



DEPARTMENT OF
ECOLOGY
State of Washington

Response to Comments

Draft Remedial Investigation and Feasibility Study for BNSF Railway Black Tank Property

Facility Site ID: 98615712

Cleanup Site ID: 3243

Public comment period held:

May 22 – June 22, 2017

Summary of a public comment period and responses to comments

July 2017

Publication and Contact Information

This document is available on the Washington State Department of Ecology's website at <https://fortress.wa.gov/ecy/gsp/CleanupSiteDocuments.aspx?csid=3243>.

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Accommodation Requests

To request Americans with Disabilities Act accommodation, including materials in a format for the visually impaired, call Ecology at 509-329-3546 or visit www.ecy.wa.gov/accessibility.html. Persons with impaired hearing may call Washington Relay Service at 711. Persons with speech disability may call TTY at 877-833-6341.

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 works to remedy these situations, which range from cleaning up contamination from leaking underground storage tanks, to large, complex projects requiring engineered solutions.

Contaminated sites in Washington State are cleaned up under the Model Toxics Control Act (MTCOA, [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 from May 22 through June 22, 2017, for the draft [Remedial Investigation and Feasibility Study](#) for the BNSF Railway Black Tank Property cleanup site.

The remedial investigation explains the extent and location of petroleum contamination in soil and groundwater from past operations at the site. There are five areas of soil contamination ranging from the surface to 15 feet underground. Below this, a 9,150-square-foot area of soil is also contaminated. This is the pathway through which the petroleum traveled from the surface to groundwater. As a result, an approximate seven-acre plume of petroleum rests on groundwater about 170 feet underground.

The feasibility study evaluates five cleanup options for the petroleum on groundwater and capping or excavating and disposing of the surface soil contamination offsite.

Ecology appreciates the concerns raised in the comments we received from 21 people, which we address in the Response to Comments section that begins on page 3. After considering the comments, Ecology has made the draft report final without further changes. However, we will consider public input as we write the draft cleanup action plan that will be available for public review and comment before becoming final.

BNSF Railway Black Tank Property Background

The site covers roughly 18 acres in Spokane's Hillyard neighborhood at 3202 East Wellesley Avenue, and is near the proposed path of the North Spokane Corridor (NSC) freeway the Washington State Department of Transportation (WSDOT) is building. The property is owned by BNSF Railway, which is responsible for cleanup along with Marathon Oil Company because it leased and operated facilities at the site. The companies are collectively called the potentially liable persons (PLPs).

The site housed a 50-foot-diameter, above-ground black tank that stored petroleum products, primarily the thick, heavy oil known as bunker C for fueling trains. Later, the black tank stored asphalt and other petroleum-based mixtures that were used by BNSF's tenants. Residual petroleum products were stored until 2006 when BNSF removed the tank and 10,270 tons of contaminated soil.

The site also had an above-ground red tank that was used to store and transfer diesel. The diesel was used to thin bunker C so it could be pumped into trains.

Index of Comments Received

Everyone who submitted comments is listed below in alphabetical order by their last name, followed by the date we received their comments and the page on which their comments are printed as received. Contact information (postal and email addresses and phone numbers) has been omitted.

Name and organization (if applicable)	Date received	Page
Catherine Armatage	May 24	3
Crystal Bagley	May 24	5-6
Charlie Chisholm	June 5	6
Rosilyn Coe	June 2	7
Ronald Davis	May 22	3
Stan Fergin	June 20	3
Dominic Gannon	June 19	3
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Ken Kosch	May 24	8
Elizabeth Marlin	May 24	8
Greg Mason	June 21	8-11
Teresa Orozco	May 31	12
Mike Petersen, The Lands Council	June 21	4
Brandon Peterson	June 4	13
Margaret Phillips	June 22	13
Justin Rogers	May 24	4
Darlene Sisk	May 29	14
Heather Wallace, Spokane Regional Health District	May 23	14
Ann Wick	June 25	15
Cliff Winger	May 25	5

Response to Comments

Comment letters are below followed by Ecology's responses in *italic* font. Comments to which Ecology had the same response have been grouped together, listed first, and then responded to collectively.

