RESPONSIVENESS SUMMARY

WHATCOM WATERWAY SITE
Bellingham, Washington

Draft Consent Decree and Exhibits

September 2007

ISSUED BY:

WASHINGTON STATE DEPARTMENT OF ECOLOGY

TOXICS CLEANUP PROGRAM

1. Introduction

On July 12, 2007 the draft Consent Decree and exhibits (including a Draft Cleanup Action Plan) for the Whatcom Waterway site (Site) in Bellingham were issued for a 30-day public comment period. Public involvement activities related to this public comment period included:

- Distribution of a fact sheet describing the Site and the documents through a mailing to over 650 people, including neighboring businesses and other interested parties;
- Publication of one paid display ad in *The Bellingham Herald*, dated July 8, 2007;
- Publication of notice in the Washington State Site Register, dated July 6, 2007;
- A public hearing held on August 8, 2007;
- Posting of the documents on the Ecology web site; and
- Providing copies of the documents through information repositories at Ecology's Bellingham Field Office and Northwest Regional Office, and the Bellingham Public Library – Downtown Branch.

A total of 54 persons, organizations, and businesses submitted written and/or verbal comments on the Consent Decree and exhibits. The commenters are listed in Table 1-1. Comment letters and excerpts from the public hearing transcript are organized according to commenter in Appendix A. The full public hearing transcript is attached as Appendix B. Appendix C Ecology correspondence associated with Ecology's responses to commenter #29.

Section 2 of this document provides background information on the Site and Site cleanup activities, Section 3 describes next steps. Sections 4 and 5 present the comments received (and Ecology's responses) as follows:

- Overview of Comments Received: Section 4
- Detailed Summary of Comments and Responses: Section 5

Sections 4 and 5 contain concise summaries of comments and Ecology's responses to those comments. To review a comment in its original form, refer to Appendix A.

Table 1-1. COMMENTERS

1. Alyanak, Nancy
2. Anderson, Ken*
3. Anderson, Richard*
4. Badgett, Frances*
5. Bellingham Bay Foundation*
6. Bellingham Cold Storage
7. Bellingham Whatcom Chamber of Commerce*
8. Brinn, Steve
9. Britt, Elizabeth
10. Buehrer, Mark
11. City of Bellingham*
12. Cournoyer, Kevin*
13. Dearstyne, Martha
14. D'Onofrio, John*
15. Doyle, Jessica
16. Duncan, Clint*
17. Dyson, George*
18. Farr, Larry
19. Frost, Brett
20. Gotchy, Thomas*
21. Gregory-Raffel, Zapote*
22. Hayes, Hamilton*
23. Hazen, Libby
24. Hirst, Eric*
25. Johnson, Tip*
26. Kilanowski, Elizabeth*
27. King, Richard
28. Lindquist, Richard
29. Lummi Nation*
30. Mackay, Mike*
31. Matthew, Don
32. Mischaikov, Ted
33. Nooksack Tribe
34. Owens, Michael
35. People for Puget Sound*
36. Port of Bellingham*
37. Post, David*
38. RE Sources*
39. Ringenbach, Dean
40. Rohde, Leroy
41. Russell, Ann
42. Schmidt, Joe
43. Servais, John*
44. Shapiro, Alex*
45. Timmer, William
46. Washington Department of Fish & Wildlife*
47. Washington Department of Health
48. Washington Department of Natural Resources*
49. Washington Public Ports Association
50. Whatcom Recreational Boaters Assoc.
51. Wild, Scott*
52. Williams, Darren
53. Winslow, Frank & Josselyn
54. Youngquist, Wayne

Notes:
*: A total of 27 commenters (signified with an asterisk) also provided comments during previous public review of the *Draft Remedial Investigation and Feasibility Study* and *Draft Supplemental Environmental Impact Statement* during late 2006.

2. Background

The Site includes lands that have been impacted by contaminants historically released from industrial waterfront activities, including mercury discharges from the former Georgia Pacific (GP) Chlor-Alkali plant. The Chlor-Alkali plant was constructed by GP in 1965 to produce chlorine and sodium hydroxide for use in bleaching and pulping wood fiber. The Chlor-Alkali plant discharged mercury-containing wastewater into the Log Pond (an industrially-constructed pond open to the Whatcom Waterway) between 1965 and 1971. Between 1971 and 1979 pretreatment measures were installed to reduce mercury discharges. Chlor-Alkali plant wastewater discharges to the Log Pond were discontinued in 1979 following construction of the Aerated Stabilization Basin (ASB). The ASB was constructed by GP for management of pulp and tissue mill wastewaters in compliance with the Clean Water Act. The outfall from the ASB continues to be owned by GP and wastewater and sediment quality in the outfall area are monitored under the National Pollutant Discharge Elimination System (NPDES) permit program.

Initial environmental investigations of the Site identified mercury in sediment at concentrations that exceeded MTCA standards (Chapter 173-340 Washington Administrative Code [WAC]) and Sediment Management Standards (SMS; Chapter 173-204 WAC). These are the state standards that govern the cleanup of contaminated sediment sites. The MTCA regulations specify criteria for the evaluation and conduct of a cleanup action. The SMS regulations dictate the standards for cleanup.

The key MTCA and SMS decision-making document for Site cleanup actions is the Remedial Investigation and Feasibility Study (RI/FS). The RI/FS for the Whatcom Waterway Site was initiated in 1996 by GP under the terms of an Agreed Order with Ecology. On October 10, 2006 Ecology issued the Draft Supplemental RI/FS for the Whatcom Waterway Site. Along with the draft RI/FS, a Draft Supplemental Environmental Impact Statement (DSEIS) was issued for public review and comment.

During the joint comment period on the draft RI/FS and DSEIS, 162 oral and written comments were received. Ecology summarized and responded to these comments in a Responsiveness Summary issued in July 2007. Ecology has approved the RI/FS as final.
The final RI/FS and DSEIS, and public comments received on these documents were used by Ecology to develop a draft Cleanup Action Plan (DCAP), describing Ecology's proposed cleanup for the Whatcom Waterway site (Site). The DCAP was one of several exhibits to a proposed legal agreement called a Consent Decree. Ecology proposed entering the Consent Decree with the Port of Bellingham (Port), the Washington Department of Natural Resources, the City of Bellingham, and Meridian-Pacific, LLC to implement the cleanup of the Site and to settle their liability. The draft Consent Decree included the following Exhibits:

- **Exhibit A, Site Diagram:** shows the site location and vicinity
- **Exhibit B, Draft Cleanup Action Plan**: describes Ecology's proposed cleanup action for the Site

- **Exhibit C, Schedule of Work and Deliverables:** lists specific reports and actions required under the Consent Decree, along with the schedule for performance
- **Exhibit D, List of Required Permits:** describes permits that will likely be required for implementation of the cleanup
- **Exhibit E, Applicable Substantive Requirements:** lists regulatory requirements that Ecology will coordinate as part of implementation of the cleanup
- **Exhibit F, Draft Public Participation Plan:** describes opportunities for public involvement

Ecology issued the draft Consent Decree and exhibits for public comment from July 12, 2007 through August 13, 2007. This Responsiveness Summary summarizes the comments received by Ecology during the comment period, as well as Ecology's responses to those comments.

3. Next Steps

As a result of public comment Ecology has not made significant changes to the draft Consent Decree and its exhibits, including the DCAP. Therefore, Ecology has finalized the Consent Decree, including the CAP and Public Participation Plan, and has completed a Final SEIS. This Responsiveness Summary is being issued jointly with these final documents.

The Consent Decree will now be signed by the Potentially Liable Parties and by Ecology. After the Consent Decree has been signed it will be entered into the records of Whatcom County Superior Court. Entry of the Consent Decree into court records establishes the effective date for the Consent Decree, and initiates the schedule of required cleanup activities defined in the Consent Decree and its exhibits.

Following entry of the Consent Decree in court the cleanup will move forward into remedial design and permitting which is expected to take between 2 and 3 years. As part of the design and permitting phase of the cleanup, a draft Engineering Design Report (EDR) will be issued for public review and comment. The draft EDR is expected to be released for public review in late 2009 or early 2010. The draft EDR will contain design details on the proposed caps and other cleanup elements, as well as a Construction Quality Assurance Project Plan and a Compliance Monitoring and Contingency Response Plan. The objective of the plans is to confirm that cleanup standards have been achieved, and also to confirm the long-term effectiveness of cleanup actions at the Site. The plans will contain discussions on duration and frequency of monitoring; the trigger for contingency response actions. Following Ecology approval of the EDR, detailed construction plans and specifications will be developed, and construction of the cleanup action will be implemented.

Construction of the cleanup action is expected to take 3 years following completion of remedial design and permitting. Long-term monitoring activities will be initiated following completion of construction activities.

4. Summary of Comments Received

4.1 Overview of Comments Received

A total of 54 individuals or organizations submitted comments on the draft Consent Decree during the public comment period. The form of comments received is as follows:

- 44 parties submitted only written comments, and did not present testimony at the public hearing on August 8th;
- 4 parties provided only verbal testimony at the public hearing, and did not provide written comments (other than in the form of exhibits provided at the public hearing); and,
- 6 parties provided written comments as well as verbal testimony at the public hearing on August 8th.

Of the 54 sets of comments received, half (27) were from parties that previously commented on the draft RI/FS and DSEIS during the comment period on those documents (see Table 1-1). The other half (27) represented "new" commenters who had not submitted comments on the draft RI/FS and DSEIS.

4.2 Statements of Remedy Preferences

As part of their comments, 46 of the 54 commenters provided a statement of either support or opposition to the remedy described in the Draft Cleanup Action Plan. These statements of remedy preference are summarized in Tables 4-1 and 4-2.

Of the 27 "new" commenters listed in Table 4-1, over half (14) stated support for the remedy as proposed by Ecology in the draft Consent Decree and Exhibits. A smaller number (9) stated either preference for a different alternative, or general opposition to the remedy proposed by Ecology. Four of the "new" commenters provided specific technical comments without specifying a remedy preference.

In most cases, the 27 "repeat" commenters listed in Table 4-2 expressed remedy preferences consistent with those previously provided during the public comment period for the draft RI/FS and DSEIS. Five of the 27 "repeat" commenters expressed support for the proposed remedy, consistent with previous comments from these five parties. Eighteen of the "repeat" commenters expressed either opposition to the proposed cleanup action, or a preference for a different cleanup approach than that proposed by Ecology. Most of these eighteen had provided similar comments during public comment on the draft RI/FS and DSEIS (four of the eighteen had previously expressed unclear statements of remedy preference, but were interpreted as opposition to the proposed remedy in the current comment period). Four of the "repeat" commenters listed in Table 4-2 did not express a specific remedy preference, but rather provided only technical comments, or comments on the schedule for cleanup implementation or both.

Table 4-1. Summary of Commenters and Stated Remedy Preferences (Commenters Who Did Not Previously Comment on RI/FS and DSEIS)

Commenter		Remedy Preferences Stated in Comments on Draft Consent Decree		
		Stated Support for Proposed Cleanup Action	Stated Preference for Different Cleanup Approach	Did Not Specify Alternative Preference
01	Alyanak, Nancy		X	
06	Bellingham Cold Storage	X		
08	Brinn, Steve	X		
09	Britt, Elizabeth		X	
10	Buehrer, Mark			X
14	Dearstyne, Martha		X	
15	Doyle, Jessica		X	
18	Farr, Larry		X	
19	Frost, Brett	X		
23	Hazen, Libby		X	
27	King, Richard	X		
28	Lindquist, Richard	X		
31	Matthew, Don		X	
32	Mischaikov, Ted	X		
33	Nooksack Tribe		X	
34	Owens, Michael	X		
39	Ringenbach, Dean	X		
40	Rohde, Leroy	X		
41	Russell, Ann		X	
42	Schmidt, Joe	X		
45	Timmer, William	X		
47	Washington Department of Health			X
49	Washington Public Ports Association	X		
50	Whatcom Recreational Boaters Association	X		
52	Williams, Darren	X		
53	Winslow, Frank & Josselyn			X
54	Youngquist, Wayne			X

Notes:

Refer to Section 5 of this Responsiveness Summary for a complete discussion of comments received from these commenters. Refer to Appendix A for a complete copy of comments received.

Table 4-2. Summary of Commenters and Stated Remedy Preferences (Commenters Who Also Provided Comments on RI/FS and DSEIS)

Commenter		Remedy Preferences Stated in Comments on Draft Consent Decree			Remedy Preferences Stated During Previous Comments on RI/FS and DSEIS [1]		
		Stated Support for Proposed Cleanup Action	Stated Preference for Different Cleanup Approach	Did Not Specify Alternative Preference	Stated Preference for RI/FS Preferred Alternatives	Stated Preference for Other Approaches [2]	Did Not Specify Alternative Preference [3]
02	Anderson, Ken			X [4]		X	
03	Anderson, Richard		X			X	
04	Badgett, Frances		X			X	
05	Bellingham Bay Foundation		X			X	
07	Bellingham Whatcom Chamber of Commerce	X			X		
11	City of Bellingham	X			X		
12	Cournoyer, Kevin		X			X	
13	D'Onofrio, John		X			X	
16	Duncan, Clint			X			X
17	Dyson, George		X			X	
20	Gotchy, Thomas		X [4]				X
21	Gregory-Raffel, Zapote		X [4]				X
22	Hayes, Hamilton			X			X
24	Hirst, Eric		X			X	
25	Johnson, Tip		X			X	
26	Kilanowski, Elizabeth			X			X
29	Lummi Nation		X [4]				X
30	Mackay, Mike		X			X	
35	People for Puget Sound		X			X	
36	Port of Bellingham	X			X		
37	Post, David		X			X	
38	RE Sources		X			X	
43	Servais, John		X			X	
44	Shapiro, Alex		X [4]				X
46	Washington Department of Fish & Wildlife	X			X		
48	Washington Department of Natural Resources	X			X		
51	Wild, Scott		X			X	

Notes:

Refer to Section 5 of this Responsiveness Summary for a complete discussion of comments received from these commenters. Refer to Appendix A for a complete copy of comments received.

1. For a discussion of all 162 comments received on the RI/FS and DSEIS, refer to the Responsiveness Summary prepared by Ecology and issued July, 2007.
2. Commenters are interpreted as prefering an alternative approach if they expressed a preference for a specific alternative other than Alternative 5 or 6 (see Table 5-1 of the July 2007 Responsiveness Summary) or expressed a general remedy preference inconsistent with Alternative 5 or 6 (e.g., opposition to capping, favoring of "more removal" or "full removal" as indicated in Table 5-2 fo the July 2007 Responsiveness Summary).
3. See Table 5-2 of the July 2007 Responsiveness Summary.
4. Remedy preference stated in the current comments is interpreted by Ecology as a change from the remedy preference stated during comment on the RI/FS and DSEIS in late 2006.

5. Detailed Listing of Comments and Responses

This section provides a detailed summary of the individual comments received, and Ecology's responses to those comments.

5.1 Commenter #1 (Alyanak, Nancy)

Nancy Alyanak submitted comments to Ecology in an e-mail dated August 13, 2007 (comment #1-A, Appendix A).

Comment #1: Ms. Alyanak stated opposition to the Cleanup Action Plan's proposed breach of the ASB berm in order to create a pleasure craft marina, arguing that the plan is neither protective of human life and the environment nor cost effective.

Response: Comments regarding land use decisions cannot be addressed by Ecology within the scope of the Site cleanup and should be directed to the Port. The Port's proposal to construct a marina within the ASB is their stated planned land use as owner of the facility. Ecology's role under MTCA is to ensure protection of human health and the environment given this planned use.

The draft Cleanup Action Plan, given this planned land use, proposes full removal of the contaminated sludges and sediments from the ASB area of the Site which represents the most permanent cleanup option for protecting human health and the environment. Ecology is not privy to the economics considered by the Port in their plan to develop the ASB into a marina.

Comment #2: Ms. Alyanak expressed concern about the potential for spread of ASB-associated contamination to the Bay during opening of the ASB berm.

Response: Ecology shares your concern. The proposed cleanup action includes removal of contaminated sludges, transition sediments and impacted waters from the ASB prior to opening of the ASB to Bellingham Bay. Monitoring will be performed during and after construction to ensure compliance with applicable standards and contingency actions will be implemented if standards are not met. Design, monitoring and contingency action details will be provided for public review in a draft Engineering Design Report anticipated to be completed in late 2009 or early 2010.

Comment #3: Ms. Alyanak repeated her concern that the incremental costs associated with the cleanup of the ASB are not cost-effective for development of a new marina.

Response: As stated in #1 above, Ecology is not privy to the economics considered by the Port in their plan to develop the ASB into a marina. Concerns about the cost-effectiveness of the marina development in the ASB should be directed to the Port.

5.2 Commenter #2 (Anderson, Ken)

Ken Anderson submitted comments to Ecology in an e-mail dated August 13, 2007 (comment #2-A, Appendix A) and in an attachment to that e-mail (comment #2-B, Appendix A). Mr. Anderson also submitted comments during the previous public comment period on the draft RI/FS and DSEIS.

Comment #1: Mr. Anderson stated his concerns as a taxpayer about the costs of cleanup.

> Response: In accordance with MTCA, the costs of cleanup have been taken into account through a disproportionate cost analysis. This cost benefit analysis is presented in Section 5 of the DCAP and identifies the remedy that is "permanent to the maximum extent practicable" and therefore Ecology's proposed remedy for the Site.

Comment #2: Mr. Anderson stated his concern that transportation and disposal costs for sediments and ASB sludges should be negotiated to ensure that these prices are cost-effective.

> Response: Negotiation of landfill disposal pricing and transportation charges associated with movement of the materials from the Site to the landfill will be the responsibility of the lead party, in this case the Port. Ecology's role is to ensure that the selected transportation and disposal methods comply with Ecology's requirements as specified in the CAP and the Engineering Design Report.

Comment #3: Mr. Anderson stated his support for maintenance of a deep draft navigation channel within the Outer Waterway. Mr. Anderson pointed out that such dredging could enhance the logistics of barge movement as part of the cleanup action implementation.

> Response: Material handling protocols for implementation of Site cleanup will be detailed during the remedial design and permitting phase of the project. Your ideas will be carried forward for consideration.

Comment #4: Mr. Anderson expressed his interest in participating in the design and permitting of the Site cleanup action.

> Response: Under the draft Consent Decree, the Port and the other potentially liable parties are responsible for implementing the cleanup actions. Ecology will oversee the work and ensure compliance with the Consent Decree provisions. If you are interested in participating in this project, please contact the Port.

Comment #5: Mr. Anderson requested information on the items included in the estimated cleanup cost. Additionally, Mr. Anderson asked what portion of the estimated cost has been spent so far.

Response: Appendix B of the DCAP includes detailed cost information itemizing estimated costs for implementation of the cleanup action. These estimates do NOT include past costs for development of the draft RI/FS or other site activities performed to date.

Comment #6: Mr. Anderson offered a recommended sequence of remedial design activities to be implemented prior to initiation of waterway dredging.

Response: Ecology appreciates the thought given to these issues and will bring your ideas forward for consideration during the remedial design and permitting phase of the project.

Comment #7: Mr. Anderson provided a series of recommendations for consideration during remediation of the ASB. Mr. Anderson also requested additional information regarding the laboratory-tested properties of the ASB sludges.

Response: Available information regarding the ASB sludges is presented in Volume 1 of the 2006 RI/FS which is available on Ecology's website: http://www.ecy.wa.gov/programs/tcp/sites/blhm_bay/sites/bel_bay_sites.html

Ecology appreciates the thought given to these issues and will bring your ideas forward for consideration during the remedial design and permitting phase of the project.

Comment #8: Mr. Anderson stated the importance of developing a plan for treatment of ASB waters that may be generated during or following completion of sludge removal.

Response: The cost estimates in Appendix B of the DCAP contain provisions for water management, including treatment and discharge, during remediation of the ASB. Ecology agrees that this is an important consideration as part of the cleanup and opening of the ASB to Bellingham Bay. The details of this work will be further developed as part of the remedial design and permitting phase of the project.

