

# Focus Puget Sound



## Summary Response to Public Comment on Interim Action Draft Documents

### Custom Plywood Mill Site Anacortes, WA

Puget Sound Initiative:  
*Reaching the goal of a healthy,  
Sustainable Puget Sound now and forever*

September 2011

*Focus*  
Puget Sound



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# Puget Sound Initiative

## Protecting and Restoring Puget Sound

The Puget Sound Initiative, established by Governor Gregoire and the Legislature, is a collaborative effort – by local, tribal, state and federal governments, business, agricultural and environmental interests, and the public– to restore and protect the Sound.

A leading source of pollution to the Sound is contaminated sites around its shorelines. Ecology has accelerated its efforts to clean and restore these contaminated sites within identified priority bays. Within these bays, Ecology is cleaning up 50-60 sites within one-half mile of the Sound. Cleanup actions will help to reduce pollution and restore habitat and shorelines in Puget Sound, resulting in larger areas of usable shoreline habitat for fish, wildlife, and people.



**Puget Sound Initiative priority bays**

## Anacortes Baywide Cleanup - Fidalgo & Padilla Bays

Ecology is taking a baywide rather than site-specific approach to cleaning up numerous sites within a geographic area. In Anacortes, local, state and federal agencies, local Native American tribes, businesses, and property owners are working to restore the waterfront – cleaning up several old industrial sites and restoring waterfront areas for fish, animals and people. This unique, baywide collaboration means more cleanups and restoration are happening faster. Important waterfront uses – shipbuilding, marinas, parks, recreation, housing, fishing, cultural uses, and others – can thrive in a revitalized and healthy waterfront environment.

Sites in the Anacortes area include (see map on page 43):

- Cap Sante Marine
- Causeway Project
- Custom Plywood Mill
- Dakota Creek
- Former Shell Oil Tank Farm
- March Point Landfill
- MJB Properties
- Port's Pier 2 Log Haul Out
- Scott Paper Mill
- MJB South Hydro Fill

For more information on these sites visit:

<https://fortress.wa.gov/ecy/gsp/Sitepage.aspx?csid=4533>

# Custom Plywood Mill Site

## Site Background

The Custom Plywood Mill Site is one site being cleaned up under the Puget Sound Initiative. It is located on the west shore of Fidalgo Bay, near 35th Street in Anacortes and can be seen from the water and the Tommy Thompson hiking trail (see map below). The northern part of the site is currently used for temporary boat storage, and the rest of the property is vacant with abandoned building remnants and debris. Wetlands are present on the site. The property has historically been a sawmill and wood box factory and then a plywood mill. Mill features included:

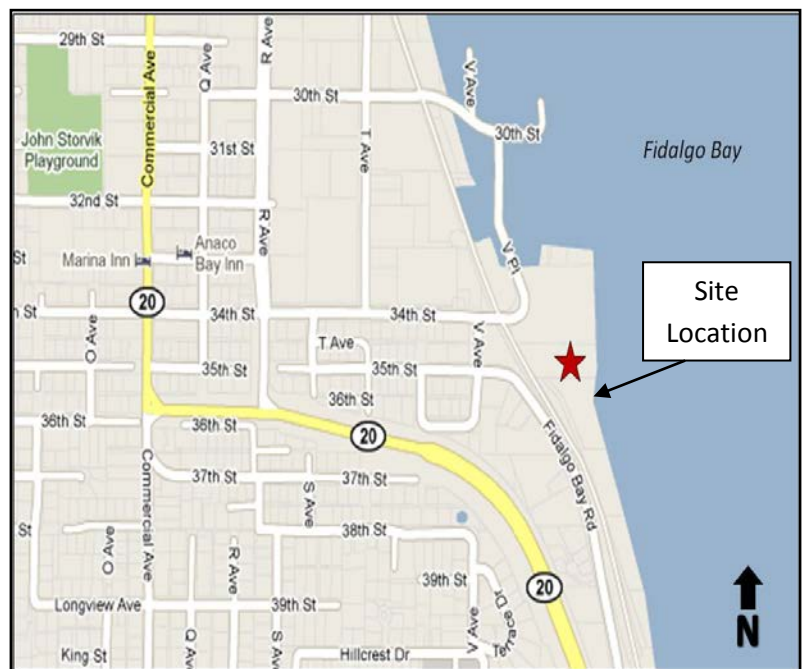
- Hog-fuel boiler (which burned wood scraps to produce energy).
- Drum and tank storage area.
- Above-ground storage tanks containing fuel oil, gasoline, diesel and propane.
- Phenol formaldehyde resin and caustic storage tanks (for making plywood glue).
- Machine shop and metal shop.
- Area for spraying paint and oil.
- Transformer yard.



**Soils** in the upland portion of the Site have elevated concentrations of arsenic, cadmium, chromium, copper, lead, mercury, nickel, selenium, silver, zinc, oil-range petroleum hydrocarbons, dioxins, and furans.

**Groundwater** beneath the site does not meet drinking water standards due to tidal influence and also has elevated concentrations of arsenic, copper, and nickel.

**Marine sediments** are contaminated with dioxins and wood waste/debris.



# Status and Proposed Cleanup

## Site Status

**March 2008** - Ecology and the Potentially Liable Persons (PLPs), GBH Investments LCC, entered into an Agreed Order for site cleanup.

**February 2009** - The Remedial Investigation and Feasibility Study (RI/FS) Work Plan was finalized and approved.

**July 2008 - December 2010** - RI data (soil, groundwater, and marine sediment samples) were gathered.

**February 15 – March 17, 2011** - Public comment period was held for the Interim Action Work Plan including the draft RI/FS Report, and for the proposed upland Interim Action: the draft Cleanup Action Plan (CAP) and draft Engineering Design Report (EDR), and for the State Environmental Protection Act (SEPA) Determination of Non-significance (DNS).



### What's next?

A **final preferred alternative** for upland cleanup action was selected after public comments on the Interim Action Work Plan were compiled and evaluated.

The next opportunity for public comment will be on the **draft Cleanup Action Plan (CAP)**, **Engineering Design Report** and **SEPA checklist** for in-water work late in fall 2012.

## Proposed Cleanup

The Interim Action Work Plan, including the Draft RI/FS, Draft CAP, and Engineering Design Report, describes the cleanup in detail. In summary, the proposed cleanup is divided as follows:

### Upland Cleanup (Cleanup began July 2011)

- Remove pilings and other structures, where needed, to allow excavation.
- Excavate contaminated soil up to 15 feet below ground surface in affected areas.
- Dispose of contaminated soil, pilings, and structures off-site.
- Mitigate impacts to existing upland wetlands.
- Start groundwater post-monitoring and institutional controls.

### In-Water Cleanup (Cleanup begins summer 2013)

# Involving the Community in Cleanup

A significant milestone was reached recently with the issuance of the following Interim Action documents at the Custom Plywood Mill Site:

- **Draft Remedial Investigation (RI)/Feasibility Study (FS).**
- **Draft Cleanup Action Plan (CAP) and Engineering Design Report for the upland cleanup.**
- **State Environmental Policy Act (SEPA) Draft Checklist and Mitigated Determination of Non-Significance for this the upland cleanup action.**

These draft documents were issued for public comment on February 15, 2011, and the public comment period ran through March 17.

To ensure that the community was aware of the invitation to comment on these important site cleanup documents, Ecology provided the following public involvement materials and opportunities:

1. Distributed a fact sheet describing the site and the documents through a mailing to addresses in the area and other interested parties.
2. Published a paid display ad in the following area newspapers: *The Anacortes American, The Skagit Valley Herald and the Clamdigger.*
3. Published a notice in the Toxics Cleanup Program Site Register.
4. Published a notice in the Ecology Public Involvement Calendar.
5. Posted draft documents on the Ecology website.
6. Provided copies of the documents through information repositories at Ecology's Headquarters Office and the Anacortes Public Library.
7. Issued a press release on February 10, 2011.
8. Held a community open house and meeting at the Anacortes City Council Chambers on February 24, 2011 from 4:30–6:30 p.m.



Through this summary, Ecology is providing information about the Custom Plywood Mill Site and responding to public comments received during the public comment period. Ecology has reviewed all comments received on the draft documents and the SEPA determination. After careful consideration of comments received, Ecology determined that no significant changes to the documents issued for public review were needed, but that an addendum would be necessary to address the comments and opinions that were noted. Refer to Ecology's response on comments 8.2 and 8.3.

# Commonly Asked Questions

This section provides some of the frequently asked questions about the Custom Plywood Mill Site and responses to those questions. Specific questions received during the comment period can be found in the “Comments and Responses” section.

## **Where will the contaminated material removed from the site go and how do you ensure you are not just creating another toxic site somewhere else?**

- Contaminated material will be properly managed on site as well as by barge for in-water work and disposed of at an approved upland disposal site.

## **Will there be any contamination left at the site after cleanup is complete?**

- Our approach is to remove as much contamination as possible under the Interim Action. We will be focusing first on the highly-contaminated areas. Ecology believes that the interim action work conducted on the site will accomplish a significant amount of cleanup and continued monitoring of the site will ensure that any remaining contamination will be identified and addressed prior to a final cleanup being completed. Ecology will include and use all of the information and data gathered during the interim action in the development of the Draft Cleanup Action Plan for the final cleanup at the site. The draft Cleanup Action Plan for the final Cleanup of the site will be made available for public review and comment.

## **How do you define wood waste and how will you clean up the wood waste at the site?**

- Wood waste is defined as sawdust, milling ends, and other wood-based materials that were discarded in the milling process. Wood waste is considered a deleterious substance under the Sediment Management Standards (SMS), but there are no established numerical standards for cleanup. Quantitative data on wood waste volume, offshore depth, and related contaminants is limited.
- Areas containing over one foot of wood waste will be dredged/excavated and back-filled, and areas containing surficial wood waste will be thin capped. This Interim Action emphasizes removal of wood debris where significant biological failures occurred during the RI data collection. No definitive wood waste/biological effects correlation could be determined and as a result, the Interim Action focuses on significant risk reduction to the biological community in areas where wood waste effects appear greatest. Upon final action, biological compliance will be performed to assess whether remedial actions were effective in addressing wood waste effects on biological resources.

## **How are you cleaning up the existing wetland? Is it going to become a marine rather than freshwater wetland?**

- Existing wetland areas with contamination will be excavated, backfilled, and re-graded. A consolidated estuarine (marine) wetland restoration area with a vegetated buffer will be re-

constructed in the southern portion of the site. The restored wetland will provide a much higher level of function at the site than the existing wetland areas.

