanently. Concrete isn't permanent, and I'm not at all sure this is enough protection unless the concrete surfaces are more or less clean. Are they?

2. I question whether off-site areas are protected well enough from remnant pollution that could move horizontally through the top soil toward the ditch that leads to the unnamed tributary of the Georgia Strait. It seems to me that occasional monitoring of throughflow would be a reasonable response to uncertainty about this. A standpipe at the downstream edge of the site collecting soil water flowing on top of the clay layer would be cheap, and samples could be collected at the start of each year's rainy season. If we do not do something simple like this, detecting toxics movement toward or into the marsh at Gulf Road will be a bigger project.

3. How long does the cap material last? What will the soil chemistry be like when the cap degrades? Will residual toxic chemicals have been degraded by then? Or will the site still be dangerously toxic to wildlife or people? This may not happen for a long time, but it will undoubtedly happen sometime, and we should be thinking very long term. Seven generations, say.

Thanks for the opportunity to comment.

Kim Clarkin

Response:

Thank you for your questions and comments and for attending Ecology's open house.

Ecology, as a government agency, negotiates an access agreement with the property owner annually to have access to the property. Ecology does not have the authority to decide how the property is used.

The current property owner has not been able to secure his property and has allowed it to be used as an illegal dumping ground during the last two decades. As a result, EPA had to conduct two removal actions. Ecology does not have the authority to place ecology blocks or install a gate at the entrance to prevent illegal dumping. If any cleanup actions are to be conducted by Ecology, at a minimum, the property owner needs to secure his property to prevent any re-contamination.

#1 and #3: When selecting a preferred cleanup alternative, Ecology made the selection based on the current land use, which is a vacant lot, and zoning (heavy industrial). The proposed

gravel capping and existing concrete foundations are adequate in protecting wildlife from digging into the contaminated soil. A demarcation layer will be placed beneath the cap to alert any future site workers about the contaminated subsurface soil. The concrete was not tested for contamination but is adequate in protecting wildlife from digging. The gravel capping and existing concrete foundations are not permanent. It will be the property owner's responsibility to maintain the gravel cap and concrete foundations and monitor any potential stormwater runoff. The proposed cap material is gravel and does not degrade.

#2: We appreciate your concern about monitoring through flow. A long-term monitoring plan will be implemented to assess the integrity and effectiveness of the cap. The details of this monitoring program will be determined in the cleanup action plan.

Comment from: Lyle Anderson

I visited the Treoil site on April 3, 2025. While I am grateful to EPA and all other agencies for the cleanup done to this point, I was still surprised to see all the buildings, tower, trailers, and trash that is spread over the property. I don't expect EPA to remove all this, as I trust in their findings regarding their testing for toxic contaminants on the site. After attending the open house on April 2, I understand the reasoning for wanting to cover the ground at the remaining contaminated areas, although I agree with the comments and questions provided by Kim Clarkin. I observed trash piles outside of the property between Aldergrove road and the (broken) gate and Treoil. I was informed that EPA has communicated with the owner about installing ecology barriers to prevent vehicles from accessing the road beyond the railroad tracks. This seems to me a minimum requirement to keep people from depositing their garbage, cars, trailers, etc., in the area. Perhaps a locked gate could be installed between the railroad tracks and Aldergrove road that would allow BNSF access to the tracks as well as the pile of creosote saturated logs just on the other side of the tracks from the stream.

Response:

Thank you for your comment. We appreciate your concerns and suggestions.

The current property owner has not been able to secure his property and has allowed it to be used as an illegal dumping ground during the last two decades. As a result, EPA had to conduct two removal actions.

Ecology's Hazardous Waste and Toxics Reduction Program has coordinated with Whatcom County Health and Community Services monitoring the illegal dumping activities and identify the individuals who have dumped waste at the property.

Currently, Ecology negotiates an access agreement with the property owner annually to have access to the property. However, as a government agency, Ecology does not have the authority to decide how the property is used. Ecology also does not have the authority to place ecology blocks or install a gate at the entrance to prevent illegal dumping.