Comment #9: Mr. Anderson emphasized the need to develop sediment stockpiling areas for management of sediments and sludges during site remediation.

Response: The cost estimates included in Appendix B of the DCAP assume that temporary sediment stockpiling areas will be constructed at the GP mill site for staging of contaminated sediments and ASB sludges prior to shipment from the Site for upland disposal. Additional details will be developed as part of the remedial design and permitting phase of the project.

Comment #10: Mr. Anderson stated that temporary storage facilities may be required for water or slurry management during ASB remediation.

Response: If temporary storage facilities are required potential options include temporary tankage, lined earthen containment facilities or reuse of liquid containment facilities associated with the former GP mill site (if such facilities are available for use at the time of the cleanup action). The need for temporary storage facilities will be determined during the remedial design and permitting phase of the project.

Comment #11: Mr. Anderson requested the development of "flow sheets" to clarify the work phasing associated with site cleanup.

Response: One of the required deliverables under the Consent Decree is an Engineering Design Report. That report will include design drawings and a project phasing plan, subject to final review and approval by project permitting agencies. The Engineering Design Report will be available for public review and comment in late 2009 or early 2010.

5.3 Commenter #3 (Anderson, Richard)

Richard Anderson submitted comments to Ecology in an e-mail dated August 13, 2007 (comment #3-A, Appendix A). Mr. Anderson also submitted comments during the previous public comment period on the draft RI/FS and DSEIS.

Comment #1: Mr. Anderson stated his opposition to the proposed Consent Decree between Ecology and the Port, arguing that the remedy is not sufficiently protective.

Response: Mr. Anderson's opposition to the proposed Consent Decree is noted (see Table 4-2). In accordance with MTCA, Section 5 of the DCAP presents an evaluation of a range of potential cleanup alternatives against a prescribed set of regulatory criteria. From this evaluation one cleanup alternative is identified as being "permanent to the maximum extent practicable" and is proposed by Ecology as the final remedy for the Site. The regulatory criteria for determining the cleanup alternative that is "permanent to the maximum extent practicable" include but are not limited to: permanence, protectiveness, cost, and long-term effectiveness. The proposed cleanup action protects human health and the environment given the Port's land and navigation use plans for the Site.

Comment #2: Mr. Anderson stated general concerns about the effectiveness of capping technology, given that mercury will not deteriorate over time, and given that recontamination has been noted at other capping sites including within the Log Pond.

Response: Capping has been shown to be a successful technology for remediation of contaminated sediments when it is applied in appropriate areas using an appropriate design. Recontamination is a potential concern for all remedial

technologies including dredging. Post-construction long-term monitoring will evaluate cap effectiveness and contingency actions will be implemented if the caps are not successfully protecting human health and the environment.

The isolated surface sediment mercury exceedance area in the southwest corner of the Log Pond is the result of shoreline erosion of the thinnest area of the cap. As part of the final cleanup of the Site contingency actions will be implemented to address these exceedance areas and shoreline erosion processes.

Comment #3: Mr. Anderson stated his concern that the cost analysis of cleanup alternatives underestimates the potential future costs of cap monitoring, especially the potential costs for monitoring after 30 years.

Response: Caps will be designed to become part of the natural environment. Therefore a variable monitoring frequency, with frequent monitoring during the first few years and reduced monitoring frequencies during later time periods is appropriate. As stated in Section 6 of the DCAP, confirmational monitoring of surface sediments is anticipated to be conducted in cap and natural recovery areas during years 1, 3, 5, 10, 20, and 30 following completion of the remedial action with potential modifications in schedule depending on prior sampling results. This may include a decrease or decrease in frequency and/or intensity of sampling efforts. The exact scope, frequency, and duration of monitoring will be developed as part of the Engineering Design Report which will be subject to public review in late 2009 or early 2010. . Even if Ecology required additional monitoring beyond 30 years, this cost would not affect the outcome of the disproportionate cost analysis presented in the DCAP due to 1) the significant cost difference between Alternative 6 (44 million) and Alternatives 7 (75 million) and 8 (146 million) and 2) the financial discounting of future costs relative to current costs (discounting is used to determine the value in current dollars that must be set aside to pay for a future cost in future dollars, after accounting for inflation and interest earnings).

Comment #4: Mr. Anderson stated a preference for complete removal of the mercury and other contaminants as the only permanent cleanup solution.

Response: Complete removal of all contaminants at the Site (Alternative 8) would be the most permanent cleanup solution and the MTCA cleanup regulations require “permanent solutions to the maximum extent practicable”. To identify the cleanup action that is “permanent to the maximum extent practicable”, MTCA requires the completion of a disproportionate cost analysis. Section 5 of the DCAP presents this cost benefit analysis and concludes that the incremental costs of complete removal are substantial and disproportionate relative to the incremental degree of risk reduction achieved over Alternative 6. Therefore complete removal is considered impracticable.

5.4 Commenter #4 (Badgett, Frances)

Frances Badgett spoke at the August 8th public hearing (comment #4-A, Appendix A). Ms. Badgett also submitted comments to Ecology in an e-mail dated August 13, 2007 (comment #4-B, Appendix A) and in an attachment to that E-mail (comment #4-C, Appendix A). Ms Badgett also submitted comments during the previous public comment period on the draft RI/FS and DSEIS.

Comment #1: Ms. Badgett stated her opposition to the proposed cleanup plan, expressing her concern that Alternative 6 is not sufficiently protective.

> Response: Ms. Badgett's opposition to the proposed cleanup action is noted (see Table 4-2). In accordance with MTCA, Section 5 of the DCAP presents an evaluation of a range of potential cleanup alternatives against a prescribed set of regulatory criteria. From this evaluation one cleanup alternative is identified as being "permanent to the maximum extent practicable" and is proposed by Ecology as the final remedy for the Site. The regulatory criteria for determining the cleanup alternative that is "permanent to the maximum extent practicable" include but are not limited to: permanence, protectiveness, cost, and long-term effectiveness. The proposed cleanup action protects human health and the environment given the Port's land and navigation use plans for the Site.

Comments #2 and #12: Ms. Badgett stated her concern that the draft RI/FS and DSEIS Responsiveness Summary prepared by Ecology was not sufficiently responsive to public comments, and that it was difficult to read because it grouped similar comments together when providing Ecology's response. She further stated in her written comments that comments from the community were "ignored in the face of pressure from the Port of Bellingham. The Port is only one of many stakeholders in this process, which also includes tribes, taxpayers, fishermen, scientists and others…"

> Response: Regarding the format of the Responsiveness Summary, Ecology elected to group like comments together in order to ensure that 1) the Responsiveness Ssummary was of a readable length; and 2) that the relative frequency of a particular comment was communicated to the reader of the document. All comments were itemized and cross-linked so that commenters could determine easily where in the document their comments were addressed. Ecology has considered all of the comments received from the public, from other regulatory and resource management agencies, and from affected stakeholders. All commenters were given due consideration by Ecology, and no commenters were given special treatment or ignored. Public comment is an important element of the MTCA process and Ecology attempted to legitimately interpret, consider and respond to all comments received on the draft RI/FS and DSEIS.

Comment #3: Ms. Badgett stated that Site monitoring activities should be more frequent. Her understanding was that the next monitoring event for the Log Pond would be at 10 years.

Response: As part of the Log Pond Interim Cleanup Action, required monitoring extended to 10 years. However, monitoring of the Log Pond is now incorporated into the site-wide monitoring framework presented in the DCAP. This means that monitoring of the Log Pond area is anticipated to be performed in years 1, 3, 5, 10, 20, and 30 following completion of the planned contingency actions at the Log Pond, The exact scope, frequency, and duration of monitoring will be developed as part of the Engineering Design Report which will be issued for public review in late 2009 or early 2010.

Comments #4 and #9: Ms. Badgett spoke in favor of a modified remedial alternative that would conduct more sediment removal, including removal of the Log Pond sediments. She specifically stated that sediment removal should be conducted with hydraulic dredging, with disposal of the sediments in an upland facility.

Response: Ms. Badgett's preference for a different cleanup alternative is noted (see Table 4-2). Section 5 of the DCAP presents an evaluation of a range of remedial alternatives against a prescribed set of regulatory criteria. The evaluation includes a disproportionate cost analysis which identifies Alternative 6 as the alternative that is "permanent to the maximum extent practicable". This cost benefit analysis concludes that the incremental costs of additional removal are substantial and disproportionate relative to the incremental degree of risk reduction achieved over Alternative 6.

Regarding the specific dredging methods,, these will be evaluated in more detail during the remedial design and permitting phase of the cleanup and may ultimately be determined through the remedial action contractor bidding process.

Comments #5, #8 and #10: Ms. Badgett argued that the ASB should be developed for use as a park or as a habitat enhancement area rather than as a marina. In her written comments Ms. Badgett stated her opposition to the Port's plan for development of a marina within the ASB. Later in her written comments she stated that she would like to see the ASB structure removed consistent with the comments form the Lummi Nation and the Nooksack tribe.

Response: Comments regarding land use decisions cannot be addressed by Ecology within the scope of the Site cleanup and should be directed to the Port. The Port's proposal to construct a marina within the ASB is their stated planned land use as owner of the facility. Ecology's role under the MTCA is to ensure protection of human health and the environment given this planned use.

Comment #6: Ms. Badgett was concerned that Ecology's cleanup action had been "bent around the Port's land use plans" and that this had resulted in a cleanup that was less protective.

Response: The proposed cleanup action for the Whatcom Waterway Site is necessarily based upon the Port's planned uses of the Site. Land and navigation

uses inform the evaluation of exposure pathways. As a result a clear understanding of these uses is fundamental to developing cleanup actions that eliminate exposure pathways thereby protecting human health and the environment. Ecology is not clear as to the basis for the assertion that the proposed cleanup is less protective due to the Port's planned uses. The proposed cleanup action meets the requirements of MTCA and SMS, and protects human health and the environment given the Port's planned land and navigation uses.

Comment #7: Ms. Badgett expressed her concern that Ecology was not being responsive to the Governor's goals for 2020, including a Puget Sound that is fit for swimming, digging and fishing.

Response: Ecology shares the Governor's goals for cleanup and restoration of Puget Sound by 2020. The proposed cleanup of the Whatcom Waterway Site is consistent with MTCA and SMS and protects human health and the environment. The implementation of the cleanup of the Whatcom Waterway Site will be a significant step forward towards achieving the Governor's goals.

Comment #11: Ms. Badgett expressed concern about the use of the BSL as part of the cleanup levels for the site. She emphasized that the Whatcom County Council and County Executive had not reviewed or approved the staff letter produced by the Whatcom Health Department relating to the Health Department's review of the BSL.

Response: As part of the development of site cleanup levels, Ecology has considered potential food chain impacts to human health and the environment from mercury bioaccumulation, including the potential impact to subsistence fishers. The sediment mercury bioaccumulation screening level (BSL) for the Site was developed using standard risk assessment methodologies and has been reviewed by the Corps of Engineers and more recently the Washington State Department of Health (see Commenter #47). The appropriateness of the BSL to address human health concerns at the Site has been consistently affirmed in these reviews, and Ecology concludes that its use as part of cleanup decision-making ensures protection of human health from mercury bioaccumulation risks. While the Whatcom County Health Department memo is part of the public record, Ecology did not consider their comments as part of the development of the DCAP.

Comment #13: Ms. Badgett stated in her written comments that other project stakeholders had requested a more permanent cleanup than proposed under the preferred remedial alternative.

Response: Ecology agrees that there are many project stakeholders that support additional removal. There are also many project stakeholders that support the proposed cleanup action. These preferences were noted in the July 2007 RI/FS and DSEIS Responsiveness Summary and are noted in this Responsiveness Summary.

The MTCA cleanup regulation requires permanent solutions to the "maximum extent practicable". To identify the cleanup action that is "permanent to the maximum extent practicable", MTCA requires the completion of a disproportionate cost analysis. Section 5 of the DCAP presents this cost benefit analysis and concludes that Alternative 6 is "permanent to the maximum extent practicable". The incremental costs of additional removal represented in Alternatives 7 and 8 were found to be substantial and disproportionate relative to the incremental degree of risk reduction achieved over Alternative 6. Therefore Alternatives 7 and 8 were considered impracticable.

Comment #14: Ms. Badgett stated her request that Ecology "request the Port halt the threat that if there is no marina, there will be no cleanup."

Response: Under authority of the MTCA the Whatcom Waterway Site will be cleaned up whether or not the Port proceeds with the development of a marina within the ASB. However, the cleanup action could be different than what is currently proposed if land use plans, and therefore exposure pathways, change.

Comment #15: Ms. Badgett argued that Ecology has not been responsive to the goals of the Bellingham Bay Demonstration Pilot in its selection of the cleanup action.

Response: Ecology supports the goals of the Bellingham Bay Demonstration Pilot, though these goals are not binding in a regulatory sense. Please refer to Section 5 of the DSEIS for an evaluation of the RI/FS cleanup alternatives against the Pilot goals. As documented in that report, the proposed cleanup action ranked highest among the evaluated cleanup alternatives in comparison to the Pilot goals.

Comment #16: Ms. Badgett states that "we should use Bellingham Bay as the model, not an example of failure," referencing the Governor's 2020 Puget Sound goals.

Response: Ecology concurs that Bellingham Bay should be a model for successful progress toward the Governor's 2020 Puget Sound goals. Ecology considers implementation of the cleanup of the Whatcom Waterway site, consistent with the remedy proposed in the DCAP, to be a step toward realization of the Governor's goals.

5.5 Commenter #5 (Bellingham Bay Foundation)

The Bellingham Bay Foundation (BBF) submitted a comment letter to the Department of Ecology (comment #5-A, Appendix A). The Bellingham Bay Foundation also submitted comments during the previous public comment period on the draft RI/FS and DSEIS.

Comments #1, #3, #25 and #26: The BBF comments included a request for a "higher level of cleanup than proposed by the Port". The BBF letter stated the group's opposition to the proposed cleanup action stating that it "is not protective enough of human health

and safety, not permanent in its preference for capping…and not preventative enough in monitoring for potential cap failures." The BBF comments stated that the cleanup provided under Alternative 6 is not consistent with the Governor's goals for Puget Sound. The letter stated that "Ecology is under no compulsion to capitulate to the Port" and called for Ecology to "assume this power that you've been given".

> Response: The BBF preference for a different cleanup approach is noted (see Table 4-2). The MTCA includes a requirement that cleanup solutions be "permanent to the maximum extent practicable". To make this determination a disproportionate cost analysis is performed that compares benefits and costs. MTCA states that where two or more alternatives are equal in benefits, Ecology shall select the less costly alternative provided that minimum requirements are met. The BBF comment and other similar comments received on the draft RI/FS, DSEIS and the DCAP that expressed a desire for more removal, complete removal, or opposed capping were interpreted by Ecology to mean a desire for the most protective, permanent and effective remedy. These comments confirm Ecology's assignment of the highest weighting factors to the overall protectiveness, permanence and long-term effectiveness benefits criteria in the disproportionate cost analysis presented in Section 5 of the DCAP. The disproportionate cost analysis indicates that the benefits of Alternatives 6, 7 and 8 are similar however the costs of Alternatives 7 and 8 are much greater than Alternative 6. Therefore Alternative 6 is identified as being "permanent to the maximum extent practicable" and Ecology's proposed remedy for the Site.
>
> Regarding monitoring, as described in the DCAP, monitoring is anticipated to be performed in years 1, 3, 5, 10, 20, and 30 following completion of the cleanup action. The exact scope, frequency and duration of monitoring will be determined as part of an Engineering Design Report developed for public review in late 2009 or early 2010.
>
> Ecology shares the Governor's goals for cleanup and restoration of Puget Sound by 2020. The proposed cleanup of the Whatcom Waterway Site is consistent with MTCA and SMS and protects human health and the environment. The implementation of the cleanup of the Whatcom Waterway Site will be a significant step forward towards achieving the Governor's goals.
>
> Ecology is fully exercising its authority under MTCA to compel the Port and other liable parties to cleanup the Whatcom Waterway Site. The cleanup is being conducted in strict accordance with MTCA and SMS requirements.

Comments #2, #13 and #17: The BBF comments included a request for "more protective monitoring for contamination left behind" and specifically for increases in both the frequency of monitoring and for monitoring after 30 years. The letter interpreted the language in the DCAP to indicate that only two monitoring events were planned for the Log Pond and stated that more monitoring will be needed.

Response: Monitoring activities at sediment sites appropriately use a variable monitoring frequency, with frequent monitoring during the first few years and reduced monitoring frequencies during later time periods. As stated in Section 6 of the DCAP, confirmational monitoring of surface sediments is anticipated to be conducted in cap and natural recovery areas during years 1, 3, 5, 10, 20, and 30 following completion of the remedial action with potential modifications in schedule depending on prior sampling results. This may include a decrease or decrease in frequency and/or intensity of sampling efforts. The exact scope, frequency, and duration of monitoring will be developed as part of the Engineering Design Report which will be subject to public review in late 2009 or early 2010.

Regarding monitoring of the Log Pond, it is now incorporated into the site-wide monitoring framework presented in the DCAP. This means that monitoring of the Log Pond area is anticipated to be performed in years 1, 3, 5, 10, 20, and 30 following completion of the planned contingency actions at the Log Pond. The exact scope, frequency and duration of monitoring will be determined as part of the Engineering Design Report.

Comment #4: The BBF comments stated concern that Ecology has not considered the goals of the Bellingham Bay Demonstration Pilot in its cleanup evaluation.

Response: Ecology supports the goals of the Bellingham Bay Demonstration Pilot, though these goals are not binding in a regulatory sense. Please refer to Section 5 of the DSEIS for an evaluation of the RI/FS cleanup alternatives against the Pilot goals. As documented in that report, the proposed cleanup action ranked highest among the evaluated cleanup alternatives in comparison to the Pilot goals.

Comment #5: The BBF comments expressed concern that the planned use of the ASB as a marina has been considered by Ecology as part of its cleanup evaluation, arguing that this has resulted in the selection of a less protective cleanup. As part of Comment #1 BBF specifically requested that the marina become secondary to a thorough cleanup.

Response: The proposed cleanup action for the Whatcom Waterway Site is necessarily based upon the Port's planned uses of the Site. Land and navigation uses inform the evaluation of exposure pathways. As a result a clear understanding of these uses is fundamental to developing cleanup actions that eliminate exposure pathway and protect human health and the environment. Ecology is not clear as to the basis for the assertion that the proposed cleanup is less protective due to the Port's planned uses. The proposed cleanup action meets the requirements of MTCA and SMS, protecting human health and the environment given the Port's planned land and navigation uses.

Comment #6: The BBF comments stated that the ASB is relatively clean in comparison to the Whatcom Waterway sediments.

Response: Data collected within the ASB does not indicate that it is relatively clean. Figure 5-13 in Appendix C of the draft RI/FS and DSEIS Responsiveness Summary depicts average subsurface sediment quality throughout the Site. Average subsurface concentrations of mercury and other contaminants are higher in the ASB sludges than in the Waterway sediments.

Note that in the absence of the Port's decision to develop the ASB into a marina, the ASB would still require remediation following cessation of use as a wastewater treatment facility. When wastewater treatment is discontinued, the facility would become a freshwater upland impoundment with associated contaminant exposure pathways that must be addressed in accordance with MTCA and SMS.

Comments #7 and #9: The BBF comments stated that the previous Responsiveness Summary issued by Ecology following public comment on the draft RI/FS and the DSEIS did not fully address the BBF concerns, and that the comments were "lumped together and addressed together." The BBF comments stated that breaking up comments into sections "watered down" community criticism of the preferred remedial alternatives.