**Will there be another opportunity for the public to comment on the in-water construction work before it is scheduled to begin in 2013?**

- Yes, an additional public comment period on draft Cleanup Action Plan and Engineering Design Report on in-water cleanup work will be organized to share information and address questions related to in-water work. Ecology is currently developing additional details related to in-water cleanup priorities and approaches, and engaging in discussions with other regulatory agencies.

**How is this cleanup project being funded?**

- Funding for this project will be provided by the State.

**Will the sheet-pile wall for upland construction work be permanent?**

- Sheet-piling is one of a number of available shoring techniques that can be used for the purposes of the uplands cleanup. The sheet-pile wall (or any other shoring system) will be removed following completion of the upland cleanup activities.



# Comments and Responses

The comments received were reviewed and evaluated by the Ecology cleanup team. Comments were then categorized into 13 areas for response. Many comments touched on aspects of more than one comment category, and the comment summaries are coded to individual commenters. The comment categories include:

- 1. Alternatives and preferred alternative selection**
- 2. Sediment capping – thin layer capping (TLC)**
- 3. Cleanup areas**
- 4. Cleanup levels**
- 5. Contaminant source**
- 6. Cost issues**
- 7. Habitat improvement**
- 8. Human health risk**
- 9. Long-term maintenance for in-water structures**
- 10. Mitigation**
- 11. Monitoring**
- 12. Schedule, implementation, and process issues**
- 13. Tribal considerations**

A total of 8 persons provided comments through letters and e-mail messages regarding the draft documents. In the comment table, each commenter is referenced by an assigned comment number.

## List of Commenters:

- Heather Trim, People for Puget Sound, Comment 1
- Joel Breems, Washington State Department of Natural Resources, Comments 2 and 9
- Wendy Steffensen and Matt Krogh, RE Sources, Comment 3
- Stan Walsh, Skagit River System Cooperative, Comment 4
- Brian Cladoosby, Swinomish Indian Tribe, Comment 5
- Jim Johannessen, Coastal Geologic Services, Inc., Comment 6
- Arlene French, local resident, Comment 7
- Glen Alexander, local resident, Comment 8

**1. Alternatives and preferred alternative selection**

Responses included in this category relate to comments about the process of evaluating environmental impacts, evaluating cleanup options, and selecting a cleanup alternative.

| Comment   | Ecology's Response   |
|---|--|
| <p>1.1 The Appendix B-2 memo generally covered the intent and general nature of the proposed three nearshore protection and enhancement alternatives. However, very little detail was developed for the alternatives short of the conceptual site plans and cross sections. The only areas that contained material specifications even in a general sense were selected elements with general terms and not dimensions. I understand these designs are at the conceptual level, but this makes it difficult to carefully assess them when they are so poorly developed at this stage. [Comment 6]</p> | <p>Ecology developed the conceptual alternatives to a point where sufficient information exists for a comparative evaluation against MTCA criteria, including conceptual costs to support the Disproportionate Cost Analysis per WAC 173-340-360. Further detail will be developed in the final design phase, which should refine both design and costs.</p> <p>There will be another opportunity for the public to comment on more fully developed designs when the draft Cleanup Action Plan (CAP) and Engineering Design Report (EDR) for in-water work are presented for public comment in late fall 2012.</p>   |
| <p>1.2 Southerly and southeasterly winds occur far more commonly at this site and are in fact the strongest or predominant winds in this portion of Skagit County. I feel it is important when designs are refined to consider southerly and southeasterly waves more fully than what appears to have occurred, based on both the written documents and personal communication by Jason Stutes of Hart Crowser in the week prior to the date of this memo. [Comment 6]</p>  | <p>Ecology agrees. Our preliminary analysis took into account the most prevalent wind patterns that were primarily from the southeasterly direction and modeled wave energy produced by these wind patterns. Additional data provided by the Samish Tribe from a weather station located at Weaverling Spit (1.1 miles southward) were added to the previous wave analysis on May 2011. Coast and Harbor Engineering Inc. (CHE) has incorporated new wind data obtained from the Samish Tribe on May 6, 2011 into the overall wave analysis model and compared the results to previous model output. This additional data helped Ecology confirm previous modeling results. Ecology is confident that design constraints based on this analysis are now confirmed (baseline orientation, sizing, structural design concept), but that various detailed refinements</p> |

| Comment | Ecology's Response   |
|---------|--|
|         | <p>such as surface particle size still need to be evaluated and considered during final design phase.</p> <p>The conclusion is that the overall the design criteria previously used are appropriate. Based on comparative analyses CHE specifically concluded the following:</p> <ul style="list-style-type: none"> <li>• The Bellingham Airport wind data previously applied for design criteria <b>very well represent</b> the project site conditions at the Custom Plywood Mill site.</li> <li>• Wind data collected from Weaverling Spit station is a <b>valuable</b> addition to the existing wind database that will provide new data and improve the knowledge of wind conditions in Fidalgo Bay.</li> <li>• Wind data collected from Weaverling Spit station <b>confirms</b> wind speed and direction criteria previously applied. The recommendations for wind-wave design criteria developed previously by CHE are valid and do not need any modifications at this time.</li> </ul> <p>The statement “The comparative analysis shows that wind roses are similar for all three stations. All three stations show a majority of winds blowing from the SE to SSE.” is still valid.</p> <p>Also CHE reevaluated and confirmed that wave statistical analysis and modeling shows that largest wave storm (wave height and wave period) at the project site is from <b>NE</b> direction, rather than from a SE direction. This is consistent with the statement that majority of winds are blowing from SE direction. Because of longer fetch from NE direction, even smaller</p> |

| Comment   | Ecology's Response  |
|---|---|
|   | <p>wind speed from the NE direction may generate larger waves. For example: Wind speed of 38.2 miles per hour from the NE may generate wave height at the project site of 3.5 ft. Wind speed 46.3 miles per hour from the SE would generate wave height at the project site equal to only 2.0 ft. Winds may blow more frequently and with stronger speeds from SE, however wave heights at the project site are larger when strong wind is blowing from NE.</p> <p>Therefore, to assure stability of coastal elements of the project (those subjected to wave impact) the “design storm” for the project is selected approaching from NE direction. The statement (Section 2.1.2; Nearshore and Intertidal Area; 3<sup>rd</sup> paragraph; page 2-4) “Coastal wave modeling for the property shows that a majority of the wave energy propagates from the northeast, which is aligned with the longest fetch but differs from the predominant wind pattern” is valid.</p> <p>In conclusion, Ecology believes that the in-water structures’ orientation (protection from wave energy from NE direction) proposed in Feasibility Study report (dated February 2011) is sound and valid as a concept <b>without further modification</b>. Ecology will add these specific and additional descriptions and information on design criteria for in-water structures into the final Feasibility Study Report or Engineering Design Report.</p> |
| <p>1.3 Overall, it appears that a refined and modified version of what appears to be the preferred alternative in Appendix B-2 (as shown in Hart Crowser Figure 1) is a good start for protection and some amount of habitat enhancement at the site. With that said there are still many uncertainties</p> | <p>Comment noted and Ecology agrees that refinements and further details need to be addressed before final Cleanup Action Plans can move forward. However, Ecology believes that comparisons between various alternatives can be soundly made at the level of detail</p>  |

| Comment   | Ecology's Response  |
|---|---|
| <p>regarding the lack of specifics as well as several other important aspects of the site plan for this alternative, which will be addressed further in the following section. [Comment 6]</p>  | <p>provided under the Feasibility Study. Please review the specific responses of comment 1.2 in this Summary Response report.</p>   |
| <p>1.4 The alternative with hard shore armor (Hart Crowser Figure 4) is not recommended to be pursued for detailed design work, based on the information available to date. This alternative also included an “estuarine wetland” near the southern portion of the site with an engineered opening through the hard armor. The quality of the fresh water input – which is understood to be storm water, is understood to be impaired and may not be suitable for introduction into a feature such as this design for habitat benefit. This type of wetland would provide very limited function and would likely require maintenance, and is therefore not recommended. Erosion or accretion at the outlet could be problematic. More importantly the large amount of hard armor in this alternative would not provide any habitat enhancement and would in fact cause some additional negative impacts due to partial burial of upper beach and backshore and potential wave reflection at the waterward side of the new shore protection. Extensive literature is available on the negative impacts of shore armoring in the Puget Sound region such as that summarized in Shipman et al. (2011), MacDonald et al. (1994), Johannessen and MacLennan (2007), Clancy et al. (2009), Rice (2006), Brennan (2007), and Schlenger et al. (in review)), and this topic will not be addressed herein. [Comment 6]</p> | <p>As part of the upland remediation action, a stormwater treatment swale will be constructed to treat and manage the existing City of Anacortes conveyance stormwater running off to the site upland. The treatment has been designed to meet or not to exceed State standards for stormwater discharge. The consolidated estuarine wetland and stormwater treatment swale are separate features but eventually will be connected features. Treated stormwater will be routed into the newly created wetland.</p> <p>As part of the preferred alternative, no hard armoring at the opening of the wetland or along the shoreline is recommended provided that another protective feature (i.e., the protective spit) is constructed to facilitate wetland establishment based on the wave and wind modeling with local data.</p> |
| <p>1.5 A third alternative was discussed in the text which included extensive amounts of beach nourishment. Quantity was not described at all however it was mentioned that the cross shore width of placement may be on the order of 400 feet.</p>   | <p>Ecology agrees with the assertion that extensive nourishment of the site is not practicable for the reasons mentioned by the commenter. Further evaluation of the preferred alternative and other options will be completed</p>  |