Catherine Armatage

Go option B. Am a Hillyard resident.

Ronald Davis

Our water must be taken seriously! The companies involved should be taking full responsibility for making our town whole in a safe and quick manner.

Option B with C sound like the better alternatives for what is presented.

If there are better options that appear in the future, they should be presented and the companies in question should pay for that as well.

Messing with Spokane's water is dangerous for us all! Please comment and tell them this will not stand!

Stan Fergin

The risk of aquifer contamination would be far greater if we tried to dig out the oil spill. Through years of hydrostatic pressure from rain and snow, it has reached the aquifer which flows through a formation of glacial till, or gravel. Monitoring with test wells so far has shown contamination to be within safe levels in the aquifer. The most practical and fastest way to slow down and reduce the contamination is to prevent the percolation of water putting pressure on the oil contaminated dirt by sealing off the plume area. The North Corridor freeway will cover and seal a large part of the contaminated area using an appropriate heavy plastic sealing liner under the freeway. The rest of the plume area should be sealed in a likewise manner. All runoff water must then be redirected to areas free of contamination and beyond to assure that water will not re-enter the contaminated area.

This seal should be engineered with the freeway as a key part of the solution and put in place with the highest priority.

Thank you for the opportunity voice my recommendations in this difficult matter.

Dominic Gannon

In-situ surfactant/surfactant-nutrient mix-enhanced bioremediation of NAPL (fuel)-contaminated sandy soil aquifers. - PubMed - NCBI
<https://www.ncbi.nlm.nih.gov/pubmed/17120829>

Option B. or C. is the only options that should be looked at. Who ever came up with option E. Shouldn't be working on this project.

Adam Jackson

What is the opinion of DOE on each of the options? Weighing the decision solely on costs over time, I would say Option B is the most efficient. However, if I understand correctly, it appears that the private entities (BNSF and Marathon Oil) are financially responsible for the site clean up. With this in mind, I would select whichever clean up option most effectively limits its impact to the progress of the NSC construction; in order to limit the public dollars expended on delays or changes to the NSC project.

Mike Petersen, Executive Director, The Lands Council

The Lands Council appreciates the opportunity to comment on the RI/FS for the BNSF Railway Black Tank Property. We note that the May 2017 publication lists June 22, 2017 as the end of the comment period.

We support a timely and thorough clean-up, and are concerned that the site and plume sits above the Spokane Valley-Rathdrum Prairie aquifer. While the report states that the heavy oil tends to stay on top of the groundwater with little mixing, we note that the aquifer levels rise and fall through the year, creating the potential for some mixing in the smear zones.

In order to ensure the best and most timely clean-up remedy, we support Option D, Bioventing/biosparging and steam-enhanced extraction. This would result in a more timely (10 Years), and enhanced clean-up, compared with the Option B Preferred by the PLP) cleanup, which would take up to 14 years to clean-up.

We would also note that Option E. which would be a \$25 million dollar cleanup and take only 7 years is of interest and we hope that the pro's and con's of this approach will be carefully considered.

We value the efforts of WA Ecology to keep this project moving forward, and look forward to seeing a draft clean-up action plan.

Justin Rogers

I believe option C is the best route. I don't think option E is good at all, D is a lot of work from the sounds of it. A is not acceptable and B is the cheaper way out for the companies. Let's get out as much as possible while we're waiting for it to get eaten.

Vote for Option C

Cliff Winger

BNSF Railway Black Tank Property, Hillyard Washington 99207 Facility 98615712
Cleanup ID 3243

Recommendation: It seems to me that "Option C" Bioventing/ biosparging and manual petroleum removal is the most cost effective and better for the aquifer. Additionally, I would suggest inoculation with petroleum metabolizing microorganisms.

Remarks:

The property had been in use many decades and was in compliance with applicable laws; therefore, the owners should not be adversely effected financially. On the other hand, the Rathdrum Prairie Aquifer is an important source of potable water in the metropolitan and rural areas of the Inland Empire.