Response: Public comment is an important element of the MTCA process and Ecology attempted to legitimately interpret, consider and respond to all comments received on the draft RI/FS and DSEIS. Regarding the format of the Responsiveness Summary, Ecology elected to group like comments together in order to ensure that 1) the Responsiveness Summary was of a readable length, and 2) that the relative frequency of a particular comment was communicated to the reader of the document. All comments were itemized and cross-linked so that commenters could determine easily where in the document their comments were addressed. Comments were not watered down by the presentation in the draft RI/FS and DSEIS Responsiveness Summary, as both the specific comments and the frequency of those comments were clearly identified.

Comment #8: The BBF comments stated that Ecology did not consider the petition circulated by the BBF as part of Ecology's review of public comment on the RI/FS and DSEIS.

Response: Ecology did review the petition submitted by the BBF, and the petition and associated signatures were included in the Responsiveness Summary. The petition and signatures were listed under the BBF comments, because they were submitted on behalf of the organization.

The petition supported full removal and opposed capping in the Inner Waterway area of the Site. This preference was considered by Ecology in the reevaluation of alternatives presented in Section 5 of the DCAP. Comments received on the draft RI/FS and DSEIS that expressed a desire for more removal, complete removal, or opposed capping were interpreted by Ecology to mean a desire for the most protective, permanent and effective remedy. Overall protectiveness,

permanence and long-term effectiveness were assigned the highest weighting factors in the disproportionate cost analysis presented in the DCAP. Also see response to BBF Comment #1 above.

Comment #10: The BBF comments expressed concern that groundwater may pose a threat of recontamination to the Log Pond, and that insufficient evaluation has been conducted of this potential concern.

Response: As described in the RI Report, extensive groundwater testing has been performed throughout the former GP properties, including at the Chlor-Alkali plant, the Pulp & Tissue Mill site, the Central Waterfront area and the Cornwall Avenue Landfill. Detailed fate and transport evaluations were conducted as part of the Engineering Design Report for the Log Pond Interim Action, including evaluation of potential groundwater impacts on mercury mobility in the sediment cap. These demonstrations were further confirmed during pore-water monitoring performed as part of monitoring of the constructed cap. This monitoring has demonstrated compliance of cap pore water with state surface water criteria.

Comment #11, #14: The BBF comments stated that capping of the Log Pond is inadequate, and called for removal of the Log Pond sediments by hydraulic dredging, followed by thick capping of dredge residuals.

Response: Monitoring data does not support the assertion that the Log Pond cap is inadequate. Monitoring data indicates that buried mercury contaminated sediment remains safely buried, mercury is not migrating up through the clean cap material, and crab mercury levels remain below regulatory thresholds of potential concern and continue to decline. Shoreline erosion in the southwest corner of the Log Pond has exposed contamination in an isolated area where the cap thins out to intersect the shoreline. Contingency actions will be implemented as part of the overall cleanup of the Site to address the exceedance area and shoreline erosion processes. The contingency actions will be subject to long-term monitoring to ensure their effectiveness.

Based upon this experience with the Log Pond, a more rigorous cap design will be considered throughout other areas of the Site where physical erosional processes may occur at a range of tidal elevations and where cap edges seat into the shoreline.

The BBF preference for a different cleanup approach in the Log Pond area is noted (see Table 4-2), along with the BBF request for additional dredging in the Whatcom Waterway, the ASB shoulder, the Bellingham Shipping Terminal and the Starr Rock area. See response to BBF Comment #1.

Comment #12: The BBF comments expressed concern about potential habitat losses associated with implementation of the Log Pond contingency actions.

Response: The DSEIS included evaluation of potential habitat impacts and mitigation measures for the Log Pond contingency actions. These actions will be subject to further review as part of remedial design and permitting.

Comment #15: The BBF comments stated that the cost analysis for capping is not valid because it does not include specific line item costs for cap repair and maintenance.

Response: Caps will be designed to become part of the natural environment and not require active scheduled repair and maintenance. Having said this, contingency planning is part of all remedial actions. Section 6.3.2 of the DCAP presented an overview of the types of construction and post-construction contingencies that are to be developed as part of the Engineering Design Report. Contingent actions are part of any cleanup action and a 30% cost contingency is a component of the project cost estimates presented in the DCAP. Detailed contingency response actions will be described in the Site Construction Quality Assurance Project Plan (CQAP) and the Compliance Monitoring and Contingency Response Plan (CMCRP) to be prepared as a part of remedial design, after completion of supplemental pre-design studies. The objective of these plans is to confirm that cleanup standards have been achieved, and also to confirm the long-term effectiveness of cleanup actions at the Site. Along with the information on monitoring; these plans will discuss the types of contingency actions that could potentially be required in response to monitoring observations, and will discuss triggers for different types of contingency response actions. The plans will be subject to public review as part of a draft Engineering Design Report. Because contingency planning and sediment capping are part of all remedial alternatives the costs for such contingencies would not affect the outcome of the remedial alternatives analysis, even if said contingencies exceeded the budgeted project contingencies.

Comment #16: The BBF comments stated concerns that wave action, turbidity of the water, the possibility of prop wash, the increase in sea level from Global Warming and other factors may affect the stability of caps in the Log Pond and elsewhere.

Response: The BBF comment about turbidity of the water is interpreted by Ecology to reference turbulence and potential erosive forces. As described in the DCAP and in the draft RI/FS Responsiveness Summary, detailed analyses of erosional forces including wave effects, vessel wakes, prop wash, flooding, tsunami impacts, and potential effects of climate change are to be conducted as part of remedial design. These studies will address the potential for sediment caps to be disturbed by these events and will provide the design basis for sediment caps to protect against such disturbances. The results of these evaluations will be documented in the Engineering Design Report which will be made available for public review and comment.

Comment #18: The BBF specifically recommended that the ASB be used "as an interim remedial tool in cleanup as well as a receiving area for sediments (as illustrated in

previous preferred remedial alternatives)." The comments then requested full evaluation of the temporary use of the ASB for remediation purposes.

> Response: The draft RI/FS and the DSEIS included a full evaluation of the use of the ASB as a sediment disposal site, consistent with the request in the BBF comment. Regarding the use of the ASB as a temporary sediment staging area, Ecology has not precluded such use. Nor has Ecology precluded the use of hydraulic dredging as part of site remediation. A separate alternatives evaluation is not required to address differences in materials handling approaches within project alternatives. Please note, however, that there are logistical considerations that make temporary use of the ASB for sediment staging unlikely to be implemented as part of either the proposed cleanup action or alternative cleanup approaches not involving permanent sediment disposal within the ASB (e.g., need for treatment of saline hydraulic dredge slurries, need for double-handling of temporarily staged materials, inability to achieve material dewatering within a submerged facility). These issues were considered as part of the development of design concepts and associated cost estimates for the DCAP.

Comments #19 & #20: The BBF comments included a specific request for increased dredging in the Whatcom Waterway, followed by thick capping over dredged areas.

> Response: The BBF preference for a different cleanup approach in the Whatcom Waterway is noted (see Table 4-2), along with the BBF request for additional dredging in the Log Pond, the ASB shoulder, the Bellingham Shipping Terminal and the Starr Rock area. See response to BBF Comment #1. While exact cap material and thickness will be determined during remedial design, the proposed cap in the Inner Waterway tapers from 3 ft to 6 ft from the near the Roeder Bridge to the BST at the Log Pond.

Comment #21: The BBF comments recommended conservative application of the BSL, and further recommended that the SQS be used to protect regular and tribal consumers of fish from Bellingham Bay.

> Response: As part of the development of site cleanup levels, Ecology has considered potential food chain impacts to human health and the environment from mercury bioaccumulation, including the potential impact to subsistence fishers. The sediment mercury bioaccumulation screening level (BSL) for the Site was developed using standard risk assessment methodologies and has been reviewed by the Corps of Engineers and more recently the Washington State Department of Health (see Commenter #47). The appropriateness of the BSL to address human health concerns at the Site has been consistently affirmed in these reviews, and Ecology concludes that its use as part of cleanup decision-making ensures protection of human health from mercury bioaccumulation risks. Additionally, please note that (as discussed in the RI/FS), the BSL is to be applied by Ecology on a point-by-point basis rather than on an area-wide basis. This means that the average *area-wide* surface concentration of mercury achieved by

the cleanup action will be well below the BSL and will in fact be very close the SQS.

Comment #22: The BBF comments included a demand that a full Human Health Risk Assessment (HHRA) be provided to the public to ensure the efficacy of cleanup.

Response: As discussed in the draft RI/FS Responsiveness Summary, the BSL was developed as part of the 2000 RI/FS using risk assessment methodology consistent with Ecology and EPA guidance. An uncertainty analysis was included in that document and is summarized in the 2006 Supplemental RI/FS. The 2000 RI/FS and the BSL information contained within it were issued for public review and comment. The BSL was developed using appropriate methods and as applied by Ecology ensures protection of human health from mercury bioaccumulation risks. Based on these considerations, and based on the concurrence of other regulatory agencies that have reviewed the BSL and found it to be appropriate, the production of an additional HHRA is not warranted. No additional or new/different information would be made available to the public through issuance of a separate HHRA document.

Comments #23 and #24: The BBF comments stated disappointment that the shoulder of the ASB and the area near the Bellingham Shipping Terminal are to be capped and that the Starr Rock area is planned for monitored natural recovery. The BBF comments stated that these areas should be dredged and thickly capped following dredging.

Response: The BBF preference for a different cleanup approach in the shoulder of the ASB, at the Bellingham Shipping Terminal and in the Starr Rock are noted (see Table 4-2), along with the BBF request for additional dredging in the Log Pond and within the Whatcom Waterway. See response to BBF Comment #1.

5.6 Commenter #6 (Bellingham Cold Storage)

Written comments were received from Bellingham Cold Storage (BCS) in a letter from Mr. Stowe Talbot dated August 9, 2007 (comment #6-A, Appendix A). Identical comments were received from Mr. Stowe Talbot in an e-mail dated August 9, 2007 (comment #6-B, Appendix A).

Comment #1: Mr. Talbot of BCS stated his support for the conclusions of the Draft Cleanup Action Plan.

Response: Mr. Talbot's support of the proposed Cleanup Action Plan is noted (see Table 4-1). Ecology's proposed cleanup action complies with MTCA requirements and is permanent to the maximum extent practicable.

Comment #2: Mr. Talbot of BCS expressed the need to conduct the maximum amount of cleanup possible while still maintaining the economic viability of the New Whatcom Development.

Response: Ecology's proposed cleanup action complies with MTCA requirements and is permanent to the maximum extent practicable. Ecology is not privy to the economic factors considered by the Port in their plan to develop the ASB area of the Site into a marina as part of the New Whatcom development project.

Comment #3: Mr. Talbot of BCS stated general support for a cleaned-up waterfront and a vibrant New Whatcom development.

Response: Mr. Talbot's support for the cleanup of the Bellingham waterfront is noted. Comments regarding the New Whatcom development project should be directed to the Port and the City who are responsible for these land use decisions.

Comments #4-6: These comments were identical to comments #1-3, respectively. Refer to comments 1-3 listed above for Ecology's responses to these comments.

5.7 Commenter #7 (Bellingham Whatcom Chamber of Commerce & Industry)

Written comments were received from the Bellingham Whatcom Chamber of Commerce and Industry in a letter from Kenneth Oplinger dated August 1, 2007 (comment #7-A, Appendix A). The Bellingham Whatcom Chamber of Commerce and Industry also submitted comments during the previous public comment period on the RI/FS and DSEIS.

Comment #1: Mr. Oplinger of the Chamber of Commerce stated the Chamber's support for the proposed cleanup plan.

Response: The Chamber's support for the proposed Cleanup Action Plan is noted (see Table 4-2). Ecology's proposed cleanup action complies with MTCA requirements and is permanent to the maximum extent practicable.

Comment #2: Mr. Oplinger of the Chamber of Commerce stated that the redevelopment of the GP mill site provides an outstanding opportunity to return former industrial land which has been contaminated to a more open, public use, and that this can be achieved under the current partnership between the Port and City of Bellingham.

Response: Ecology's proposed cleanup action for the Whatcom Waterway Site was developed to protect human and health and the environment given the planned uses of the Site. Future cleanup efforts at adjacent upland cleanup sites will also be informed by planned land and navigation uses. Comments regarding the planned uses of the former GP mill site should be addressed to the Port and City.

Comment #3: Mr. Oplinger of the Chamber of Commerce stated the importance of selecting a cleanup alternative that provides for a nexus between public safety, redevelopment potential and cost.

Response: The Chamber's support for the proposed Cleanup Action Plan is noted (see Table 4-2).'s proposed cleanup action complies with MTCA and is permanent to the maximum extent practicable.

Comment #4: Mr. Oplinger of the Chamber of Commerce asked that the cleanup plan move forward.

Response: Ecology issuing this Responsiveness Summary jointly with the final Consent Decree and the Final Supplemental EIS for the cleanup of the Site. The Consent Decree will now be signed by Ecology and the parties implementing the cleanup and entered in Whatcom County Superior Court. Following entry into court the cleanup will move forward into remedial design, permitting and construction. Design and permitting is anticipated to take 2 or 3 years, followed by 3 years of construction.

5.8 Commenter #8 (Brinn, Steve)

Steve Brinn submitted comments to Ecology by e-mail dated August 7, 2007 (comment #8-A, Appendix A).

Comment #1: Mr. Brinn stated his endorsement for the proposed cleanup plan as the most permanent mitigation option practicable under MTCA.

Response: Mr. Brinn's support for the proposed Cleanup Action Plan is noted (see Table 4-1). Ecology's proposed cleanup action complies with MTCA requirements and is permanent to the maximum extent practicable.

Comment #2: Mr. Brinn stated his support for the consideration of alternative approaches, careful consideration of public comment and rigorous, science-based selection of the best alternative cleanup plan for the waterway.

Response: Ecology has followed the MTCA regulatory cleanup process as defined in Chapter 173-340 WAC.

5.9 Commenter #9 (Britt, Elizabeth)

Elizabeth Britt submitted comments to Ecology by e-mail dated August 13, 2007 (comment #9-A, Appendix A) and as an attachment to that e-mail (comment #9-B, Appendix A).

Comment #1: Ms. Britt stated that she supports the "maximum removal of contaminated sediments from the aquatic environment in the ASB, the inner and outer Whatcom

Waterway and Bellingham Bay" with dredging and upland disposal used to accomplish this removal.

> Response: Ms. Britt's preference for an alternative cleanup approach involving extensive dredging is noted (see Table 4-1). The MTCA includes a requirement that cleanup solutions be "permanent to the maximum extent practicable". To make this determination a disproportionate cost analysis is performed that compares benefits and costs. MTCA states that where two or more alternatives are equal in benefits, Ecology shall select the less costly alternative provided that minimum requirements are met. Ms. Britt's comment and other similar comments received on the draft RI/FS, DSEIS and the DCAP that expressed a desire for more removal, complete removal, or opposed capping were interpreted by Ecology to mean a desire for the most protective, permanent and effective remedy. These comments confirm Ecology's assignment of the highest weighting factors to the overall protectiveness, permanence and long-term effectiveness benefits criteria in the disproportionate cost analysis presented in Section 5 of the DCAP. The disproportionate cost analysis indicates that the benefits of Alternatives 6, 7 and 8 are similar however the costs of Alternatives 7 and 8 are much greater than Alternative 6. Therefore Alternative 6 is identified as being "permanent to the maximum extent practicable" and Ecology's proposed remedy for the Site.

Comment #2: Ms. Britt stated that after dredging, clean fill should be brought in to adjust the depth of the channel, if necessary.

> Response: The final SEIS discusses the potential use of backfilling as a mitigation strategy for long-term shoreline stability concerns and/or for mitigation of habitat losses associated with dredging of nearshore habitat. Please refer to the final SEIS for a discussion of these issues.

Comments #3 and #4: Ms. Britt stated opposition to use of Puget Sound Dredge Disposal Analysis (PSDDA) open-water disposal sites for any sediment from the Whatcom Waterway Site or from Bellingham Bay. She articulated a number of concerns relating to open water sediment disposal such as creation of a "mound" at the disposal site, changes to water circulation patterns, burial of benthic organisms at the disposal site or obstruction to fishing access.

> Response: The use of open water disposal sites under the established procedures of the Dredged-Material Management Program (DMMP) has been conducted for nearly two decades. The development of the program included evaluation and mitigation of potential environmental impacts associated with open-water disposal. The potential concerns cited have been previously evaluated and addressed as part of disposal siting and DMMP program development. DMMP procedures will be followed to identify materials that meet the PSDDA suitability criteria for disposal at open-water sites; however, the goal is to beneficially reuse suitable material rather than dispose of it at the PSDDA disposal site.

Comment #5 and #7: Ms. Britt stated that she favors evaluation of the removal of the ASB and development of nearshore habitat consistent with the comments from the Lummi Nation. She articulated a desire to see an evaluation of at least three alternatives other than a marina for ASB reuse, including a wastewater treatment facility, a habitat restoration site and the conversion of the ASB to a contaminated sediment [disposal] site.

> Response: Comments regarding land use decisions cannot be addressed by Ecology within the scope of the Site cleanup and should be directed to the Port. The Port's proposal to construct a marina within the ASB is their stated planned land use as owner of the facility. Ecology's role under the MTCA is to ensure protection of human health and the environment given this planned use. Please note that the RI/FS and the DSEIS included evaluation of the use of the ASB as a contaminated sediment disposal site. Ecology understands that the Port and City Master Plan EIS includes review of existing uses of the ASB as a wastewater treatment facility.

Comment #6: Ms. Britt referenced the Lummi Nation support for the removal of all contaminated sediments from the ASB, the adjacent Whatcom Waterway and other contaminated sites along Bellingham Bay.

> Response: Ecology has independently received comment letters from the Lummi Nation including those attached to this responsiveness summary (see comment #29). Their comments have been noted by Ecology (see Table 4-2).

Comment #8: Ms. Britt stated that "If this natural resource can be restored by cleaning up the bay and waterway, fishers from the Lummi Nation and non-tribal community can grow and harvest shellfish, crab and finfish."

> Response: There is no evidence that current Site conditions have adversely impacted tribal or non-tribal harvesting of shellfish, crab or finfish. The cleanup approach does restore some historically lost habitat, providing a net beneficial impact to fisheries and habitat resources. The completion of the proposed cleanup action will ensure that future conditions do not negatively impact such harvests.

Comment #9: Ms. Britt requested that the Port's economic study should include "restoration of Bellingham Bay's natural resources. A clean healthy bay can result in the restoration of a multi-million dollar per year commercial fishing industry. The projected revenue could provide badly needed jobs for members of the Lummi Nation and community at large."

> Response: These economic issues are beyond the scope of Ecology's cleanup authority and should be directed to the Port. As discussed in the DSEIS, the cleanup approach provides a net beneficial impact to fisheries and habitat resources. In addition, Ecology understands that the Port intends to construct

significant habitat enhancements in conjunction with the Site cleanup to help restore Bellingham Bay's natural resources.

Comment #10: Ms. Britt stated that Ecology has an obligation to consider the Public Trust Doctrine as part of its cleanup decision-making.

Response: Ecology's primary role is to protect human health and the environment in accordance with the requirements of MTCA and SMS. Compliance with MTCA and SMS will ensure that the resources of the state held in trust for the public are protected.

Comment #11: Ms. Britt stated concerns relating to the Lummi Nation's concerns about treaty fishing rights and implied that an expensive legal challenge is pending relating to treaty right issues.

Response: Issues related to tribal treaty rights were considered as part of the Feasibility Study as they relate to the Site cleanup. Concerns about impacts of construction activities on tribal treat rights are typically addressed as part of federal permitting efforts and dialogues between project proponents and local tribes. Ecology understands that the Port is in discussions with local tribes regarding their treaty right concerns.

Comment #12: Ms. Britt stated her opposition to the use of capping as part of sediment cleanup.

Response: Ms. Britt's desire for a cleanup alternative that does not involve capping is noted by Ecology (see Table 4-1). However, Ecology has evaluated the proposed cleanup remedy, including the use of capping, against MTCA criteria and has concluded that the remedy complies with MTCA requirements and is permanent to the maximum extent practicable.