| Comment  | Ecology's Response  |
|--|---|
| <p>As stated in the memo, that large a project footprint would directly smother and irrevocably damage/displace existing eelgrass beds. This alternative with beach nourishment by itself is not wise for this site as it would require extensive fill, maintenance and have habitat impacts, as also determined by the consultants. [Comment 6]</p>   | <p>prior to initiating detailed final design work for the in-water cleanup.</p>   |
| <p>1.6 I understand that further development of the design will be the next stage of the project. A hybrid approach, which means using structural and non-structural, or soft approaches, is recommended. Alternative 1 serves as the current starting point in that it has promising merits but certainly needs alterations and refinements. The orientation of the feature termed a spit, which is located in the southern portion of the site shore may be problematic, as southerly and southeasterly wind-waves may considerably reshape this feature over time (depending on the material size and shape—this material was described it in the cross-section as gravelly sand fill). A general recommendation is to consider different orientations and configurations for this feature or possibly an additional structural feature(s). This may include the use of cobble sills in the lower intertidal area to help retain mid and upper intertidal beach nourishment that could utilize finer sediment to enhance habitats. Particular attention needs to be put into recreating the documented surf smelt spawning habitat in the upper intertidal at the site, which was mapped in the southern portion of the site beach. [Comment 6]</p> | <p>Comment noted. Further evaluation of the preferred alternative and additional coastal modeling and analysis (refer to comment 1.2 above) will be completed prior to initiating final design work for the in-water cleanup. When possible, a combination of structural foundation and “soft” approaches will be used to enhance habitat value. Forage fish spawning habitat will be recreated, as suggested, to the maximum extent possible given site constraints.</p> |
| <p>1.7 As a general approach, the use of spit – like features or sills should be used in combination with the nourishment in the form of somewhat compartmentalized pocket beaches. The use of the structural elements will allow for a substantial reduction in littoral drift rates and thereby should</p>   | <p>Comment noted and suggestions will be evaluated during the in-water design refinement.</p>   |

| Comment  | Ecology's Response  |
|--|---|
| <p>reduce sediment loss from nourished beaches and minimize maintenance over time. Since almost the entire intertidal area appears to be planned for removal of soils, along with the concrete, piles and other debris, it appears there is opportunity for designing the exact finished shape of the shore (that differs from existing) to maximize both material longevity and habitat enhancement. The creation of partially compartmentalized beach segments should not require extensive modification as the site shore already contains small points which were controlled by former building and pier structures. [Comment 6]</p> |   |
| <p>1.8 The existing configuration shown in Appendix B-2 Figure 1, which is understood to be preliminary, appears to need more shoreline complexity for this alternative to work well in combination with beach nourishment of reasonably small sediment sizes in the upper intertidal. It is also important to note that different grain size material may also be useful to use at several different tidal elevations. [Comment 6]</p>  | <p>Comment noted. This comment supports Ecology's general thinking about concept refinement.</p>  |
| <p>1.9 These comments are intended to be constructive in nature, however given that the proposed preferred alternatives involves the construction of a structure on state owned aquatic lands managed by DNR which are within a harbor area we would like to express our concern over not being involved earlier in the planning process. [Comment 2]</p>  | <p>Comment noted. Ecology is well aware that continuing discussion with DNR and other resource agencies will be deemed necessary and valuable to the most successful outcome of the process. DNR was informed of the proposed preferred alternative and invited to a meeting (12/21/2010) with Ecology within 45 days of Ecology receiving wind and wave modeling results that showed protection using a jetty extension was a possible and the most preferred alternative to protect the site.</p> |
| <p>1.10 We understand that Ecology has evaluated several different remediation options for the upland site, all of which required the construction of a</p>  | <p>Proposed in-water habitat features are intended to protect the in-water and shoreline portions of the site. Discussions with resource agencies</p>   |

| Comment  | Ecology's Response   |
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| <p>permanent structure within the harbor area on state owned aquatic land. DNR is primarily interested in pursuing solutions which do not further impact aquatic lands, in the materials provided to DNR it does not appear these options were fully considered. [Comment 2]</p> | <p>including DNR and further detailed evaluation of in-water remediation and habitat enhancement design options will be continued.</p> <p>Our goal is to provide maximum benefit with minimal displacement of existing habitat while still maintaining the tenets of the interim cleanup action at this site. In fact, two options that will not require the construction of a permanent structure on state-owned aquatic land were found to be “a Hard Armoring-Alternative 2” concept, as illustrated in Appendix B-2, and “a Soft Armoring.”</p> <p>Modeling results clearly indicated that the already eroding shoreline will be subject to increased wave energy once the existing in-water structures and pilings are removed. Primary concerns with the soft armoring option are the erodability of the soft armor material and disproportionate material replacement and maintenance costs associated. Refer to Appendix C in the Feasibility Study for the cost of routine replacement of soft armoring materials.</p> <p>Considering all aspects of wave erosion, habitat restoration, and disproportionate costs simultaneously, Ecology believes that habitat mix (soft armored shoreline and construction of the jetty extension and spit) are the most appropriate remedies from a cleanup and restoration perspective within state-owned aquatic lands.</p> |
| <p>1.11 Were any alternatives considered that did not require a protective structure, such as a stable softened, more natural, shoreline to attenuate wave energy, or a combination of a softened shoreline and construction of the spit proposed to protect the</p>             | <p>A softened shoreline as a near-shore protective feature was evaluated as Alternative 3 of the FS, as shown in Appendix B-1 of the FS. This alternative included extensive amounts of beach nourishment extending into the near-shore environment. See the cost associated with</p>  |



| Comment   | Ecology's Response   |
|---|--|
| mitigation wetland? [Comment 2]   | this option in Appendix C of the in the Feasibility Study Report. This large project footprint would result in possible damage and/or significant displacement and detrimental impact to existing eelgrass beds.   |
| 1.12 Were floating wave attenuating structures evaluated instead of a breakwater extension to reduce hydrodynamic energy? [Comment 2]   | A floating structure was not addressed in the FS, but was seriously considered very early on in technology screening. For a floating structure to be of significant value, it would need to be placed in shallow sub-tidal habitat that currently supports eelgrass. Periodic grounding and shading impacts and navigational hazards have precluded the concept from being developed further. Additionally, this type of structure at this location offers approximately 60% of the protection offered by the jetty extension. |
| 1.13 Are there any other options which do not encroach on the harbor area? [Comment 2]  | The jetty extension and floating wave attenuation structure were the only alternatives identified as being applicable to the site. Refer to Ecology's response to comment 1.12.  |
| 1.14 The current hydrodynamic modeling did not account for the juvenile salmon corridor. Are the conclusions of this modeling effort still valid with this omission? [Comment 2]                  | A breach or notch between the existing jetty and the extension was included in the design and will provide a migratory corridor for juvenile salmon while still maintaining the protective nature of the feature. Further detailed design of migratory corridor features for juvenile salmon will be evaluated prior to initiating final design work for the in-water cleanup while maintaining the protective nature of the jetty breakwater extension.   |
| 1.15 Have the impacts of the proposed structures on local hydrologic processes been evaluated? Will these impact existing resources such as eelgrass, macroalgae or natural processes on adjacent | The impacts of the proposed structures (jetty extension and spit) were evaluated and Ecology determined that the proposed structures will protect the shoreline and preserve the eelgrass beds. As the project enters the engineering design   |

| Comment  | Ecology's Response   |
|--|--|
| properties? [Comment 2]  | phase, these features will be further evaluated to assure that they meet the conditions set forth by the required environmental permits.   |
| <p>1.16 The proposed extension of the Jetty and construction of an artificial spit to protect the shoreline are based off wave energy modeling. The details of the modeling and the parameters considered were not provided in the documents provided for this comment period. As we proceed towards Phase II of this project will a more thorough analysis of the modeling be provided for review? We are particularly interested in understanding if current design specifications for the jetty and the spit are the most appropriate or if additional analysis is needed to determine if the location, size, and design of these structures reflects the best possible solution. [Comment 9]</p> | <p>In subsequent documents supporting the overall FS (FS addendum and draft CAP and EDR for in-water work), the basis for design for the in-water structures will be covered in more detail as well as a more detailed design of the remedy for the next phase. Additional modeling has occurred since the FS was submitted for public review that confirmed the location, alignment, and size of the jetty and spit (see response to comment 1.2). Further analysis will be performed for smaller-scale features in future design efforts that will be available for public review.</p> |
| <p>1.17 We also were interested if additional fish passage corridors in the existing jetty, closer to the shoreline were considered as mitigation options during your consultation with the services. [Comment 10]</p>   | <p>Comment noted. Further evaluation of additional fish-passage corridors in the existing jetty will be considered and discussed with WA Department of Natural Resource (Lessor) and the City of Anacortes (Lessee) prior to initiating final design work for the in-water cleanup.</p>  |
| <p>1.18 Upland cleanup scope. People For Puget Sound supports thorough cleanup of sites in Puget Sound. Leaving contamination in place (the proposal included in option #3 leaves contamination on the central western edge of the site) is not protective. Too often, we find that incomplete cleanups only lead to renewed need for cleanup years later. [Comment 1]</p>   | <p>Comment noted. The goal of Alternative U-3 is to reduce the threat to human health and the environment, per MTCA (Chapter 173-340), using a combination of significant excavation and off-site disposal. Also, post-groundwater monitoring will be conducted along with contingency planning for capping if needed in the future. Ecology will include and use all of the information and data gathered during the interim action in the development of the Draft</p>   |

| Comment  | Ecology's Response   |
|--|--|
|  | Cleanup Action Plan for the final cleanup at the site. The draft Cleanup Action Plan for the final Cleanup of the site will be made available for public review and comment.   |
| <p>1.19 We find that uplands cleanup option #3 is fairly protective. We are concerned about the plan to leave some contamination at depth on the central western edge of the site. We would prefer that all of the contamination be removed. If contamination is left at depth, it is essential that groundwater monitoring be robust and frequent. [Comment 3]</p>  | <p>Comment noted. Refer to Ecology's response to comment 1.18 above.</p>   |
| <p>1.20 In regard to the aquatic cleanup, we are deeply concerned about the many unknowns that need further resolution. We believe it is premature to choose a preferred alternative when the risk reduction from the proposed remedy is not known. We ask that risk to subsistence fishers be re-evaluated in light of new data and comment from RE Sources, the Swinomish Tribe and others. As well, the disconnect between cleaning to the background screening level of 1.4ppt and the proposed remediation level of 10ppt must be addressed. [Comment 3]</p>    | <p>The Interim Action proposed at the site focuses mainly on substantially eliminating, reducing, and/or controlling risks to the environment to the extent feasible and practical under the constraints. The proposed remediation level of 10 ppt under the proposed Interim Action represents a substantial reduction and control of hazardous substances known to occur at the site. Also, the preferred in-water cleanup alternative will implement monitored natural recovery in moderately contaminated areas at levels between at 1.4 ppt and 10 ppt of dioxins. Evaluation of remaining risk will continue as the recovery process is monitored.</p> |
| <p>1.21 Of the aquatic cleanup options presented, we prefer the most protective option, Alternative #4. This option would entail more dredging in areas with levels of dioxin greater than 10 ppt, where eelgrass is absent. We also find it interesting that Ecology did not present an Alternative #6, as a counterpart to Alternative #3, whereas it did so with Alternative #1 and #2. Alternative #6 would consist of deeper nearshore dredging, shallower offshore dredging, and thin layer capping, as in Alternative #3, combined with dredging in areas</p> | <p>Comment noted. Further evaluation of the preferred alternative, and other options or combinations of various alternatives suggested, will be completed to support the final design work for the in-water cleanup.</p>   |

