Jorgensen Forge Sediment Cleanup

EPA is taking public comments on cleanup alternatives for contaminated buried sediments in an early action area within the Lower Duwamish Waterway Superfund site. Cleanup work done in 2014 by the Earle M. Jorgensen Company left some of the pollution in place. The company has proposed several cleanup options to EPA for the remaining pollution, and the public is encouraged to understand and comment on the cleanup options.

Thanks to everyone who attended the online information session August 25.

We held an online information session about the cleanup options on Wednesday, August 25. EPA presented information, and answered questions, about the proposed cleanup options presented in the evaluation document. This Q&A document includes the questions we were able to answer, as well as those we did not have time to answer.

Note to readers: The following questions and answers are based on notes taken during spoken responses during the online information session. Some of the responses have been updated for clarity. Please contact the EPA Project Manager (Bradley Martin, martin.bradley@epa.gov, 206-553-4029) for more details on the questions and answers below.

Questions and answers from the online information session:

What PCB concentration at what depth is defined as buried pollution?

> 12mg per kg is the cleanup level EPA is striving to achieve. Depths of backfill can vary throughout the site and change as the river fluctuates. The 12mg per kg goal will be in place for the future cleanup, and the depths of pollution can vary depending on where a sample was collected. More information can be found in the Supplemental EE/CA.

Are health impacts from the pollution strictly extrapolations? Does the safety evaluation process include measuring local resident's bodily toxins absorbed from the river?

No information about bodily toxins absorbed from river was collected or assessed for the cleanup evaluation. Risk assessments based on concentration of risk contaminants in seafood tissue have occurred in the past (but not for the Jorgensen site). The estimated risk is based on these findings and not based on the chemistry of human bodies.

Are the sediments that are left behind exceeding the cleanup levels?

There are two types of sediments we are concerned about. One, those buried below the backfill. This evaluation open for comment is to select a cleanup option for those buried sediments below the backfill.
The second sediment area not addressed in document is sediment resting on the top layers of the river's bottom. Those sediments can be mobile and will be addressed as part of the larger cleanup of the Lower Duwamish Waterway.

Can the PCB levels also be due to further contamination from other sources? Or how do we know it's for sure from previous contamination?

Cleanup for this site will address those pollutants buried below the backfill. Pollutants on top layer of sediment could be from general mixing or other sources. Those will be addressed in future cleanups.

What were the original cleanup levels?

When you say original, I will speak to original levels associated with Jorgensen Forge cleanup site. The 12mg per kg level has always been the level associated with the site, since 2011.

In area 7 there have not been recent tests done, so how are we protected?

The supplemental evaluation document does include information on a variety of topics on Area 7. These include its history and anticipated future uses. Last time the area was sampled was immediately after the cleanup in 2014. The area is largely above the waterline. The area was excavated, and a new layer of clean material was put in along with barrier layer on top. The Department of Ecology is still conducting investigations on the property above cleanup the area. View the Department of Ecology website for potential contamination information and information on where boundaries meet.

The remaining sediments that are polluted could be disturbed by the dredging of the navigation channel?

We work closely with the Army Corps of Engineersto ensure any cleanup actions we take will not be impacted by future dredging activities along navigation channel.

What happens to dredged sediments removed from the river? Does the soil undergo remediation, or is it dumped?

It dependents on what type of sediments they are. After they are removed, samples will be collected. The sample will be sent to a lab to see if it will end up in landfill designed for contaminated sediments. Clean sediment may be recycled, though we try to target only contaminated materials in excavation projects like this. They will likely be sent to a landfill.

We also have seen that activated carbon has not been as effective as we had hoped... Why are we relying on this here?

No decision has been made on what technology or combination of technology is going to be used for this cleanup. A carbon barrier was recommended as an option by the Jorgensen Company and we will evaluate it. We will take into account public comment and science on implementing that technology. We will not make a decision until the public comment period is over and we can review the comments and scientific data.

Would EPA accept a 5th option that would remove all contaminated sediments from the JF site... Getting it back to what should have been done In the first place?

EPA has not selected action for this site. Any comments suggesting other actions will be considered and evaluated.

In areas 1 and 5, there are PCBs found and it's predicted to not move, will that area be covered with a protective layer?

During the 2014 cleanup action, many areas had a backfill layer placed on them including area 1. If we remove contaminated sediment from these areas, we will have to remove the backfill and contaminated sediment. If the backfill is considered river bottom all areas will be covered. Only areas 3 and 6 are considered for protective layer of carbon.