Tribal Comment and Response

The Tribal comment is presented below, along with Ecology's responses. The Appendix contains the comment in its original format.

Comment from: Kristin Lowell, Lummi Natural Resources (LNR)

Sunny

On behalf of Merle Jefferson, Executive Director, Lummi Natural Resources Dept, the following are comments on your draft RI Report. Consider these comments government to government, not mere general public comments. Once unanswered question we have is whether or not this site qualifies for MOTCA cleanup action.

The Lummi Indian Business Council Natural Resources Department (LNR) has reviewed the Washington Department of Ecology's (Ecology) 8/12/2024 response to LNR's comments on the first Remedial Investigations Report. In addition, we have reviewed Ecology's recent draft Remedial Investigation Report. Unfortunately, Ecology has largely ignored LNR's concerns stated in our initial comments. Instead, Ecology simply expounded upon investigative methodology to justify failure to further address LNR's concerns. This is an unsatisfactory response to our concerns, and honestly, we expect better from Ecology, both as a public service organization and as a trustee the Lummi Nation's Treaty Rights.

In summary, Ecology's efforts to date have focused largely on soil contamination with an obvious preconceived notion that there is no surface water or ground water contamination. Ecology's transport vector diagram clearly indicates leaching from soils, stormwater, and ground water as identified contamination pathways. Investigations have come up far short to prove, let alone show that these transport mechanisms are not occurring. In addition, the surface water samples taken in December 2024 (in response to our comments) were not effective nor thorough enough rule out surface/stormwater as a transport mechanism to the Strait of Georgia. Furthermore, by Ecology's own admission, the samples were compromised by staff's lack of care and professionalism when collecting enforcement-sensitive data. The lack of encountering ground water in the relatively shallow borings does not demonstrate a lack of ground water contamination. There is an aquifer below the site, the hydrostratigraphy in the area is highly variable, and the ground water potentiometric gradient is toward the Strait of Georgia. The lack of boreholes downgradient of the contamination appears purposeful (the borehole distribution is relatively extensive at the contaminated site, and both up- and across-gradient, but not down gradient).

Ecology's preferred alternative is unacceptable given the uncertainty with the potential for leaching and ground water contamination and pathways leading to both. Given the proximity of the railway to the site, relocating waste to lined landfills is the preferred alternative. This is consistent with what is currently being done at the former Intalco aluminum smelter site in Ferndale. This cleanup operation involves relocating waste to lined (double or triple-lined) landfills and installing protective covers to prevent contamination. In addition, monitoring

ground water, surface water, and soil for contaminants will continue at the Intalco site to ensure that contamination levels remain below health-based thresholds. Ongoing and expanded ground water and surface water monitoring should occur at the Treoil site, and remedial actions taken as necessary.

Kristin Lowell

Water Resources Manager

Lummi Natural Resources (LNR)

2665 Kwina Road

Bellingham, WA 98226

Office: 360-312-2128

Kristinl@Lummi-nsn.gov

Response:

Thank you for your government-to-government comments on the draft RI report. The Treoil site is a MTCA cleanup site.

In addition, we want to let you know that EPA conducted the two removal actions at Treoil. The first removal action was in 2017 and the second in 2022. These two cleanup actions removed a substantial amount of contamination from the Treoil site. As a result, any potential threat of the contaminants migrating to the Strait of Georgia has been removed. The cost of the two removal actions is around $4.3 million. Here are some of the numbers from EPA's two removal actions:

EPA's 2017 removal actions removed:

- 93,000 gallons of liquid tall oil and tall oil derivative wastes
- 275 tons of contaminated soil, sludge and debris
- 6,750 gallons of crude glycerin
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- 97,400 gallons of oily liquid from secondary containment
- 18,000 gallons of hazardous liquids
- 3,316 tons of solidified material
- 4,800 gallons of pumpable oily material
- 1,890 gallons of corrosive liquids
- Eight cubic yards of solidified hazardous materials

In 2022, Whatcom County Health and Community Services also removed junk cars that had accumulated at the Treoil property.