Comment #13: Ms. Britt stated that the currently-proposed cap thicknesses do not provide protection to benthic organisms, citing the potential for some organisms to burrow up to 90 cm below the mudline.

Response: The caps proposed as part of the cleanup action have thicknesses of 3 to 6 feet (91.5 to 183 cm). These thicknesses will separate potential burrowing organisms from capped contaminated sediments. In addition, over time natural s deposition of clean sediment will further thicken the barrier between benthic organisms and capped sediments. Please note that if monitoring indicates cap recontamination, contingency actions will be implemented.

Comments #14 and #15: Ms. Britt stated her concerns that potential impacts of groundwater discharges on mercury mobility in the Log Pond had not been evaluated. She further stated that groundwater testing should be performed in areas historically high in mercury concentrations.

Response: As described in the RI Report, extensive groundwater testing has been performed throughout the former GP properties, including the Chlor-Alkali plant, the Pulp & Tissue Mill site, the Central Waterfront area and the Cornwall Avenue Landfill. Detailed fate and transport evaluations were conducted as part of the Engineering Design Report for the Log Pond Interim Action, including evaluation of potential groundwater impacts on mercury mobility in the sediment cap. These demonstrations were further confirmed during pore-water monitoring performed as part of monitoring of the constructed cap. This monitoring has demonstrated compliance of cap pore water with state surface water quality criteria.

Comment #16: Ms. Britt expressed her concerns that the current cleanup plan does not contain adequate scientific data to protect the public health during a major seismic event, and that additional seismic studies should be conducted to ensure public safety.

Response: As described in the DCAP and in draft RI/FS Responsiveness Summary, detailed geotechnical and seismic evaluations are to be conducted as part of remedial design. These studies will address the potential for sediment caps to be disturbed during a seismic event. The results of these evaluations will be documented in the Engineering Design Report which will be made available for public review and comment in late 2009 or early 2010.

5.10 Commenter #10 (Buehrer, Mark)

Mark Buehrer spoke at the public hearing on August 8, 2007. A copy of his testimony is attached (comment #10-A, Appendix A). A copy of the exhibit provided by Mr. Buehrer during the public hearing is also attached (comment #10-B, Appendix A).

Comment #1: Mr. Buehrer stated concern regarding potential water quality impacts associated with dredging of contaminated sediments within the Whatcom Waterway.

Response: Ecology shares Mr. Buehrer's concern regarding water quality impacts associated with sediment dredging. The mitigation of these potential impacts is included in Ecology's evaluation of cleanup technologies and alternatives in the RI/FS and DCAP.

Comment #2: Mr. Buehrer provided information on directional drilling technologies and stated that the potential application of this technology to contaminated sediment removal should be considered. Mr. Buehrer provided an exhibit during his public testimony illustrating a concept for removing sediment from the waterway without disturbing the sediment mudline.

Response: Directional drilling is an established technology for installing resource extraction wells (e.g., oil wells) and for installing subsurface utilities beneath obstacles (e.g., pipeline installation beneath coral reefs). However this technology has not been applied to mass removal of contaminated sediment. These

applications are very different and pose significant potential scaling concerns. Only established or emerging technologies that have been shown to be implementable, effective and that have reasonably estimable costs can be included in Ecology's evaluation of technologies and alternatives.

Comment #3: Mr. Buehrer expressed the belief that the use of directional drilling for sediment removal from the Whatcom Waterway may provide a substantial cost savings for the cleanup of the Site.

Response: There are no cost data for estimating the cost of directional drilling when applied to the mass removal of contaminated sediments. Therefore, it is not possible to do a comprehensive cost evaluation of the technology. However, given the relatively high per-foot cost of standard directional drilling relative to the evaluated per-cubic-yard costs of mechanical and hydraulic dredging, Ecology estimates that the technology would be unlikely to provide a significant cost savings over the dredging methods evaluated as part of the RI/FS and DCAP.

5.11 Commenter #11 (City of Bellingham)

Written comments were provided by the City of Bellingham in a letter from the mayor, Tim Douglas, to Ecology dated August 2, 2007 (comment #11-A, Appendix A). The City of Bellingham also submitted comments during the previous public comment period on the RI/FS and DSEIS.

Comment #1: Mayor Douglas stated that the City is eager to get on with cleanup of Bellingham's central waterfront.

Response: Ecology shares the City's desire for the timely cleanup of all the sites located on the Bellingham waterfront.

Comment #2: Mayor Douglas stated that the City has been a key participant in the ongoing, successful activities of the Bellingham Bay Pilot Project.

Response: The Bellingham Bay Pilot Project has been shown to be a successful model for conducting cleanup, source control and habitat restoration activities in shoreline areas. Ecology appreciates the City's continued support for this important project.

Comment #3: Mayor Douglas stated that all of the key parties are on board for implementation of Alternative 6.

Response: After considering comments received, Ecology has not made significant changes to the draft Consent Decree, including the DCAP. Therefore Ecology is issuing this Responsiveness Summary jointly with the final Consent Decree and the Final Supplemental EIS for the cleanup of the Site. The final

Consent Decree/CAP identifies Alternative 6 as Ecology's selected final remedy. The Consent Decree will now be signed by Ecology, the City and the other parties implementing the cleanup, and entered in Whatcom County Superior Court. Following entry into court the cleanup will move forward into remedial design, permitting and construction. Ecology appreciates the willingness of the City and the other parties to sign the Consent Decree. This means that implementation of the cleanup action can proceed expeditiously.

Comment #4: Mayor Douglas stated opposition to any alteration of the proposed cleanup action, with the concern that such alteration would precipitate years more of analysis and debate, and would add to the cost of the project through cost inflation.

Response: See response to Comment #3 above.

5.12 Commenter #12 (Cournoyer, Kevin)

Kevin Cournoyer submitted comments to Ecology by e-mail dated July 15, 2007 (comment #12-A, Appendix A), in an e-mail dated August 13, 2007 (comment #12-B, Appendix A) and in two identical attachments to that e-mail (comments #12-C and #12-D, Appendix A). Mr. Cournoyer also submitted comments during the previous public comment period on the draft RI/FS and DSEIS.

Comments #1, #2 and #3: Mr. Cournoyer requested that the public comment period for the draft Consent Decree and exhibits be extended for an additional four months. Mr. Cournoyer stated that more time was required because "the public comments about the Port's Whatcom Waterway RI/FS and EIS were overwhelmingly negative", because "there are extraordinary problems presented in those documents" and "the community will need an extraordinary amount of time to respond to these documents".

Response: Under MTCA public comment periods are required to be a minimum of 30-days. Ecology elected to provide twice this amount of time for public review of the draft RI/FS and DSEIS due to the volume and complexity of material being presented. Conversely, the draft Consent Decree, including the DCAP, is a relatively short concise document that draws from the information presented in the draft RI/FS and DSEIS. Therefore Ecology believes that the 33 day (July 12-August 13) comment period provided for public review of the draft Consent Decree is sufficient.

Comment #4, #6 and #10: Mr. Cournoyer stated numerous concerns about the format of the July 2007 responsiveness summary. He states "You break down the preferences of commenters in a way that's dishonest. You don't differentiate among the substantiveness of the commenters." Mr. Cournoyer goes on to state "Concerned citizens were not given real point-by-point responses. First you lumped together concerns of your choosing. And then you provided incredibly brief responses to often detailed and expansive concerns in a document that's very difficult to read…Repetitiveness is not a concern to the public. You should have answered every concern from every citizen as expansively and

thoughtfully as possible…" Mr. Cournoyer also criticized the use of the words "adequate," "sufficient" and "appropriate" by Ecology as part of the responsiveness summary.

Response: Public comment is an important element of the MTCA process and Ecology attempted to legitimately interpret, consider and respond to all comments received on the draft RI/FS and DSEIS.

Regarding the format of the July 2007 Responsiveness Summary, Ecology elected to group like comments together in order to ensure that 1) the Responsiveness Summary was of a readable length, 2) that the relative frequency of a particular comment was communicated to the reader of the document. All comments were itemized and cross-linked so that commenters could determine easily where in the document their comments were addressed.

Ecology is unclear as to the issue being raised regarding not differentiating among the substantiveness of the comments. Ecology does not weight the comments of any one party over those of another and considers the concerns raised in the comments as part of the remedy selection process. Ecology responded to every comment from every commenter as part of the draft RI/FS DSEIS Responsiveness Summary.

Regarding the use of the words "adequate", "sufficient" and "appropriate", these words were used by Ecology when referencing Ecology's determinations regarding whether or not there were data gaps that affect completion of an RI/FS or selection of a remedial alternative consistent with MTCA regulatory requirements.

Comment #5: As part of his concerns about the July 2007 draft RI/FS Responsiveness Summary, Mr. Cournoyer stated that Ecology should have considered the signatures from the Healthy Bay Initiative obtained by the Bellingham Bay Foundation, as well as the petition signatures collected by the Bellingham Bay Foundation and relating to the BBF position regarding the cleanup of the Whatcom Waterway site.

Response: Ecology reviewed the Healthy Bay initiative and attached it as part of the BBF comments. Ecology did not attach copies of the initiative signatures because the initiative dealt with issues outside the scope of the Whatcom Waterway cleanup. The petition referenced by Mr. Cournoyer was attached, along with the associated signatures, as part of the draft RI/FS Responsiveness Summary materials. The petition supported full removal and opposed capping in the Inner Waterway area of the Site. This preference was considered by Ecology in the reevaluation of alternatives presented in Section 5 of the DCAP. Comments received on the draft RI/FS and DSEIS that expressed a desire for more removal, complete removal, or opposed capping were interpreted by Ecology to mean a desire for the most protective, permanent and effective remedy. Overall protectiveness, permanence and long-term effectiveness were

assigned the highest weighting factors in the disproportionate cost analysis presented in the DCAP. Also see response to BBF Comment #1 in this Responsiveness Summary.

Comment #7: Mr. Cournoyer stated that the ASB needs to be used to help remediate the Whatcom Waterway.

Response: The draft RI/FS and the DSEIS included a full evaluation of the use of the ASB as a sediment disposal site (refer to RI/FS Alternative 3). Regarding the use of the ASB as a temporary sediment staging area, Ecology has not precluded such use. Nor has Ecology precluded the use of hydraulic dredging as part of site remediation. A separate alternatives evaluation is not required to address differences in materials handling approaches within project alternatives. Please note, however, that there are logistical considerations that make temporary use of the ASB for sediment staging to be unlikely to be implemented as part of either the proposed cleanup action or under alternative cleanup approaches not involving permanent sediment disposal within the ASB (e.g., need for treatment of saline hydraulic dredge slurries, need for double-handling of temporarily staged materials, inability to achieve material dewatering within a submerged facility). These issues were considered as part of the development of design concepts and associated cost estimates for the DCAP.

Comment #8: Mr. Cournoyer stated that the discussions relating to Alternatives 2, 3 and 4 within the RI/FS was "fraudulent" given that an Ecology shoreline official had stated that "Under the Shoreline Act, we consider the ASB filled, even though it's a lagoon. It's a wastewater treatment plant, much like a sewage treatment plan. It's not a water body of the State. It's uplands".

Response: There is no conflict between Ecology's position under SMA and Ecology's position under MTCA and SMS regarding the ASB. The specific text from the July 2007 Responsiveness Summary addressing this issue is reiterated below for clarification:

"As discussed in the RI/FS, the applicability of cleanup standards to the ASB varies depending on the use of the structure. The ASB is an engineered structure that was constructed in Bellingham Bay under an Army Corps of Engineers permit and other state and local permits. It is currently used for industrial wastewater treatment, such that neither "upland" nor "aquatic" cleanup standards apply directly to the contents of the ASB at this time. However, if wastewater uses are terminated, the waters and sediments within the ASB would be regulated under MTCA as a surface water body. MTCA surface water cleanup standards would apply to the waters contained within the ASB, and SMS standards would apply to the bioactive zone of sludges and sediments contained within the ASB. It is therefore appropriate to evaluate sediment quality within the ASB against these "aquatic" criteria. These criteria also apply if the ASB is opened to Bellingham Bay. Application of upland soil cleanup standards to the ASB is only applicable to

scenarios that permanently convert the ASB to filled upland. In these scenarios, both groundwater and soil cleanup standards would apply. Thus, both "aquatic" and "upland" cleanup standards can apply to the ASB, depending on future reuse conditions. The issue of whether "aquatic" regulatory cleanup standards apply to the ASB is separate and distinct from questions of regulatory jurisdiction for land use permitting programs. These jurisdictional questions are more complex than simply "upland" or "aquatic". For example, a structure that is considered "upland" under the Shoreline Management Act can still be required by MTCA to be cleaned up to "aquatic" standards, because the two regulatory programs have different applicability and criteria."

This issue has become moot in terms of the evaluation of Alternatives 1 through 4, as described in Section 5 of the DCAP:

"This section presents a revised evaluation of remedial alternatives 5 through 8 that refines the work performed in the RI/FS. Alternatives 1 through 4 are not evaluated by Ecology as possible cleanup actions for the site, for two reasons. First, Alternatives 1 through 4 cannot be executed given the Port's aquatic use plans for the ASB portion of the site. Second, the Port has proposed removal of contaminated sludges and sediments from the ASB portion of the site, which represents the most permanent cleanup alternative for this Site Unit. Given that a permanent cleanup alternative has been proposed by the property owner for this one area of the site, only those cleanup alternatives that incorporate this approach to the ASB (Alternatives 5-8) are considered in Ecology's evaluation".

Comment #9: Mr. Cournoyer criticized Ecology for repeating the Port-defined term "Clean Ocean Marina" as part of its documents, stating that "…no such marina has ever been built before. There are no standards established anywhere for such a marina. It's a fantasy. And a regulatory authority like the Department of Ecology should not unthinkingly repeat that marketing phrase…such actions reveal, once again, your bias."

Response: Ecology's use of the term was intended merely as a reiteration of the stated land use plans of the landowner. The "Clean Ocean Marina" is how the Port had described its proposal, similar to the use of the name "New Whatcom" by the Port and City in describing the overall mixed-use redevelopment plan for the waterfront. It is correct that the term Clean Ocean Marina has no specific regulatory meaning and no such meaning has been inferred or applied in its use in the Ecology documents.

Comment #11: Mr. Cournoyer criticized the July 2007 RI/FS Responsiveness Summary discussion of institutional controls and restrictive covenants as they may relate to the use of the ASB as a sediment disposal site consistent with RI/FS Alternative 3, or previous Alternative J from the 2002 Supplemental Feasibility Study. Mr. Cournoyer emphasized that his draft RI/FS comments dealt specifically with restrictive covenants and deed restrictions, not with institutional controls.

Response: With respect to Ecology's statements in the July 2007 Responsiveness Summary, institutional controls and restrictive covenants are synonymous. A restrictive covenant is filed to document required institutional controls. If there are no institutional controls, then there is no need for a restrictive covenant. Ecology's point was that based on current information it is likely that institutional controls and restrictive covenants would be required if the ASB was used as a sediment disposal site consistent with RI/FS Alternative 3, or for that matter with previous Alternative J. The language cited in Mr. Cournoyer's comments is out of date, in that new data have been developed for the ASB and its contents since development of the 2002 Supplemental Feasibility Study from which the text was originally excerpted. Furthermore, Ecology has removed Alternative 3 from the range of potential cleanup alternatives for the Site. See response to Comment #8 above.

Comment #12: Mr. Cournoyer stated his concern that Ecology did not "remove the letter from the record", referencing the letter from Mr. Hegedus, an Environmental Health Supervisor of the Whatcom County Health Department (commenter #158 listed in the July 2007 responsiveness summary).

Response: While the Whatcom County Health Department letter is part of the public record, Ecology did not consider their comments as part of the development of the DCAP. Please note that the Whatcom County Health Department requested that the Washington State Department of Health (DOH) review the site-specific mercury BSL. DOH's review was submitted to Ecology as a comment on the draft Consent Decree and is attached as commenter #47.

Comment #13: Mr. Cournoyer criticized the use in the RI/FS of the term "confined nearshore disposal" or "CND" when referring to the development of a sediment disposal site within the ASB. Mr. Cournoyer emphasized that the term "confined disposal facility" or "CDF" should have been used instead.

Response: A Confined disposal facility (CDF) is category of engineered structure for containment of dredged material. A CDF can be constructed in such a way that the top of the CDF consists of dry land (this is known as a "nearshore CDF" or a "confined nearshore disposal facility" or "CND") or consists of submerged land (this is known as an "aquatic CDF" or a "confined aquatic disposal facility" or "CAD"). The use of either term, CND or CDF applies to Alternative 3. The use of either term CAD or CDF applies to Alternative 2.

Comment #14: Mr. Cournoyer disputed the statements in the RI/FS that discuss potential damage to the ASB bentonite liner during remediation.

Response: Sludge removal from the ASB includes a provision for over-dredging. This over-dredging is estimated to extend one foot past the original sediment interface onto which the bentonite lining was placed during ASB construction. As discussed in the RI/FS and in the July 2007 responsiveness summary, damage to

the bentonite lining can be expected as part of this overdredging. As noted in the 2007 responsiveness summary, the effects of this damage can be mitigated in a variety of ways and is a design issue that does not substantially affect the evaluation of alternatives or selection of a cleanup action.

Comments #15 and #16: Mr. Cournoyer implied that the Log Pond Interim Action cap is a failure and stated his preference for removal of the Log Pond sediments, rather than implementing the Log Pond contingency actions as proposed under Ecology's DCAP.

Response: Mr. Cournoyer's preference for an alternative cleanup approach is noted (see Table 4-2). Monitoring data does not support the assertion that the Log Pond cap is a failure. Monitoring data indicates that buried mercury contaminated sediment remains safely buried, mercury is not migrating up through the clean cap material, and crab mercury levels remain below regulatory thresholds of potential concern and continue to decline. Shoreline erosion in the southwest corner of the Log Pond has exposed contamination in an isolated area where the cap thins out to intersect the shoreline. Contingency actions will be implemented as part of the overall cleanup of the Site to address the exceedance area and shoreline erosion processes.

Monitoring of the Log Pond is part of the site-wide monitoring framework presented in the DCAP. This means that monitoring of the Log Pond area is anticipated to be performed in years 1, 3, 5, 10, 20, and 30 following completion of the planned contingency actions at the Log Pond. The exact scope, frequency, and duration of monitoring will be developed as part of the Engineering Design Report which will be issued for public review in late 2009 or early 2010.

Based upon Ecology's experience with the Log Pond cap, a more rigorous cap design will be considered throughout other areas of the Site where physical erosional processes may occur at a range of tidal elevations and where cap edges seat into the shoreline.

Comment #17: Mr. Cournoyer stated that the monitoring costs used in the DCAP are not sufficient and that monitoring should be more frequent and for a longer duration.

Response: As stated in Section 6 of the DCAP, confirmational monitoring of surface sediments is anticipated to be conducted in cap and natural recovery areas during years 1, 3, 5, 10, 20, and 30 following completion of the remedial action with potential modifications in schedule depending on prior sampling results. This may include a decrease or decrease in frequency and/or intensity of sampling efforts. The exact scope, frequency, and duration of monitoring will be developed as part of the Engineering Design Report which will be subject to public review in late 2009 or early 2010.

Since the caps will be designed to become part of the natural environment, the anticipated 30-year monitoring timeframe is expected to be sufficient to confirm

the effectiveness and stability of the caps and therefore an appropriate timeframe for cost estimating purposes. Even if Ecology required monitoring beyond 30 years, this cost would not affect the outcome of the disproportionate cost analysis presented in the DCAP due to 1) the significant cost difference between Alternative 6 (44 million) and Alternatives 7 (75 million) and 8 (146 million) and 2) the financial discounting of future costs relative to current costs (discounting is used to determine the value in current dollars that must be set aside to pay for a future cost in future dollars, after accounting for inflation and interest earnings).