To my knowledge, EPA has a defined methodology for cleanup, has this methodology been applied to this cleanup area? (this question was clarified to be about the methodology in the Quality Assurance Plan – the QAPP)

In an environmental cleanup like this there are several types of methodologies that could be applicable. There are ones to remove pollution, to contain pollution, to sample and analyze environmental material, and to collect information to see if it's been cleaned up to levels protective of human health and the environment. All methodologies proposed in the evaluation document have been used before in this site and others around the country. If they want more information on pollution removal methodology let Bradley know.

The Quality Assurance Plan covers a variety of methodologies. A Quality Assurance Plan has not been developed for any future cleanup for this site yet but will be developed in the future. There is a plan from the previous cleanup. Whether or not same methodologies will be used has not been determined yet.

Which cleanup option would be most limiting on public use of the river near the site?

The shoreline area on this site is private property, so access is already limited. Limitations on public use may apply to any of the cleanup options and may not vary much from option to the other as this work is focused on buried pollution. The types of limitations that could be considered may include: anchoring prohibitions, swimming bans, no wake zones, limits on in water or shoreline development, shell fish collection limitations.

Which option would create least controls over public use on the river.

Related to areas 7 and 4, those areas historically are not good habitat for aquatic species and is unlikely to change after future work done. Once a cleanup decision is made, we will evaluate what other protective controls need to be in place in that area, for example anchoring would be prohibited or asking people not to swim. We will place signs to let people know what they can or cannot do. One thing to remember is it is private property. Yes, you can kayak and swim around the area, but this is private property.

If the company refused to clean up the site already in 2014, why are there no consequences for their failure? Shouldn't option 1 be refused, which suggests no further cleanup be taken? All options proposed seem insufficient.

The no action option is something we see in every evaluation document like this. The company did not refuse to do this cleanup. The company, since 2014, has been working to conduct additional investigations and get us where we are now, where we are deciding what action to do. The company was penalized by EPA in 2014 and paid fines to EPA. The penalties were derived in part to ensure the cleanup is completed. The company is also incurring additional expense now and that is represented as part of cleanup evaluation.

Bradley can you please speak to the large amount of lubricant under JF what is called the Hollow Bore Bay within a crystalline formation possible up to 100,000

gallons Has this been anywhere to be analyzed the pool, and how are you working with Ecology on this?

The EPA site rests exclusively along the bank and into sediments. We are not overseeing the upland area cleanup. That is by the Dept of Ecology. I would encourage you to reach out to the Ecology project manager. The Jorgenson in-water cleanup is limited to PCBs and metals. Lubricants are not part of actions we are taking here.

Is there a cost difference between the different clean up options? Can you tell us what they are?

Cost information is provided in the evaluation document which is available to the public. That information is readily available and detailed and can be found in appendix of the document.

Can you tell me about areas 1 and 4 that are not part of the cleanup, with no contamination – how sure are you it doesn't cause any harm in the future?

Area 1 is part of Option 4 which will be evaluated along with all others. Area 4 is not included among the company's cleanup options. They have presented data that they content indicates it does not warrant further action. This data include recent sampling information as well as information on existing backfill and carbon layer, and modelling information**.**

If the area 1 and 4 is the area part of Jorgenson company, they think it doesn't affect the community right now, however will it effect the community sometime in the future, is it a guarantee that it won't affect the community because the contamination could spread to nearby areas, what is the plan for that? Because this area is also part of the river, so how will it affect what the planning/assessment/monitoring looks like in the future even if it does not affect the community right now – will it affect the community later on?

All areas have undergone several sampling cycles between 2014-2019. Information about sediments has been collected several times in that time period. That information is used to develop models about what PCBs might migrate to the waterway. Information on those models can be found in the

evaluation document. Some models predict pollution will migrate from the backfill to the river, some don't. While models aren't 100% accurate, they are one way to assess how an action should be taken. All 7 areas will be monitored in future regardless of what cleanup option is selected.

Areas 1 and 4 do have contamination in them that we have detected. One of the things we will do for all of these areas over a period of time after cleanup is completed is long term monitoring. This involves inspections, sampling, and a plan to address any potential releases that may occur. Modeling the Jorgenson company has completed looks between 50 and 100 years into the future. During that time other areas in the Duwamish will have undergone cleanup and will be subject to similar monitoring requirements as well.

If area #7 is not part of EPA's EA... Why was it part of the early action?

Area 7 is part of cleanup action and is not likely to be subject to additional cleanup removals but will be subject to monitoring and protective controls to prevent disturbance

In area #1 and #5 there seems to be a theory that the back fill will be protective? what basis do we have for that and has it been accepted by the USACE and other agencies? Backfill is not a cap...