Option C (above) physically removes oil from the top of the aquifer, and better protects our natural potable water source. Using an inoculation of metabolizing microorganisms with the Bioventing/biosparging should give an exponential decrease of petroleum/distillate concentrations over time. Therefore, differences in time with options "D" & "E" would not significantly protect the soil and the aquifer environment at a higher cost.

I conclude that Option C with inoculation should satisfy environmental issues/laws and be the most cost effective.

I suggest if government environmental agencies, or non-government agencies (NGO) want to pursue a faster remediation, that such government or NGO agencies pay the difference between their method and the cost of Option C (above).

Using heat is not recommended since the cold climate in Eastern Washington and moist porous soil in the Missoula Flood Plain create such a heat sink that thermal remediation would be a wasted cost with additional environmental harm from the thermal remediation itself. Inoculation of significant numbers of metabolizing microorganisms is a better choice. (This bioremediation has worked well in Kern County California oil fields.)

Ecology's response: Thank you, everyone, for your comments regarding your preferred cleanup option. Ecology will consider your input while thoroughly evaluating each cleanup alternative prior to making a decision, and will continue to work with the PLPs to ensure the cleanup is as quick and thorough as possible.

Crystal Bagley

I own a house in the Jim Hill estates neighborhood, we have a 9 month old son so this topic is extremely important to my husband and I. First of all, we find it appalling that it

has taken 11 years to conduct this "study" after the 1999 tank leak. It is even more infuriating that the first option given in the letter is to just "cap off" the contaminated soil. ABSOLUTELY NOT! THAT SHOULD BE ILLEGAL! THE PLPs NEED TO TAKE RESPONSIBILITY AND REMOVE ALL DIRT AND CLEAN ALL CONTAMINATION! I have reviewed all the methods for clean up and the only one that is acceptable is Option C: Bioventing/Biosparging and Manual Petroleum Removal. Option D and E could cause fracking like tremors and 7 years of smoke inhalation. PLEASE DO THE RIGHT THING AND HOLD THE PLPs RESPONSIBLE FOR A DILIGENT AND THOROUGH CLEAN UP BY MANUALLY BRINGING THE PETROLEUM TO THE SURFACE AND SEPARATED FROM WATER!

Ecology's response: Thank you for your comments. Ecology will consider your input while thoroughly evaluating each cleanup alternative for both the shallow and deep contamination prior to making a decision. We will continue to work with the PLPs to ensure the cleanup is as quick and thorough as possible.

Charlie Chisholm

My comments on Cleanup Options:

In my Opinion, Option C, "Bioventing/biosparging and manual petroleum removal" is the best option.

I also disagree with the estimated costs of this method compared to Option B, "Bioventing/biosparging" alone. It should cost much less than stated, as there will already be access to oil accumulating at wells, while using the bioventing and/or biosparging methods.

It would be a wasted opportunity to not use the access provided at the wells during bioventing, to also manually remove accumulated oil. Oil will already be accumulating at the wells anyway - why not take the opportunity to also remove as much as you can manually?

I am very strongly opposed to Option D, "Bioventing/biosparging and steam-enhanced extraction".

The only reason the oil is not a threat to drinking water, is because the oil is very thick and heavy.

Adding steam will thin the oil, dramatically increasing the risk of polluting the water supply.

Ecology's response: Thank you for your comments. Ecology will consider your input regarding the cleanup option and costs while thoroughly evaluating each cleanup alternative prior to making a decision and will continue to work with the PLPs to ensure the cleanup is as quick and thorough as possible.

Rosilyn Coe

Toxics Cleanup Program, Eastern Region
4601 N. Monroe St.
Spokane, WA 99205

Re: BNSF Railway Black Tank Property 3202 E. Wellesly Ave
Site ID 3243

Dear Friends,

Remembering how the Exxon Valdez Alaska oil spill and the Gulf Oil Spill off Louisiana's coast was successfully cleaned up, may I suggest Dawn Dish Detergent. It was safe for both Fish and Fowl, even the young birds and it was safe for people.

Perhaps samples could be tested. Certainly could be cheaper and faster than the proposed choices.

Thank you for considering my suggestion.