| Comment   | Ecology's Response   |
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| <p>with levels of dioxin greater than 10 ppt, where eelgrass is absent. Alternative #6 would be protective and cheaper than Alternative #4. We believe that this Alternative should also be considered and evaluated. [Comment 3]</p>   |  |
| <p>1.22 A larger discussion about dioxin contamination within eelgrass beds is needed. While it is acknowledged that dredging in eelgrass beds would both be expensive and destructive of habitat, we believe that further discussion of dredging in eelgrass beds is needed. [Comment 3]</p>   | <p>Further evaluation of the preferred alternative and other options will include a discussion of dioxin in eelgrass beds. This will be completed to support the final design work for the in-water cleanup during development of the CAP and EDR. Capping eelgrass beds where dioxin is present is the best way to protect eelgrass beds and reduce dioxin exposure to humans and the environment. In fall 2011, a macro-vegetation survey is also planned to reconfirm location of the eelgrass areas,</p> |
| <p>1.23 It appears that the use of the hydraulic dredge (section 6.4.3) has been eliminated. Since these dredges can create fewer residuals of contamination, we believe its possible use should be carried through the RI/FS, Cleanup Action Plan, and Engineering Design Report (EDR) process. The FS and EDR really should be used in conjunction to determine whether the use of the hydraulic dredge is economically and technically feasible. [Comment 3]</p> | <p>Ecology believes that dredging of the nearshore during low tide or proverbially "in the dry" will create far less residuals than the use of a hydraulic dredge. Further evaluation of dredging options will be completed in future CAP and EDR efforts to support the final design work for the in-water cleanup.</p>   |
| <p>1.24 Section 8.4 [of the FS] details the numbers of creosoted pilings that will be removed in the upland and aquatic cleanups. Although Ecology has verbally stated that there are plans to remove all of the pilings, we would like to see this assertion in writing. Please address. [Comment 3]</p>   | <p>As stated in the FS, remediation will include removal of all upland and in-water creosote pilings totaling approximately 1,500 individual piles along with the remnant concrete dock and other in-water structures.</p>   |
| <p>1.24 Appendix B1 [of the CAP] details the wetland mitigation plan. This plan should be further amended as follows: Stormwater should only be</p>   | <p>A stormwater treatment swale will be constructed during the upland remediation as described in Appendix B-1 of the CAP and FS.</p>  |

| Comment   | Ecology's Response   |
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| <p>routed through the system after it is adequately treated. The wetland, created to mitigate for the loss of wetland function and habitat, should not be used for stormwater treatment. An ongoing stormwater monitoring plan should be developed that details frequency of monitoring, parameters to be monitored, acceptable limits of those parameters, and remedial steps to be taken in the event of any exceedances. [Comment 3]</p>   | <p>Treated stormwater will be routed through a conveyance bio-swale into the newly created wetland. The City of Anacortes, who owns the storm-water drain outfall, will be responsible for future on-going maintenance activities in the stormwater treatment area.</p>                                      |
| <p>1.25 Appendix B1 [of the CAP] details the wetland mitigation plan. This plan should be further amended as follows: The plan states that infiltration of stormwater is not expected, but that if it occurs, it will add benefit to stormwater treatment. Address whether this same stormwater infiltration could mobilize contaminants. [Comment 3]</p>   | <p>All contaminants in the wetland area were removed down to native soils and disposed of off -site. This removes any concern that residual contaminants may migrate into Fidalgo Bay.</p> <p>Six groundwater monitoring wells were installed up-gradient of the wetlands for the compliance monitoring.</p> |
| <p>1.27 It is our understanding from document review and the February 24 meeting and site visit that because the site is primarily fill it is necessary to either harden the shoreline after removal of toxic materials or dissipate wave energy to maintain a softened shore. SRSC supports project designs that restore as much natural process as possible but given the constraints of this site a soften shore with off-shore dissipation of wave energy is the better of the two options. [Comment 4]</p> | <p>Comment noted. It has been the goal of the proposed Interim Action to maximize overall site cleanup to protect human health and environment while providing as much shoreline stability and habitat improvement as possible within the given site constraints.</p>  |
| <p>1.28 The use of the disproportionate cost analysis, a subjective tool at best, is premature to use for the aquatic cleanup options. Without an analysis of risk reduction related to dioxin exposure, protectiveness cannot be determined. In addition, without a more thorough assessment of the efficacy of thin layer capping, permanence cannot be ascertained.</p>  | <p>Ecology understands that MTCA (WAC Chapter 173-340) places preference on permanent solutions to the maximum extent practicable based on a disproportionate cost analysis (DCA) and supports its use for planned interim remedial actions. Costs and benefits are evaluated in the DCA based on</p>        |

| Comment   | Ecology's Response  |
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|   | <p>protectiveness, permanence, long-term effectiveness, management of short-term risks, implementation, and public concern regarding overall cost.</p> <p>Removal of contaminated material will reduce risks to human health and the environment, improve environmental quality, and meet the MTCA protectiveness criterion.</p> <p>Efficacy of enhanced natural recovery (ENR) using thin layer capping (TLC) has been demonstrated at various cleanup sites in Puget Sound. ENR/TLC technology represents a permanent, protective, and cost-effective remediation method. As resource agencies and Tribes have recommended, Ecology plans to conduct a pilot study to find the most optimum TLC application condition. This pilot study will be completed prior to initiating final engineering design work for the in-water cleanup.</p> |
| <p>1.29 The risk assessments should be made part of the decision-making process. The FS does not reference the risk assessment, nor does it address how the 10ppt remediation level was chosen. The reduction in risk attained with using the remediation level of 10ppt should be made explicit; this means that Ecology should evaluate and quantify the reduction of risk for the different alternatives. In addition, Ecology should evaluate the risk reduction when choosing other remediation levels, such as background of 1.4ppt and 4ppt, the latter referenced in the new PSDDA regulations.</p> | <p>The FS Report focuses on substantially eliminating, reducing, and/or controlling risks to the environment to the extent feasible and practical under the Interim Action proposed. The proposed remediation level of 10 ppt represents a substantial reduction and control of hazardous substances known to occur at the site.</p> <p>MTCA places preference on using permanent solutions to the maximum extent practicable based on a disproportionate cost analysis (DCA) and supports its use for interim remedial actions. Costs and benefits are evaluated in the DCA based on protectiveness, permanence, cost, long-term effectiveness, management of short-term risks, implementation, and public concern. The</p>  |

| Comment | Ecology's Response  |
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|         | <p>preferred in-water alternative (alternative 3) will significantly reduce risks from contaminated material in water to human health and the environment, improve environmental quality, and meet the MTCA protectiveness criterion.</p> |

**2. Sediment capping-thin layer capping (TLC)**

Responses included in this category relate to comments about design and function of in-water sediment capping implementation.

| Comment   | Ecology's Response   |
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| <p>2.1 Is there sufficient evidence to be certain that a thin layer cap will be an effective remediation strategy? It is clear that the cap is not meant to isolate the contamination however it is unclear if the addition of a cap will reduce contamination below the levels of concern at the site. [Comment 2]</p> | <p>With the contaminant concentrations that exist, thin layer capping (TLC) is designed to supplement the natural recovery or enhanced natural recovery (ENR) of the sediments. Efficacy of ENR using TLC has been demonstrated at various cleanup sites in Puget Sound. ENR represents a permanent, protective, and cost-effective remediation method. Ecology is confident that using the TLC, in conjunction with other cleanup components, will provide the needed protectiveness and permanence.</p> <p>Post-monitoring will also be conducted to confirm the effectiveness of TLC as constructed and determine whether additional work is necessary. As resource agencies and Tribes suggested, Ecology is planning to conduct the pilot study to find most optimum TLC application rate before implementing this technology. This pilot study will be completed prior to initiating final engineering design work for the in-water cleanup.</p> |
| <p>2.2 Thin layer capping as a remedy may be appropriate in eelgrass beds, after pilot testing has</p>  | <p>Comment noted. Continued monitoring will determine if dioxin levels exceed site cleanup</p>   |

| Comment  | Ecology's Response   |
|--|--|
| <p>ensured that the eelgrass won't be killed by the technology. It is important to evaluate the predicted concentration of dioxin in sediments over time with this methodology, however. Although the point of compliance in sediments is 10cm, many species of benthic invertebrates burrow deeper than this and will be exposed and bioaccumulate dioxin. Additionally, they will mix the sediments so that the dioxin concentration, after time, will not be zero, but will represent some concentration as a result of the bioturbation action of the benthos. Thus, dioxin concentrations will be diluted over time. It is also acknowledged that some load of sediment is being delivered to Fidalgo Bay- this load however appears to be minimal given the following statement in the FS, pages 6-12. 6-13: Coastal engineering conclusions summarized in Section 2 indicate that TLC layers would remain stable over much of the subtidal area and have little net sediment accretion or erosion. Please evaluate the predicted concentrations of dioxin in sediments over time. [Comment 3]</p> | <p>standards. Any levels found to be out of compliance will be addressed through the site contingency plan. The bioturbation layer is dependent largely on the species of burrowing invertebrates present within the area. This information will be presented in a future capping pilot study report. This effort will help provide quantitative data to help delineate burial, dilution, and cap thickness.</p> <p>As resource agencies and Tribes suggested, Ecology is planning to conduct the pilot study to find most optimum thin layer capping (TLC) application rate. This pilot study will be completed prior to initiating final engineering design work for the in-water cleanup.</p> |
| <p>2.3 No data on the stability of thin layer capping is presented. Although the following is stated on pages 6-12, 6-13 in the FS: Coastal engineering conclusions summarized in Section 2 indicate that TLC layers would remain stable over much of the subtidal area and have little net sediment accretion or erosion, there is nothing in FS Section 2 that addresses the stability of thin layer caps. Please address the stability and efficacy of thin layer capping in regard to this site. [Comment 3]</p>   | <p>Efficacy of enhanced natural recovery (ENR) using thin layer capping (TLC) has already been demonstrated at various cleanup sites in Puget Sound. ENR represents a permanent, protective, and cost-effective remediation method. Further coastal modeling with more data will be used to confirm cap stability both horizontally and vertically. This result will be used to support the final design of the thin layer cap for the in-water cleanup. Refer to the responses in comments 1.2 and 2.2.</p>   |
| <p>2.4 The in-water capping plan is another area of great interest because of the large amount of the cap area that is currently in eelgrass and the potential loss of that eelgrass. We agree with the</p>  | <p>Comment noted. Ecology looks forward to working with SRSC on the detailed pilot study.</p>  |



| Comment   | Ecology's Response |
|---|--------------------|
| <p>proposed approach of a pilot study to explore the potential for laying an incremental cap over the area that is built up over time. It would be very desirable if the area could be effectively capped while allowing eelgrass time to adjust to the new bed elevation and continue to thrive. SRSC will want to stay closely informed as the study plan for the pilot progresses. [Comment 4]</p> |                    |