After EPA's 2022 removal action, Ecology Toxics Cleanup Program (TCP) assessed contamination remaining at the site and proposed a preferred cleanup alternative to address the remaining contamination. The results of the nature and extent of the contamination were presented in a Remedial Investigation (RI) report. The preferred cleanup alternative was proposed in a Feasibility Study (FS) report.

LNR provided comments on the draft RI report in April 2024. Ecology responded to LNR's comments in August 2024. Ecology collected five additional water samples (and a duplicate) during the wet season in December 2024 based on LNR's comments and subsequently revised the RI report.

LNR provided additional comments in April 2025 on the revised RI report and the FS report. Ecology provides the following summary of the contamination found at Treoil:

- **Soil**
  The soil sample results showed the contamination, consisting of heavy end petroleum hydrocarbons and metals which tend to be less mobile in the environment, are limited to the top two feet of soil at various spots on the property. Results of the RI have shown that residual soil contamination does not exceed MTCA direct contact cleanup levels for industrial use, do not pose unacceptable threats to worker's health, but may pose a threat to wildlife.

- **Groundwater**
  Ecology drilled soil borings up to 50 feet below the ground surface (bgs). Seven groundwater monitoring wells were planned on being installed; however, groundwater was not encountered in any of the borings advanced. Ecology has determined that the regional groundwater, which is located around 200' bgs, is not impacted by the soil contamination that is generally limited to the upper two feet. TPH concentrations detected in soil beneath the upper two feet are well below levels that would indicate the presence of non-aqueous phase liquid (free product) that could migrate downward in the clay soil. Given the low mobility of the observed contaminants particularly in fine grained clay soils, it is very unlikely that dissolved contaminants could leach to the regional aquifer.

- **Stormwater runoff/Ponding Water**

    - As described in the RI report, there was no true surface water present on site during the RI fieldwork. Following the August 2023 RI activities, supplemental grab water samples (five+1 duplicate) were collected in December 2024 to address data gaps associated with potential accumulated water and associated impacts to the drainage system and wetlands to the west of the Property. Our contractor, Haley & Aldrich collected grab water samples (HA-W-02+duplicate, HA-W-04, and HA-W-05) from the drainage system, one ponded water sample from a depression west of Warehouse B (HA-PW-01), and one background sample (HA-W-01) from a drainage channel adjacent to the BNSF railroad east of the property (see RI Figure 2).

- TPH-G was not detected at or greater than laboratory reporting limits in any of the samples analyzed. TPH (the sum of TPH-D and TPH-O) was detected in samples (HA-PW-01, HA-W-02, and HA-W-04) at concentrations ranging between 260 and 1,770 µg/L, less than the preliminary cleanup level (PCUL) for the protection of fresh surface water aquatic receptors of 3,000 µg/L (based on Ecology's Implementation Memo #23).
- VOCs and SVOCs were either not detected at or above laboratory reporting limits or were detected at concentrations less than applicable PCULs.
- Dissolved lead and copper were either not detected at or above laboratory reporting limits or were detected at concentrations less than applicable PCULs. The elevated concentrations of total lead and copper in the samples appear to be associated with the presence of suspended solids (turbidity).