Sincerely,
Rosilyn Coe

Ecology's response: Thank you for your comments. Although Dawn™ dish detergent is an excellent choice for oil spills on open water, the depth of the contamination and presence of contamination within the soil preclude that solution from being used at the Black Tank site. Ecology will evaluate each cleanup alternative thoroughly prior to making a decision and will continue to work with the PLPs to ensure the cleanup is as quick and thorough as possible.

Tom Haugen

WSDOT built floating bridges for the freeways on the W. side. They could ignore this contamination and just put a floating bridge over the top of it on one side while the remediation is done to the other side. When the first side is finished they can move the floating bridge over onto the remediated side and be done with it.

Ecology's response: Thank you for your comments. Because the contamination is located underground at the Black Tank site and the NSC won't span any surface water in this area, a floating bridge would not be possible. During evaluation of the site and cleanup alternatives, we understand that WSDOT explored several options using bridges to span the contaminated area, but each of these options was cost-prohibitive and not preferable to members of the Hillyard neighborhood. As our process continues, Ecology will evaluate each cleanup alternative thoroughly prior to making a decision and will continue to work with the PLPs to ensure the cleanup is as quick and thorough as possible.

Ken Kosch

I read the options A,B.etc. The 14 year in option B is the least expensive and most cost effective. My question is why would it cost 5.5 million to force air and let nature take it course? How many people have their hands out to line their pockets with these government projects.

If there is a time crunch that prevents the construction of the freeway from continuing then why not dig up the 15 ft deep (9,150 square foot area) and burn it in a tumbler type device and return the soil.

Ecology's response: Thank you for your comments. Please note that this cleanup project is financed by the PLPs. Costs associated with each remedial alternative take into account many factors that may not be stated explicitly in the draft Remedial Investigation and Feasibility Study, including monitoring the effectiveness and safety of each alternative over time in addition to the initial cost of the alternative.

Ecology has spoken with the PLPs and WSDOT about the freeway construction timeline, and all parties believe the cleanup can take place concurrently with the freeway construction. Ecology will consider your input while thoroughly evaluating each cleanup alternative prior to making a decision and will continue to work with the PLPs to ensure the cleanup is as quick and thorough as possible.

Elizabeth Marlin

The state of WA should pursue option E and take the speediest course of action to rectify the contamination issue, regardless of expense. The companies responsible for this contamination were negligent in their duty to WA and its residents, and should be held accountable. Additionally, public meetings should be held to permit public comment on this issue in person.

Ecology's response: Thank you for your comments. Ecology will consider your input while thoroughly evaluating each cleanup alternative prior to making a decision and will continue to work with the PLPs to ensure the cleanup is as quick and thorough as possible. A public meeting will be held during the public comment period for the draft Cleanup Action Plan, which will provide the opportunity for people to ask questions and get answers in person. We will meet with any member of the public upon request at any point during the cleanup process. To request a meeting, please contact Erika Bronson at erika.bronson@ecy.wa.gov or 509-329-3546.

Greg Mason

The following attachment was submitted today at 2:40 PM as a comment to Jeremy Schmidt. My mailer regarding public input states comments can be submitted May 22-June 22. Please don't disregard my comment. Im also using this opportunity to request a one on one meeting to further discuss cleanup options.

My fiancé and I own a house in the Jim Hill estates neighborhood. We have a 9 month old son so this topic is quite important to us. We don't care how long the cleanup process takes. We want what is best for the safety and health of the residents of this neighborhood. Most of the residents in this area are opposed to the freeway project all together. We see it as waste of money at a time when poor existing road conditions have plagued residents for years in areas where budgets are already tight... Let me first off start by saying that I'm quite disappointed in both local and state authorities who have prioritized the building of the North-South freeway over the health and safety of the local residents.

