



DEPARTMENT OF
ECOLOGY
State of Washington

Budd Inlet Sediments Site Amendment 2 to Agreed Order DE 6083 Response to Comments

Ecology's response to comments
from interested persons

Facility Site ID: 3097108

Cleanup Site ID: 2245

Toxics Cleanup Program
Washington State Department of Ecology
Southwest Region Office
Olympia, Washington

May 2024

Document and Contact Information

This document is available on the Department of Ecology's website at:
<https://apps.ecology.wa.gov/cleanupsearch/site/2245>

For more information contact:

Toxics Cleanup Program

Southwest Region Office

P.O. Box 47775

Olympia, WA 98504-7775

Phone: 360-407-6300

Washington State Department of Ecology — www.ecology.wa.gov

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Lead authors and editors

- Nancy Davis
- Connie Groven
- Sandy Smith

Contributors

- Matt Fuller
- Rebecca Lawson

List of terms

AO	agreed order
aquitard	subsurface unit that confines or slowly transmits groundwater
cPAHs	carcinogenic polycyclic aromatic hydrocarbons
DAHP	Washington Department of Archaeology and Historic Preservation
DES	Washington Department of Enterprise Services
dioxins	chlorinated dibenzo-p-dioxins (PCDDs) and chlorinated dibenzofurans (PCDFs)
DNAPL	dense non-aqueous phase liquid
Ecology	Washington Department of Ecology
EPA	US Environmental Protection Agency
IAP	Interim Action Plan
IDP	Inadvertent Discovery Plan
MTCA	Model Toxics Control Act
PAHs	polycyclic aromatic hydrocarbons
PCBs	polychlorinated biphenyls
PLP	potentially liable person
Port	Port of Olympia
SCUM	Sediment Cleanup User's Manual
SMS	Sediment Management Standards
TEQ	toxicity equivalence
USACE	US Army Corps of Engineers

Introduction

From June 9 to July 10, 2023, Washington State Department of Ecology (Ecology) held a public comment period for people to consider Agreed Order (AO) DE 6083 Amendment 2 and an updated Public Participation Plan for contamination cleanup of the Budd Inlet Sediments Site (Site) in Olympia, Washington. The sediment—sand, mud, silt, and the remains of plants and animals under the water—at the site is where the contamination is located.

The Port of Olympia (Port) has been named a potentially liable person (PLP), meaning they are responsible for cleanup of the site. The AO and the amendments are an agreement between Ecology and the Port to complete specific tasks toward cleanup.

After the comment period, we did not make any change to the AO Amendment 2 and the updated Public Participation Plan.

The purpose of this summary is to provide our responses to the concerns people stated in their comments. The comments submitted to us are also included. We combined the commenters' concerns into nine general topics and responded to those, rather than responding individually to each comment. To provide some background information, we briefly describe the status of the site and the process used to launch the comment period.

The cleanup process

Ecology began investigating Budd Inlet sediment in 2007 after the Port found elevated levels of dioxins in sediment in an area scheduled for maintenance dredging. Early investigations led to the 2008 AO DE 6083, a legal agreement between Ecology and the Port. The AO called for an interim action to remove contamination in sediment from its berth area in West Bay and to perform a pilot study of proposed dredging methods for future cleanup of Budd Inlet. Conditions of West Bay and south Budd Inlet were the focus of investigations by Ecology.

As we investigate the Site, we learn more about the location and nature of contamination in the sediments. The boundary of the Site remains undetermined until the nature and full extent of contamination has been delineated. Work to fully delineate the nature and extent of contamination and to design appropriate methods for addressing the contaminated sediment will be required and implemented in future legal agreements.

We are committed to reaching our goal of developing cleanup plans that are thorough and sustainable. Investigations are needed to figure out how much contamination is present in the sediment, considerations of sediment cleanup objectives, and how best to cleanup it up, such as what dredging techniques are effective and safe for the environment. Often treatment for one contaminant will also treat other contaminants.

Investigations comparing options for cleanup, and designing the cleanup construction are required under the Model Toxics Control Act (MTCA). At several steps in the process, the public has an opportunity to review and to comment on documents before they are finalized (see Figure 1).

Washington's Cleanup Process



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

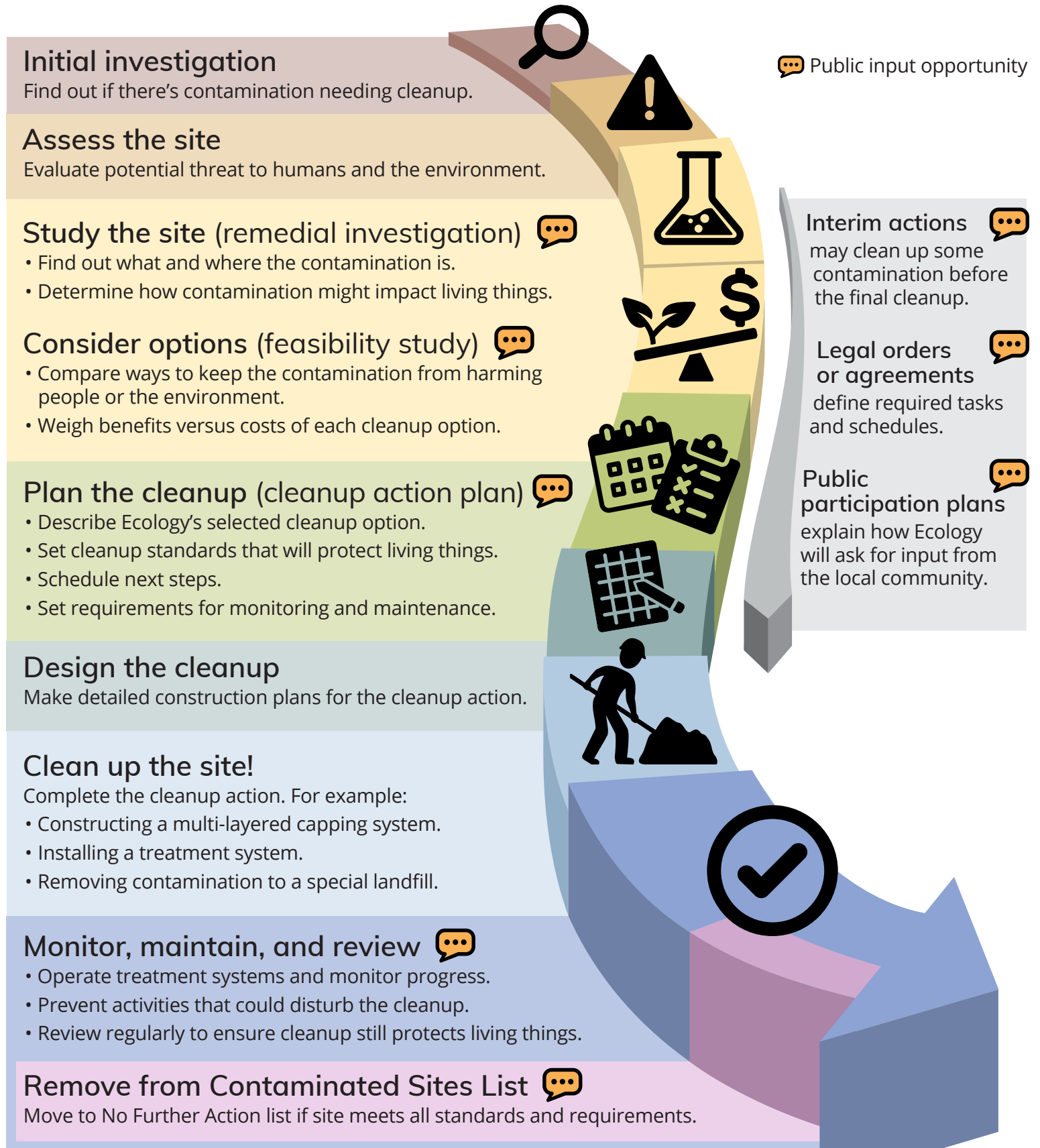


Figure 1. Model Toxics Control Act (MTCA) cleanup process.