### 3. Cleanup areas

Responses included in this category relate to one comment, below.

| Comment  | Ecology's Response   |
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| <p>3.1 Section 2.1 [of the FS] states that there are 7 upland and 1.3 tideland acres which comprise “remaining portions” of the Custom Plywood site. There is no comment, however, on whether these areas are contaminated or not. Please address. [Comment 3]</p> | <p>The “remaining portions” of the site are owned by the state of Washington. Refer to Section 2.4 of the RI report for information about the environmental characterization effort. Also refer to Section 2.5 for information about an earlier limited cleanup action conducted beyond current GBH property boundary.</p> |

### 4. Cleanup levels

Responses included in this category relate to comments regarding contaminant levels required for cleanup.

| Comment  | Ecology's Response   |
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| <p>4.1 The cleanup levels and compliance points for sediment, presented in section 4.2.1 [of the FS], is inadequate. Reconciliation of the dioxin screening level and remediation level is needed (see FS comment 1). As well, the criterion for wood waste removal is vague. Removal of wood waste is said to occur when the wood is greater than 1' or more below the mudline. Does this mean that wood needs to be solid for 1'? How is the patchiness of</p> | <p>The Interim Action focuses on substantially eliminating, reducing, and/or controlling risks to the environment to the extent feasible and practical. The proposed remediation level of 10 ppt represents a substantial reduction and control of hazardous substances known to occur at the site.</p> <p>This Interim Action emphasizes removal of</p> |

| Comment   | Ecology's Response  |
|---|---|
| <p>wood deposits addressed? The recent Scott Paper Mill cleanup called for wood removal where the total volatile solids greater than 12.2% and where wood debris was greater than 25% by volume. Similar numeric criteria are needed for this site. [Comment 3]</p> | <p>wood debris where significant biological failures occurred during the RI data collection. No definitive wood waste/biological effects correlation could be determined. As a result, the Interim Action focuses on significant risk reduction to the biological community in areas where wood waste effects appear greatest. Upon final action, biological compliance monitoring will be performed to assess whether remedial actions were effective in addressing wood waste effects on biological resources.</p>  |
| <p>4.2 A clear statement explaining how dioxin will be cleaned up to natural background dioxin levels, as MTCA requires, is necessary, or an explanation regarding why clean-up will not be to background levels. [Comment 5]</p>                                   | <p>This is an interim action that will substantially reduce the risk of dioxin exposure, it is not a final cleanup action. The proposed interim action for in-water cleanup focuses on substantially eliminating, reducing, and/or controlling risks to the environment to the extent feasible and practical, but is not intended to actively remediate the entire site to natural background dioxin levels under the proposed action. The final cleanup actions have yet to be determined at the site and will depend on new information generated during the Interim Action. The proposed remediation level of 10 ppt represents a substantial reduction and control of hazardous substances known to occur at the site.</p> <p>Based on the 2010 Supplementary Fidalgo Bay and Custom Plywood Mill Sediment Dioxin Study,<sup>1</sup>, the area above the local dioxin background level of 1.4 ppt covers almost 400 acres of aquatic land including state-owned aquatic land.</p> |

<sup>1</sup> Department of Ecology and SAIC, Supplementary Fidalgo Bay and Custom Plywood Mill Sediment Dioxin Study, Anacortes, WA, October, 2010.

| Comment  | Ecology's Response  |
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| <p>4.3 The amount of dioxin to be dredged appears to have been arbitrarily set at 25ppt. Using a risk reduction analysis might change this value. If the value is lowered, more eelgrass might be dredged.</p> | <p>After considering various site/project constraints and DCA evaluation, an Interim Action cleanup criterion of 10 ppt was established for lower action threshold areas (thin capping vs. thick capping). For higher-action threshold areas (dredging vs. thin capping), a cleanup criterion of 25 ppt was established, given the greater relative risk of higher dioxin concentrations. Ecology is not planning to dredge the area where eelgrass and contamination co-occur.</p> |

**5. Contaminant sources**

Responses included in this category relate to comments about where contaminants originated.

| Comment  | Ecology's Response  |
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| <p>5.1 The source of dioxins (sections 6.2 and 8.2.1) is said to be from the combustion of the wooden mill structure or the burning of salt-laden wood. Appendix A of the FS addressed the location source of the dioxins, but appears to not have addressed the origin of the dioxins through analysis of congener patterns. Greg Glass, Seattle-based environmental consultant (gglassenviro@comcast.net) has compared congener analysis from the Remedial Investigation in the Lower Duwamish where urban sediments were analyzed. Interestingly, the urban sediments and the Custom Plywood sediments look remarkably similar. See attachments 1 and 2. From this information, we suggest that the source of the dioxins be determined with more certainty. The congener patterns from dioxins associated with Custom Plywood with that of simple wood combustion, salt laden wood-combustion, and typical runoff should be compared with one another. Moreover, if the source appears to be</p> | <p>Comment noted. The origin of dioxin at this site doesn't modify the cleanup levels or the remedial alternatives. The Supplementary Fidalgo Bay and Custom Plywood Mill Sediment Dioxin Study was conducted in December 2010. The purpose of the study was to further characterize sediment quality and examine background dioxin concentrations in sediment to aid in selecting appropriate remediation actions. Ecology also recognizes that congeners analysis is one of many methods that can be used to identify the potential origin(s) of the dioxins found at the site. As suggested, Ecology also plans to control/prevent urban stormwater runoff by installing a state-of-the-art bioswale stormwater treatment facility to prevent runoff from entering the shoreline wetlands.</p> |

| Comment  | Ecology's Response |
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| mainly from urban runoff, it is essential that Ecology focuses on source control at this site. |                    |

**6. Cost issues**

Responses included in this category relate to comments about cost estimates for the alternatives.

| Comment  | Ecology's Response   |
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| 6.1 During the differential cost assessment was the cost of long term maintenance of the breakwater and loss of lease revenue accounted for? [Comment 2]   | No. Further evaluation of the preferred alternative and other options will be completed prior to initiating final design work for the in-water cleanup. Ecology is also interested in understanding the current and past rate of jetty lease income from the potentially encumbered aquatic lands proposed for the jetty extension construction footprint.   |
| 6.2 In Section 8.2.1 [of the FS], cost for soil excavation is estimated through using an inferred contamination depth. If contamination extends further than the inferred depth, it is stated that excavation will occur to the point of compliance. What contingency plan is in place to ensure this occurs, if the funds are not in place to cover the cost? It seems that it would be better to have a more reliable cost estimate at the outset of the project to ensure that all of the requisite funds will be available for a complete project. | Currently this is an interim action, however contingency plans will be developed prior to implementing the final cleanup action for the site. Cost estimates developed for the FS are intended to be adequate for comparison among the alternatives. As design on the preferred alternatives proceeds in the next phase, additional detail will be developed that will allow refinement of the cost estimate. Provision of needed funds will be ensured through the legal agreement with the liable party. Compliance monitoring with soil sampling/analysis will be conducted throughout the upland construction period to ensure the compliance. Also the post-monitoring after the Interim Action on groundwater is planned to ensure groundwater compliance. |

**7. Habitat improvement**

The response included in this category relates to comments about impacts on fish and wildlife habitat related to the site.

| Comment  | Ecology's Response   |
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| <p>7.1 I learned a bit about Dioxin and also that the eel grass is endangered and Ecology is trying to decide which cleanup plan to use. From what I've heard, it seems to me that perhaps the eelgrass should not be dug up, but, fishing for shell fish prohibited where the eelgrass grows. I believe they said the Dioxin concentrates in the roots. [Comment 7]</p> | <p>A pilot study for eelgrass areas is planned to see if an incremental cap could be created over time that would work to reduce dioxin risk while still maintaining eelgrass viability. This pilot study should address this comment, and Ecology will include information on its results in future public information. This pilot study will be completed prior to initiating final engineering design work for the in-water cleanup.</p> <p>Closing a shellfish bed from harvest, as opposed to removing the potential for exposure to contamination, may not be a sufficient safeguard. Mobile species, such as Dungeness crab, can move many kilometers away from the contaminated site where they may be subject to fishing and consumption.</p> |
| <p>7.2 Another concern I heard, is that a lot of seabirds use the creosote pilings to rest upon. Where will the birds rest when you pull all the pilings out of the water? Could you confer with wildlife refuges and recreate safe pilings for them near but outside of the work area? [Comment 7]</p>  | <p>Shoreline habitat will be significantly improved through the removal of the creosote-treated pilings which have been another source in-water contamination. Installation of piles (wood or metal) are not encouraged or supported by local, state, or federal regulatory agencies. Congregating seabirds on artificial structures may allow these birds to exploit juvenile fish at a higher rate than normal. This could have a negative effect on endangered species, such as Chinook salmon.</p>   |
| <p>7.3 The waterward portions of this "spit" feature appear to be too exposed to waves to support salt marsh vegetation colonization. Salt marsh</p>   | <p>Comment noted. Salt-marsh vegetation (estuarine wetland) currently exists at an elevation of approximately +8 to +9 MHHW</p>  |

