



Response to Comments

Remedial Investigation & Feasibility Study for the Colville Post & Poles Site

**Public comment period held
November 29 – December 30, 2021
Facility Site ID 765, Cleanup Site ID 46**

Toxics Cleanup Program

Washington State Department of Ecology
Spokane, Washington

February 2022

Document Information

This document is available on the Department of Ecology's [Colville Post & Poles website](#)¹.

Related Information

- Facility site ID: 765
- Cleanup site ID: 46

Contact Information

Toxics Cleanup Program

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¹ <https://apps.ecology.wa.gov/gsp/Sitepage.aspx?csid=46>

² <https://ecology.wa.gov/Spills-Cleanup/Contamination-cleanup/Cleanup-sites>

³ <https://ecology.wa.gov/About-us/Accountability-transparency/Our-website/Accessibility>

Toxics Cleanup in Washington State

Accidental spills of dangerous materials and past business practices have contaminated land and water throughout the state. The Washington State Department of Ecology (Ecology) Toxics Cleanup Program (TCP) works to remedy these situations through cleanup actions. TCP cleanup actions range from simple projects requiring removal of a few cubic yards of contaminated soil to large, complex projects requiring engineered solutions.

Contaminated sites in Washington are cleaned up under the [Model Toxics Control Act](#)⁴ (MTCA, Chapter 173-340 Washington Administrative Code), a citizen-mandated law passed in 1989. This law sets standards to ensure toxics cleanup protects human health and the environment and includes opportunities for public input.

Public Comment Period Summary

Ecology held a comment period November 29 through December 30, 2021, for the draft [Remedial Investigation and Feasibility Study](#)⁵ (RI/FS) for the Colville Post & Poles cleanup site. The RI documents the extent and locations of pentachlorophenol (PCP), diesel, and dioxin contamination in soil and groundwater at the site. The FS evaluates cleanup options.

Ecology appreciates the comments we received from one person and the Stevens County Commissioners. We address them in the Response to Comments section that begins on page 4. After considering the comments, we have finalized the draft document without further changes.

Site Background

The nearly 23-acre site is within 200 feet of the Colville River, which flows into Lake Roosevelt, a reservoir created by the Grand Coulee Dam on the Columbia River.

Colville Post & Poles, Inc., used the site to treat wood, primarily fence posts and rails, for about 60 years from the 1940s to 2005. Throughout the wood-treating period, PCP and diesel leaked from piping and drip pads. In 1989, a 10,000-gallon, above-ground storage tank leaked PCP to the ground.

In 2000, the Confederated Tribes of the Colville Reservation petitioned the U.S. Environmental Protection Agency (EPA) to assess contamination at the site. Colville Post & Poles, Inc., closed down in 2005 when the owners couldn't afford upgrades required to meet environmental standards.

To address immediate threats to people and the environment, the EPA took action in 2005 and 2006. They investigated the site, demolished treatment and storage buildings, installed

⁴ <https://ecology.wa.gov/Spills-Cleanup/Contamination-cleanup/Rules-directing-our-cleanup-work/Model-Toxics-Control-Act>

⁵ <https://apps.ecology.wa.gov/cleanupsearch/document/107342>

groundwater monitoring wells, and excavated and safely disposed of some contaminated soil, debris, and drummed wastes.

The [Eastern Washington Clean Sites Initiative](#)⁶ funds this cleanup because the former site owners/operators are unable pay for it. The funding cleans up abandoned sites to create healthier communities. The money comes from the state’s voter-approved tax on hazardous substances.

When funding became available in 2015, Ecology took steps toward completing site cleanup. We removed debris in and around surface water and concrete footings in the area where wood was treated, temporarily stockpiled debris as necessary, and did an initial assessment of soil and groundwater contamination. Five groundwater samples contained PCP and diesel at levels requiring cleanup.

Ecology completed the RI/FS to find out how much contamination remains and evaluate final cleanup options. The RI found that PCP and dioxin are spread across shallow soil throughout the site, and a PCP-contaminated groundwater plume extends from the former process area to the western property line. Three cleanup options, called “alternatives” in the FS, were developed for soil, and four cleanup options were developed for groundwater. Options for cleaning up contaminated soil are soil washing, excavation and disposal, and on-site treatment. Groundwater cleanup options are monitoring as contamination reduces naturally, pump and treat, bioremediation, and a permeable reactive barrier.