Status of legal agreements for investigation

There have been several legal agreements between the Port and Ecology related to cleanup of Budd Inlet sediment. These legal agreements include AO DE 6083 and two amendments. These agreements were available for public review and comment. Agreed Order DE 6083 was reviewed in 2008; Amendment 1 was reviewed in 2012; and Amendment 2 was reviewed during the comment period in 2023. This document responds to the topics of concern raised during the 2023 comment period for Amendment 2.

AO DE 6083

The AO, signed in 2008, reflected the current knowledge at the time. It focused on the elevated dioxins contamination located in sediment in the berth area located adjacent to the Port's docking facility in West Bay. The full nature and extent of contamination was unknown and future cleanup in Budd Inlet was foreseen as a possibility.

The AO requires the Port to perform remedial actions in response to releases of hazardous substances at the Site. In compliance with the AO DE 6083, the Port completed two remedial actions:

- Remove sediment with elevated concentrations of dioxins from portions of the berth area adjacent to the docking facility in West Bay.
- A pilot study assessment of the characteristics of sediments and benefits of proposed dredging technologies for future cleanup of Budd Inlet.

2012 Amendment 1 to AO DE 6083

With this amendment, Ecology required the Port to conduct investigations into the nature and extent of contamination in a Study Area in West and East bays and in the vicinity around the peninsula (See Figure 2).

Among several requirements, Amendment 1 requires the Port to:

- Conduct investigations into the nature and extent of contamination in a designated area called the Study Area.
- Draft an Interim Action Plan (partial cleanup) to address sediment contamination at the Study Area.
- Conduct investigation into potential sources of sediment contamination in the vicinity of the peninsula located between East and West bays.

The partial cleanup refers to an area called the Study Area. The Study Area is different than the site. The site is the area where contaminated sediments have come to be located.

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This amendment does not relieve the Port of responsibility to conduct future remedial action at the site and to the extent required under MTCA.



Figure 2. The white dotted line shows the Study Area in southern Budd Inlet identified in Amendment 1 to AO DE6083. West Bay and East Bay are on the west and east side of the peninsula, respectively.

2023 Amendment 2 to AO DE 6083

Requirements in Amendment 2 substantially increase the scope of cleanup actions required of the Port. Among several requirements, Amendment 2 requires the Port to:

- Prepare a public review draft and final versions of the Interim Action Plan for the Study Area. The proposed interim action plan shall not rule out reasonable alternatives for the ultimate cleanup action for the site as a whole.

After public comment in 2023, we made no changes to Amendment 2.

Construction of the interim action is not part of this amendment. We intend to negotiate an amendment or subsequent agreed order for construction of the interim action.

When completed, the public review draft of the Interim Action Plan for the Study Area and the legal agreement to implement the plan will be available for public review and comment.

Sources of sediment contamination

Most likely, sediment contamination came from historical (1920-80s) industries located on shore. Previously, there were several lumber industries in the area. Cascade Pole, a former wood treatment facility located at the north end of the peninsula, used a wood treatment chemical called pentachlorophenol, which was a likely source of dioxins contamination. They also treated wood using creosote, which contains polycyclic aromatic hydrocarbons (PAHs).

Historical sawmills, plywood manufacturing, a veneer factory, and other lumber-related facilities often burned salt laden wood, creating dioxins. Historical stormwater runoff has also been a likely source of sediment contamination.

Contaminants in Budd Inlet sediment

Dioxins and carcinogenic polycyclic aromatic hydrocarbons (cPAHs) are hazardous chemicals found in sediment in the vicinity of the Study Area and are the focus of the cleanup. Other hazardous chemicals that are being investigated are metals (mercury, arsenic, cadmium), pentachlorophenol, and dioxin-like polychlorinated biphenyls (PCBs).

Some of the hazardous chemicals found in Budd Inlet sediment do not break down easily in the environment and, as a result, remain in the environment for a long time. They bioaccumulate or build up in animals through the food chain because they don't break down and go away.

Most people are exposed to very small amounts of contaminants as they go about their daily lives. The main way people can be exposed to contaminants in the sediment is by eating fish or shellfish collected from the contaminated area. Another way people and animals are exposed is by having direct skin contact or accidentally consuming contaminated mud.

Regional background contamination

A key provision in cleaning up sediment is determining the amount of regional background contamination. The regional background is concentrations of chemicals in sediment from diffuse sources such as stormwater and vehicle emissions. The chemicals can include cPAHs, dioxins, PCBs, and metals. Regional background varies between regions depending on the level of urbanization. To clean up sediment, regional background contamination is considered because an area cleaned up to a level less than the regional background is likely to become re-contaminated from diffuse regional sources. Knowing the regional background helps us set the sediment cleanup levels. Investigations have shown areas in East and West bays exceed the regional background for dioxins and cPAHs (see Figure 3).

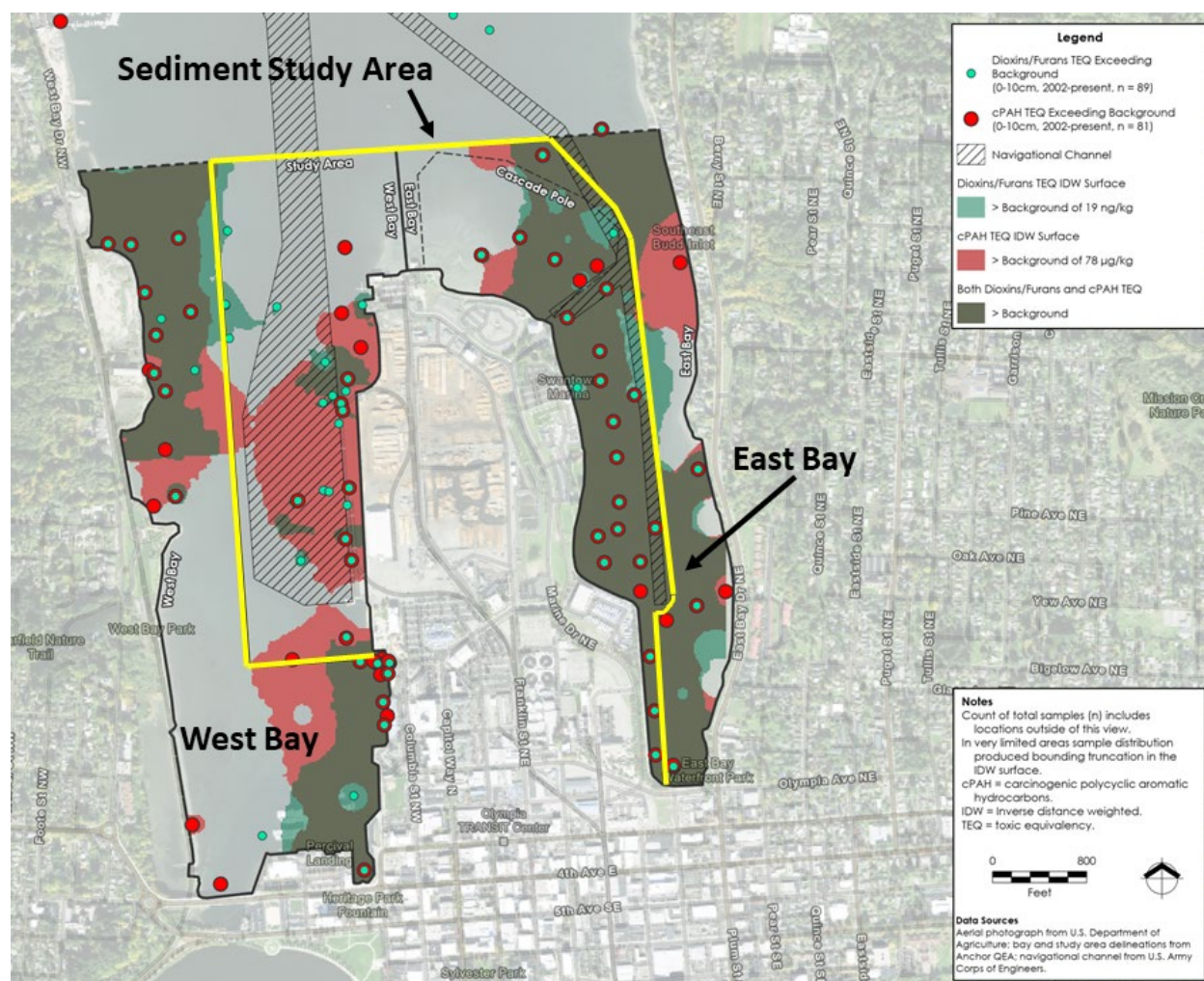


Figure 3. Areas in East Bay and West Bay in Budd Inlet where contamination in sediment exceeds the regional background for dioxins (green), cPAHs (red), and both contaminants (brown). The yellow line indicates the sediment Study Area. Contaminated areas north of the Study Area are not shown on this figure.