Lastly, Ecology wants to share with the LNR, as government-to-government, that

- Ecology, as a government agency, negotiates an access agreement with the property owner annually to have access to the property. Ecology does not have the authority to decide how the property is used.
- The current property owner has not been able to secure his property and allowed it to be used as an illegal dumping ground during the last two decades. As a result, EPA had to conduct two removal actions. Ecology does not have the authority to place ecology blocks or install a gate at the entrance to prevent illegal dumping.
- If any cleanup actions are to be conducted, at a minimum, the property owner needs to secure his property to prevent any re-contamination.
- When selecting the preferred cleanup alternative, Ecology evaluated Cleanup Alternatives as described in WAC 173-340-360(3). Alternatives that met requirements for cleanup actions were then assessed to determine which use permanent solutions to the maximum extent practicable (PMEP) per WAC 173-340-360(5). This assessment was conducted by performing a Disproportionate Cost Analysis (DCA). Alternative 3 is the selected cleanup action alternative because it is the apparent PMEP alternative, as determined by the DCA. Ecology will issue a draft Cleanup Action Plan that documents the selected cleanup action and specifies cleanup standards. We will also solicit comments from the public and LNR at that time.

Appendix – Comments in Original Format

I-1: Anna Bursch

Submit Date: 04/03/2025 7:49 PM
Submit Method: Website

Comment I-1-1

The penalty of 900,000 given by the department of Ecology to Treoil Industries is insufficient considering the egregious and repeated negligence shown by Treoil industries. Treoil Industries was given ample opportunity to improve their hazardous waste management. Instead of taking these opportunities to repair their mistakes, with no respect for their neighbors, Treoil Industries willfully and knowingly continued to pollute the environment by abandoning thousands of gallons of hazardous materials to spill and mix with rainwater. Treoil industries was only fined 900,000 dollars. The total cost of the cleanup was 4.3 million dollars. The cost of the cleanup falls burden on the community, the state, the country and their tax payers. Treoil Industries' debt to its community and the amount required for justice to be served is far greater than 900,000 dollars.

I-2: Liisa Wale

Submit Date: 04/10/2025 8:00 AM
Submit Method: Website

Comment I-2-1

Hello -

Thank you to Department of Ecology for the work and follow through up to this point regarding Treoil Industries Site in Ferndale, WA. Even though work has been done I feel that there is more work and investigating needing to happen. While reading through some of the documents provided a few things that really stood out to me are 1) was any work done to find out about contamination on adjacent properties, 2)has air quality been tested not just at the property but also in the area outside the property, and 3) has water quality been tested "down stream" throughout the area.

I feel like one could focus on cleaning up the site, but my concern also is for the community that is near by. How is the water and air quality in areas around and outside Treoil site? Has health studies been done of the community that lives nearby and are there any noticeable changes due to being exposed to the toxic site. Of course, that may mean working with other State and Federal Agencies to determine that. I also hear that Herring population has been impacted around the coast line nearby. This not only impacts the land and animals but people's lively hood who fish and rely on the waters for food.

Thank you for listening.

I-3: kim Clarkin

Submit Date: 04/10/2025 1:13 PM
Submit Method: Website

Comment I-3-1

Thank you for the April 2 great display about TreOil and conversation about the process and the RI and its conclusions. I really appreciated being able to talk personally with people who investigated the site, and who have been working on this frustrating issue for many years. My comments:
1. The clean up is being designed under the assumption that the concrete foundations are adequate caps and will protect the soil/throughflow from contamination permanently. Concrete isn't permanent, and I'm not at all sure this is enough protection unless the concrete surfaces are more or less clean. Are they?
2. I question whether off-site areas are protected well enough from remnant pollution that could move horizontally through the top soil toward the ditch that leads to the unnamed tributary of the Georgia Strait. It seems to me that occasional monitoring of throughflow would be a reasonable response to uncertainty about this. A standpipe at the downstream edge of the site collecting soil water flowing on top of the clay layer would be cheap, and samples could be collected at the start of each year's rainy season. If we do not do something simple like this, detecting toxics movement toward or into the marsh at Gulf Road will be a bigger project.
3. How long does the cap material last? What will the soil chemistry be like when the cap degrades? Will residual toxic chemicals have been degraded by then? Or will the site still be dangerously toxic to wildlife or people? This may not happen for a long time, but it will undoubtedly happen sometime, and we should be thinking very long term. Seven generations, say.