Response to Comments

Comment letters are organized in alphabetic order based on the submitter’s last name, and comment numbers have been added to the letters. Each letter is followed by Ecology’s corresponding numbered responses.

Index of comments received

The people who submitted comments are listed below in alphabetical order, followed by the date we received the comments and the page on which the comments begin.

Table 1. Index of comments received

Name	Organization	Date received	Page
Terry-Lee, Sole Bishop	None	December 28	4
Wes McCart	Stevens County Commissioners	December 30	15

⁶ <https://ecology.wa.gov/Spills-Cleanup/Contamination-cleanup/Cleanup-sites/Eastern-Washington>

RECEIVED

DEC 28 2021

Department of Ecology
Eastern Washington Office

To: Wash. State Dept. of Ecology

Attn: Jeremy Schmidt

RE: Post + Poles Clean up

1. Its hard to make an accurate and complete proposal and/or commits when your pamphlet or publication is incomplete.

The Drawing does not show how deep the contaminations are nor does it show how deep the clay is which stops the contamination from going deeper.

So I will give you my commits and proposals the part I can.

As you know I am in control of the 2 acres to the East of said site abating there too.

The Site drawing on page 4 is way to small to be able to refer to it accurately.

2. Your #1. Soil Washing, very expensive and not 100% effective on cleaning the soil 100%.
There is also soil evaporation,

You spread it out over a large area and keep rolling it over like farmers do every year until it has evaporated, or you set up an soil incinerator and burn the products out of the soil. The burning process is a whole lot less complicated than dealing with liquids that also have to be dealt with after they have leached the contaminants out of the soil. They would have to be hauled to Oregon and dealt with there. That's why the high price to do such.

At Hermiston Oregon are a whole lot of concrete bunkers that store all of the biological warfare materials made during WWII. They are now and have been burning such in furnaces. That stuff is a lot more toxic than the stuff at Post & Poles.

I believe burning would be more effective and less expensive since nothing has to be moved off site.

3. your # 2. Excavating all contaminated soil and hauling to Arlington Oregon. Our great great grand kids are going to have to deal with Arlington, without a doubt.

The heavy costs to this proposal is the hauling, the dump fees at Arlington then hauling clean soil back to the site. Way to much.

It would be alot cheaper to contain it on site since there is a thick layer of clay beneath it.

4. Your # 3. Besides the heating electrodes and vapor recovery, I believe there are at least two other ways to burn the contaminants, the vapor recovery would be needed on all three processes.

So if I find a burning machine that proves to be effective but its made in another country and costs alot less then the one made in America, can it be used for this site or is there a requirement that everything be made in the U.S.A.. Your estimate is 25 mil, if the foreign machine can do it for less than 20 mil or maybe 15 mil would it be allowed to use then?

Ground Water Clean up

1. Your # 1 what are you saying?

(decreases naturally) how long is it projected (Time) for nature to clean up the site, how many years?

Whatever that length of Time is, the site would have to be monitored until nature did in fact treat it until it meets the standards set for human safety. How Long?

If this process is done you still need to keep the contaminants from reaching the Colville River, which adds that cost also to monitoring!

4. This brings me to my first proposal which is Sheet Piling. Your Drawing does not claim that there are any large rocks under the surface, just small rock gravel. Which is Ideal for sheet piling. I've called a number of companies that drive in Piling and a couple of companies that sell the sheet piling, the cheapest sheets come from China, are they aloud or is only domestic aloud. Even if its 25% cheaper? or even less.

There are 3 types of sheet piling, Vynal, galu decking steel, and thick interlocking steel, they can drive the thick steel as deep as 100'.

Vynal of course is less depth.
How deep is the clay?

If you start at the corner of the property that touches the Colville River and drive piling in from that point west 200' and also from that point north 200', would that contain the problem. I can't tell where the contamination is because you didn't provide a drawing looking down on the 20 acres, showing exactly where the contaminations are.