Please note that beyond the monitoring ultimately required by Ecology in the Engineering Design Report, Ecology will conduct future periodic reviews of the cleanup action to ensure that it continues to comply with applicable standards. Under the terms of the Consent Decree should the cleanup action ever be out of compliance, the liable parties will be required to implement contingency actions.

Comment #18: Mr. Cournoyer criticized Ecology as having "bent the efficacy of the cleanup of the Whatcom Waterway to the Port's unflinching desire for a marina in the ASB" and then requested that Ecology "force the Port of Bellingham into an involuntary cleanup action that's far more protective and permanent".

Response: The proposed cleanup action for the Whatcom Waterway Site is necessarily based upon the Port's planned uses of the Site. Land and navigation uses inform the evaluation of exposure pathways. As a result a clear understanding of these uses is fundamental to developing cleanup actions that eliminate exposure pathways thereby protecting human health and the environment.

Regarding the potential use of an "involuntary" cleanup action, Ecology cannot compel cleanup actions that are not required under MTCA. The cleanup of the Site is being conducted in strict accordance with MTCA and SMS requirements. MTCA includes a requirement that cleanup solutions be "permanent to the maximum extent practicable". To make this determination a disproportionate cost analysis is performed that compares benefits and costs. The benefits criteria include but are not limited to: permanence, protectiveness, cost, and long-term effectiveness. MTCA states that where two or more alternatives are equal in benefits, Ecology shall select the less costly alternative provided that minimum requirements are met. The disproportionate cost analysis indicates that the benefits of Alternatives 6, 7 and 8 are similar however the costs of Alternatives 7 and 8 are much greater than Alternative 6. Therefore Alternative 6 is identified as being "permanent to the maximum extent practicable" and Ecology's proposed remedy for the Site. Alternative 6 complies with MTCA and SMS and protects human health and the environment given the Port's land and navigation use plans for the Site.

Comment #19: Mr. Cournoyer's comments (#1 through #18) were duplicated in an additional submittal (comment #12-D) provided to Ecology.

Response: These comments were identical to comments #1-18 listed above. Refer to comments 1-18 for Ecology's responses to these comments.

5.13 Commenter #13 (Dearstyne, Martha)

Martha Dearstyne submitted written comments by e-mail dated August 10, 2007 (comment #13-A, Appendix A).

Comment #1: Ms. Dearstyne stated opposition to the removal of the ASB sludges and associated contaminants, arguing that the ASB contaminants are contained well right where they are.

Response: The proposed cleanup action for the Whatcom Waterway Site is necessarily based upon the Port's planned uses of the Site. Land and navigation uses inform the evaluation of exposure pathways. As a result a clear understanding of these uses is fundamental to developing cleanup actions that eliminate exposure pathways thereby protecting human health and the environment. The proposed cleanup action meets the requirements of MTCA and SMS, and protects human health and the environment given the Port's planned land and navigation uses.

Note that in the absence of the Port's decision to develop the ASB into a marina, the ASB would still require remediation following cessation of use as a wastewater treatment facility. When wastewater treatment is discontinued, the facility would become a freshwater upland impoundment with associated contaminant exposure pathways that must be addressed in accordance with MTCA and SMS. Other potential cleanup alternatives for the ASB were evaluated as part of the RI/FS and DSEIS including capping and the development of a nearshore fill within the ASB.

Comment #2: Ms. Dearstyne stated a desire for additional dredging and restoration of the waterway areas of the Site.

Response: Ms. Dearstyne's preference for an alternative cleanup approach involving additional dredging is noted (see Table 4-1). The MTCA includes a requirement that cleanup solutions be "permanent to the maximum extent practicable". To make this determination a disproportionate cost analysis is performed that compares benefits and costs. MTCA states that where two or more alternatives are equal in benefits, Ecology shall select the less costly alternative provided that minimum requirements are met. Ms. Dearstyne's comment and other similar comments received on the draft RI/FS, DSEIS and the DCAP that expressed a desire for more removal, complete removal, or opposed capping were interpreted by Ecology to mean a desire for the most protective, permanent and effective remedy. These comments confirm Ecology's assignment of the highest weighting factors to the overall protectiveness, permanence and

long-term effectiveness benefits criteria in the disproportionate cost analysis presented in Section 5 of the DCAP. The disproportionate cost analysis indicates that the benefits of Alternatives 6, 7 and 8 are similar however the costs of Alternatives 7 and 8 are much greater than Alternative 6. Therefore Alternative 6 is identified as being "permanent to the maximum extent practicable" and Ecology's proposed remedy for the Site. Alternative 6protects human health and the environment given the Port's land use plans for the Site. Waterway habitat restoration actions beyond those required to mitigate cleanup action impacts are beyond the scope of the MTCA regulations. However, Ecology understands that the Port intends to implement significant habitat enhancements within the Waterway as part of cleanup and redevelopment activities.

Comment #3: Ms. Dearstyne stated a concern that capping of sediments is not feasible, because earthquakes may occur within the project area.

Response: Capping of contaminated sediments has been successfully applied within the Puget Sound area, all of which is seismically active. Based on available information, the proposed caps can be designed to be stable under seismic events. This will evaluated further during the remedial design phase of the project. If the caps cannot be designed to be stable they will not be implemented.

Note that a draft Engineering Design Report will be developed and issued for public review which contains design details as well as required compliance monitoring and contingency response actions. The Engineering Design Report is expected to be completed in late 2009 or early 2010.

Comment #4: Ms. Dearstyne stated general support for a thorough cleanup of the area, even if it means the cleanup takes years, to "make the area safe for future generations"

Response: Ms. Dearstyne's preference for an alternative cleanup approach is noted (see Table 4-1). See response to Comment #2 above. In addition, MTCA places a preference on those alternatives that, while equivalent in other respects, can be implemented in a shorter period of time. SMS regulations place a specific preference on remedies that can be completed and meet standards within a 10-year time-frame

5.14 Commenter #14 (D'Onofrio, John)

John D'Onofrio submitted written comments by e-mail dated August 7, 2007 (comment #14-A, Appendix A). Mr. D'Onofrio also submitted comments during the previous public comment period on the RI/FS and DSEIS.

Comment #1: Mr. D'Onofrio stated a preference for a remedial approach that does not involve capping of contaminated sediments.

Response: Mr. D'Onofrio's preference for an alternative cleanup approach is noted (see Table 4-2). The MTCA includes a requirement that cleanup solutions be "permanent to the maximum extent practicable". To make this determination a disproportionate cost analysis is performed that compares benefits and costs. MTCA states that where two or more alternatives are equal in benefits, Ecology shall select the less costly alternative provided that minimum requirements are met. Mr. D'Onofrio's comment and other similar comments received on the draft RI/FS, DSEIS and the DCAP that expressed a desire for more removal, complete removal, or opposed capping were interpreted by Ecology to mean a desire for the most protective, permanent and effective remedy. These comments confirm Ecology's assignment of the highest weighting factors to the overall protectiveness, permanence and long-term effectiveness benefits criteria in the disproportionate cost analysis presented in Section 5 of the DCAP. The disproportionate cost analysis indicates that the benefits of Alternatives 6, 7 and 8 are similar however the costs of Alternatives 7 and 8 are much greater than Alternative 6. Therefore Alternative 6 is identified as being "permanent to the maximum extent practicable" and Ecology's proposed remedy for the Site.

Comment #2: Mr. D'Onofrio stated concern that the 30-year provision in the DCAP for cap monitoring is inadequate and should be extended.

Response: As stated in Section 6 of the DCAP, confirmational monitoring of surface sediments is anticipated to be conducted in cap and natural recovery areas during years 1, 3, 5, 10, 20, and 30 following completion of the remedial action with potential modifications in schedule depending on prior sampling results. This may include a decrease or decrease in frequency and/or intensity of sampling efforts. The exact scope, frequency, and duration of monitoring will be developed as part of the Engineering Design Report which will be subject to public review in late 2009 or early 2010.

Since the caps will be designed to become part of the natural environment, the anticipated 30-year monitoring timeframe is expected to be sufficient to confirm the effectiveness and stability of the caps and therefore an appropriate timeframe for cost estimating purposes. Even if Ecology required monitoring beyond 30 years, this cost would not affect the outcome of the disproportionate cost analysis presented in the DCAP due to 1) the significant cost difference between Alternative 6 (44 million) and Alternatives 7 (75 million) and 8 (146 million) and 2) the financial discounting of future costs relative to current costs (discounting is used to determine the value in current dollars that must be set aside to pay for a future cost in future dollars, after accounting for inflation and interest earnings).

Please note that beyond the monitoring ultimately required by Ecology in the Engineering Design Report, Ecology will conduct future periodic reviews of the cleanup action to ensure that it continues to comply with applicable standards. Under the terms of the Consent Decree should the cleanup action ever be out of compliance, the liable parties will be required to implement contingency actions.

Comment #3: Mr. D'Onofrio stated concern that the cleanup of the Site is driven singly by the Port of Bellingham's proposal for a marina, and that the cleanup action is less protective so that "the owners of nice luxury yachts will have a convenient place to park them."

Response: The proposed cleanup action for the Whatcom Waterway Site is necessarily based upon the Port's planned uses of the Site. Land and navigation uses inform the evaluation of exposure pathways. As a result a clear understanding of these uses is fundamental to developing cleanup actions that eliminate exposure pathways thereby protecting human health and the environment. Ecology is not clear as to the basis for the assertion that the proposed cleanup is less protective due to the Port's planned uses. The proposed cleanup action meets the requirements of MTCA and SMS, and protects human health and the environment given the Port's planned land and navigation uses.

5.15 Commenter #15 (Doyle, Jessica)

Jessica Doyle submitted written comments by e-mail dated August 13, 2007 (comment #15-A, Appendix A).

Comment #1: Ms. Doyle expressed concern that "little meaningful regard has been given to public comment on the RI/FS as well as other documents fundamental to the cleanup and redevelopment of Bellingham's waterfront."

Response: Consistent with our regulatory mandate, Ecology has considered all of the comments received from the public, from other regulatory and resource management agencies, and from affected stakeholders. Consideration of public concerns is an important part of the MTCA analysis of alternatives. The many comments received on the draft RI/FS, DSEIS and the DCAP that expressed a desire for more removal, complete removal, or opposed capping were interpreted by Ecology to mean a desire for the most protective, permanent and effective remedy. These comments confirmed Ecology's assignment of the highest weighting factors to the overall protectiveness, permanence and long-term effectiveness benefits criteria in the disproportionate cost analysis presented in Section 5 of the DCAP. The disproportionate cost analysis indicates that the benefits of Alternatives 6, 7 and 8 are similar however the costs of Alternatives 7 and 8 are much greater than Alternative 6. Therefore Alternative 6 is identified as being "permanent to the maximum extent practicable" and Ecology's proposed remedy for the Site.

Comment #2: Ms. Doyle alleged that Ecology's selection of a cleanup action has been affected by political motivations of Ecology, the City and the Port and others with a financial stake in what becomes of the waterfront. Ms. Doyle stated that the opinion of the public and organizations such as People for Puget Sound, RE Sources and the Lummi Nation should receive significant attention.

Response: Ecology is not clear on what is meant by "political motivation". The Port has made decisions regarding use of their land within the Site, the Port and City are planning to change existing industrial land use designations on the adjacent upland waterfront to mixed use, and the Port has proposed reconfiguration of the Inner Waterway portion of the Site to support multi-purpose uses. Ecology's proposed cleanup action for the Whatcom Waterway Site is necessarily based upon these planned uses of the Site. Land and navigation uses inform the evaluation of exposure pathways. As a result a clear understanding of these uses is fundamental to developing cleanup actions that eliminate exposure pathways thereby protecting human health and the environment. The proposed cleanup action for the Site protects human health and the environment given these planned uses.

Ecology has considered all public, agency and stakeholder input and does not weight the comments of any one party over those of another, but considers the concerns raised in the comments as part of remedy selection process. Comments received on the draft RI/FS, DSEIS and the DCAP that expressed a desire for more removal, complete removal, or opposed capping were interpreted by Ecology to mean a desire for the most protective, permanent and effective remedy. These comments confirmed Ecology's assignment of the highest weighting factors to the overall protectiveness, permanence and long-term effectiveness benefits criteria in the disproportionate cost analysis presented in Section 5 of the DCAP. .

Comment #3: Ms. Doyle further states that the "political ties" between Ecology, the Port and the City must be severed in order for Ecology to fulfill its mission to protect environmental quality.

Response: See response to Comment #2 above,

Comment #4: Ms. Doyle expresses her support for cleanup alternatives 7 and 8, stating that human and environmental health should be paramount and should be considered without regard of the expense.

Response: Ms. Doyle's remedy preferences have been noted (see Table 4-1). Ecology agrees that protection of human health and environmental should be of paramount importance. This is the basis of the MTCA regulations, and protection of human health and the environment is one of the threshold requirements for cleanup actions. The MTCA also includes a requirement that cleanup solutions be "permanent to the maximum extent practicable". To make this determination a disproportionate cost analysis is performed that compares benefits and costs. Benefits criteria include but are not limited to overall protectiveness, permanence and long-term effectiveness. MTCA states that where two or more alternatives are equal in benefits, Ecology shall select the less costly alternative provided that minimum requirements are met. The disproportionate cost analysis presented in

the DCAP indicates that the benefits of Alternatives 6, 7 and 8 are similar however the costs of Alternatives 7 and 8 are much greater than Alternative 6. Therefore Alternative 6 is identified as being "permanent to the maximum extent practicable" and Ecology's proposed remedy for the Site.

Comment #5: Ms. Doyle states that fish consumption levels by subsistence fishers should be more adequately addressed in the cleanup plan.

Response: As part of the development of site cleanup levels, Ecology has considered potential food chain impacts to human health and the environment from mercury bioaccumulation, including the potential impact to subsistence fishers. The sediment mercury bioaccumulation screening level (BSL) for the Site was developed using standard risk assessment methodologies and has been reviewed by the Corps of Engineers and more recently the Washington State Department of Health (see Commenter #47). The appropriateness of the BSL to address human health concerns at the Site has been consistently affirmed in these reviews, and Ecology concludes that its use as part of cleanup decision-making ensures protection of human health from mercury bioaccumulation risks.

Comment #6: Ms. Doyle stated that "instead of going with the most inexpensive and quickest methods, Bellingham's waterfront cleanup and redevelopment should reflect the strong environmental values of the community."

Response: Ecology concurs that the selected remedy should not simply be the most inexpensive method. See response to Comment #4 above. Comments received on the draft RI/FS, DSEIS and the DCAP that expressed a desire for more removal, complete removal, or opposed capping were interpreted by Ecology to mean a desire for the most protective, permanent and effective remedy. These comments confirmed Ecology's assignment of the highest weighting factors to the overall protectiveness, permanence and long-term effectiveness benefits criteria in the disproportionate cost analysis presented in Section 5 of the DCAP. Comments regarding the redevelopment of waterfront property cannot be addressed by Ecology within the scope of the Site cleanup and should be directed to the Port and City land use planning processes as well as to the property owners.

5.16 Commenter #16 (Duncan, Clint)

Clint Duncan submitted written comments by e-mail dated August 13, 2007 (comment #16-A, Appendix A) and in a letter attachment to that e-mail (comment #16-B, Appendix A). Mr. Duncan also submitted comments during the previous public comment period on the RI/FS and DSEIS.

Comment #1: Mr. Duncan recommended that the scope of the monitoring plan be expanded to include additional monitoring of sediment and tissue monomethyl mercury as well as monitoring of total mercury.

Response: The monitoring framework presented in the DCAP will be fully developed during the remedial design phase of the cleanup and issued for public review in a draft Engineering Design Report. . The proposed monitoring framework includes monitoring of total mercury concentrations in sediment and tissue samples. Site-specific cleanup levels have been developed using the conservative assumption that all tissue mercury is present as methylmercury. This monitoring strategy, coupled with this conservative assumption regarding mercury speciation, is protective of human health and the environment.

Comment #2: Mr. Duncan specifically recommended the inclusion of monitoring for monomethyl mercury concentrations in sediment, surrounding water and surrounding suspended materials.

Response: The measurement of total mercury in biota tissue provides direct measurement of potential food chain accumulation of mercury species. This endpoint-focused monitoring program provides more certainty than measurement of intermediate points in the potential transport of mercury. If increases in tissue mercury levels are observed, then the potential need for additional monitoring can be revisited.

Comment #3: Mr. Duncan specifically recommended the inclusion in the monitoring plan of measurements of the rate and efficacy with which target species such as the Dungeness crab accumulate and eliminate monomethyl mercury.

Response: Levels of total mercury in tissue provide a direct measurement of the potentially relevant exposure risk to human health and the environment from environmental mercury exposures. Provided that all tissue mercury is assumed to be present as the more toxic methylmercury species, the monitoring of tissue total mercury levels is protective.

Comment #4: Mr. Duncan stated that the monitoring of methylmercury transport processes is required due to recent knowledge regarding the fate and transport of methyl mercury species.

Response: The measurement of total mercury in biota tissue provides direct measurement of potential food chain accumulation of mercury species. This endpoint-focused monitoring program provides more certainty than measurement of intermediate points in the potential transport of mercury. If increases in tissue mercury levels are observed, then the potential need for additional monitoring can be revisited. Ecology considers the site-specific sediment cleanup levels, as articulated in the DCAP, to be protective of human health and the environment.

5.17 Commenter #17 (Dyson, George)

George Dyson spoke at the public hearing on August 8, 2007. A copy of his testimony from the public hearing is attached (comment #17-A, Appendix A). Mr. Dyson also provided additional comments in an e-mail dated August 12, 2007 (comment #17-B, Appendix A). Mr. Dyson also submitted written and verbal comments during the previous public comment period on the RI/FS and DSEIS.

Comment #1: Mr. Dyson stated opposition to the use of Monitored Natural Recovery (MNR) at the head of the Whatcom Waterway.

> Response: Mr. Dyson's preference for a different cleanup approach at the head of the Whatcom Waterway is noted (see Table 4-2). This area currently complies with applicable cleanup standards and planned uses are unlikely to disturb buried contaminated sediment. However, the area will be further evaluated during the remedial design phase of the project. This evaluation will include additional assessment of subsurface sediment quality, an assessment of low-tide/high-flow conditions, and an assessment of potential storm/flooding effects on sediment stability.

Comment #2: Mr. Dyson stated concern that the costs associated with long-term monitoring are underestimated in the DCAP cost estimates.

> Response: As stated in Section 6 of the DCAP, confirmational monitoring of surface sediments is anticipated to be conducted in cap and natural recovery areas during years 1, 3, 5, 10, 20, and 30 following completion of the remedial action with potential modifications in schedule depending on prior sampling results. This may include a decrease or decrease in frequency and/or intensity of sampling efforts. The exact scope, frequency, and duration of monitoring will be developed as part of the Engineering Design Report which is anticipated to be available for public review in late 2009 or early 2010.
>
> Since the caps will be designed to become part of the natural environment, the anticipated 30-year monitoring timeframe is expected to be sufficient to confirm the effectiveness and stability of the caps and therefore an appropriate timeframe for cost estimating purposes. Even if Ecology required monitoring beyond 30 years, this cost would not affect the outcome of the disproportionate cost analysis presented in the DCAP due to 1) the significant cost difference between Alternative 6 (44 million) and Alternatives 7 (75 million) and 8 (146 million) and 2) the financial discounting of future costs relative to current costs (discounting is used to determine the value in current dollars that must be set aside to pay for a future cost in future dollars, after accounting for inflation and interest earnings).
>
> Please note that beyond the monitoring ultimately required by Ecology in the Engineering Design Report, Ecology will conduct future periodic reviews of the cleanup action to ensure that it continues to comply with applicable standards. Under the terms of the Consent Decree should the cleanup action ever be out of compliance, the liable parties will be required to implement contingency actions.

Comment #3: Mr. Dyson stated opposition to the Port's proposal to modify the federal channel boundaries.