Investigations are needed to figure out how much contamination is present in the sediment, considerations of sediment cleanup objectives, and how best to clean it up, such as what dredging techniques are effective and safe for the environment. Often treatment for one contaminant will also remove other contaminants.

2023 Public comment period

Ecology invited the public to review and comment on AO Amendment 2 and an updated Public Participation Plan from June 9 to July 10, 2023. We received comments on the AO Amendment from 55 people, including from organizations and the Squaxin Island Tribe. We did not receive any comments on the updated Public Participation Plan.

In preparation for the comment period, we mailed a [fact sheet](#)¹ to local residents, organizations, local governments, and agencies. We sent email notices to people, Tribes, and organizations on our contact list and posted a legal ad in The Olympian newspaper. We placed information about the comment period in our [Contaminated Site Register](#),² [Public Events Calendar](#),³ and [Budd Inlet Sediments Site webpage](#).⁴

If you want to sign up for the Budd Inlet Sediments Site email notification list, please send your name and email address to Nancy Davis, Public Involvement Coordinator, at nancy.davis@ecy.wa.gov.

Response to public comments by topic of concern

We acknowledge the time and effort it took for people to review AO Amendment 2 and possibly other Site documents. We appreciate that people submitted their thoughtful comments during the comment period. We carefully considered each comment and tried to provide a complete and thorough response to comments.

The goal of our responses is to assist the public's understanding of the Site, sediment contamination, and the added cleanup activities required by AO Amendment 2.

We consolidated our responses into topics of concern that were expressed in the comments we received.

Topics of concern

1. Cleanup takes too long.
2. Dredging concerns.

¹ <https://apps.ecology.wa.gov/publications/SummaryPages/2309129.html>

² <https://ecology.wa.gov/regulations-permits/guidance-technical-assistance/site-register-lists-and-data#SiteRegister>

³ <https://ecology.wa.gov/Events/Search/Listing>

⁴ <https://apps.ecology.wa.gov/cleanupsearch/site/2245>

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3. Cascade Pole as a source of Budd Inlet sediment contamination.
4. Use Environmental Protection Agency's (EPA's) dense non-aqueous phase liquid (DNAPL) guidelines and protocols.
5. Pollution from large vessels adding to Budd Inlet contamination.
6. Concern for the greater Puget Sound area, long-term sustainable cleanup including sea levels rise, and Budd Inlet contamination moving to Puget Sound.
7. Use of state-of-the-art technology.
8. Protection of recreational, commercial, and tribal use of Budd Inlet waters.
9. Protection of cultural resources.

1. Cleanup takes too long

Comments included concerns about the slow pace of sediment cleanup in Budd Inlet. People were frustrated that the cleanup has not been completed and the timeline for completion is not clear.

Response

Ecology acknowledges that the cleanup has progressed slowly. Like the Olympia community, we are eager to complete planning and to start actively doing cleanup.

We need to take the time necessary to do the work right and avoid rework, while maintaining forward progress on the project. The agreed order amendment is a necessary administrative step for Ecology and the Port to agree on next steps in the cleanup. To help with the pace of the cleanup, a schedule in Amendment 2 guides the pace of future phases of the work.

Several factors make the cleanup of Budd Inlet sediments a complex project, and complexity of the site affects the amount of time needed for cleanup.

- Sediment contamination is likely commingled and from different sources.
- Dioxins and cPAHs in sediment are spread over a wide area.
- Active facilities, such as marinas and the ship berths, continue to operate in areas that will need to be remediated.
- Investigations of possible ongoing contaminant sources that contribute to the inlet. Contamination sources need to be controlled before cleanup actions are constructed. If cleanup occurs before sources are controlled, portions of the inlet could become re-contaminated.
- Statewide sediment cleanup rules, [Sediment Management Standards](#)⁵ (SMS; WAC 173-204), and guidance, [Sediment Cleanup User's Manual](#)⁶ (SCUM), require that we determine appropriate regional background levels of contamination in urban areas. The

⁵ <https://apps.ecology.wa.gov/publications/SummaryPages/1309055.html>

⁶ <https://apps.ecology.wa.gov/publications/SummaryPages/1209057.html>

[South Puget Sound Regional Background](#)⁷ study was completed in 2018 and determined the regional background levels for dioxins and cPAHs that we need to plan for Budd Inlet cleanup.

- Coordination with decisions made for the [Deschutes Estuary Restoration Project](#)⁸. In October 2022, Washington Department of Enterprise Services (DES) finalized the Capitol Lake Deschutes Estuary Environmental Impact Statement and selected the estuary alternative for restoration of habitat. The selection of the estuary alternative was an important step to moving forward with remediation plans and timelines for the Budd Inlet remedial action. The estuary alternative predicts substantial effects on West Bay that we will need consider in cleanup plans. Progress on the restoration project and the cleanup will influence the timing of both projects.

As the PLP for the Site, the Port’s leadership, goals, and vision impact the pace of cleanup. The Port stepped up in 2022 to lead the cleanup of Budd Inlet as the performing work party. Since then, the Port has worked actively to inform the public of their cleanup work. They have secured funding and been working cooperatively with Ecology, US Army Corps of Engineers (USACE), DES, and others to plan, permit, and promote cleanup work. The Port is working on cleaning up the navigational channels and the wider area of the inlet.

Amendment 2 adds substantially to the cleanup requirements of the existing AO by addressing data gaps, evaluating interim action alternatives for cleanup in the southern portion of Budd Inlet, and designing the interim action. To make the cleanup more workable, the Port has been developing a project framework so work can be performed in phases or ‘chunks’ that allows for tasks to proceed in different areas of the inlet. Amendment 2 allows for concurrent studies and remediation within Budd Inlet, which is expected to reduce the overall time required to remediate the inlet.

2. Dredging concerns

Many comments expressed concern about some aspects of dredging to remove contamination from the sediment. Concerns related to dredging included the following:

- Prioritizing and focusing on where dredging should be done. Comments mentioned the existence of hot spots—areas of significantly higher contaminant concentrations than neighboring areas—that should be dredged before navigational channels.
- Dredging limited to navigational channels was not a cleanup action because other areas of Budd Inlet are contaminated and need to be cleaned up.
- Dredging only in navigational channels was non-essential and a waste of money.

⁷ <https://apps.ecology.wa.gov/publications/documents/1809117.pdf>

⁸ <https://deschutesestuaryproject.org/>

Response

The Budd Inlet cleanup site is in an investigative stage and Ecology is not at the point of selecting an interim (remedial) action plan. Agreed Order Amendment 2 requires additional investigative work that will help in selecting the appropriate remedial technology for each area of Budd Inlet.

We appreciate the community's concern about leaving contamination hot spots in the Budd Inlet Study Area in favor of dredging the navigation channels.