However, I'm appalled that the information on this pollution has been public knowledge for over 20 years and even 11 years after the tank was removed, cleanup has yet to begin. I also find it was very irresponsible for BNSF to continue storing petroleum based mixtures in the tank for seven years following the photo released in the mailed document. It is apparent in 1999 the tank was leaking... Why was use not discontinued sooner? At what point does this shift from being a cleanup effort to a case of continued negligence on the part of BNSF? Why has it taken 11 years to conduct a study (If you want to call it that) while the highway build pushes on? I believe this study was inconclusive and biased towards the side of the PLPs... I think an independent study paid for using the MTCA fund rather than the PLPs needs to be assessed to get the clear picture. If this cleanup was done properly back in 2006 and followed up on rather than taking the word of the responsible party as cleanup was complete, we wouldn't be in this situation right now. It appears the misleading information in regards to the 2006 cleanup coupled with the lack of oversight from the WSDOT on this part of the project is what got us into this hasty situation to begin with.

Why can't the study to be more accurate? "Up to 14 years...Up to 13 years" is not an accurate window for cleanup. They know how large the plume is, its 7 acres and we know how deep it is to the aquifer. One of the primary goals of the study is to evaluate the magnitude of contamination. Has this been completed? If not then the study is incomplete. A qualified company would be able to hammer down a more direct timeline. This is misleading information.

We as neighborhood residents are NOT willing to change the path of the proposed freeway or raise the roadbed to accommodate. This area already has an issue with excessive noise and vehemently opposed to any changes that would increase that noise pollution beyond already designed plans. The PLPs need to come together and take responsibility for this cleanup. For years, this part of town and Spokane as a whole has been bullied by BNSF and victimized by its lack of transparency and accountability.

We find it completely unacceptable as local residents that the PLPs get to "Cap" off the contaminated soil. They need to take responsibility and remove the dirt and clean all contamination. There is no other option. In regards to water cleanup, I see that Option A

isn't even legal under WA state law. However this first method shows just how dedicated the PLPs are to cleaning up this mess. They'd rather do nothing and let nature do the work if they could get away with it. Option B is natural biodegradation with addition of oxygen wells to speed up the process. Not surprisingly this is the cheapest method and hence the chosen method for cleanup by the PLPs. Option C (our preferred method) uses forced air biodegradation and manual separation. Option D uses a method of injecting steam into underground wells to help break up the mixture. Message to Marathon Oil: You can keep your fracking problems in Texas. This is a neighborhood not an oilfield. We are opposed to any injections of hot pressurized steam into underground wells or chemicals being pumped into our drinking water. Being a father of young son, the last proposal infuriates me the most. The fact that they want to combust or literally ignite and burn off thousands of gallons of Oil over the period of 7 years! This is completely unacceptable.

What kind of respiratory problems will this cause? What happens when all that raises to the surface? How dare you propose a contradictory idea that would further contaminate the area now adding poisoned air to the mix. We have enough sources of air pollution from the trains and existing traffic. On a regular basis we can smell the oil fumes in the air blowing from the facilities that already border the old blank tank property. The health and safety of the residents continues to be neglected to this day even from current tenants.

This furthers my request for an additional independent study be conducted using the funds for the MTCA Model Toxics Control Act rather than the funding from the pocket books of the PLPs. I think this study is potentially covering only the preferred methods of the PLCs and we aren't getting the whole picture. Furthermore, I would like to see the pros/cons on each method of cleanup and why methods such as slurping and skimming were never mentioned. I think it's in the best interest of the PLPs to educate the public as little as possible on the subject. That is unfair and proposing these methods to the uneducated public is useless. All it does is meet a requirement for the PLP but does nothing to resolve the problem. The public notice states that although the Ecology Dept doesn't fully agree with the study, it meets the minimum requirements required by law. Why are we moving forward if the Ecology Dept doesn't support the findings of this study?

I see in the notice that there are monitoring wells onsite that are regularly checked to ensure they are not turning up contaminated water. Where are these published? What is being tested for? Are you testing for heavy metals? Because they don't remain on top as the oil breaks down. How can the public hold you accountable for what you're saying? We are not accepting that this 7 acre plume of thick crude is not affecting drinking water. This is misinformation just to save face in the case of a public outcry. The fact the Ecology dept sees it as "acceptable" is morally deploring. The only acceptable amount of crude in my drinking water source is 0% and there should be no exception. You will find this is the feeling of any resident in any town across the United States.