5. your #3. Chemicals that stimulate microbes that eat up or consume the P.C.P.'s injected into the areas of contamination (I presume)

what are the chemicals? are they biodegradable or will they need to be dealt with also?

what I believe would work is, put stakes into the ground, marking every area that has contamination. Then lay out a grid pattern (more stakes) that are 10' apart each way, or a honey comb pattern, you drill in steel pipes that are about 1½" ID where the stakes are. These have high pressure hoses connected to them that connect

to a larger manifold pipe which is connected to one of those Fracking machines sitting ~~Idak~~ in Williston Montana. Pressure (adjustable) valves are put on to each pipe, so the pressure of water being injected to each pipe is the same, and controllable.

Then Seattle has cranes that have auger bits, 12" to 24" that can drill down 30' to 40'. They have a 2" or 2½" hole tube in the center of the auger. Once the auger reaches the desired depth they start pulling it up and at the same time pump concrete in the tube to the bottom of the hole, as auger tube is pulled out there is pressure filled with concrete, once the tube is filled full of concrete they stick rebar, 5 pieces down the concrete filled hole, makes for a quality pier.

What would be done on the Post & Poles site is pump P-gravel + water down the tube instead of concrete. Once the bit is pulled out and the hole is filled with pea gravel you then make up some 2" pipes with many holes drilled

around them and a hardened steel point on the end, These drilled down at least 15' or 20' so they can have a suction pump connected to each of them with check valves,

The drawn out water is then run thru a \$50K reverse osmosis machine that can treat up to 50,000 gallons a day.

That water is put back into the ground by the Fracking Machine

Also is the oil eating microbes ~~are~~ biodegradable? Then you inject some of those in also with the Fracking machine.

Until the water is safe for humans & animals.

If you can get by with vinyl sheet piling along the Colville River which means 30' deep or less. Then these two processes combined should contain and pretty much clean the site up.

The $1\frac{1}{2}$ pressure pipes would have screws welded to the top 5' to help keep the pipes from blowing out of the holes they were pounded into, due to water pressure.

I still would like to lease the property to put a non contaminating business on it.

I hope you have a public hearing so all Ideas can be presented.

I am formally requesting a hearing date be set.

Where you will provide better drawings. So the actual site conditions can be easily understood.

Your #4 Permeable reactive barrier,

If you dig a trench, how deep? the deeper you go you have to taper the sides so they don't cave in.

Have you dug a test hole to see if the sides will cave in before you can get the zero variant iron into it? what you need is a

specially designed trench box, which I will show you the design that will work at the hearing. So you can dig a narrow Trench.

Instead of hauling said iron, you can use Bentonite clay, which there are pits of in Stevens County.

The trench along the Colville river can be filled with Bentonite Clay.

Dec. 27th - 2021; by Terry - Lee End.

Ecology's response

1. Ecology understands that the fact sheet you received in the mail includes only summary-level information. The intent of the fact sheet is to notify the public of the review period for the RI/FS, which is available online and in print upon request. The RI/FS referenced in the fact sheet contains a thorough description of the contamination and evaluates methods to remediate the contamination. The RI/FS also includes several figures that depict the site and extent of contamination. Ecology encourages review of the RI/FS for a more detailed characterization of the site.
2. As described in the fact sheet, soil washing was determined to not be a potential remedy for cleaning up contaminated soil at the site. The main contaminant in soil at the site is dioxin. While soil evaporation (commonly referred to as land farming) is an effective treatment method for volatile contaminants (such as gasoline), it is not effective for contaminants like dioxin that form a very strong bond to soil particles. While incineration wasn't specifically evaluated in the FS, thermal treatment was evaluated and remains a viable option. Thermal treatment would also be completed on-site and accomplishes the same result as incineration while using much less energy.
3. Ecology appreciates your concern regarding landfilling the contaminated soil. However, today's landfills are designed and permitted to meet very high containment standards. Ecology will carefully consider the long-term effects of the landfilling options as it completes its analysis in the Cleanup Action Plan. Unfortunately, due to the repetitive flooding of the site and its location next to the river and wetlands, on-site containment would not meet cleanup requirements.
4. Once Ecology determines the final cleanup decision in the Cleanup Action Plan, we will begin the bidding process where contractors will bid the job to complete the cleanup. This will ensure the site is remediated at the lowest possible cost. Private contractors will be able to identify the most cost effective remediation equipment that they own or will rent in the bidding process. Ecology cannot require remediation equipment is manufactured in the USA.