Up until now, the existence of hot spots has not been demonstrated. Instead, we have learned there are some areas of sediment contamination that are above the regional background level of contamination. How much higher the contamination is above regional background in some areas, we don't know. Some areas are not well sampled, and we would need more information to determine if and where hot spot areas of contamination exist. Thus far, evidence shows that sediment contamination is widespread and diffuse. If any hot spot areas come to light during investigation, then those areas will be addressed in the cleanup.

Although the extent of contamination at the site has not been fully delineated, we know an interim action in the navigation channel, turning basin, and other operational areas, such as marinas, is necessary because these areas are contaminated. If these areas are dredged, it will substantially reduce the volume of sediments containing elevated levels of dioxins through removal and disposal of the sediments.

While the Study Area is the focus of ongoing work, the AO does not prevent remedial actions from being performed outside the Study Area, especially where analytical data demonstrate a need for cleanup. As required by MTCA, the alternatives evaluation will consider a variety of remedial action technologies including dredging, treatment, capping, and/or monitoring that may be appropriate in contaminated areas outside navigational channels.

MTCA requires that Ecology consider current and anticipated future uses of an area when selecting a remedial alternative. The operational areas of Budd Inlet, such as the navigational channels, turning basin, and marinas, make up a large portion of the Study Area and are necessary to maintain current and anticipated future use of Budd Inlet. Any cleanup alternative selected must be compatible with Port operations and other uses of Budd Inlet.

We anticipate that dredging will be the primary technology selected to remediate contamination within navigational areas to allow for continued use for shipping. Some areas in Budd Inlet have shallowed to an extent that potentially adversely affects recreational boating and limits or causes risky conditions to shipping. The future removal of the 5th Avenue Bridge may release sediment from Capitol Lake and cause further shallowing in areas of West Bay.

In addition to being useful to people and the Port, both US commerce and national security recognize navigational channels as assets and authorize dredging to accommodate commercial

and recreational vessels. In the past, USACE performed maintenance dredging of Budd Inlet navigation channels and disposed of dredged sediment within its in-water sediment disposal sites. Navigation channel maintenance by USACE is currently not available to the Port because of the sediment contamination, and it will not be available to the Port until the cleanup is complete. Cleaning up the contamination within Budd Inlet, including the navigation areas, will allow USACE to resume its maintenance dredging program in Budd Inlet and maintain future use of navigational areas within the inlet.

Environmental cleanups can be expensive but necessary to protect human health and the environment. MTCA requires that PLPs be responsible for cleaning up the contaminated site. This responsibility includes the costs of the cleanup. In Ecology-supervised cleanups like this one, we oversee the cleanup to ensure that investigations, public involvement, cleanup actions, and monitoring are completed to state standards.

We named the Port a PLP, a legal term used in MTCA, meaning Ecology found evidence that they are responsible for cleanup and the Port signed an agreement for cleanup of contamination in Budd Inlet. The Port is taking the lead in Budd Inlet cleanup; however, there may be additional PLPs who also are responsible for contamination in Budd Inlet. We have the authority to ensure that the Port completes the cleanup to protect human health and the environment. The Port has paid for environmental studies and interim actions since the original agreed order was signed in 2008 and will continue to fund cleanup work in Budd Inlet.

Each year, the state provides millions of dollars in grants to local governments to help pay for the cost of site cleanup. Local governments (including ports) can apply for planning grants and remedial action grants to help clean up contaminated sites that are supervised by Ecology under a legal agreement. The Port received grants to assist with contaminated site cleanup around Budd Inlet. Grants are also available for local citizen groups and neighborhoods affected by contaminated sites to facilitate public review of the cleanup. More information is available on our [grants webpage](#).⁹

3. Cascade Pole as a source of Budd Inlet sediment contamination

Several comments mention that while a variety of historical activities in and around Budd Inlet may have contributed to dioxin and other contamination levels, most of the contamination has a fingerprint of wood preserving chemicals used by the Cascade Pole Company.

Response

The Cascade Pole Company was located at the north end of the peninsula. They treated wood with pentachlorophenol and creosote until the facility closed in 1986. During operations, wood

⁹ <https://ecology.wa.gov/about-us/payments-contracts-grants/grants-loans/find-a-grant-or-loan>

treating chemicals were released to the environment; and sediment, soil, and groundwater were contaminated.

The Port performed substantial cleanup work to remove and contain contamination at the Cascade Pole cleanup site from the 1990s to 2000s. Sediment cleanup was performed by the Port in 2002 by dredging 40,000 cubic yards of contaminated sediment from Budd Inlet adjacent to the former facility, placing the sediment in an upland containment cell, and capping a large area of sediment. The Port has continued to operate, maintain, and monitor the upland containment system including a surface cap, subsurface slurry/dual sheet pile wall surrounding the upland site, and a groundwater pump and treat system.

The [Budd Inlet Sediment Dioxin Source Study](#),¹⁰ identified three sources (factors) for dioxins detected in Budd Inlet surface sediment: hog fuel burners, pentachlorophenol, and polychlorinated biphenyls. Sample locations with the highest percentage of dioxins attributable to pentachlorophenol (a wood treatment chemical) were found near the port peninsula, which was the area of focus for remedial actions under the Cascade Pole Agreed Order between Ecology and the Port.

Ecology recognizes that the Cascade Pole site was a source of contamination to Budd Inlet sediment in the past. Substantial cleanup actions were conducted at the Cascade Pole site upland and adjacent sediment between 1993 and 2010 to address sources of contamination from Cascade Pole to Budd Inlet. The Port continues to monitor, operate, and maintain the cleanup action at the Cascade Pole site to be sure the remedy remains protective. If monitoring data show the remedy is no longer protective, then MTCA requires more cleanup. This is true for any site being monitored, not only Cascade Pole.

Continued identification and control of ongoing sources of contamination to Budd Inlet is included in the work to be performed by the Port under AO Amendment 2.

4. Use Environmental Protection Agency's (EPA's) dense nonaqueous phase liquids (DNAPL) guidelines and protocols

Comments expressed concern over the challenge of identifying and cleaning up the contaminants in Budd Inlet. This concern led some to suggest that EPA's guidelines and protocols be used to identify DNAPLs.

Response

We have used and will continue to use the best available protocol to screen and test for DNAPL at cleanup sites. Creosote is a DNAPL that is clearly visible and detectable in sediment samples with our senses. To provide information regarding the potential presence of DNAPLs, sediment surface and subsurface core samples collected during data gaps investigations will be field screened for the presence of creosote DNAPL, such as by sheen testing at the time of sampling.

¹⁰ file:///C:/Users/nada461/Downloads/final%20Ecy%20chemometric%20report%20(1).pdf

If field screening suggests the possible presence of DNAPLs, a sample of that sediment will be submitted for chemical analysis.

Thus far, surface sediment cores from East Bay have not detected the presence of DNAPL associated with the Cascade Pole site.

5. Pollution from large vessels adding to Budd Inlet contamination

Comments showed concern that a lengthy duration of the cleanup process could compound the issues of contamination in the inlet when current sources of contamination from large vessels continue to add to the pollution.

Response

Historic shore-side industries in Olympia Harbor and the urbanization of the city have likely led to contamination in Budd Inlet from upland sources. The AO, including Amendment 2, includes identifying, evaluating, and designing ways to control pollution sources to Budd Inlet.

The Port occasionally hosts large commercial vessel traffic. The potential of vessel collisions or groundings presents a spill risk. Should they occur, releases can be mitigated by local action. To reduce the risk to habitat when releases occur, the Geographic Response Plan for South Puget Sound and Ecology's [spill preparedness and response](#)¹¹ program work to reduce the risk of spills to marine habitats. Ecology's spill prevention has a "zero spills" strategy that helps to prevent oil and hazardous substances from entering state waters. We require those responsible for spills to compensate the state for spill damages by restoring natural resources.

In 2018, Ecology established Puget Sound as a [no sewage discharge zone](#),¹² which now applies to all vessels in non-emergency operations.