I know that the city would like to disregard Hillyard and its residents as a low-income neighborhood. However, we are entitled in this neighborhood to the same basic rights of clean air and water as the next taxpayer. If this was happening on the North side of town (Wandermere) or Five Mile prairie I feel this would already have been addressed and clean up started. Maybe overall exposure to the issue needs to be raised? Maybe this letter needs to go to the Spokesman-Review as well. I understand the closest well-pump to our household is upstream of the contamination so I'm "not to worry." However, I'm also concerned about the people downstream that could have their water contaminated with heavy metals? Are they getting a notice? I'm sure they would like to know what could be happening to their drinking water as well. Stop feeding us misinformation and putting us on the back burner and do what's right for the people of Spokane.

Ecology's response: Thank you for your comments.

Ecology appreciates your concern regarding the amount of time it has taken to get to this stage of the project and is working diligently with the PLPs to get to the final cleanup stage as quickly as possible. We would be happy to meet with you at your convenience to discuss the past project timeline, estimated future timeline, and all of your concerns regarding the cleanup of this site. Based on your request for a one-on-one meeting, Erika Bronson emailed you to schedule a time and place on June 21:

Hi, Greg,

Thank you for your comment. Absolutely we will include it in our response to comments and consider it as we draft the cleanup action plan.

We'd be happy to meet with you to discuss your comments and answer questions. What are days/times that are generally good for you? You are welcome to come to our office, or we can meet you elsewhere. Note that Jeremy is out of the office through 7/4, but if you'd like to meet before then, Bill Fees and Katie Larimer are well versed in the technical details of the cleanup site.

*Sincerely,
Erika*

*Erika Bronson, Communications & Eastern Region Public Involvement
erika.bronson@ecy.wa.gov | 509-329-3546
Toxics Cleanup Program | Washington Department of Ecology*

Please contact Erika if you would like to schedule a meeting with us.

To address your concerns about the source of funding for the remedial investigation: MTCA requires viable PLPs to fund site investigation and cleanup. Ecology closely supervised the PLPs'

site investigation activities, and PLPs were required to meet our requirements before the draft could be put out for public comment. Though Ecology does not agree with all the conclusions in the document, we do believe the data gathered is sufficient for us to select a final cleanup remedy.

Any data from the site, including groundwater data from onsite monitoring wells, is available to the public. If you wish to examine any of this data, please contact us, and we will send it to you. Groundwater samples from and around the site, which include analysis for metals, along with the position and distance of the nearest drinking water supply well relative to the site, provide enough information for us to confidently say that drinking water supplies are not currently affected by this site. Residents downgradient from the site within our mailing list radius received notices in the mail. We mailed more than 10,000 notices in total, posted information on Ecology's website and blog, published a legal ad in the Spokesman-Review, and left notices for patrons to take at the Hillyard Library and the Northeast Community Center. We would appreciate any suggestions you have for other ways to effectively reach the surrounding community.

Ecology will consider your input while thoroughly evaluating each cleanup alternative for both the shallow and deep contamination prior to making a decision and will continue to work with the PLPs to ensure the cleanup is as quick and thorough as possible. We hear your concerns about the length of time the cleanup options take to be effective. Unfortunately, there is no solution that will immediately neutralize or remove the contamination.

Teresa Orozco

As a resident of Spokane, I would choose the safest, fastest method of cleaning pollution in and around our water. I have a hard time trusting a company who caused the pollution to choose/present the most appropriate options. I don't think igniting/burning fossil fuels in Hillyard sounds like a good idea at all. One of the best assets our town has is our clean water underneath of us. As the "Department of Ecology" I trust preserving our towns' treasure is a priority for you and the Department. I noticed the statement that the "Dept. of Ecology doesn't fully support some of the conclusions in the RI/FS..." What is the department's preferred method and why? As a city lay-person I would suggest option D. I would also suggest asking experts not just people who live in Spokane. I'm not an expert in environmental sciences or ecology. Will this in any way come back to the tax payers and/or government spending? There are many sites in Washington needing urgent attention. It is possible this should not be priority one, though the proximity to my house leads me to FEEL differently.