Please view the cleanup evaluation document. The Army Corps of Engineers has reviewed the document, but EPA cannot speak to their conclusions of the document.

What are the consequences the company faces if they once again fail to meet the cleanup standards placed on them?

We have penalties that can be imposed if companies violate agreements. We cannot speak to specifically what may be penalized in this circumstance, as in recent years the company has not failed to meet any of our agreements. Each situation is unique and addressed individually.

Is the river private property or just the shoreline?

Jorgensen Forge and sediments in the water are majority owned by the entity.

Is there an executive summary in which the community can easily see quantitatively how the levels of the chemicals have evolved in Jorgensen Forge and how they compare with the RAL indicated in the Record of Decision? and how are the chemical levels projected after the second cleaning?

All the information is available but not in a single document. Multiple documents have been created since before the cleanup. Summarized data from 2014-2019 is used to inform the cleanup right now. Information prior to 2014 should be available on the EPA Lower Duwamish Superfund webpage.

Are there any translated pages or documents on the website?

There are no translated documents on the website about this. We can have information translated pretty quicky from HQ if there is specific information they would like. They can request it directly to Kay.

This won't be fixed unless other companies are also addressed.

Is Jorgensen the original polluter of the site?

What about the other companies (Boeing, National Products INC, and the ship company) Who are all putting toxic pollutants into the waterway?

What steps are you taking against the companies who are putting toxic pollutants into the river (National Products Incorporated, Boeing, and the shipyard)

Jorgenson has contributed to a portion of the pollution in the Lower Duwamish waterway. The other companies contributing to pollution are addressed in the Lower Duwamish Waterway superfund cleanup.

What engagement and outreach were done about the site in the past?

Typically, we offer outreach to the DRCC and other community groups, that state, and tribes. We post on our website and reach out to newspapers; we are always available to answer questions.

The original removal outreach between 2010 -2014 was extensive: we worked closely with DRCC and the Tribes. Public meetings were held where we took comments and responded to them. We conducted the cleanup based on community expectations and included comments in final cleanup decisions.

When we talk about waters in the river, it was stated all the way out to navigation channel is part of property. I don't know if that's the interpretation the U.S. would take as they are still navigable channels of the river. What was mentioned was a fine of $212,000, but it in no way helps protect community – it was a fine. Your last statement about the outreach process and community seems false, as though the EPA isn't doing that [listening to comments]. Would EPA accept another option which is to do what was originally supposed to be done in the first place?

If anyone submits an idea we will consider it.

We understand there are plans for cleaning up the Site, but are there any plans for prevention to prevent from pollution - more pollution from this area, or is there any other Agency or organization that are taking part of making sure there is stuff to prevent to accumulate more chemicals in the area? So there can be a quicker recovery?

The Department of Ecology is responsible for source control and getting sites cleaned up and ensuring contamination does not move through. This is done with many other programs. A comprehensive strategy is done by EPA and Washington State Department of Ecology to ensure pollutants do not move into our sediments.

Questions that came in during the information session on August 25 that EPA was not able to get to / didn't answer:

- In area #2 (the largest area) Has been tested clean? How do we know it has been with data from tests... Or where in the document can we find that
    - Information on Area 2 is in the cleanup evaluation document in numerous sections. The information provided includes past sampling and analysis information.

- The Jorgensen site is very near to, and visible from the new T117 Peoples Park. Will EPA consider the psychological effects on the community of having only a "partial cleanup"?
    - EPA considers public comment and the best available science in determining cleanup options. More detail on the evaluation factors are in the presentation and in the cleanup evaluation document.

- Please answer my actual question regarding use of the river. is the river public? where does jorgensen private property start? which option is most limiting to public use of the RIVER.
    - The Jorgensen Property started in the upland area parcel and extends in the river near the navigation channel. The shoreline area on this site is private property, so access is already limited. Limitations on public use may apply to any of the cleanup options and may not vary much from option to the other as this work is focused on buried pollution. The types of limitations that could be considered may include: anchoring prohibitions, swimming bans, no wake zones, limits on in water or shoreline development, shell fish collection limitations.

  Why are Polyfloroalkyl substances not listed on the types of pollution in the LDW?
    - The Jorgensen Forge sediment sites is focused on PCBs and metals.

- Is the meeting being recorded?

- The live meeting audio and video were not recorded. The question in this document were captured in the meeting chat and the responses provided in this document are based off notes taken during the meeting.

Topics we consider "comments"

- A landfill is unacceptable. The soil needs to be burned in a remediation facility.
- The in water area is not private property!