Federal rules also apply to reduce ship pollution in harbors. These rules are mostly administered by US Coast Guard and EPA. These include, but may not be limited to, the Act to Prevent Pollution from Ships (MARPOL) and EPA's Vessels General Permit, which applies to commercial vessels 79 feet in length or greater (except fishing vessels).

6. Concern for the greater Puget Sound area, long-term sustainable cleanup, including sea levels rise, and Budd Inlet contamination moving to Puget Sound

Comments mentioned the need for maximum recovery of pollutants for long-term safe containment was important for long-term sustainability of the cleanup, particularly concerning climate change and sea levels rise. Future flood events might risk Budd Inlet contamination floating into developed areas.

¹¹ <https://ecology.wa.gov/spills-cleanup/spills/spill-preparedness-response>

¹² <https://ecology.wa.gov/water-shorelines/puget-sound/no-discharge-zone>

Another related concern was for contaminated sediments in Budd Inlet moving contamination into Puget Sound by tidal flushing action.

Response

Selection of remedial technologies in Budd Inlet will consider environmental factors such as flooding, sea level rise, and areas of sediment erosion and deposition. We recognize that our ability to prepare for the impacts of climate change is critical.

Budd Inlet and adjacent upland areas could be vulnerable to changing conditions from climate change. Portions of the Budd Inlet shoreline are historically filled areas. Sea level rise could affect the cleanup remedy, especially when combined with high tides, flooding, wind and wave action, and extreme storm events. Planning for resiliency to climate change is critical to developing cleanup alternatives to help ensure cleanup efforts are effective in the long term.

Ecology's Sustainable Remediation: [Climate Change Resiliency and Green Remediation-A Guide for Cleanup Project Managers \(2023\)](#)¹³ describes strategies to increase resilience of cleanup sites to climate change. This guidance identifies site-specific climate change vulnerabilities and suggests ways to increase resilience in the cleanup process. To learn more about how Ecology works with state and federal partners to coordinate improvements and leverage resources to better support communities from hazards, visit our [shoreline and coastal management earthquake and tsunami webpage](#).¹⁴

Sediment transport studies in Budd Inlet, including East and West bays have concluded that most sediment in the southern portion of the inlet will remain in the inlet. This is a result of currents within the inlet and the circular water circulation that exists north of the peninsula. This motion tends to keep sediment in place in Budd Inlet, rather than moving out into southern Puget Sound.

7. Use state-of-the-art technology

Comments advised Ecology to change the Port's cleanup plan, suggesting current plans don't reflect the best available science or a current understanding of the area. There was a call to use state of the art technology to clean up the Site and to determine the best way to remove dioxins.

Response

We agree Budd Inlet is a precious public resource and must be cleaned up to meet state standards. Among other requirements, the AO between Ecology and the Port requires the Port develop a cleanup plan, called an interim action plan (IAP). The IAP is addressed in Task 5 of AO Amendment 1 (draft IAP) and Task 5A of Amendment 2 (final IAP). The interim action is needed

¹³ <https://apps.ecology.wa.gov/publications/SummaryPages/1709052.html>

¹⁴ <https://ecology.wa.gov/water-shorelines/shoreline-coastal-management>

to design a final cleanup action. Ecology continually evaluates and applies state-of-the-art technologies where appropriate, including in Budd Inlet. During our review of documents prepared by the Port, our primary goal is to ensure the Port's plans conform to state cleanup standards.

The MTCA process is rooted in the scientific process and uses recognized, standardized techniques to detect and measure contaminants in media. The Toxics Cleanup Program oversees numerous sediment cleanup sites throughout the state. Sediment cleanup must comply with MTCA and the [Sediment Management Standards](#)¹⁵ (SMS; WAC 173-204). The [Sediment Cleanup User's Manual](#)¹⁶ (SCUM) is Ecology's guidance document for performing sediment investigations, studies, and cleanups. SCUM Chapter 5 contains information regarding protocols to measure and determine concentrations of dioxins in a sample, and Chapter 6 contains procedures for calculating the toxicity equivalence (TEQ). The best way to eliminate exposure to dioxins (and other contaminants) will be evaluated in a comparison of alternatives (feasibility study) stage of the Budd Inlet cleanup.

Previous studies performed in Budd Inlet improved our knowledge of sediment conditions and distribution of contamination in the inlet, but data gaps remain. AO Amendment 2 requires the Port to perform additional studies to fill those gaps so we will have enough information to propose a plan for cleanup.

A public review draft of the alternatives comparison (feasibility study), the IAP, and the legal agreement to implement the plan will be made available for public comment before they are finalized.

8. Protection of recreational, commercial, and tribal use of Budd Inlet waters

Comments emphasized the importance of keeping the waters of Budd Inlet safe and clean for recreational, commercial, and tribal use of the waters.

Response

Our mission at Ecology is to protect, preserve, and enhance Washington's land, air, and water for current and future generations. The MTCA regulations that guide our cleanup work support that effort. We will continue this work to cleanup and keep our waters safe and clean.

9. Cultural resources

The Squaxin Island Tribe's archeologist requested that if the Department of Archeology and Historic Preservation (DAHP) recommended a survey or any other recommendations, the Squaxin Island Tribe concurs with those recommendations. An electronic copy of any DAHP recommendations was requested. If any archeological or cultural resources are uncovered

¹⁵ <https://apps.ecology.wa.gov/publications/SummaryPages/1309055.html>

¹⁶ <https://apps.ecology.wa.gov/publications/SummaryPages/1209057.html>

Budd Inlet Sediments Site Response to Comments

during implementation, a request was made for the work to be halted in the area of discovery and to notify DAHP and the Squaxin Island Tribe of the discovery.

Response

The DAHP reviewed Budd Inlet sediment investigation project materials provided by the Port and concurred with the Port's determination of no cultural impacts. Field investigations performed under AO Amendment 2 require an Inadvertent Discovery Plan (IDP) for cultural resources. The IDP will be on site before any earth (or sediment) moving activity begins and throughout the field investigations. If any archaeological or cultural resources are uncovered during investigations or remedial actions, work will be stopped around the discovery and Port and Ecology personnel will follow the IDP and notify DAHP and the Squaxin Island Tribe's Archaeologist.

Comments reference table

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Harry Branch	self	2, 3, 4 Dredging, Cascade Pole DNAPL	20
Fran Kammerer	self	1, 5 Cleanup takes too long Pollution from large vessels	21
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Sara Tips	self	2, 3, 4 Dredging, Cascade Pole, DNAPL	24
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Vicki & Larry Zarrell	self	2, 3, 4 Dredging, Cascade Pole, DNAPL	25
Holly G. Graham	self	1 Cleanup takes too long	25
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Denis Langhans	self	2, 4 Dredging DNAPL	26
Emilia Snow	self	2, 3, 4 Dredging, Cascade Pole, DNAPL	27

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		Cascade Pole, DNAPL	
Marilyn Richer	self	9 Protect recreational & commercial use of BI	30
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Casey Allen	Deschutes Estuary Restoration Team (DERT)	1, 2, 9 Takes too long, dredging Protect uses of BI waters	31

Submitted comments

Comment from Harry W. Branch

Washington State Department of Ecology

Re: Agreed Order (AO) DE 6083 for the Budd Inlet sediments cleanup site.