***Ecology's response:** Thank you for your comments. Ecology's first priority at the site is protecting human health and the environment, including the sole-source aquifer upon which we all depend. Ecology will consider your input while thoroughly evaluating each cleanup alternative and continuing to consult other organizations experienced with this type of contamination to ensure the cleanup is as quick and thorough as possible. We are using all the information available, including public input, to develop the draft cleanup action plan that will share our preferred cleanup method. We welcome your input on that document when it is out for public comment.*

With respect to project funding, BNSF and Marathon are responsible for the cost of cleanup. However, WSDOT has agreed that, "if and when" the presence of the freeway facility affects the cleanup process beyond what would have been required had the freeway been realigned "and" results in additional costs to BNSF/Marathon, WSDOT would contribute to those increased costs. Up to \$15 million in existing freeway funding was tagged for this possible expenditure. The cost avoidance by eliminating the construction and long-term maintenance for six new bridges in keeping the NSC alignment over part of the Black Tank site should offset any costs that WSDOT might contribute to BNSF to mitigate the costs of locating the facility in proximity of the Black Tank site.

Brandon Peterson

BNSF should pay for the entire clean up process. They receive tax payer subsidies, they are receiving a boat load of money that we have to pay them to build our north south freeway along the railroad tracks. They polluted it, and they should clean it up or decent government representation wouldn't allow them to do business in the area any longer.

Ecology's response: Thank you for your comments. BNSF and Marathon are responsible for cleanup costs. However, WSDOT has agreed that, "if and when" the presence of the freeway facility affects the cleanup process beyond what would have been required had the freeway been realigned "and" results in additional costs to BNSF/Marathon, WSDOT would contribute to those increased costs. Up to \$15 million in existing freeway funding was tagged for this possible expenditure. The cost avoidance by eliminating the construction and long-term maintenance for six new bridges in keeping the NSC alignment over part of the Black Tank site should offset any costs that WSDOT might contribute to BNSF to mitigate the costs of locating the facility in proximity of the Black Tank site.

Margaret Phillips

I've read this pamphlet which btw, say June 22nd for comments, and it seems to me that Option D is the best cleanup process. it says it will take 10 years or about the time it will take the NSC to be finished. so together they can be done about the same time.

on another note, I read that my drinking water is safe and I don't doubt that. However, every week for at least the last 7 months, there seems to be a dark substance that settles in the bowl of the toilet. It mostly flushes away but it started coincidentally about the time you say testing was done on this black tank site. Just curious...
thanks for allowing me to comment.

Ecology's response: Thank you for your comments. Ecology will consider your input while thoroughly evaluating each cleanup alternative prior to making a decision and will continue to work with the PLPs to ensure the cleanup is as quick and thorough as possible. Ecology is confident that contamination from the Black Tank site is not reaching public water supply wells. However, if you have concerns about your water quality, please contact your water supplier or the Washington State Department of Health.

Darlene Sisk

I live in the effected area. I like option E for clean up of the underground oil. I have a degree from Eastern Washington University in medical technology with a major in chemistry. Oil floating on water will have a tiny amount of the contaminates dissolve into the water and will spread over time. I suspect the oil has spread much father than what has been found. Option E will clean up the oil the fastest and hopefully not spread air pollution at the same time. I didn't see any plan that included negative water flow, a pump to skim off as much oil before clean up starts. Disturbing the surface seems like the oil would mix with the water more. The rest of the plans seem to take so long that the risk of contaminates getting into the water supply is high.

Ecology's response: Thank you for your comments. As you suggest, we must find a remedial alternative that can clean up the site both quickly and safely. Ecology will consider your input while thoroughly evaluating each cleanup alternative prior to making a decision and will continue to work with the PLPs to ensure the cleanup is as quick and thorough as possible.

Heather Wallace, Health Program Specialist, Community & Family Services, Spokane Regional Health District

Hi Jeremy-

I have a couple of questions about the proposed clean-up plan...