| Comment  | Ecology's Response  |
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| <p>vegetation does not exist on the adjacent beach at the present time and derelict structure removal will increase wave energy to this area. In addition, the "spit" will be located in deeper water than the existing shore in this area. Therefore, the vegetation drawn in the cross section (Figure 2) appears unrealistic and should probably be modified so they are not misleading in terms of habitat benefit. [Comment 6]</p>  | <p>along the central portion of the site. There is potential for natural colonization of salt-marsh vegetation on the spit in a different configuration as shown on Figure 2, which was intended to be conceptual only. Ecology will continue to optimize the spit design for habitat enhancement opportunities in future design efforts.</p> |
| <p>7.4 Backshore habitat enhancement, with a higher elevation berm and perhaps created backshore berm or beach ridge, along with some amount of placed LWD and backshore vegetation would also be an important element of a further refined site plan. This would provide a transitional habitat and ecotone between the beach and uplands. [Comment 6]</p>  | <p>Comment noted. Further evaluation of the preferred alternative and other options including comments suggested herein will be completed prior to initiating final design work for the in-water cleanup.</p>   |
| <p>Critical decisions need to be made regarding how far to pull the shore back in the northern portion of tract number 5, where the concrete structure extends well waterward of the adjacent tract number 4, at the north end of the site. The greater the landward pull back the more habitat enhancement is possible. This area will also need to fit in with the larger approach for the central portion of the site, such that full pull back to the (filled) shore of tract number 4 is likely not feasible. Removing the hard concrete corner and pulling fill out of deeper water is strongly recommended. [Comment 6]</p> | <p>Comment noted. Further evaluation of the preferred alternative and other options including comments suggested herein will be completed prior to initiating final design work for the in-water cleanup. Removing the hard concrete corner is currently planned under the FS.</p>  |
| <p>7.5 The jetty extension as proposed on the waterward end of the large rock jetty (apparently owned by the city of Anacortes), appears that it will reduce wave energy in the northern portion of the site shore during times of northeast winds, as outlined in the consultant documents. However, as moderate to higher velocity winds do not frequently</p>   | <p>Recently, new data provided by the Samish Tribe from a weather station located on Weaverling Spit (1.1 miles southward) was added to the previous wave analysis. This additional data helped to confirm previous model results. Ecology is confident that design constraints based on this analysis are</p>                                |

| Comment   | Ecology's Response  |
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| <p>come from this direction, the value of this structural element should be reconsidered upon design refinement. Overall it appears this element may be justified, however the proposition of covering this amount of subtidal habitat requires that this element be evaluated further. [Comment 6]</p>   | <p>now confirmed (baseline orientation, sizing, structural design), but that various detailed refinements such as surface particle size still need to be considered during final design. The next phase of design will closely examine this element of the remedy if needed. Refer to Ecology's response to comment 1.2 for detail.</p> |
| <p>7.6 The finer beach nourishment recommended for the south side of the jetty should provide habitat benefits, and is generally anticipated to be beneficial. The placement area or shape of this nourishment area will certainly need to be modified to be placed in a more dynamically stable form than the simple linear approach drawn in the preliminary site plan. Specifically the sediment placed would be best wrapped around the inner, southern edge of the jetty base to blend into the east-facing beach more (curving into the existing shore). Also the eastern, waterward, end of the beach nourishment would need to be refined to match up with the bathymetry. Additionally, the proposed 5:1 beach slope will not be stable here with "habitat mix" sediment. This type of nourishment material implies a large percentage of coarse sand and fine gravel. Therefore, a lower slope should either be used at first or be anticipated when determining elevations and proposed habitat benefits. The landward portions (only) of this beach nourishment area should be suitable for salt marsh vegetation colonization. [Comment 6]</p> | <p>Comment noted. Ecology will refine the cleanup and restoration plans per these comments during future design phases and in collaboration with regional habitat experts.</p>  |
| <p>7.7 There is no supporting evidence for the following statement: "Impacts to eelgrass within the TLC area are expected to be minimal and short in duration. Impacted eelgrass areas should recover quickly through recruitment from nearby meadows." In fact the literature suggests that transplant success in this region is less than 50%</p>   | <p>Ecology agrees with the study results as cited. As described in Section 6.4 of the FS Report, Ecology has fully evaluated all viable remedial options potentially affecting the eelgrass bed areas contaminated with dioxins/furans. Ecology believes that TLC (or ENR- enhanced natural recovery) commonly</p>                      |

| Comment  | Ecology's Response   |
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| <p>(Thorn et al. 2008). Natural recruitment is similarly uncertain in areas where eelgrass was previously present taking 10-20 years in areas &lt;35 ha in size in one study (Neckles et al. 2005). How does this proposal guarantee compensation for the lost ecological services provided by the eelgrass and macroalgae on state owned aquatic lands?<br/>[Comment 2]</p>   | <p>used at sediment remedial sites to augment natural physical, biological, and chemical processes promoting recovery is found to be the most effective and feasible option.</p> <p>An extensive TLC pilot study for eelgrass areas is planned to see if an incremental cap could be created over time that would successfully reduce dioxin risk while still maintaining eelgrass viability. This TLC pilot study will be designed to investigate eelgrass tolerance to iterative capping, as well as measure any impacts to ecosystem services. Ecology will include information on its results in future public information.</p> <p>Additionally, mitigation prior to implementing the remedy will be conducted to account for any interim loss of productivity due to the TLC study or early remediation activities.</p> |
| <p>7.8 Eelgrass, being valuable habitat, also attracts more organisms. Because of this, greater amounts of dioxin may be bioaccumulated and translocated up the food chain. [Comment 3]</p>  | <p>Comment noted. Ecology agrees and for this reason, is proposing ENR within the existing eelgrass habitat that contains higher levels of dioxin contamination.</p>   |
| <p>7.9 The preliminary design calls for an addition to the existing jetty on the north end of the site and a new shorter structure on the southern third of the property. There is a gap in the addition between the existing jetty and the new addition to provide for fish migration. The existing jetty serves as a substantial migration barrier to juvenile salmonids, it forces juvenile fish off of their near shore migration into deeper water where they are much more susceptible to predation. There will be extensive use of heavy equipment in this project that provides an opportunity for removal of a nearshore portion of the existing jetty that would</p> | <p>Comment noted. The next phase of design will closely examine the jetty element of the remedy and will consider the optimal way to design and implement habitat improvements.</p>  |



| Comment   | Ecology's Response  |
|---|---|
| <p>allow for nearshore fish migration. The whole purpose of this project is to address the ongoing impacts of past industrial use. We should take this opportunity to address the ongoing impact of the existing jetty on fish migration. Similarly the new breakwater should also be designed for nearshore fish migration. [Comment 4]</p>  |   |
| <p>7.10 As we understand the proposed design of the south breakwater the leeward south side will be slope and capped with substrate suitable for forage fish spawning. That is a desirable long term outcome for the project. We understand WDOE's desire to complete the project and not have any long-term commitment to maintenance but we are skeptical that a forage fish spawning mix of substrate will stay indefinitely. Given the desirability of forage fish spawning habitat in this area it may be necessary to occasionally replenish that habitat and should be considered in the design. [Comment 4]</p> | <p>Comment noted. The next phase of design will consider the optimal way to design and implement this habitat improvement, including maintenance of the proposed elements.</p>  |
| <p>7.11 Another design feature that we need a better understanding of is the wetland planned for the south end of the project. It was not clear during a site visit whether a berm or hardened shore feature would be necessary to keep the wetland in place and what the elevation of the wetland would be. Presumably the wetland will be a small salt marsh which is desirable habitat but we will need to see a more in depth design before we can comment on this aspect of the restoration. [Comment 4]</p>   | <p>Comment noted.<br/>Design and implementation of the new wetland resulted in providing a higher quality wetland habitat by developing an estuarine pocket beach that will support forage fish spawning areas and habitat for juvenile salmon.</p> |

**8. Human health risk**

Responses included in this category relate to comments about the risk of eating fish near the site.

| Comment | Ecology's Response |
|---------|--------------------|
|---------|--------------------|

| Comment   | Ecology's Response   |
|---|--|
| <p>8.1 Fish consumption. Concern about the risk to subsistence fishers is unresolved. The risk appears to be greater than is acceptable. In addition, background levels of dioxin are significantly lower than the site will be cleaned up to in this interim action. [Comment 1]</p>   | <p>This is an interim cleanup action intended to substantially eliminating, reducing, and/or controlling risks to the environment to the extent feasible and practical under the project constraints.. Any residual contamination will be evaluated and addressed in a final cleanup action. The proposed interim action remediation level of 10 ppt represents a substantial reduction and control of hazardous substances known to occur at the site.</p>  |
| <p>8.2 The risk assessment in section 9.2 for dioxin appears to underestimate risk to subsistence fishers for these following reasons:</p> <p>a) Non- cancer risks are not assessed. An assessment of non-cancer risks should be included in the overall risk assessment. Dioxin has been linked to metabolic syndrome, endocrine disruption, behavioral effects, and immune impairment. For example, the Agency for Toxic Substances and Disease Registry uses a value of 1 pg/kg/day based on behavioral effects on offspring of female monkeys (ATSDR. 1998. Toxicological Profile for Chlorinated Dibenzo-p-dioxins (Update). Agency for Toxic Substances and Disease Registry, U.S. Department of Health and Human Services. December 1998.).</p> <p>b) Data on dioxin tissue levels in fish, crab, and clam (the latter, calculated from one sample) came from 2008 SAIC data. However, clam data, collected at a later date and presented in Table B7 of the FS had concentrations of dioxin an order of magnitude higher than that used to calculate risk in the RI. The risk assessment needs to be re-run using most the recent clam data.</p> <p>c) The only value for Body Weight or BW is an adult weight of 70 kg, presumably because the</p> | <p>Ecology will review the input factors provided to calculate human health risk and issue a supplementary technical report (addendum) with those results. Ecology currently does not believe the modification of such factors in the human health risk calculation will modify the cleanup levels to above the background level measured.</p> <p>Currently, Ecology has determined that background concentrations for dioxin are the appropriate cleanup level, and MTCA does not allow cleanup to below background levels. Ecology believes that the calculation of non-carcinogenic and re-calculation of human health risk using modified input parameters will not reduce the cleanup level to below background levels.</p> <p>However, Ecology will issue an addendum that will re-evaluate the human health risk under the proposed Interim Action to address sediment contamination based on the most updated information. It will be posted on the Ecology Site information webpage in December 2011 or January 2012.</p> |