> Response: Comments regarding navigation use decisions cannot be addressed by Ecology within the scope of the Site cleanup. These decisions are the responsibility of the Corps of Engineers, the local project sponsor (in this case the Port) and Congress. Concerns about the appropriateness of federal channel decision-making should be directed to these parties. Ecology's role under MTCA is to ensure protection of human health and the environment given planned uses.

Comment #4: Mr. Dyson stated that the data regarding sediment natural recovery rates are sparse and are inadequate for site decision-making.

> Response: As described in Section 6 of the RI Report, natural recovery has been assessed, quantified and then re-verified in Bellingham Bay. Please refer to the RI/FS for additional discussion of the completed natural recovery evaluations. Ecology considers the existing data to be adequate for the completion of an RI/FS and selection of a remedial alternative. Additional data will be collected as part of remedial design and permitting, and these data will be presented for public review as part of an Engineering Design Report. If new information collected during remedial design indicates that the use of natural recovery is unlikely to meet cleanup objectives, then the cleanup action will be modified as necessary to ensure compliance with site cleanup levels.

Comment #5: Mr. Dyson expressed concern that cleanup levels could change in the future, and that additional cleanup actions could be required if cleanup levels become more stringent.

> Response: The Consent Decree includes language that reserves Ecology's right to "reopen" the cleanup decision if new information indicates that additional actions are required to protect human health and the environment. This risk of remedy reopeners affects all cleanup alternatives, whether cleanup is performed using removal, capping or natural recovery.

Comment #6: Mr. Dyson stated that the proposed cleanup decision is unfair to property owners and that nearby property owners may suffer "stigma" due to the proposed cleanup decision.

> Response: Ecology's responsibility is to ensure compliance of cleanup actions with MTCA regulatory requirements. The issue of environmental "stigma" for nearby property owners is complex and subject to wide differences of opinion. Ecology understands that where property owners have legal liability for cleanup actions, the type of cleanup actions implemented, and the type of funding agreements and liability settlements for the site can affect perceived risks and

values for future property purchasers. Ecology has no information at this time indicating that Mr. Dyson's property is directly associated with or affected by the Site, or that Mr. Dyson has any liability for the Site-associated contaminants. The proposed cleanup action meets the requirements of MTCA and SMS, and protects human health and the environment given planned land and navigation uses of the Site

Comment #7: Mr. Dyson stated his concern that more tissue monitoring is required as part of the long-term monitoring activities.

Response: Ecology's monitoring expectations for the Site are described in Section 6.3 of the DCAP. The DCAP states that "Tissue monitoring is anticipated to be performed as part of confirmation monitoring during the Year 3, 5, and 10 monitoring events. Additional monitoring events may be required and/or the term extended in the event that sediment areas and/or associated tissues are shown during monitoring to exhibit recontamination or exceed effects levels".

This initial approach will be refined during the remedial design phase of the project and presented for public review as part of a draft Engineering Design Report, which will be issued in late 2009 or early 2010.

Comment #8: Mr. Dyson stated that the draft Consent Decree and DCAP are non-responsive to many of the carefully-stated technical questions and comments raised by him and other commenters during the RI/FS and DSEIS public comment period.

Response: Public comment is an important element of the MTCA process and Ecology attempted to legitimately interpret, consider and respond to all comments received on the draft RI/FS and DSEIS. As indicated in the draft RI/FS and DSEIS Responsiveness Summary, a number of technical questions and comments cannot be addressed until remedial design investigations have been completed. The results of this work as well as detailed design information, monitoring plans, and contingency plans will be provided for public review in a draft Engineering Design Report anticipated to be completed in late 2009 or early 2010.

Comment #9: Mr. Dyson requested that the cleanup decision for the Site be delayed and that a renewed effort to genuinely bring all stakeholders to the table in the spirit of the Bellingham Bay Pilot initiative.

Response: The cleanup of the Whatcom Waterway Site is a high priority for the Department of Ecology and additional time will not change the outcome of the MTCA evaluation presented in the DCAP. The Bellingham Bay Demonstration Pilot is a coordination forum through which individual member regulatory activities are coordinated to capitalize on opportunities and minimize conflicts in accordance with the Bellingham Bay Comprehensive Strategy. There is no expectation that Pilot member organizations agree with the regulatory actions taken by individual members.

5.18 Commenter #18 (Farr, Larry)

Larry Farr provided written comments in an e-mail dated August 13, 2007 (comment #18-A, Appendix A).

Comment #1: Mr. Farr expressed opposition to the capping of sediments in the inner waterway, on the ASB shoulder and within the Barge dock due to the potential for "leaking".

Response: Ecology has evaluated alternatives for the cleanup of these areas as part of the RI/FS and DCAP. Ecology considers the application of capping technologies within these areas to be feasible, assuming completion of design and permitting evaluations and the implementation of appropriate institutional control measures.

Comment #2: Mr. Farr stated concern that the project area is located within a seismically active area and that an earthquake could expose contaminated sediments in the sloped sides and bottom areas of the Site.

Response: Capping of contaminated sediments has been successfully applied within the Puget Sound area, all of which is seismically active. Based on available information, the proposed cleanup action can be safely implemented. Remedial design and permitting activities include detailed evaluation of potential seismic hazards. These evaluations will be documented in the Engineering Design Report which will be made available for public review. If future design activities indicate that the remedy is not protective as planned, then Ecology will require modification of the remedy as necessary to comply with any newly identified risks.

Comment #3: Mr. Farr stated that he has yet to hear any explanation for "…discovered sediments of mercury appearing on top of the existing caps."

Response: An area of cap recontamination has been noted in the southern corner of the Log Pond. As described in the RI/FS, this area was investigated and the cause of the recontamination was determined to be resuspension of contaminated sediments from adjacent non-capped areas and migration of the contaminated sediments onto the cap surface. Contingent actions to correct the area of recontamination and to prevent its recurrence have been incorporated in the proposed cleanup action as described in the DCAP.

5.19 Commenter #19 (Frost, Brett)

Brett Frost provided written comments in an e-mail dated August 10, 2007 (comment #19-A, Appendix A).

Comment #1: Mr. Frost stated support for the cleanup action as defined in the draft Consent Decree.

Response: Mr. Frost's support for the proposed cleanup action is noted (see Table 4-1). Ecology's proposed cleanup action complies with MTCA requirements and is permanent to the maximum extent practicable.

Comment #2: Mr. Frost stated that he was in favor of implementing the cleanup action as soon as possible.

Response: Ecology is issuing this Responsiveness Summary jointly with the final Consent Decree and the Final Supplemental EIS for the cleanup of the Site. The Consent Decree will now be signed by Ecology and the parties implementing the cleanup and entered in Whatcom County Superior Court. Following entry into court the cleanup will move forward into remedial design, permitting and construction. Design and permitting is anticipated to take 2 or 3 years, followed by 3 years of construction.

5.20 Commenter #20 (Gotchy, Thomas)

Thomas Gotchy provided written comments in an e-mail dated August 13, 2007 (comment #20-A, Appendix A). Mr. Gotchy also submitted written comments during the previous public comment period on the RI/FS and DSEIS.

Comment #1: Mr. Gotchy stated a desire for implementation of an alternative cleanup strategy, stating that "we need to store mercury in some other place than buried in the Whatcom Waterway under a layer of fill."

Response: Mr. Gotchy's preference for an alternative cleanup remedy has been noted by Ecology (see Table 4-2). Ecology has evaluated the proposed cleanup remedy against MTCA criteria and has concluded that the remedy complies with MTCA threshold requirements and is permanent to the maximum extent practicable.

Comment #2: Mr. Gotchy stated his belief that the data available for the Site are "incredibly weak" and that the cleanup should be delayed pending completion of the "proper scientific studies".

Response: Ecology has determined that the data available for the Site are sufficient for completion of an RI/FS and for selection of a cleanup alternative. Additional studies will be performed as part of project design and permitting prior to implementation of the proposed cleanup action. The Engineering Design Report will be subject to additional public review and comment.

Comment #3: Mr. Gotchy expressed concern that "Ecology and the Port of Bellingham are sleeping in the same bed or have made some other cozy arrangement…"

Response: Ecology is the regulatory agency responsible for overseeing the investigation and cleanup of the Whatcom Waterway Site. Ecology has been working constructively with the Port and other local entities as part of the Bellingham Bay Demonstration Pilot since 1996. The only arrangements between the Port and Ecology are those specified by the MTCA regulations, the associated regulations and agreements, and the interagency agreements developed to implement the activities of the Bellingham Bay Demonstration Pilot. Should the current cooperative relationship between the Port and Ecology deteriorate and prove ineffective at meeting MTCA cleanup requirements, then Ecology has the option to obligate the Port or other parties to implement required measures under an Enforcement Order rather than under a Consent Decree, or Ecology can unilaterally implement investigation and cleanup of the site and seek cost recovery under the MTCA regulations.

5.21 Commenter #21 (Gregory-Raffel, Zapote)

Zapote Gregory-Raffel provided written comments in an e-mail dated August 12, 2007 (comment #21-A, Appendix A) and in the form of a poem attached to that e-mail (comment #21-B, Appendix A). Ms. Gregory-Raffel also submitted written comments during the previous public comment period on the RI/FS and DSEIS. Ecology's interpretation of the comments provided in Ms. Gregory-Raffel's poem are listed below.

Comment #1: In the first stanza of Ms. Gregory-Raffel's poem, she states "fish feeling sad" and "capping seems to be the plan". Ecology interprets this stanza to represent Ms. Gregory-Raffel's opposition to the use of capping as part of the proposed cleanup plan.

Response: Mr. Gotchy's preference for an alternative cleanup remedy has been noted by Ecology (see Table 4-2). However, Ecology has evaluated the proposed cleanup remedy against MTCA criteria and has concluded that the remedy, including the use of sediment capping, complies with MTCA threshold requirements and is permanent to the maximum extent practicable.

Comment #2: In the second stanza of her poem, Ms. Gregory-Raffel states "…the people spoke with passion and purpose, but were dismissed with legal crafted word…" Ecology interprets this statement to indicate Ms. Gregory-Raffel's feeling that Ecology was not responsive to comments raised during the RI/FS and DSEIS comment period.

Response: Ecology considers all public, agency and stakeholder input as part of the remedy selection process, within the constraints of the MTCA remedy selection process. Ecology has prepared a detailed responsiveness summary documenting the agency's responses to questions and comments raised during the previous comment period. Please note that Ecology does not weight the comments of any one party over those of another, but considers the issues raised in the comments as part of remedy selection decisions. It is not uncommon for opinions and remedy preferences to differ among different parties, as reflected in the range

of comments received on the RI/FS and DSEIS. Ecology appreciates Ms. Gregory-Raffel's participation in the public comment process for the Whatcom Waterway Site.

Comment #3: In the third stanza of her poem, Ms. Gregory-Raffel states "how can you price this fragile, graceful sea? Dismiss the creatures of lovely, salty weave?...what is your world? Of precious fleeting pulse and dance of dulse, or fluff reports that turn stewardship dust?" Ecology interprets this statement to be a concern that the proposed remedy is not sufficiently protective due to an excessive weighting of cost in the disproportionate cost analysis.

Response: MTCA regulatory requirement state that all cleanup alternatives must be capable of complying with site cleanup levels in order to be considered during the remedy selection process. All alternatives considered by Ecology as part of the remedy selection process for the Site meet the threshold requirements for cleanup actions, ensuring that environmental protection is achieved. This threshold evaluation is conducted without regard to cost. Cost is considered only as part of the subsequent disproportionate cost analysis which considers which of the qualifying remedial alternatives is "permanent to the maximum extent practicable". Cost is one factor considered in this evaluation, consistent with MTCA regulatory requirements as currently written.

Comment #4: In the fourth stanza of her poem, Ms. Gregory-Raffel states "could you eat Bay crab off your platter, or bottom fish or a salmon too??? Could you honestly take a bite, could you, tell me, could you???" Ecology interprets this statement to be a concern regarding the quality of seafood within Bellingham Bay.

Response: As described in the RI/FS, concentrations of mercury in fish and shellfish in Bellingham Bay are below State, Federal and County thresholds of potential concern; and, have been declining. Measurements of seafood quality show a continued decline in tissue mercury concentrations consistent with natural recovery observations and the expected beneficial effects of Log Pond capping and sediment source control efforts. In a recent review of Bellingham Bay tissue data (see commenter #47) the Washington State Department of Health (DOH) concluded that no fish or crab consumption advisories are warranted in Bellingham Bay due to Site-associated contaminants, and that levels of mercury in Bellingham Bay crab, English sole and clams are lower than many fish available at the market.

Comment #5: In the fifth stanza of her poem, Ms. Gregory-Raffel states "once our mighty sealife was miraculous to behold, 'salmon is extinct' the children will be told…'fish all died-out' our children will say,". Ecology interprets this statement to be a concern that sediment contamination will negatively affect fisheries within Bellingham Bay, including salmon, under the proposed cleanup action.

Response: Washington's SMS regulations are based on the protection of sediment dwelling (benthic) organisms that exist at the base of the food chain. Compliance with SMS cleanup levels ensures that food sources will continue to be available for fish, such as salmon, located higher on the food chain. The DCAP and the Consent Decree require that the cleanup action comply with SMS cleanup levels, and will ensure that sediment contaminants do not negatively affect fisheries resources.

5.22 Commenter #22 (Hayes, Hamilton)

Hamilton Hayes provided written comments in an e-mail dated August 13, 2007 (comment #22-A, Appendix A). Mr. Hayes also submitted written comments during the previous public comment period on the RI/FS and DSEIS.

Comment #1: Mr. Hayes stated that the discussion of the detailed monitoring plan should not be deferred until the design process, arguing that this makes it difficult to evaluate differences in risk management between the different cleanup alternatives.

Response: The DCAP presented a monitoring framework which will form the basis for future monitoring activities. The details of the monitoring plan will be appropriately defined as part of the Engineering Design Report after completion of supplemental design studies and development of additional detail regarding the cleanup methods and contingent remedial actions appropriate to different site areas. Potential differences in monitoring costs among the different cleanup alternatives were presented as part of the DCAP, providing the information necessary for evaluation of cleanup alternatives.

Comment #2: Mr. Hayes stated that monitoring frequency should not decrease with time, but rather should stay the same or even increase.

Response: Monitoring activities at sediment sites appropriately use a variable monitoring frequency, with frequent monitoring during the first few years and reduced monitoring frequencies during later time periods. If monitoring has shown that the cap has successfully become a part of the natural benthic environment after 30 years, this situation is unlikely to change in the period thereafter. In the proposed Consent Decree Ecology has reserved the right to require additional monitoring after 30 years if information indicates that such monitoring is required to protect human health and the environment.

Comment #3: Mr. Hayes stated that the risk management discussion in the DCAP does not address what possible remediation actions and estimated costs could be required if the cleanup proposal should fail to meet compliance standards.

Response: Section 6.3.2 of the DCAP presented an overview of the types of construction and post-construction contingencies that are to be developed as part of the Engineering Design Report. Contingent actions are part of any cleanup

action and cost contingencies are carried as part of project cost estimates in the DCAP. Detailed contingency response actions will be described in the Site Construction Quality Assurance Project Plan (CQAP) and the Compliance Monitoring and Contingency Response Plan (CMCRP) to be prepared as a part of remedial design, after completion of supplemental pre-design studies. The objective of these plans is to confirm that cleanup standards have been achieved, and also to confirm the long-term effectiveness of cleanup actions at the Site. Along with the information on monitoring; these plans will discuss the types of contingency actions that could potentially be required in response to monitoring observations, and will discuss triggers for different types of contingency response actions. The plans will be subject to public review as part of a draft Engineering Design Report.

5.23 Commenter #23 (Hazen, Libby)

Libby Hazen provided written comments in an e-mail dated August 8, 2007 (comment #23-A, Appendix A).

Comment #1: Ms. Hazen stated a preference for removal of contaminated sediments from the Log Pond, the Inner Whatcom Waterway, the Shipping Terminal and the corner of the treatment lagoon.

Response: Ms. Hazen's preference for an alternative cleanup remedy has been noted by Ecology (see Table 4-1). The MTCA includes a requirement that cleanup solutions be "permanent to the maximum extent practicable". To make this determination a disproportionate cost analysis is performed that compares benefits and costs. MTCA states that where two or more alternatives are equal in benefits, Ecology shall select the less costly alternative provided that minimum requirements are met. Ms. Hazen's comment and other similar comments received on the draft RI/FS, DSEIS and the DCAP that expressed a desire for more removal, complete removal, or opposed capping were interpreted by Ecology to mean a desire for the most protective, permanent and effective remedy. These comments confirm Ecology's assignment of the highest weighting factors to the overall protectiveness, permanence and long-term effectiveness benefits criteria in the disproportionate cost analysis presented in Section 5 of the DCAP. The disproportionate cost analysis indicates that the benefits of Alternatives 6, 7 and 8 are similar however the costs of Alternatives 7 and 8 are much greater than Alternative 6. Therefore Alternative 6 is identified as being "permanent to the maximum extent practicable" and Ecology's proposed remedy for the Site.

Comment #2: Ms. Hazen recommended that six foot or thicker caps be used anywhere a cap is needed, in order to better isolate contaminated sediment from anchor, propeller or erosional disturbance.

Response: Final cap thicknesses and construction details will be defined as part of the Engineering Design Report. Consistent with the approach taken within the Log Pond, Ecology has specified that the cap thickness within the Inner Waterway will range up to six feet in the areas of the highest residual subsurface contaminant concentrations. In other areas, cap thicknesses are expected to be closer to 3-feet, though thicker caps may be required in some areas depending on the results of engineering design evaluations.

Comment #3: Ms. Hazen recommended that cleanup options be re-evaluated and argued that removal of mercury from the lagoon will not have any effect on the exposure of humans and wildlife to mercury, but removal of mercury from the Waterway will.

Response: Ecology considers the evaluation of remedial alternatives conducted as part of the RI/FS and the development of the DCAP to be sufficient for selection of a cleanup action. The Port has agreed to the removal of the ASB sludges and associated transition zone sediments as part of its plan to convert the ASB into a marina. Ecology has determined that this proposed cleanup action is protective of human health and the environment and represents a permanent cleanup solution for this area of the Site. In the absence of the proposal to reopen the ASB to Bellingham Bay, and if the ASB use for wastewater treatment was to be discontinued, a cleanup of the ASB would still be required to protect potential future aquatic receptors. Other potential cleanup alternatives for the ASB were evaluated as part of the RI/FS and DSEIS including capping and the development of a nearshore fill within the ASB.

Comment #4: Ms. Hazen stated that a robust evaluation of seismic concerns should be conducted.

Response: Capping of contaminated sediments has been successfully applied within the Puget Sound area, all of which is seismically active. Based on available information, the proposed cleanup action can be safely implemented. Remedial design and permitting activities include detailed evaluation of potential seismic hazards. If future design activities indicate that the remedy is not protective as planned, then Ecology will require modification of the remedy as necessary to comply with any newly identified risks. The Engineering Design Report will be provided for public review and comment.

Comment #5: Ms. Hazen requested additional evaluation of mercury contamination at the Log Pond cap.

Response: Conditions within the Log Pond have been fully evaluated and sufficient information is available to affirm the remedy selection for the Site. Existing data do not suggest that an alternative remediation approach is required for the Log Pond. Monitoring data indicates that buried mercury contaminated sediment remains safely buried, mercury is not migrating up through the clean cap material, and crab mercury levels remain below regulatory thresholds of potential

concern and continue to decline. Shoreline erosion in the southwest corner of the Log Pond has exposed contamination in an isolated area where the cap thins out to intersect the shoreline. Contingency actions will be implemented as part of the overall cleanup of the Site to address the exceedance area and shoreline erosion processes. Monitoring of the Log Pond is part of the site-wide monitoring framework presented in the DCAP. This means that monitoring of the Log Pond area is anticipated to be performed in years 1, 3, 5, 10, 20, and 30 following completion of the planned contingency actions at the Log Pond. The exact scope, frequency, and duration of monitoring will be developed as part of the Engineering Design Report which will be issued for public review in late 2009 or early 2010. Based upon Ecology's experience with the Log Pond cap, a more rigorous cap design will be considered throughout other areas of the Site where physical erosional processes may occur at a range of tidal elevations and where cap edges seat into the shoreline.