1. Are there any public health risks related to any of the proposed clean-up plans? Do any of them create increased risk of the contamination impacting the aquifer, land or air in the area?
2. Will BNSF or Marathon Oil be accessing public funds for this clean-up effort?

Thank you-Heather

Ecology's response:

1. First, the closest drinking water well is 0.8 miles from the site, and contamination is not reaching it. However, areas of the aquifer where drinking water is not currently extracted are already impacted by contamination at this site. While drinking water is not currently affected, contamination on this public resource is not acceptable to Ecology.

Due to the distance of drinking water wells from the site, we do not believe any of the remedial options would impact currently-extracted drinking water. Temporary, localized impacts to groundwater may need to be mitigated for some of the possible cleanup alternatives, but there is a give and take between the remedial alternatives. Bioventing and biosparging would have little to no increased risk to groundwater, but could take a long time, and thus the contamination in the aquifer that exists today would be present longer. Steam-enhanced extraction would have a higher short-term risk and may increase localized dissolved contaminants in groundwater temporarily, but engineered controls would be in place to control their movement. The overall cleanup time may

be much shorter with steam-enhanced extraction, and the likelihood that dissolved contaminants could reach drinking water wells is incredibly low, likely zero.

We don't expect any of the remedial alternatives to create an increased risk of contamination to the land.

As for the potential for increased risk of contamination to air, the only possibility is smoldering combustion, which is where the high-concentration areas of petroleum products in the ground and groundwater are ignited and smoldered (combusted) until concentrations are too low to support combustion. While unlikely, it is possible that this could create emissions that travel through soil and enter the air.

2. *BNSF and Marathon are responsible for the cost of cleanup. However, WSDOT has agreed that, "if and when" the presence of the freeway facility affects the cleanup process beyond what would have been required had the freeway been realigned "and" results in additional costs to BNSF/Marathon, WSDOT would contribute to those increased costs. Up to \$15 million in existing freeway funding was tagged for this possible expenditure. The cost avoidance by eliminating the construction and long-term maintenance for six new bridges in keeping the NSC alignment over part of the Black Tank site should offset any costs that WSDOT might contribute to BNSF to mitigate the costs of locating the facility in proximity of the Black Tank site.*

Ann Wick

I realize the time has passed for public comment last Thursday. It did take me awhile to find additional information of your web site. Please add me to the list of interested parties if there is future information. I appreciated the publication #17-09-023 to keep public better informed and was surprised there was so few comments.

Like Most Lay people I don't have enough info to make an educated guess but if PLP's are allowed to use the lease expensive option they should have to pay for the increased costs associated with the delay of the NS Freeway to this point.

Wondering if steam would cause the petroleum to liquefy therefor mixing with the water more? Burning the soil seems like an expensive and impractical solution causing a potential air hazard as it is vented.

***Ecology's response:** Thank you for your comments. Although they were received a few days after the comment period closed, we felt they should be included in the record. Ecology will consider your input while thoroughly evaluating each cleanup alternative prior to making a decision and will continue to work with the PLPs to ensure the cleanup is as quick and thorough as possible.*

The Washington State Legislature recently allocated funds to construct the NSC in this area starting around the year 2020; therefore, the NSC has not been delayed by this cleanup site. BNSF and Marathon are responsible for cleanup costs. However, WSDOT has agreed that, "if and when"

the presence of the freeway facility affects the cleanup process beyond what would have been required had the freeway been realigned "and" results in additional costs to BNSF/Marathon, WSDOT would contribute to those increased costs. Up to \$15 million in existing freeway funding was tagged for this possible expenditure. The cost avoidance by eliminating the construction and long-term maintenance for six new bridges in keeping the NSC alignment over part of the Black Tank site should offset any costs that WSDOT might contribute to BNSF to mitigate the costs of locating the facility in proximity of the Black Tank site.

The main benefit of using steam-enhanced extraction at this site is it could greatly reduce the amount of time needed to cleanup up the site. Steam-enhanced extraction would have a higher short-term risk and may increase localized dissolved contaminants in groundwater temporarily, but engineered controls would be in place to control their movement. The likelihood that dissolved contaminants could reach drinking water production wells is incredibly low, likely zero.