| Comment  | Ecology's Response   |
|--|--|
| <p>exposure is calculated over a 70 year lifetime. A measure needs to be in place to account for the special vulnerability of children.</p> <p>d) The averaging time (AT) is incorrect. The equation uses an AT of 27,375 days (75years *365 days), however the years of exposure are 30 years and 70 years. Thus AT should be 10,950 and 25,550, respectively.</p> <p>e) The FDF fish diet fraction is arbitrarily set at 0.5 with no explanation. This underestimates the amount of dioxin ingested by subsistence fishers.</p> <p>f) The use of the "Area Use Factor" serves to underestimate the amount of dioxin ingested by subsistence fishers. It relies on the assumption that other fish and shellfish eaten will not add to the dioxin body burden. Additionally, any assumptions made about the use of the area by Swimonish Tribal members, if the area were cleaned, should be checked with the Tribe. [Comment 3]</p> |  |
| <p>8.3 In particular, we have found inconsistencies and errors in Section 9.0, the Risk Evaluation. Because findings from the human health risk evaluation drive the cleanup requirements, we request that the human health risk evaluations be recalculated in order to address the Issues we have raised below. Once recalculated, the risk evaluation results must then be explicitly linked to the proposed clean-up action plans. [Comment 5]</p>   | <p>The Interim Action focuses on substantially eliminating, reducing, and/or controlling risks to the environment to the extent feasible and practical. The proposed remediation level of 10 ppt represents a substantial reduction and control of hazardous substances known to occur at the site.</p> <p>Ecology will issue an addendum that will re-evaluate the human health risk under the proposed Interim Action to address sediment contamination based on most updated information. It will be posted on the Ecology Site information webpage in December 2011 or January 2012.</p> |
| <p>8.4 The report assumes that risk is driven by dioxin</p>  | <p>The boundaries of the site are defined using</p>  |

| Comment  | Ecology's Response  |
|--|---|
| <p>exposure and cancer risks. There is no discussion regarding non-cancer risks (hazard quotient calculations), nor risks from other bioaccumulative contaminants of concern that have been found in the study area. According to the data presented in Appendix C of the Health Consultation for Fidalgo Bay (2010, <a href="http://www.doh.wa.gov/ehp/oehas/pubs/fidalgobay10.pdf">http://www.doh.wa.gov/ehp/oehas/pubs/fidalgobay10.pdf</a>), arsenic, cadmium, chromium, and mercury pose unacceptable non-cancer health risks (i.e., hazard Index) to tribal members. We believe that all contaminants of concern must be evaluated together, with both cancer and non-cancer endpoints, because contaminants have, at a minimum, additive health Impacts, if not synergistic activities. [Comment 5]</p> | <p>chemical signatures. Currently these signatures indicate that dioxin defines the extent of the site boundaries. Ecology has not discovered credible evidence that the PLP has contributed more than <i>de minimis</i> amounts of contaminants to the marine portion of the site other than dioxin and wood debris. The Interim Action addressing dioxin will also address co-located contaminants. Final confirmation of compliance with potential human health additive, antagonistic and/or synergistic cancer, and non-cancer risks will be assessed prior to or during the final cleanup stages.</p> |
| <p>8.5 Why are risks to children not evaluated? Once again, the Department of Health's report (Appendix C of the Health Consultation for Fidalgo Bay: 2010, <a href="http://www.doh.wa.gov/ehp/oehas/pubs/fidalgobay10.pdf">http://www.doh.wa.gov/ehp/oehas/pubs/fidalgobay10.pdf</a>) assessed children's exposure. Children's results should be included. [Comment 5]</p>  | <p>The Custom Plywood Mill Site is an industrial property with limited access. Industrial and sub-adult uses of the site are not compatible. Additionally, sediment cleanup levels for dioxin have been established at background levels, which are the lowest cleanup levels allowed according to MTCA/SMS. Additional risk calculations may not be necessary to establish more conservative cleanup levels for dioxin.</p>  |
| <p>8.6 Was the crab hepatopancreas included in the dioxin level sampling results? Many tribal members eat the hepatopancreas ("crab butter"), so it is important to include it along with the muscle in analyses. In our study (2006), we found that the crab hepatopancreas was uniformly higher than crab muscle in contaminant concentrations.</p>  | <p>Yes, crab hepatopancreas was included in the dioxin level sampling. The background level was established as the cleanup level for dioxin. Refer to the Fidalgo Bay Sediment Investigation Report<sup>2</sup>.</p>  |

<sup>2</sup> Fidalgo Bay Sediment Investigation Report, Fidalgo Bay, WA, Washington State Department of Ecology/SAIC, March 2008.

| Comment  | Ecology's Response  |
|--|---|
| [Comment 5]  |   |
| <p>8.7 Table 18 in the RI says for the "subsistence scenario" Suquamish rates are used. However, it states that Suquamish's 95th percentile fish consumption rate is 583gpd, but this is not correct, it's actually 767gpd. Then the table states that the clam and crab rates are the mean consumption rate, not the 95th percentile. The numbers used in the risk evaluations should be consistent and accurate. Only use the 95th percentile and ensure that the rates are correct. Both the clam and crab rates are too low. In the Fidalgo Bay Health Study (2010) in Appendix D, Table D9, it states that the combined clam and crab consumption rate for the Suquamish is 498.42gpd, not including any finfish. [Comment 5]</p> | <p>Ecology will review the input factors provided for calculating human health risk and provide a supplementary technical report with those results (See response to comment 8.2). Currently, the cleanup levels for contaminants of concern have been established at background levels, which is the most protective level authorized by MTCA/SMS. Regardless of whether any new suggested input parameters were used to recalculate risk levels, it is expected that the cleanup level will remain unchanged.</p>   |
| <p>8.8 It is unclear how the dioxin screening level of 10ppt is related to the human health risk assessment, nor what relative health benefit will be gained by remediating to this level. The links between human health, risk, and dioxin levels need to be explicitly clear. With risk evaluations recalculated to reflect more accurate tribal scenarios, we believe that a dioxin screening level of 10ppt will not minimize risks to an "acceptable" level for tribal members who consume seafood from this area. [Comment 5]</p>  | <p>The Interim Action focuses on substantially eliminating, reducing, and/or controlling risks to the environment to the extent feasible and practical. The proposed remediation level of 10 ppt (this is not screening levels for dioxins) under the proposed Interim Action represents a substantial reduction and control of hazardous substances known to occur at the site under the various project constraints.</p> <p>The Interim Action proposed for in-water is not intended to actively remediate the entire site to the natural background dioxin level. As this is but an Interim Action to expedite reduction of risk, the final cleanup actions have yet to be determined at the site.</p> <p>Based on the 2010 Supplementary Fidalgo Bay and Custom Plywood Mill Sediment Dioxin Study,<sup>3</sup> the area above the local dioxin</p> |

<sup>3</sup> Department of Ecology and SAIC, Supplementary Fidalgo Bay and Custom Plywood Mill Sediment Dioxin Study, Anacortes, WA, October, 2010.

| Comment | Ecology's Response   |
|---------|--|
|         | background level of 1.4 ppt covers almost 400 acres of aquatic land, including state-owned aquatic land. |

**9. Long-term maintenance for in-water structure**

The response in this category relates to a comment about long-term management of facilities on DNR-managed lands.

| Comment   | Ecology's Response  |
|---|---|
| <p>9.1 Many of the details of the remediation of the custom plywood site have yet to be clearly defined. Our primary objective is to pursue remediation options which do not further impact aquatic land, if any long term encumbrances on DNR managed lands are required DNR would require a responsible party to enter into a lease. This would be required for any permanent structures or caps on DNR managed land. In the event of a permanent structure who will be responsible for the long term management of the structures? [Comment 2]</p> | <p>Comment noted. Continuing discussion with DNR will be valuable to the outcome of the process. If any long-term encumbrances on these new and permanent in-water structures on state-owned aquatic lands are required, principally either the current, successor, or additionally named PLPs if any, will be responsible/liable for the long-term management of the structures.</p> |

**10. Mitigation**

Responses included in this category relate to comments about mitigation for impacts on natural resources.

| Comment   | Ecology's Response   |
|---|--|
| <p>10.1 Currently the RIFS does not provide sufficient detail regarding the proposed remedial strategy. Such as plans to avoid, reduce, and mitigate impacts to eelgrass and marine vegetations, and plans to restore existing eelgrass beds and marine vegetation following capping. The RIFS materials state that additional details regarding these issues will be</p> | <p>Ecology intends to work with DNR and others during the next detailed design phase to develop mitigation plans specific to state-owned aquatic lands.</p> <p>Phase II activities will be subject to both federal and state scrutiny under regulatory pathways and requirements as with any other</p> |

| Comment  | Ecology's Response  |
|--|---|
| <p>forthcoming. In the absence of this information DNR cannot support the current plan for Phase II. We recognize the need for remediating the in water portions of the site and would like to work collaboratively with Ecology to develop a plan to address impacts to resources on state owned aquatic lands. [Comment 2]</p>   | <p>nearshore project. As such, a JARPA (permit application), and required supporting documents, will be drafted for review by WA Department of Natural Resources (WADNR) and other regulatory agencies. These documents, (along with forthcoming CAP and EDR for the in-water phases), should contain project-level detail for all agencies to make an informed decision on project effectiveness, related impacts, and habitat enhancements. Ecology encourages WADNR and the other involved regulatory agencies to participate in the early drafting of these documents to ensure they contain the appropriate level of detail, refined concepts, and adequate levels of habitat enhancement to offset unavoidable impacts.</p> |
| <p>10.2 We also were interested if additional fish passage corridors in the existing jetty, closer to the shoreline were considered as mitigation options during your consultation with the services. [Comment 9]</p>  | <p>The next phase of detailed design will consider the optimal way to design and implement this habitat improvement, including fish passage corridors in the existing jetty and new jetty extension area.</p>   |
| <p>10.3 Appendix B1 [of the CAP] details the wetland mitigation plan. This plan should be further amended as follows: Consolidation of the wetlands into one estuarine wetland seems reasonable. Both the mitigation ratio and buffer requirements are low compared to what is usually required. For the estuarine wetland to be fully functional and an asset to habitat, we request that the 150' buffer requirement be instated to help ensure wildlife protection. Instating the required buffer for a Type II wetland will increase the size of the habitat mitigation area. It will not increase it as much as would be required if all of the appropriate mitigation and buffer requirement were utilized at the site, however. [Comment 3]</p> | <p>The goal of the project is to restore existing wetland on the Custom Plywood Mill Site as part of the cleanup efforts. The restored wetland will result in a higher functioning consolidated wetland, rather than several small and lower functioning , wetlands (as exist today). Currently, there are no functional buffers around the existing wetlands. The restored wetland and buffer will greatly improve the habitat, water quality, and hydrologic functions of both the wetland and buffer. The 50- to 75-foot buffer provided around the wetland was agreed upon by regulatory agencies, including Department of Ecology's SEA Program, and</p>   |

| Comment | Ecology's Response  |
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|         | deemed adequate for the project given the significant habitat improvements it will provide. |