Comment #6: Ms. Hazen stated that potential consumption of seafood by subsistence fishers should be re-evaluated.

Response: As part of the development of site cleanup levels, Ecology has considered potential food chain impacts to human health and the environment from mercury bioaccumulation, including the potential impact to subsistence fishers. The sediment mercury bioaccumulation screening level (BSL) for the Site was developed using standard risk assessment methodologies and has been reviewed by the Corps of Engineers and more recently the Washington State Department of Health (see Commenter #47). The appropriateness of the BSL to address human health concerns at the Site has been consistently affirmed in these reviews, and Ecology concludes that its use as part of cleanup decision-making ensures protection of human health from mercury bioaccumulation risks. Additionally, please note that (as discussed in the RI/FS), the BSL is to be applied by Ecology on a point-by-point basis rather than on an area-wide basis. This means that the average *area-wide* surface concentration of mercury achieved by the cleanup action will be well below the BSL, resulting in an additional degree of protectiveness.

Comment #7: Ms. Hazen included in her comments a copy of the Open Letter from RE Sources to the Department of Ecology, stating her agreement with the contents of that letter.

Response: Refer to Section 5.38 of this Responsiveness Summary for a response to the comments raised by RE Sources in their letter to Ecology.

5.24 Commenter #24 (Hirst, Eric)

Eric and Susan Hirst provided written comments in an e-mail dated August 6, 2007 (comment #24-A, Appendix A). Mr. Hirst also submitted written comments during the previous public comment period on the RI/FS and DSEIS.

Comment #1: Mr. Hirst stated that he remains concerned that capping mercury in the waterway will not be an effective long-term strategy.

> Response: The proposed cleanup approach includes the use of multiple cleanup technologies, including dredging, upland disposal, capping and monitored natural recovery. Capping has been shown to be an effective technology for the remediation of contaminated sediments when applied under appropriate site conditions using an appropriate design. Mr. Hirst's concerns about the use of capping are noted. However, Ecology has determined the use of capping is an integral part of the proposed cleanup action that was determined to be permanent to the maximum extent practicable under MTCA requirements. Detailed cap design information will be presented in the Engineering Design Report, which will be made available for public review and comment.

Comment #2: Mr. Hirst stated a preference for more mercury removal from the Whatcom Waterway.

> Response: Mr. Hirst's preference for an alternative cleanup remedy has been noted by Ecology (see Table 4-2). The MTCA includes a requirement that cleanup solutions be "permanent to the maximum extent practicable". To make this determination a disproportionate cost analysis is performed that compares benefits and costs. MTCA states that where two or more alternatives are equal in benefits, Ecology shall select the less costly alternative provided that minimum requirements are met. Mr. Hirst's comment and other similar comments received on the draft RI/FS, DSEIS and the DCAP that expressed a desire for more removal, complete removal, or opposition to capping were interpreted by Ecology to mean a desire for the most protective, permanent and effective remedy. These comments confirm Ecology's assignment of the highest weighting factors to the overall protectiveness, permanence and long-term effectiveness benefits criteria in the disproportionate cost analysis presented in Section 5 of the DCAP. The disproportionate cost analysis indicates that the benefits of Alternatives 6, 7 and 8 are similar however the costs of Alternatives 7 and 8 are much greater than Alternative 6. Therefore Alternative 6 is identified as being "permanent to the maximum extent practicable" and Ecology's proposed remedy for the Site.

Comment #3: Mr. Hirst stated a preference for increased monitoring frequency and duration.

> Response: As stated in Section 6 of the DCAP, confirmational monitoring of surface sediments is anticipated to be conducted in cap and natural recovery areas during years 1, 3, 5, 10, 20, and 30 following completion of the remedial action

with potential modifications in schedule depending on prior sampling results. This may include a decrease or decrease in frequency and/or intensity of sampling efforts. The exact scope, frequency, and duration of monitoring will be developed as part of the Engineering Design Report which will be subject to public review in late 2009 or early 2010. Since the caps will be designed to become part of the natural environment, the anticipated 30-year monitoring timeframe is expected to be sufficient to confirm the effectiveness and stability of the caps and therefore an appropriate timeframe for cost estimating purposes. Please note that beyond the monitoring ultimately required by Ecology in the Engineering Design Report, Ecology will conduct future periodic reviews of the cleanup action to ensure that it continues to comply with applicable standards. Under the terms of the Consent Decree should the cleanup action ever be out of compliance, the liable parties will be required to implement contingency actions.

Comment #4: Mr. Hirst stated that conducting the cleanup properly the first time will be more cost effective, with less money to be spent on subsequent cleanups and repair.

Response: Ecology concurs that best information should be used in implementing a cleanup action, and that goal of a final cleanup action is to avoid the need to repeat or modify the cleanup action in the future. The need to use best information in the implementation of a cleanup action applies to all types of cleanup actions, whether those are performed using dredging, capping or monitored natural recovery.

Comment #5: Mr. Hirst emphasized a relationship between the type of cleanup performed and the value of the land for redevelopment.

Response: Ecology's responsibility is to ensure compliance of cleanup actions with MTCA regulatory requirements. As discussed in the DSEIS for the No Action alternative, the lack of liability resolution as achieved through final cleanup can hamper community revitalization efforts and reduce property values. However, the relationship between the type of property cleanup and a property's value is complex. Generally Ecology expects that the resolution of site cleanup issues in a manner that is consistent with planned land use activities will be beneficial for local land uses and property values. However, whether the proposed cleanup action and other planned land use activities planned for the area arguably enhance or impact property values is beyond the scope of Ecology's authorities under MTCA.

5.25 Commenter #25 (Johnson, Tip)

Tip Johnson spoke at the public hearing on August 8, 2007. A copy of Mr. Johnson's hearing testimony is attached (comment #25-A, Appendix A). Mr. Johnson also submitted written comments during the previous public comment period on the RI/FS and DSEIS.

Comment #1: Mr. Johnson stated his opposition to the proposed cleanup action, and stated concerns that the proposed cleanup action is not sufficiently protective.

> Response: Mr. Johnson's preference for an alternative cleanup remedy has been noted by Ecology (see Table 4-2). However, Ecology concludes that the selected cleanup action is appropriate, and is being conducted in strict accordance with MTCA and SMS requirements. MTCA includes a requirement that cleanup solutions be "permanent to the maximum extent practicable". To make this determination a disproportionate cost analysis is performed that compares benefits and costs. The benefits criteria include but are not limited to: permanence, protectiveness, cost, and long-term effectiveness. MTCA states that where two or more alternatives are equal in benefits, Ecology shall select the less costly alternative provided that minimum requirements are met. The disproportionate cost analysis indicates that the benefits of Alternatives 6, 7 and 8 are similar however the costs of Alternatives 7 and 8 are much greater than Alternative 6. Therefore Alternative 6 is identified as being "permanent to the maximum extent practicable" and Ecology's proposed remedy for the Site. Alternative 6 complies with MTCA and SMS and protects human health and the environment given the Port's land and navigation use plans for the Site.

Comment #2: Mr. Johnson provided references to academic publications relating to concerns about mercury toxicity and potential mercury cycling within the environment.

> Response: Ecology shares the commenter's concern about mercury contamination in the environment, especially in light of the risks that mercury poses to human health and the environment and the potential for mercury to be magnified through the aquatic food chain. The State of Washington has promulgated strict cleanup standards in order to protect both human health and the environment from mercury impacts. The cleanup of the Whatcom Waterway Site is one of Ecology's highest priorities.

Comments #3 and #4: Mr. Johnson argued that the cleanup action should address the potential for historical air emissions, historical off-site material disposal, and historical product manufacturing/sales by GP to have impacted off-site areas.

> Response: The cleanup of sediment contamination within the Whatcom Waterway Site is the focus of the current project. Sediment contamination within the Site includes mercury contamination from historic releases of wastewater to the Whatcom Waterway. Investigations at this Site as well as neighboring cleanup sites (e.g., Central Waterfront, Chlor-Alkali Plant, Cornwall Avenue Landfill, RG Haley) have not indicated the existence of a contaminant air plume that has extended mercury contamination to a wider area. The MTCA cleanup regulations only address cleanup of hazardous substances that are released to the environment, and does not govern the manufacture or sale of useful products in

commerce, even though they may be manufactured from or contain hazardous substances.

Comment #5: Mr. Johnson stated his concern that mercury detectors had not been placed at the former Chlor-Alkali site to monitor air quality.

Response: Air monitoring activities have been performed by GP as part of past Chlor-Alkali-plant demolition activities and site RI/FS investigations at the Chlor-Alkali plant. Air monitoring data have not indicated an airborne contamination problem at the property. Additional evaluation of air quality will be performed as part of the finalization of an RI/FS for the Chlor-Alkali Plant site. Ecology encourages Mr. Johnson to participate in future public comment activities relating to the cleanup of the Chlor-Alkali Plant site.

Comment #6: Mr. Johnson stated that the Port's land use plans should support a public waterfront rather than a private one.

Response: Comments regarding the future mix of public and private ownership and/or uses within the New Whatcom planning area should be directed to the Port and City. Ecology does not have jurisdiction over local land use decisions of this type.

Comment #7: Mr. Johnson stated concerns about the availability of treatment capacity for stormwater and industrial wastewater. Ecology interprets this comment as a statement that the ASB should be retained for wastewater or stormwater treatment uses.

Response: The ASB was originally constructed by GP for treatment of pulp mill associated wastewaters. The determination of future uses for the ASB is beyond the scope of Ecology's cleanup authorities. Futures uses of the ASB are local land use decisions, and Ecology encourages Mr. Servais to direct his comments to the Port, the City and appropriate permitting agencies.

Comment #8: Mr. Johnson stated that in his opinion, the regulators are not addressing public interests.

Response: Ecology's regulatory role is to ensure compliance with MTCA cleanup standards and remedy selection requirements. Local land use decisions are beyond the scope of Ecology's MTCA regulatory authority. Please also refer to Ecology's response to Comment #1 above.

5.26 Commenter #26 (Kilanowski, Elizabeth)

Elizabeth Kilanowski spoke at the public hearing on August 8, 2007. A copy of Ms. Kilanowski's hearing testimony is attached (comment #26-A, Appendix A). A copy of the exhibit presented by Ms. Kilanowski at the public hearing is also attached (comment

#26-B, Appendix A). Ms. Kilanowski also submitted written comments during the previous public comment period on the draft RI/FS and DSEIS.

Comments #1 & #2: Ms. Kilanowski stated her concern that the proposed cleanup action may not be protective due to risks of seismic activity which could disrupt sediment caps or cause liquefaction.

> Response: Capping of contaminated sediments has been successfully applied within the Puget Sound area, all of which is seismically active. Based on available information, the proposed caps can be designed to be stable under seismic events. This will be evaluated further during the remedial design phase of the project. If the caps cannot be designed to be stable they will not be implemented.
>
> Note that a draft Engineering Design Report will be developed and issued for public review which contains design details as well as required compliance monitoring and contingency response actions. The Engineering Design Report is expected to be completed in late 2009 or early 2010.

Comment #3: Ms. Kilanowski emphasized that the evaluation of potential tsunami hazards is not sufficient and that additional evaluation of potential tsunami risks should be conducted.

> Response: Remedial design evaluations will include an evaluation of potential tsunami impacts to stability of cap and sediment remediation areas. If future design activities indicate that the proposed remedy is not protective, then Ecology will require modification of the remedy as necessary to comply with any newly identified risks.

Comment #4: Ms. Kilanowski requested that the cleanup decision for the Whatcom Waterway site be delayed, stating that "we're not ready to go forward with the Consent Decree".

> Response: The cleanup of the Whatcom Waterway Site is a high priority for the Department of Ecology and the data available for the Site are sufficient for completion of an RI/FS and for selection of a cleanup action. Additional studies will be performed as part of the remedial design phase of the project. Design details as well as required compliance monitoring and contingency response actions will be provided for public review in a draft Engineering Design Report which is expected to be completed in late 2009 or early 2010.

Comment #5: During the public hearing, Ms. Kilanowski provided copies of recent communications from WWU geology department faculty scientific literature relating to the presence of geologic faults within Whatcom County and vicinity and discussion of potential seismic impacts on construction located within seismically active areas.

Response: As discussed in Ecology's response to comment #1 above, remedial design and permitting activities will include detailed evaluation of potential seismic hazards including liquefaction, lateral spreading, tsunami effects and other seismic disruptions. That evaluation will consider the implications of new geologic information. Such information is constantly evolving, improving our understanding of seismic issues. If future design activities indicate that the proposed remedy is not protective, then Ecology will require modification of the remedy as necessary to comply with any newly identified risks. Design assumptions related to seismic issues will be detailed in the Engineering Design Report which will be made available for public review and comment.

5.27 Commenter #27 (King, Richard)

Richard King provided written comments in an e-mail dated August 13, 2007 (comment #27-A, Appendix A).

Comment #1: Mr. King stated his support for the proposed cleanup action as defined in the Draft Consent Decree.

Response: Mr. King's preference for the proposed cleanup action has been noted by Ecology (see Table 4-1). Ecology has evaluated the proposed cleanup remedy against MTCA criteria and has concluded that the remedy complies with MTCA threshold requirements and is permanent to the maximum extent practicable.

Comment #2: Mr. King expressed his concern that if the dredging and the cleanup are postponed any longer, it may never happen, and stated "let's go forward and get it done."

Response: The cleanup of the Whatcom Waterway Site is a high priority for the Department of Ecology. After review of public comments on the draft Consent Decree and exhibits, Ecology has determined that no significant alterations of these documents are required and that the cleanup should proceed into design and permitting. Ecology shares Mr. King's desire for timely completion of this important project.

5.28 Commenter #28 (Lindquist, Richard)

Richard Lindquist provided written comments in an e-mail dated August 10, 2007 (comment #28-A, Appendix A).

Comment #1: Mr. Lindquist stated his support for the proposed cleanup action as defined in the Draft Consent Decree.

Response: Mr. Lindquist's preference for the proposed cleanup action has been noted by Ecology (see Table 4-1). Ecology has evaluated the proposed cleanup remedy against MTCA criteria and has concluded that the remedy complies with

MTCA threshold requirements and is permanent to the maximum extent practicable.

5.29 Commenter #29 (Lummi Nation)

The Lummi Nation provided written comments in a letter dated August 8, 2007 from Merle Jefferson of the Lummi Natural Resources Department (comment #29-A, Appendix A) and in attachments to that letter (comments #29-B and #29-C, Appendix A). (Comments #29-B and #29-C were previously responded to by Ecology, this response is included as Appendix C). The Lummi Nation also submitted written comments during the previous public comment period on the draft RI/FS and DSEIS.

Comment #1: The Lummi comments stated opposition to entry of the Consent Decree, stating that the agreement is "improper, inadequate and contrary to law." This comment was provided as the opening paragraph preceding comments #2 through #9.

Response: The Lummi opposition to the Consent Decree is noted Ecology (see Table 4-2). Refer to the responses to comments #2 through #9 for Ecology's responses to specific concerns raised by the balance of the letter. These responses explain why Ecology believes it is appropriate to proceed with finalization and entry of the Consent Decree.

Comments #2 : The Lummi comments stated that the tribe has treaty rights under the Point Elliott treaty and that the waters of Bellingham Bay, and that the area occupied by the ASB consist of usual and accustomed fishing grounds for the tribe. The comments also referenced historical ceremonial uses of these areas.

Response: Issues related to tribal treaty rights were considered as part of the Feasibility Study as they relate to the Site cleanup. Concerns about impacts of construction activities on tribal treat rights are typically addressed as part of federal permitting efforts and dialogues between project proponents and local tribes. Ecology understands that the Port is in ongoing discussions with Lummi and Nooksack tribes regarding their treaty right concerns. A review of historical, cultural and archaeological resources in the Site area was conducted as part of the DSEIS. Impacts of the proposed cleanup action on these resources have been evaluated and mitigation measures defined. Consultation with the tribes regarding impacts and mitigation to these resources will occur as part of the federal permitting process.

Comments #3 : The Lummi comments stated that the "taking of our traditional hunting, fishing and gathering areas in Bellingham Bay by the Port of Bellingham, the City of Bellingham, and others is just one of many examples of how our ability to exercise our treaty rights has been reduced."

Response: The potential impacts of other non-remediation, historical activities on tribal treaty rights are beyond the scope of Ecology's cleanup authority.

Comment #4 : The Lummi comments stated that "rather than restoring at least the approximately 33 acres of historic habitat and fishing areas that are currently impacted by the ASB, the Port of Bellingham would continue to preclude tribal use."

> Response: Comments regarding land use decisions cannot be addressed within the scope of Ecology's cleanup authority and should be directed to the Port. The Port's proposal to construct a marina within the ASB is their stated planned land use as owner of the facility. Ecology's role under MTCA is to ensure protection of human health and the environment given this planned use.

Comments #5 & #6: The Lummi comments stated that the Consent Decree is flawed because of three errors including 1) "no evaluation of removing the ASB from the water with re-establishment of intertidal and shallow subtidal habitat and marine buffers and/or eel grass, 2) no consideration of either cumulative effects of the incremental destruction of the natural conditions of Bellingham Bay upon Treaty rights and the ecosystem supporting these Treaty rights or of the new impacts that may result from the proposed conversion of the ASB to a marina, and 3) the use of current conditions as the baseline in evaluating alternatives rather than the more appropriate environmental baseline that existed along what is now the Bellingham waterfront prior to the substantial anthropogenic impacts to this environment.". The Lummi comments also included a copy of a letter from Chairwoman Evelyn Jefferson of the Lummi Indian Business council to Jay Manning of Ecology.

> Response: . First, removal of the ASB is a land use decision that cannot be addressed within the scope of Ecology's cleanup authority. The Port, as the owner of the facility, has indicated to Ecology that they plan to develop the ASB into a marina. As a result Ecology's proposed cleanup action addresses potential contaminant exposure pathways given this use. Second, as indicated in the DSEIS, the proposed cleanup actions specified in the draft Consent Decree produce net benefits to fish and wildlife habitats Concerns about impacts of construction activities on tribal treat rights are typically addressed as part of federal permitting efforts and dialogues between project proponents and local tribes. Ecology understands that the Port is in ongoing discussions with Lummi and Nooksack tribes regarding their treaty right concerns. Regarding impacts and mitigation measures related to the conversion of the ASB to a marina Ecology understands that these will be evaluated as part of the Port's EIS process for the New Whatcom development project. Third, the DSEIS completed by Ecology for the cleanup of the Whatcom Waterway Site was prepared in accordance with the SEPA regulations and included an evaluation of a No Action alternative. Existing conditions define the No Action alternative.
>
> Mr. Manning's response to Chairwoman Jefferson's letter is attached to this Responsiveness summary as Appendix C.

Comment #7, 8 and 9: The Lummi comments requested that the Consent Decree be altered to 1) remove the pollutants from the ASB, 2) restore the aquatic lands and waters that comprise the ASB, including removal of the breakwaters and other protection structures around the ASB, to the state that existed prior to the construction of the ASB, and 3) removal, to the maximum extent possible, of pollutants from the former ASB and other lands covered by the Consent Decree."

Response: The draft Consent Decree already includes requirements for removal of pollutants from the ASB. The second action requested by the Lummi Tribe is a land use decision that is outside Ecology's regulatory cleanup authority. Regarding the third request, the MTCA regulations include a requirement that cleanup actions use "permanent solutions to the maximum extent practicable". To identify the cleanup action that is "permanent to the maximum extent practicable", MTCA requires the completion of a disproportionate cost analysis. Section 5 of the DCAP presents this analysis and concludes that Alternative 6 is permanent to the maximum extent practicable, and therefore Ecology's proposed cleanup action for the Site.