Thanks for the opportunity to comment.
Kim Clarkin

I-4: Lyle Anderson

Submit Date: 04/14/2025 10:24 AM
Submit Method: Website

Comment I-4-1

I visited the Treoil site on April 3, 2025. While I am grateful to EPA and all other agencies for the cleanup done to this point, I was still surprised to see all the buildings, tower, trailers, and trash that is spread over the property. I don't expect EPA to remove all this, as I trust in their findings regarding their testing for toxic contaminants on the site. After attending the open house on April 2, I understand the reasoning for wanting to cover the ground at the remaining contaminated areas, although I agree with the comments and questions provided by Kim Clarkin. I observed trash piles outside of the property between Aldergrove road and the (broken) gate and Treoil. I was informed that EPA has communicated with the owner about installing ecology barriers to prevent vehicles from accessing the road beyond the railroad tracks. This seems to me a minimum requirement to keep people from depositing their garbage, cars, trailers, etc., in the area. Perhaps a locked gate could be installed between the railroad tracks and Aldergrove road that would allow BNSF access to the tracks as well as the pile of creosote saturated logs just on the other side of the tracks from the stream.

From: Kristin Lowell
To: Becker, Sunny (ECY)
Cc: Shivjiani, Dhroov (ECY); Forkeutis, Kristen (ECY)
Subject: RE: Treoil
Date: Tuesday, April 22, 2025 4:56:38 PM

Sunny

On behalf of Merle Jefferson, Executive Director, Lummi Natural Resources Dept, the following are comments on your draft RI Report. Consider these comments government to government, not mere general public comments. Once unanswered question we have is whether or not this site qualifies for MOTCA cleanup action.

The Lummi Indian Business Council Natural Resources Department (LNR) has reviewed the Washington Department of Ecology's (Ecology) 8/12/2024 response to LNR's comments on the first Remedial Investigations Report. In addition, we have reviewed Ecology's recent draft Remedial Investigation Report. Unfortunately, Ecology has largely ignored LNR's concerns stated in our initial comments. Instead, Ecology simply expounded upon investigative methodology to justify failure to further address LNR's concerns. This is an unsatisfactory response to our concerns, and honestly, we expect better from Ecology, both as a public service organization and as a trustee the Lummi Nation's Treaty Rights.

In summary, Ecology's efforts to date have focused largely on soil contamination with an obvious preconceived notion that there is no surface water or ground water contamination. Ecology's transport vector diagram clearly indicates leaching from soils, stormwater, and ground water as identified contamination pathways. Investigations have come up far short to prove, let alone show that these transport mechanisms are not occurring. In addition, the surface water samples taken in December 2024 (in response to our comments) were not effective nor thorough enough rule out surface/stormwater as a transport mechanism to the Strait of Georgia. Furthermore, by Ecology's own admission, the samples were compromised by staff's lack of care and professionalism when collecting enforcement-sensitive data. The lack of encountering ground water in the relatively shallow borings does not demonstrate a lack of ground water contamination. There is an aquifer below the site, the hydrostratigraphy in the area is highly variable, and the ground water potentiometric gradient is toward the Strait of Georgia. The lack of boreholes downgradient of the contamination appears purposeful (the borehole distribution is relatively extensive at the contaminated site, and both up- and across-gradient, but not down gradient).

Ecology's preferred alternative is unacceptable given the uncertainty with the potential for leaching and ground water contamination and pathways leading to both. Given the proximity of the railway to the site, relocating waste to lined landfills is the preferred alternative. This is consistent with what is currently being done at the former Intalco aluminum smelter site in Ferndale. This cleanup operation involves relocating waste to lined (double or triple-lined) landfills and installing protective covers to prevent contamination. In addition, monitoring ground water, surface water, and soil for contaminants will continue at the Intalco site to ensure that contamination levels remain below health-based thresholds. Ongoing and expanded ground water and surface water monitoring should occur at the Treoil site, and remedial actions taken as necessary.

Kristin Lowell
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