**11. Monitoring**

Responses included in this category relate to comments about monitoring performance of the remedy over time.

| Comment  | Ecology's Response  |
|--|---|
| <p>11.1 Appendix B1 [of the CAP] details the wetland mitigation plan. This plan should be further amended as follows: Wetland monitoring for 10 years is required. This monitoring should be maintained over time. The wetland, adjacent to a popular City trail and a commercial/industrial area, will be subject to many outside pressures, one of these being weed seeds and the colonization of invasive species. In order for this wetland to maintain its integrity over time, it should be maintained in perpetuity by the landowner, Ecology, or City of Anacortes. [Comment 3]</p>  | <p>As described in Appendix B-1 of the FS, a 10-year monitoring period will be required as a part of the interim cleanup action. A discussion of invasive species control and general maintenance activities is included in Appendix B-1 to provide long-term management of the area.</p> |
| <p>11.2 In regard to the monitoring and contingency plans, RE Sources Field Investigator notes the following based on her personal experience: The permanent vegetation quadrat sampling locations should be marked with heavy gage pipe – not wood lathe or pvc pipe. This area will experience storms, ice, and wind. Wood lathe/pvc will be damaged and moved by wind, water, ice, and vandals. Similarly, the photo stations should be installed with dynamic forces in mind. Photos should be taken at the same month, same location, and same aspect each year. The locations of the quadrants and the photo stations should be surveyed, in the case that they are removed/damaged by storms. [Comment 3]</p> | <p>Comment noted.</p>   |



| Comment   | Ecology's Response    |
|---|-----------------------|
| <p>11.3 In regard to the monitoring and contingency plans, RE Sources Field Investigator notes the following based on her personal experience: The monitoring plan calls for a visual observation of tidal inundation during a normal tidal cycle each year. This is not adequate. A healthy estuarine habitat depends on regular tidal inundation. If for some reason the estuary is not receiving regular inundation, it will not function as intended. Tidal inundation should be measured regularly, i.e., quarterly, or more often. A permanent staff gage should be installed in an appropriate area, and its location and elevation should be surveyed. A contingency plan needs to be developed should the estuary not be properly inundated. [Comment 3]</p> | <p>Comment noted.</p> |

**12. Schedule, implementation, and process issues**

Responses included in this category relate to comments about the cleanup process and opportunities to be involved.

| Comment  | Ecology's Response   |
|--|--|
| <p>12.1 The details of the implementation of Phase II are proposed to be developed as funds are available. We are concerned that this current comment period represents our only opportunity to comment on this phase of the remediation. We would appreciate clarification from Ecology if there will be opportunities to comment on the proposal as it is developed. [Comment 2]</p> | <p>As design of the in-water cleanup moves forward, Ecology will provide an opportunity for additional public review and comment. The first of these opportunities will likely occur late in 2012.</p> |

| Comment   | Ecology's Response   |
|---|--|
| <p>12.2 This is my written comment about the Public Participation Plan for the pending cleanup at Custom Plywood Mill Site located in Anacortes. What I don't see in the plan is an opportunity for citizens to participate in cleanup activity or monitoring of the effects on-site. That's what I'd like to see. [Comment 8]</p>  | <p>Given the presence of hazardous materials on the site, potential health and safety risks with public participation during cleanup activities, and professional requirements for conducting monitoring activities, construction and monitoring must be completed by trained professionals.</p> <p>Opportunities for public access will be provided and addressed during the in-water design phase.</p>   |
| <p>12.3 Phasing. We are concerned that doing an interim action will in reality be the end of action. We would prefer that a complete cleanup be conducted now rather than a partial measure. [Comment 1]</p>  | <p>The PLP is ultimately responsible for completing the overall cleanup of the Custom Plywood Mill Site; however, the Puget Sound Initiative has provided Ecology with the opportunity to conduct the Interim Action based on the constraints identified in the FS.</p>  |
| <p>12.4 The FS remains vague as to the next steps for the aquatic cleanup. It is stated that the dioxin screening level is 1.4 ppt and the remediation level for dioxin has been set at 10 ppt for “practicable” reasons. No information is given as to whether the next step for the aquatic cleanup will be another interim action, nor what the basis of that interim action would be. In addition, no information is given as to how Ecology will address reaching the background level of dioxin at 1.4 ppt. It is important for Ecology to give this information to the public so we have all of the information to consider. [Comment 3]</p> | <p>The Interim Action for the aquatic cleanup focuses on substantially eliminating, reducing, and/or controlling risks to the environment to the extent feasible and practical, rather to achieving the cleanup standards. The proposed remediation level of 10 ppt represents a substantial reduction and control of hazardous substances known to occur at the site.</p> <p>An engineering design report for in-water cleanup work will be developed to provide details that will guide the interim cleanup action. Decisions regarding final cleanup actions have yet to be determined.</p> |
| <p>12.5 Section 9.2 of the FS states that performance monitoring will occur and if bioassay or dioxin levels indicate that cleanup is not effective then additional methods will be employed. The terms</p>   | <p>A detailed long-term monitoring plan will be developed that will define necessary and contingent actions triggered by the long-term monitoring program. Information gathered</p>  |

| Comment   | Ecology's Response  |
|---|---|
| <p>“effective” and “additional methods” need to be defined. As well, a timeline is needed to show when determination of effectiveness and implementation of additional methods would occur. [Comment 3]</p> | <p>during the long-term monitoring will be used to determine whether additional actions are needed.</p> |

**13. Tribal considerations**

The response in this category relates to a comment about tribal subsistence fishing.

| Comment   | Ecology's Response   |
|---|--|
| <p>13.1 One last note, in the Fidalgo Bay Health Consultation, it states that Swinomish people no longer harvest in this area due to contamination. This is not correct. Many Swinomish tribal members harvest here for subsistence uses (but not for commercial purposes). [Comment 5]</p> | <p>Comment noted. If this information is documented, Ecology would like access to this data to include in future addenda and further development of Phase II in-water works.</p> |

# Explanatory Figures

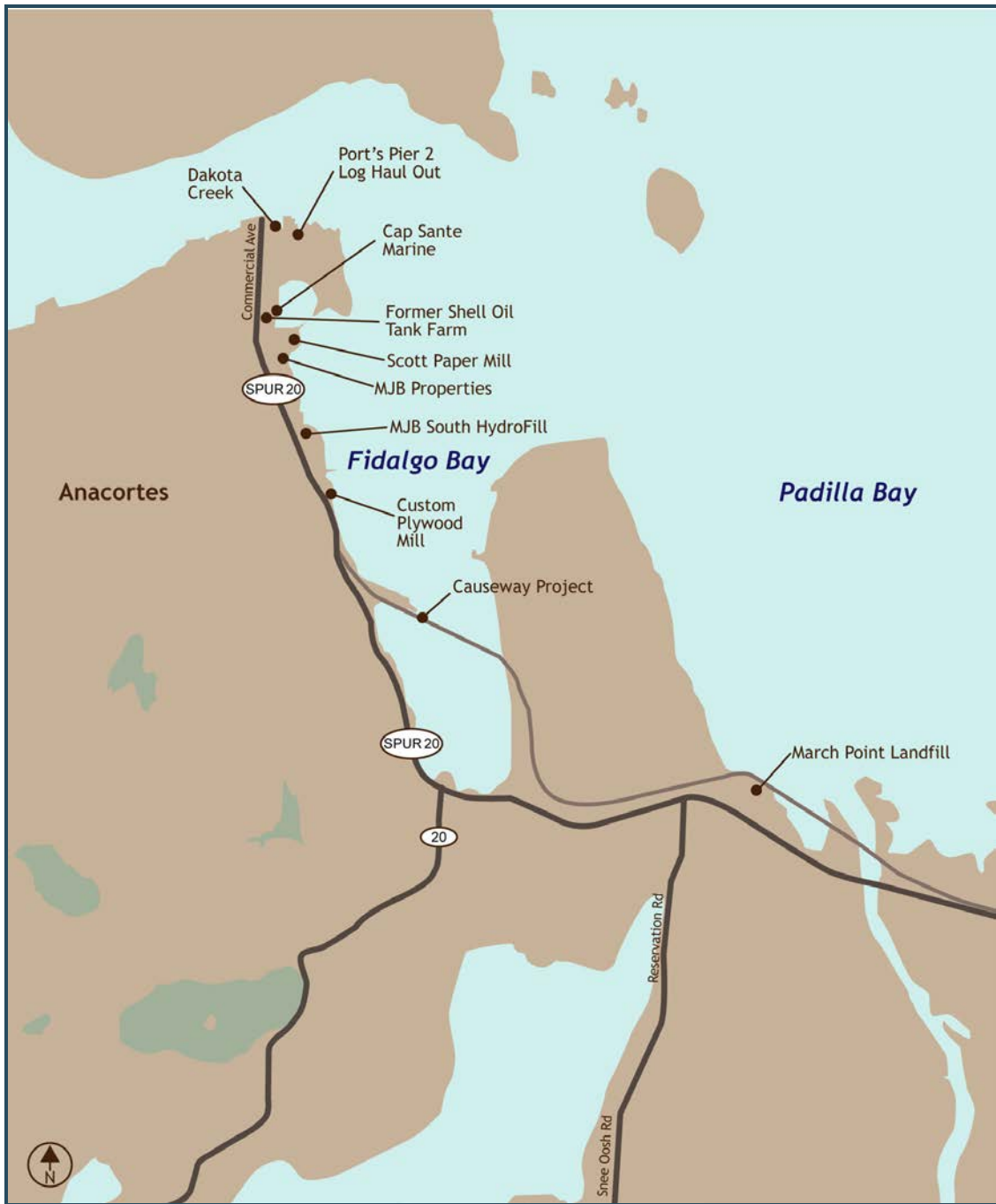


Figure 1. Fidalgo and Padilla baywide area cleanup sites under the Puget Sound Initiative.

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