Under Amendment 2 to Agreed Order DE 6083 the Port will complete an Interim Action (partial cleanup) Plan. A partial cleanup will leave contamination in place which will continue to pose a problem. Our best hope is that item #2, to "perform additional investigations to gather data needed to design the interim action" and item #3 to "prepare engineering designs and permitting documents for the interim action" will lead to a more comprehensive approach. In the meantime these are my concerns:

1. The last round of dredging was touted as a cleanup but targeted channels and shipping berths. The resulting effort spread dioxin into the water column and left us with the current mess. I hope this time we clearly differentiate navigation dredging from cleanup dredging. They follow different protocols.
2. Though we would like the sources of dioxin that has spread throughout the bay to be a variety of historical activities, the majority of the contamination has the chemical fingerprint of wood preserving chemicals from Cascade Pole. This is why they're mobilized and spreading. Sources like cone burners tend to stay put.
3. Contamination in surface samples indicate that ongoing sources of dioxin have not been controlled. According to the East Bay Marina EIS over a million cubic yards of dredge spoils from

Budd Inlet Sediments Site Response to Comments

in front of Cascade Pole were used as fill to create land adjoining what is now Swantown Marina. This fill is held in place by a sand and gravel berm through which the tide fluxes twice each day. Identifying and controlling sources should be the first step. In doing this we should adhere to Federal guidelines for DNAPLs in nearshore areas of known fill, i.e. numerous cores taken down to the first aquitard.

Harry W. Branch

Comment from Fran Kammerer

While it is commendable that the state is taking the initiative to clean up the disgrace that the waters of Budd Inlet have become, the time taken in reviews and amendments is costing the DNR and the public too much already. Please begin cleanup. If more studies are necessary, these can be completed concurrently to a cleanup, but the time spent in amendments and comment reviews is precious time where the pollution created many years ago continues to compound with the pollution currently occurring with the use of the port by large vessels. Thank you.

Comment from Shaun Dinubilo

Thank you for contacting the Squaxin Island Tribe Cultural Resources Department regarding the above listed project for our review and comment. We have no specific cultural resource concerns for this project. However, if DAHP recommends a survey, or any other additional recommendations, we concur with DAHP's recommendations. We would prefer to receive an electronic copy by email once completed. If any archaeological or cultural resources are uncovered during implementation, please halt work in the area of discovery and contact DAHP and the Squaxin Island Tribe's Archaeologist, Shaun Dinubilo via email at sdinubilo@squaxin.us.

Same Comment from

**Janet Zahir
Joel Carlson
Walter Jorgensen
Anne Matthews
Sharon Herting
Robin Friend
Robyn Pape
Madeline Bishop
Katherine Package
Susan McLeod
Elizabeth Clawson
Rachael Jackson
Mary Condon
Susan Fernbach
Mark Kaufman
Monika Conte
C. M. Cole
Marian Mehegan
Devin River
Linda Strever
Barbara Qualls
Polly Taylor**

I strongly request that Ecology revise the Port of Olympia's clean up plan, -1-Amendment to the 2008 Agreed Order-1- to reflect the following:

Dredging should be focused on the hot spots with the highest level of contamination. It is not an acceptable clean up plan for the Port to only dredge the navigational areas in Budd Inlet.

Since continuing surface dioxin contamination in Budd Inlet indicates it is likely from the Cascade Pole dredged material, multiple sampling should be taken using DNAPL protocols established by the Environmental Protection Act.

Comment from Jean Maust

I urge Ecology to revise the Port of Olympia's clean up plan, -1-Amendment to the 2008 Agreed Order-1- to reflect the following:

Dredging should be focused on the hot spots with the highest level of contamination. The Port needs to do more than dredge only the navigational areas in Budd Inlet.

Budd Inlet Sediments Site Response to Comments

Since continuing surface dioxin contamination in Budd Inlet indicates it is likely from the Cascade Pole dredged material, multiple sampling should be taken using DNAPL protocols established by the Environmental Protection Act.

Thank you.

Comment from John Gear

As an engineer/attorney who spent a year as a Natural Resource Specialist working for Oregon Department of Energy on its team monitoring the Hanford cleanup, I became all-too familiar with (a) the extreme challenges of cleaning up dispersed pollutants in the environment, and (b) the powerful pull on public agencies to engage in buck-passing and to spend money on the greatest public relations benefit rather than on the greatest risk reduction and pollutant recovery activities.

That experience is why I ask that Ecology revise the Port of Olympia's clean up plan, -1- Amendment to the 2008 Agreed Order-1- to reflect the following:

1. Dredging should be focused on the hot spots with the highest level of contamination with the goal of maximal recovery of pollutants for safe containment over the long term. It is not an acceptable clean up plan for the Port to only dredge the navigational areas in Budd Inlet. The rising sea levels we will face for centuries means we should be doing everything possible to corral and contain the maximum mass of pollutants now, while they are more easily accessible (and aren't floating into currently developed areas in floods).
2. Since continuing surface dioxin contamination in Budd Inlet indicates it is likely from the Cascade Pole dredged material, multiple sampling should be taken using DNAPL protocols established by the Environmental Protection Act. This should not even need to be emphasized.

Comment from Lisa Ornstein

As a concerned resident of Thurston County, I urge the Department of Ecology to revise the Port of Olympia's clean-up plan, -1-Amendment to the 2008 Agreed Order,-1- to reflect the following:

- Dredging should be focused on the hot spots with the highest level of contamination. It is not an acceptable clean-up plan for the Port to only dredge the navigational areas in Budd Inlet.
- Since continuing surface dioxin contamination in Budd Inlet indicates it is likely from the Cascade Pole dredged material, multiple sampling should be taken using DNAPL protocols established by the Environmental Protection Act.

Comment from Becky Andrade

Hello! I strongly request that Ecology revise the Port of Olympia's clean up plan, -1-Amendment to the 2008 Agreed Order-1- to reflect the following:

Dredging should be focused on the hot spots with the highest level of contamination. It is not an acceptable clean up plan for the Port to only dredge the navigational areas in Budd Inlet.

Budd Inlet Sediments Site Response to Comments

Since continuing surface dioxin contamination in Budd Inlet indicates it is likely from the Cascade Pole dredged material, multiple sampling should be taken using DNAPL protocols established by the Environmental Protection Act.

Thank you for considering my request.

Comment from Carla Wulfsberg

I strongly advise that the Port of Olympia's amendment to the 2008 agreed order be revised to include the following:

A clean up project by design should focus on the hot spots with the highest level of contamination. Navigation dredging in less contaminated areas such as the West Bay berthing areas and the East Bay Marina is clearly a move by the Port to support its Marine Terminal as opposed to a serious and scientific clean up effort. Navigation dredging is a blatant waste of taxpayer dollars and is unacceptable in a serious clean up effort.

Surface dioxin contamination in Budd Inlet indicates it is likely legacy pollution from Cascade Pole. Budd Inlet should be sampled according to DNAPL protocols which require numerous core samples down to the first aquitard.

Comment from Lou Ellyn Jones

Ecology should update the Port of Olympia's clean up plan, -1-Amendment to the 2008 Agreed Order-1- to reflect a more current understanding about the area.

Dredging should be focused on the hot spots with the highest level of contamination. It is not acceptable to clean up only the areas being dredged for navigation into Budd Bay.

Dioxin contamination continues to show up in Budd Inlet indicating it is likely from the Cascade Pole dredged material. Multiple sampling should be taken using DNAPL protocols established by the Environmental Protection Act.

Thank you

Comment from Anne Kohlbray

I strongly request that Ecology revise the Port of Olympia's clean up plan, -1-Amendment to the 2008 Agreed Order-1- to reflect the following:

Dredging should be focused on the hot spots with the highest level of contamination. It is not an acceptable clean up plan for the Port to only dredge the navigational areas in Budd Inlet.

Since continuing surface dioxin contamination in Budd Inlet indicates it is likely from the Cascade Pole dredged material, multiple sampling should be taken using DNAPL protocols established by the Environmental Protection Act. Thank you.

Comment from Sara Tips

I strongly request that Ecology revise the Port of Olympia's clean up plan, -1-Amendment to the 2008 Agreed Order-1- to reflect the following:

Budd Inlet Sediments Site Response to Comments

Dredging should be focused on the hot spots with the highest level of contamination. It is not an acceptable clean up plan for the Port to only dredge the navigational areas in Budd Inlet.

Since continuing surface dioxin contamination in Budd Inlet indicates it is likely from the Cascade Pole dredged material, multiple sampling should be taken using DNAPL protocols established by the Environmental Protection Act.