Groundwater Cleanup

1. As described in the fact sheet, Option 1 for groundwater does not protect people or the environment, so it will not be considered in the Cleanup Action Plan.
2. (4) Ecology's cleanup rule, MTCA, requires active cleanup technologies for groundwater contamination whenever possible. Therefore, on-site containment of contaminated groundwater with sheet piling would not be considered a long-term solution.
3. (5) Chemicals associated with enhancing biodegradation of contaminants often include nutrients and inoculated solutions of desirable microbes. These chemicals are either biodegradable or are to be consumed during the remediation process. Careful monitoring of groundwater quality changes is required when remediating groundwater through enhancing biodegradation. Ecology appreciates your comments regarding ways to successfully inject solutions into the soil and groundwater at the site. At this time the

property is held in trust by Stevens County and is not available for lease. Unfortunately, only one request for a public hearing was received, and therefore a public hearing will not be held. However, please do not hesitate to contact us, as Ecology welcomes your questions and input throughout the cleanup process.

4. (6) As described in the RI/FS, the permeable reactive barrier would be excavated down to the clay aquitard approximately 18 feet below the ground surface. Layback of soil or shoring would possibly be required to excavate the trench if sloughing of the sidewalls were to occur. The purpose of the permeable reactive barrier is to encourage groundwater through the barrier. As it flows through the barrier, the zero-valent iron breaks down the contaminants. Adding bentonite clay to the permeable reactive barrier would inhibit flow and encourage contaminated groundwater to flow in a different direction.

Wes McCart, Stevens County ~~Commissioners~~Commissioners, received online December 30

Stevens County

The following comments are submitted by the Stevens County Commissioners on behalf of the over 45,000 people we represent.

In the RI/FS it is noted that two sites for disposal of debris and soil were considered, one in Spokane County and the other, the Stevens County Landfill in Kettle Falls. Please be aware that Stevens County has a Flow Control Ordinance requiring all materials for disposal generated inside of Stevens County MUST be disposed of at the Stevens County Landfill. (This would not apply if toxic material were of such a nature as to be required to go to a Toxic disposal site - which is not the case here). In addition, the extra miles traveled to go to Spokane County would contribute to undue wear and tear on the roads, and contribute to climate change.

In the preferred alternatives, discussion of drilling wells and pumping water at approximately 100 gpm from the ground water and treating, then dumping the water into the Colville River. 1) Will these wells be by application of appropriation of a water right? This volume would exceed any exemption in the statutes. 2) I do not see an impairment analysis in the study material - one should/would be required to avoid any negative impacts to the surrounding wells. 3) What is the consumptive use of this water withdrawal? There would be some loss in the treatment process and the pump and dump operation? 4) Studies show that pumping from the upper unconfined aquifer would have an effect on the lower aquifer. How will these effects be mitigated? 5) How will mitigation to the ground water be achieved, both upper and lower aquifer?

While we support cleaning up the environment in this area, there is also a concern that the Colville River Watershed is currently a "closed" basin and water is not available without full mitigation. We see no conversation in the documents about how this water will be mitigated, or the cost associated with buying or leasing of a water right for mitigation. If the water were to be pumped out of the ground water and returned via ground water injection, this would create a whole new scenario that would need further study to show no effects to the water quality.

We also question the dumping of this water into the Colville. We did not see an analysis of the water quality and permit needed that fits under the current TMDL's for the Colville River.

Again, where we support the cleanup of this site and the stoppage of further ground water contamination, we do not want to trade one problem for another and ask that the appropriate studies and measures be taken.

Thank you for allowing us to comment and we would welcome any further questions to clarify our comments.

Respectfully Submitted,

Wes McCart
Stevens County Commissioner - Chair
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wmccart@stevenscountywa.gov

Ecology's response

1. Thank you for the reminder regarding the Stevens County Flow Control Ordinance. Ecology will ensure that all eligible material will be disposed of in Stevens County.
2. Several methods of discharging treated water from a potential pump-and-treat system were mentioned in the RI/FS. Ecology does not anticipate that treated water would be discharged to the Colville River. The treated water would likely be infiltrated into the ground upgradient of the extraction area, so there would be no consumptive use. If the pump-and-treat groundwater treatment option is selected, Ecology will ensure a thorough analysis of potential impacts to the groundwater supply is completed during system design, and continuous monitoring will occur during operation for ongoing verification.