Thank you.
Sincerely,
Sara Tips

Comment from Judy Olmstead

Serious flaws in the current plan have been detected by a review committee. Please use state of the art technology to clean up this very precious public resource.

Comment from Vicki & Larry Zarrell

We strongly request that Ecology revise the Port of Olympia's clean up plan, -1-Amendment to the 2008 Agreed Order-1- to reflect the following:

Dredging should be focused on the hot spots with the highest level of contamination. It is not an acceptable clean up plan for the Port to only dredge the navigational areas in Budd Inlet.

Since continuing surface dioxin contamination in Budd Inlet indicates it is likely from the Cascade Pole dredged material, multiple sampling should be taken using DNAPL protocols established by the Environmental Protection Act.

Comment from Holly G. Graham

For far too long, we have asked and pleaded for the cleanup of Budd Bay. Nothing! What's the delay about? We have also tried to get Hanford cleaned up...same stonewall. This is unconscionable. And you know it. Time to remember that downtown floods and will continue to do so into the future, and all those untamed and untaxed developers who have built with such abandon will be asking for help when the toxic floods hit the lower end of downtown. Come on, powers-that-be! Grow a conscience, and get the Budd Bay cleanups underway! Please.

Comment from Esther Kronenberg

I submit these comments on behalf of the Green Cove Defense Committee on the Port of Olympia's Amendment to the 2008 Agreed Order.

The Green Cove Defense Committee is working to ensure that the Department of Ecology properly clean up the Sundberg Gravel Mine site in West Olympia which received a large amount of waste from the Port of Olympia since the 1949 earthquake until 2015, and also was home to Weyerhaeuser's export log yard for 30 years.

Because of the close connection of the Sundberg site to the Port, we are especially aware of the extent and toxicity of the substances and chemicals present on the Port peninsula. Dioxin levels were found by Dr. Kate Jenkins of the EPA that far exceeded those from Love Canal and Times

Budd Inlet Sediments Site Response to Comments

Beach Mo. These dangerous poisons have not been removed from the site, but merely buried and covered up, and they continue to poison the waters of Budd Inlet making them hazardous for marine life and the public.

-1-The peer-reviewed research published in the Public Library of Science on Wednesday suggests 99% of the (southern resident) orcas studied had photographic evidence of skin lesions. Researchers evaluated photos from nearly 20,000 orca sightings from 2004 to 2016, finding that lesions often gray patches and gray targets on the orcas' skin generally became more prevalent over time. Another study found the occurrence and high prevalence of skin lesions in many cetacean populations are linked to environmental factors, including water salinity and temperature, as well as pollution and eutrophication. Is it any wonder that Orcas continue to decline in health and numbers? Ecology's response to this crisis is woefully inadequate and fails to fulfill the intent of the Endangered Species Act.

We note that Ecology has yet to update their TMDL list for which it recently lost a court case brought by Northwest Environmental Advocates. Pursuant to a court order based on that case, the EPA issued a determination on May 23, 2023 that Washington State's water quality standards for 9 toxic pollutants fail to protect fish and other aquatic life. This list does not even include the dioxins that we know are deadly and last for centuries.

The current plan does not adequately address the presence of these deadly toxics at the Port. It does not put scientific investigation at the forefront of planning. To really know what levels of contamination are present, Ecology must perform multiple sampling according to EPA protocols that measure DNAPL, which according to the EPA, -1-are largely undetected and yet are likely to be a significant limiting factor in site remediation.-1- Anything less than this WILL NOT achieve the cleanup the public health and aquatic life requires. It will simply continue to cover up these deadly poisons and allow them to circulate throughout lower Budd Inlet.

Further, dredging should be focused on the hot spots with the highest level of contamination. It is not an acceptable clean up plan for the Port to only dredge the navigational areas in Budd Inlet. In fact, it is a theft of public resources for private purposes to use these cleanup funds for dredging areas that are not hot spots. There are areas in the West Bay near the old Reliable Steel Plant and areas in East Bay beyond the navigation channels that are seriously contaminated. These funds should target cleanup, not continued navigation by private vessels. This is a shameful use of public funds meant to protect aquatic and human health.

We urge you to fulfill your primary duty - PROTECTION OF THE ECOSYSTEM AND THE PEOPLE AND CREATURES WHO DEPEND ON IT.

Thank you

Comment from Denis Langhans

The Port of Olympia clean up plan should be revised to include:1) Dredging should be focused on dioxin hot spots and not navigation;2) multiple sampling needs to be taken using DNALP protocols of the EPA.

Comment from Emilia Snow

Dear Washington Department of Ecology,

I am tired of having a polluted inlet where no one can enjoy the water and wildlife is being poisoned with toxins. We need a plan that will work to clean up the mess of the past.

I strongly request that Ecology revise the Port of Olympia's clean-up plan, -1-Amendment to the 2008 Agreed Order-1- to reflect the following:

1. Dredging should be focused on the hot spots with the highest level of contamination. It is not an acceptable clean up plan for the Port to only dredge the navigational areas in Budd Inlet.
2. Since continuing surface dioxin contamination in Budd Inlet indicates it is likely from the Cascade Pole dredged material, multiple sampling should be taken using DNAPL protocols established by the Environmental Protection Act.

Thank you for your attention and care in this matter-- our children will appreciate having clean waters!

Sincerely,
Emilia Snow

Comment from Maureen Canny

Dept. of Ecology staff,

I strongly urge you to revise the Port of Olympia's clean up plan (Amendment to the 2008 Agreed Order), to reflect the following:

- 1) Dredging should be focused on the hot spots with the highest level of contamination. It is not an acceptable clean up plan for the Port to only dredge the navigational areas in Budd Inlet.
- 2) Since continuing surface dioxin contamination in Budd Inlet indicates it is likely from the Cascade Pole dredged material, multiple sampling should be taken using DNAPL protocols established by the Environmental Protection Act.

Thank you.

Comment from Loretta Seppanen

Comments on Budd Inlet Sediments Comment Period

I write to seek action by DOE seeking revisions to the Port of Olympia's clean up plan, -1-Amendment to the 2008 Agreed Order.-1- The Port plan does not reflect best available science. To do so requires at least these changes:

1. Require multiple sample using the DNAPL protocols looking especially for the source of continuing surface dioxin contamination in Budd Inlet, perhaps from the Cascade Pole dredged material.
2. The plan should focus dredging the areas with the highest level of contamination regardless of whether they are in our outside the navigation channel- its all part of the Port's responsibility.

Comment from Michael Moore

should be focused on the hot spots with the highest level of contamination. It is not an acceptable clean up plan for the Port to only dredge the navigational areas in Budd Inlet.

Since continuing surface dioxin contamination in Budd Inlet indicates it is likely from the Cascade Pole dredged material, multiple sampling should be taken using DNAPL protocols established by the Environmental Protection Act.

Comment from Mary Schlater

I strongly request that Ecology revise the Port of Olympia's clean up plan, -1-Amendment to the 2008 Agreed Order-1- to reflect the following:

Dredging should be focused on the hot spots with the highest level of contamination. It is not an acceptable clean up plan for the Port to only dredge the navigational areas in Budd Inlet.

Since continuing surface dioxin contamination in Budd Inlet indicates it is likely from the Cascade Pole dredged material, multiple sampling should be taken using DNAPL protocols established by the Environmental Protection Act.

Sincerely, Mary Schlater

Comment from Lynne Bannerman

I strongly request Ecology revise the port of Olympia's cleanup plan to reflect:

- 1.Focus dredging on the highly contaminated hotspots in addition to dredging the navigational areas.
- 2.Address continuing surface dioxin contamination likely from the Cascade Pole dredged material. Take multiple samples using DNAPL protocols established by the EPA.

Comment from Jon Ceazan

A clean up project by design should focus on the hot spots with the highest level of contamination. Navigation dredging in less contaminated areas such as the West Bay berthing areas and the East Bay Marina is not acceptable in a serious clean up effort.

Surface dioxin contamination in Budd Inlet indicates it is likely legacy pollution from Cascade Pole. The sand and gravel berm site should be sampled according to DNAPL protocols which require numerous core samples down to the first aquitard.

Comment from Howard Glastetter

Any serious Budd Bay pollution source will affect much of Puget sound via tidal flush. Serious toxins should be removed. The permeable soil of a gravel mine should never have been a garbage dump, especially for toxic minerals (e.g., creosote). This product is now outlawed as a fence post preservative. The source of this pollution should be removed.

Comment from Robert Barnes

I strongly request that Ecology revise the Port of Olympia's clean up plan, -1-Amendment to the 2008 Agreed Order-1- to reflect the following:

Dredging should be focused on the hot spots with the highest level of contamination. It is not an acceptable clean up plan for the Port to only dredge the navigational areas in Budd Inlet.

Since continuing surface dioxin contamination in Budd Inlet indicates it is likely from the Cascade Pole dredged material, multiple sampling should be taken using DNAPL protocols established by the Environmental Protection Act. We should not be leaving such a horrible condition for our children, grandchildren and community. What other species fouls the nest for current and future generations? Take action now to make it right.

Comment from Karen Rimer

The Port of Olympia's amendment to the 2008 agreed order be revised to include the following:

The hot spots of toxins, of dioxin, are the most dangerous for human health, and they are with the highest level of contamination in Budd Inlet. The Port must clean up these hot spots! The Port of Olympia wants to use navigation dredging to clean up sites. These areas are in less contaminated areas, such as the West Bay berthing areas and the East Bay Marina. But we need to clean up hot spots, not spend money on dredging for huge ships. This is clearly a move by the Port to support its Marine Terminal. This is an effort to forego cleaning up the toxic hotspots. This is not a scientific clean up effort. Navigation dredging is a blatant waste of taxpayer dollars. This is bad for tax payers and is unacceptable in a serious clean up effort of hotspots. Surface dioxin contamination in Budd Inlet indicates it is likely legacy pollution from Cascade Pole. Budd Inlet should be sampled according to DNAPL protocols which require numerous core samples down to the first aquitard.

Comment from Glen Anderson

LOCAL PEOPLE STRONGLY URGE YOU TO PROTECT OUR ENVIRONMENT!!!!

MANY, MANY people are OUTRAGED that local governments keep failing to take necessary actions!!!!

I implore Ecology to revise the Port of Olympia's clean up plan, -1-Amendment to the 2008 Agreed Order-1- in these ways:

1. Dredging should be focused on the hot spots with the highest level of contamination. It is not an acceptable clean up plan for the Port to only dredge the navigational areas in Budd Inlet.
2. Since continuing surface dioxin contamination in Budd Inlet indicates it is likely from the Cascade Pole dredged material, multiple sampling should be taken using DNAPL protocols established by the Environmental Protection Act.

Comment from Barry Troutman

I strongly request that Ecology revise the Port of Olympia's clean up plan, -1-Amendment to the 2008 Agreed Order-1- to reflect the following:

Dredging should be focused on the hot spots with the highest level of contamination. It is not an acceptable clean up plan for the Port to only dredge the navigational areas in Budd Inlet.

Since continuing surface dioxin contamination in Budd Inlet indicates it is likely from the Cascade Pole dredged material, multiple sampling should be taken using DNAPL protocols established by the Environmental Protection Act.

Costs incurred by the Port of Olympia for any dredging that is not directly related to cleanup of polluted hot spots should not be accepted by the Dept of Ecology as crediting toward the mandated cleanup. Allowing the Port to claim recovery credit for any such non-essential dredging would merely constitute subsidization of Port activities.

Comment from Marilyn Richer

Budd Inlet has to be cleaned up. It's used for commerce and recreation, but it's criminal if our children cannot swim in the inlet due to contaminants and pollution. Here in Olympia we are surrounded by water which we must keep safe and clean.

**Same Comment from
Michele Schlegel
Nancy Snyder**

I strongly advise that the Port of Olympia's amendment to the 2008 agreed order be revised to include the following:

A clean up project by design should focus on the hot spots with the highest level of contamination. Navigation dredging in less contaminated areas such as the West Bay berthing areas and the East Bay Marina is clearly a move by the Port to support its Marine Terminal as opposed to a clean up effort based on science. Navigation dredging is a blatant waste of taxpayer dollars and is unacceptable in a serious clean up effort.

Surface dioxin contamination in Budd Inlet indicates it is likely legacy pollution from Cascade Pole. Budd Inlet should be sampled according to DNAPL protocols which require numerous core samples down to the first aquitard.

Comment from Pamela Pride

I strongly urge the Dept of Ecology to revise the Port of Olympia's Plan to clean up Budd Inlet. Dredging needs to be focused on the hot spots. Also, use the correct protocols to measure and identify levels of dioxin and determine the best way to remove them.

Comment from Casey Allen

DERT Public Comment on Amendment 2 to Agreed Order DE 6083,

The Deschutes Estuary Restoration Team (DERT) has a long history of advocacy for restoration and remediation efforts in the South Puget Sound, acting to advance community engagement and encouraging policy makers to discuss and act on environmental issues vital to the health of the human and more than human inhabitants of the region. DERT is affiliated with the Puget Soundkeepers and the Waterkeeper Alliance, and has collaborated with Salmon Defense, the Squaxin Island Tribe, and Oly Ecosystems on many occasions to advance our shared goals. We acknowledge the Squaxin Island Tribe as the original and rightful stewards of this land since time immemorial and promote and support the Tribe's science and viewpoints around the restoration of the Deschutes Estuary and the overall health of Budd Inlet. As such, and in recognition of the fluid interconnectivity of aquatic habitat of the Deschutes River and the marine habitat of Budd Inlet, DERT is in support of Amendment 2 to Agreed Order DE 6083.

DERT believes it is well past time for remediation work to begin on sediment clean-up of long identified Dioxin/Furan (PCDDs/PCDFs) contamination in Budd Inlet sediments, with the Department of Ecology and the Port of Olympia having acknowledged the issue and its sources for over a decade. These chemicals have been noted as -1-the most toxic man-made chemicals ever made-1- and are known to both bioaccumulate and biomagnify, moving up food chains (Jeno et al. 2021). As acknowledged by representatives of the Squaxin Island Tribe, tribal members who fish and gather from these habitats are exposed to these chemicals and their families and communities may be at risk through contact with contaminated sediment and the ingestion of fish and benthic fauna of Budd Inlet. The law of the land allows that the Tribe should be able to fish and gather their traditional foods without risk to their health or livelihood. These same chemicals are a risk to non-Indigenous residents of the Budd Inlet as well, reducing the ability of all to safely recreate in and harvest from Budd Inlet.

DERT recognizes the Port of Olympia's past cooperation in remediation efforts but supports the Department of Ecology's finding in their -1-Final Investigation Report – Port of Olympia Budd Inlet Sediment Site-1- document. While PCDDs/PCDFs have ample industrial and public sources, DERT agrees with the DoE that the Port's -1-Chemometric Source Investigation-1- does not explain PCDD/PCDF hotspots, and similarly does not identify point source vectors but instead focuses on more diffuse non-point source origins. These findings are in direct opposition to acknowledged causes of contamination on the Port's own website and ignore well respected research and reviews that cite the very industrial processes that occurred on Port-owned properties as major contributors (Kulkarni et al. 2008; Dopico & Gómez, 2015). Any further investigation should occur concurrently with interim remediation which should focus on contamination hotspots.

The Deschutes Estuary Restoration team is in support of an Interim Action Plan to improve the environmental conditions as rapidly as possible for all inhabitants of Budd Inlet. We believe that the Port holds a responsibility to the human and more than human residents of the area to perform remediation for pollutants that they have historically had a hand in creating. DERT will continue to advocate for healthy and functional ecosystems in support of Indigenous rights, a vibrant ecological community, and an educated and engaged public.

Budd Inlet Sediments Site Response to Comments

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