5.30 Commenter #30 (Mackay, Mike)

Mike Mackay spoke at the public hearing on August 8, 2007. A copy of Mr. Mackay's hearing testimony is attached (comment #30-A, Appendix A). Mr. Mackay also provided written comments in an e-mail dated August 12, 2007 (comment #30-B, Appendix A) and in an attachment to that e-mail (comment #30-C, Appendix A). Mr. Mackay also submitted written and verbal comments during the previous public comment period on the RI/FS and DSEIS.

Comments #1 & #7: Mr. Mackay stated his opposition to the use of capping as part of site cleanup, and stated that he does not believe these actions will be "protective for human health or result in a cost-effective solution towards the long-term health of the Whatcom Waterway".

Response: Mr. Mackay's desire for a cleanup alternative that does not involve capping has been noted by Ecology (see Table 4-2). However, capping has been successfully applied in Puget Sound and elsewhere for remediation of contaminated sediments and must be considered as part of an alternatives analysis. The MTCA includes a requirement that cleanup solutions be "permanent to the maximum extent practicable". To make this determination a disproportionate cost analysis is performed that compares benefits and costs. MTCA states that where two or more alternatives are equal in benefits, Ecology shall select the less costly alternative provided that minimum requirements are met. Mr. Mackay's comment and other similar comments received on the draft RI/FS, DSEIS and the draft Consent Decree that expressed a desire for more removal, complete removal, or opposed capping were interpreted by Ecology to mean a desire for the most protective, permanent and effective remedy. These comments confirm Ecology's assignment of the highest weighting factors to the

overall protectiveness, permanence and long-term effectiveness benefits criteria in the disproportionate cost analysis presented in Section 5 of the DCAP. The disproportionate cost analysis indicates that the benefits of Alternatives 6, 7 and 8 are similar however the costs of Alternatives 7 and 8 are much greater than Alternative 6. Therefore Alternative 6 is identified as being "permanent to the maximum extent practicable" and Ecology's proposed remedy for the Site.

Comments #2 and #14: Mr. Mackay stated concerns about the existing data set and exposure models used to evaluate potential mercury bioaccumulation and exposure pathways. He specifically stated that testing of juvenile/sub-legal Dungeness crab should be performed to evaluate potential mercury concentrations in species prior to potential entry into the human food chain.

Response: Tissue mercury levels in juvenile Dungeness crab have been monitored as described in the RI Report. The analysis used to derive the BSL uses adult crab testing data because 1) this is more relevant to potential human exposures (given that consumption of sub-legal Dungeness crab is limited), and 2) the mercury concentrations present in juvenile crabs is lower than the concentrations in the adult crab (such that use of the adult crab tissue data produces a more stringent BSL value).

Comments #3 & #9: Mr. Mackay stated his disagreement with the BSL. He stated concerns about potential mercury exposures to those who are pregnant, children and tribal members who consume higher levels of seafood than those calculated in the BSL.

Response: As part of the development of site cleanup levels, Ecology has considered the potential impact of sediment mercury on food chain impacts to human health and the environment, including the potential impact to tribal subsistence fishers. The fish consumption rates used in the analysis are based on targeted studies of high-consuming tribal populations, and are further based on the higher of adult and child seafood ingestion rates. The methylmercury reference dose used in the analysis to characterize mercury toxicity was developed by the federal government to ensure prevention of sub-acute effects in fetal and childhood exposure scenarios. This ensures protection of the most sensitive populations. The BSL was initially prepared as part of the 2000 RI/FS which was issued for public review and comment prior to finalization. The bioaccumulation screening level (BSL) developed for the site has been reviewed by multiple parties including the Corps of Engineers and the Washington State Department of Health (see Commenter #47). The protectiveness of the BSL and its application at the Site have been affirmed in these reviews, and Ecology concludes that its use as part of cleanup decision-making is appropriate. Additionally, please note that (as discussed in the RI/FS and DCAP), the BSL is to be applied by Ecology on a point-by-point basis rather than on an area-wide basis. This means that the average *area-wide* surface concentration of mercury achieved by the cleanup action will be well below the BSL even though the BSL is used as the metric for a

given sampling station. Additional factors that ensure the protectiveness of the BSL are discussed in Section 4 of the 2006 RI Report.

Comment #4: Mr. Mackay opposes removal of the ASB sediments because these sediments are not exposed to the food chain.

Response: Ecology disagrees that the implication that no actions are required in the ASB or that removal of these sediments is inconsistent with MTCA requirements. When the ASB was in full use as a wastewater treatment facility, it posed little risk to human health and the environment, because potential exposure pathways and risks were minimal. However, if wastewater uses are terminated, the potential ecological risks associated with the contamination within the ASB become significant. While the berm and bottom of the ASB present a relatively contained environment, the surface of the ASB allows for a significant exposure pathway, particularly to waterfoul and shorebirds. Upon termination of wastewater uses, the ASB can be expected to function as a freshwater lake ecosystem with is many inhabitants and potential pathways in the foodchain beyond the ASB boundaries. As such, remediation of the ASB is a requirement.

Additionally, land use is considered a part of Ecology's evaluation of protectiveness under MTCA and SMS regulations. In this case, the Port's proposal to reuse the ASB as a marina resulted in Ecology's requirement to remove rather than fill the ASB with soil or cap the contaminated sludges and sediments from this area of the Site. The Port's agreement to perform this action also provides a more permanent cleanup solution for this portion of the Site than the other two aforementioned remedies. The evaluation of cleanup requirements for the Whatcom Waterway similarly takes into account existing and planned future land uses as necessary to assess potential sediment disturbance. This is consistent with Ecology's procedures under MTCA and SMS regulations and cleanup guidance. The RI/FS included evaluation of a full range of cleanup alternatives, including remedial alternatives that were less responsive to local land use planning. Please refer to that document for an evaluation of the relative protectiveness of those cleanup alternatives.

Comment #5: Mr. Mackay stated that the cleanup action should include dredging of the Log Pond and more removal in shallow-water areas that are used more intensively by juvenile fish and aquatic receptors.

Response: Ecology's goal under MTCA and SMS is to ensure compliance with cleanup levels in ALL areas of the site, and no portions of the site are to be disregarded. Ecology concurs that the greatest habitat function for targeted species including juvenile salmonids includes intertidal and shallow subtidal habitat. The priority for preservation and enhancement of such "premium nearshore" habitat is reflected in the DSEIS document and the goals of the Bellingham Bay Demonstration Pilot. However, achievement of cleanup levels in

intertidal and shallow subtidal areas can be achieved using a variety of technologies, and dredging is not the only approach that can be effective in these areas. Monitoring data does not support the assertion that the Log Pond should be further remediated by dredging. Monitoring data indicates that buried mercury contaminated sediment remains safely buried, mercury is not migrating up through the clean cap material, and crab mercury levels remain below regulatory thresholds of potential concern and continue to decline. Shoreline erosion in the southwest corner of the Log Pond has exposed contamination in an isolated area where the cap thins out to intersect the shoreline. Contingency actions will be implemented as part of the overall cleanup of the Site to address the exceedance area and shoreline erosion processes.

Comment #6, #15 & #16: Mr. Mackay criticized the previous responsiveness summary issued by Ecology in July 2007. Mr. Mackay stated that technical information provided by the Lummi Nation, RE Sources and People for Puget Sound was ignored and that the document was prepared using a demeaning, on-size-fits-all response. He encouraged Ecology to make significant changes to the Site documents based on some of the technical recommendations provided during the public involvement process.

Response: Public comment is an important element of the MTCA process and Ecology attempted to legitimately interpret, consider and respond to all comments received on the draft RI/FS and DSEIS.

Regarding the format of the July 2007 Responsiveness Summary, Ecology elected to group like comments together in order to ensure that 1) the Responsiveness Summary was of a readable length, 2) that the relative frequency of a particular comment was communicated to the reader of the document. All comments were itemized and cross-linked so that commenters could determine easily where in the document their comments were addressed. All comments and technical information presented by the Lummi Nation, RE Sources and People for Puget Sound were considered by Ecology. Please note that Ecology does not weight the comments of any one party over those of another and considers the concerns raised in the comments as part of the remedy selection process. Ecology responded to every comment from every commenter as part of the draft RI/FS DSEIS Responsiveness Summary.

After considering comments received, Ecology has determined that no significant changes to the draft Consent Decree, including the DCAP, are required. Therefore Ecology is issuing this Responsiveness Summary jointly with the final Consent Decree and the Final Supplemental EIS for the cleanup of the Site. The final Consent Decree/CAP identifies Alternative 6 as Ecology's selected final remedy. The Consent Decree will now be signed by Ecology, the Port, the City and the other parties implementing the cleanup, and will be entered in Whatcom County Superior Court. Following entry into court the cleanup will move forward into remedial design, permitting and construction.

Comment #8: Mr. Mackay alleged that political bias affected the selection of cleanup alternatives, stating "I believe the alternatives chosen were primarily politically motivated and the science they were founded on severely biased. This may have resulted, in part, from a close relationship between Ecology and consultants representing the Port of Bellingham and the previous owner, Georgia Pacific West." Mr. Mackay stated concern that the Port, the City and Ecology were unified in their selection of the site remedial alternative, based on the concurrence of comments from the Port and City issued during the RI/FS and DSEIS comment period with the preferred alternative.

> Response: Ecology rejects the allegation that the cleanup selection has been biased by some sort of political relationship between Ecology, the Port and the City. Ecology is the regulatory agency responsible for overseeing the investigation and cleanup of the Whatcom Waterway Site consistent with the MTCA regulations. Ecology has been working constructively with the Port, the City and other local entities as part of the Bellingham Bay Demonstration Pilot since 1996. The constructive relationship between these parties is the result of the Port and City proactively complying with MTCA requirements. Regarding the remedy selection process, MTCA includes a requirement that cleanup solutions be "permanent to the maximum extent practicable". To make this determination a disproportionate cost analysis is performed that compares benefits and costs. The benefits criteria include but are not limited to: permanence, protectiveness, cost, and long-term effectiveness. MTCA states that where two or more alternatives are equal in benefits, Ecology shall select the less costly alternative provided that minimum requirements are met. The disproportionate cost analysis indicates that the benefits of Alternatives 6, 7 and 8 are similar however the costs of Alternatives 7 and 8 are much greater than Alternative 6. Therefore Alternative 6 is identified as being "permanent to the maximum extent practicable" and Ecology's proposed remedy for the Site. Alternative 6 complies with MTCA and SMS and protects human health and the environment given the Port's land and navigation use plans for the Site.

Comment #10 & 11: Mr. Mackay stated that Ecology should require removal and land disposal of all sediments exceeding a mercury concentration of 0.59 mg/kg, and that a 6-foot thick sediment cap should be placed over all areas with sediments in excess of 0.41 mg/kg.

> Response: Mr. Mackay's preference for an alternative cleanup remedy has been noted by Ecology (see Table 4-2). However, Ecology has evaluated the proposed cleanup remedy against MTCA criteria and has concluded that the remedy complies with MTCA threshold requirements and is permanent to the maximum extent practicable. As illustrated in the DCAP, Ecology considers it appropriate to use different cap thicknesses in different areas of the site. The proposed cleanup action incorporates a 6-foot cap thickness in higher-concentration areas adjacent to the Log Pond, with 3-foot nominal cap thicknesses in selected other areas. Ecology does not consider the use of a 6-foot cap thickness warranted in all cap areas.

Comment #12: Mr. Mackay stated that Ecology should assume a biological active zone of 15 cm rather than the 12 cm thickness used by Ecology for the Site.

Response: typical bioactive zone thickness in Puget Sound is 10 cm. Ecology previously evaluated this issue as part of the 2000 RI/FS which was submitted for public review and comment. Ecology concluded that a thickness assumption of 12 cm is appropriate for application throughout the Site based on site-specific data. Please note, however, that the use of a 15 cm bioactive zone assumption would not likely affect the selection of remedial alternative at the Site.

Comment #13: Mr. Mackay stated that the disproportionate cost analysis was biased toward less costly alternatives, and "did not adequately factor in risks to human health and the unacceptable costs that come with someone being exposed to toxins from Whatcom Waterway."

Response: Ecology disputes Mr. Mackay's allegation that the disproportionate cost analysis was biased, or that potential human exposure risks were disregarded in favor of cost-effectiveness. The MTCA regulations require that ALL cleanup alternatives must be capable of complying with site cleanup levels in order to be considered during the remedy selection process in order to ensure elimination of exposure risks. All alternatives considered by Ecology as part of the remedy selection process for the Site meet the threshold requirements for cleanup actions. This threshold evaluation is conducted *without regard* to cost. Cost is considered only as part of the subsequent disproportionate cost analysis which considers which of the qualifying remedial alternatives is "permanent to the maximum extent practicable". To make this determination a disproportionate cost analysis is performed that compares benefits and costs. The benefits criteria include but are not limited to: permanence, protectiveness, cost, and long-term effectiveness. MTCA states that where two or more alternatives are equal in benefits, Ecology shall select the less costly alternative provided that minimum requirements are met. The disproportionate cost analysis indicates that the benefits of Alternatives 6, 7 and 8 are similar however the costs of Alternatives 7 and 8 are much greater than Alternative 6. Therefore Alternative 6 is identified as being "permanent to the maximum extent practicable" and Ecology's proposed remedy for the Site. Alternative 6 complies with MTCA and SMS and protects human health and the environment given the Port's land and navigation use plans for the Site.

5.31 Commenter #31 (Matthew, Don)

Don Matthew provided written comments in an e-mail dated July 12, 2007 (comment #31-A, Appendix A).

Comment #1: Mr. Matthew stated "please protect us and enforce the removal of the mercury from Bellingham Bay", which Ecology interprets as a request for additional

removal of mercury-containing sediments, beyond that provided under the proposed cleanup action.

Response: Mr. Matthew's preference for an alternative cleanup remedy has been noted by Ecology (see Table 4-1). The MTCA includes a requirement that cleanup solutions be "permanent to the maximum extent practicable". To make this determination a disproportionate cost analysis is performed that compares benefits and costs. MTCA states that where two or more alternatives are equal in benefits, Ecology shall select the less costly alternative provided that minimum requirements are met. Mr. Matthew's comment and other similar comments received on the draft RI/FS, DSEIS and the DCAP that expressed a desire for more removal, complete removal, or opposition to capping were interpreted by Ecology to mean a desire for the most protective, permanent and effective remedy. These comments confirm Ecology's assignment of the highest weighting factors to the overall protectiveness, permanence and long-term effectiveness benefits criteria in the disproportionate cost analysis presented in Section 5 of the DCAP. The disproportionate cost analysis indicates that the benefits of Alternatives 6, 7 and 8 are similar however the costs of Alternatives 7 and 8 are much greater than Alternative 6. Therefore Alternative 6 is identified as being "permanent to the maximum extent practicable" and Ecology's proposed remedy for the Site.

Comment #2: Mr. Matthew asked "why is GP not involved in cleaning up. Or at least a fine or some front page press releases."

Response: GP remains liable for sediment contamination associated with the Site. However, following the Port's acquisition of the former GP mill site, the Port has assumed the leadership role for Site cleanup. This leadership was assumed by the Port under purchase and sale agreements between the Port and GP. Ecology's responsibility under MTCA regulations is to require the investigation and cleanup of contaminated sites consistent with MTCA criteria. The current Consent Decree to be signed by the Port and other parties accomplishes these objectives. Ecology has reserved its rights to potentially require additional actions of GP or the other potentially liable parties should such actions be required to protect human health or the environment. These actions could include use of an Enforcement Order or unilateral cleanup of the Site by Ecology in conjunction with cost recovery actions if necessary. However, such actions are not required at this time given the cooperative participation of the potentially liable parties. GP's responsibility for the release of mercury at the Site is well documented and has been the subject of extensive media attention, in addition to being documented in reports prepared by Ecology.

5.32 Commenter #32 (Mischaikov, Ted)

Ted Mischaikov provided written comments in an e-mail dated August 1, 2007 (comment #32-A, Appendix A).

Comment #1: Mr. Mischaikov stated his support for the proposed cleanup action as defined in the Draft Cleanup Action Plan.

> Response: Mr. Mischaikov's preference for the proposed cleanup action has been noted by Ecology (see Table 4-1). Ecology has evaluated the proposed cleanup remedy against MTCA criteria and has concluded that the remedy complies with MTCA threshold requirements and is permanent to the maximum extent practicable.

Comment #2: Mr. Mischaikov expressed his desire that the cleanup action should be implemented without delay.

> Response: The cleanup of the Whatcom Waterway Site is a high priority for the Department of Ecology. After review of public comments on the draft Consent Decree and exhibits, Ecology has determined that no significant alterations of these documents are required and that the cleanup should proceed into design and permitting. Ecology shares Mr. Mischaikov's desire for timely completion of this important project.

5.33 Commenter #33 (Nooksack Tribe)

The Nooksack Indian Tribe provided written comments in an e-mail dated August 13, 2007 (comment #33-A, Appendix A) and in a written letter from tribal chairman, Narcisco Cunan, attached to that e-mail (comment #33-B, Appendix A).

Comment #1: The Nooksack comments expressed concern that the cleanup action as proposed in the DCAP presents risks to the health of Nooksack Tribal members and to local residents who consume fish and shellfish harvested from the Whatcom Waterway and its environs.

> Response: As part of the development of site cleanup levels, Ecology has considered potential food chain impacts to human health and the environment from mercury bioaccumulation, including the potential impact to high consuming subsistence fishers. The sediment mercury bioaccumulation screening level (BSL) for the Site was developed using standard risk assessment methodologies and has been reviewed by the Corps of Engineers and more recently the Washington State Department of Health (see Commenter #47). The appropriateness of the BSL to address human health concerns at the Site has been consistently affirmed in these reviews, and Ecology concludes that its use as part of cleanup decision-making ensures protection of human health from mercury bioaccumulation risks.

Comment #2: The Nooksack comments stated that the tribe has rights under the Point Elliot Treaty to harvest fish and shellfish in the Whatcom Waterway vicinity, and stated

that the project area was historically an important gathering site for the Nooksack people. The comments stated that the tribal rights have been impacted for almost 100 years by industrial operations, limitations of site access, and degradation of water quality.

> Response: A review of historical, cultural and archaeological resources in the Site area was conducted as part of the DSEIS. Impacts of the proposed cleanup action on these resources have been evaluated and mitigation measures defined. The potential historical impacts of other non-remedial activities on tribal treaty rights are beyond the scope of Ecology's regulatory cleanup authority..

Comment #3: The Nooksack comments stated that the cleanup of the Site should be structured to ensure protectiveness of tribal fish and shellfish consumption.

> Response: As stated in our response to Comment #1 above, the site-specific BSL is protective of high-consuming subsistence fishers. The protectiveness of the BSL is discussed in Section 4 of the RI Report. The fish consumption rates used in the BSL development are based on the most comprehensive evaluation of seafood consumption rates by regional tribal fishers, as contained in Toy et al. (1996), based on studies of the Tulalip and Squaxin Island Tribes of Puget Sound. The conservative upper-bound (90th percentile) combined consumption rate of crab, bottomfish, clams, and mussels from that study is approximately 70 grams per day (23.4 grams Dungeness crab, 7.8 grams total bottomfish and 38.5 grams clams & mussels), with additional consumption of salmonid, pelagic and freshwater fish. The overall seafood consumption rate used is equivalent to 173 grams per day of total seafood (rates normalized to a 70 kg adult). The seafood consumption rates used for BSL development are more conservative than the mean and median ingestion rates, and are substantially higher than the 95% upper confidence limit around the mean from the Toy study. The rates are also substantially higher than the rates currently used in the state MTCA regulations (27 grams/day). EPA risk assessment guidance for use with Superfund sites (EPA, 1997) recommends a mean total fish/shellfish intake rate of 70 grams per day, and a 95th percentile consumption rate of 170 grams per day for protection of sensitive subsistence fisher populations , which is less than the assumed ingestion rates (173 grams per day) used for the BSL development. It is also important to note that the rates from the Toy (1996) study represent the higher of the adult and child seafood ingestion rates (normalized to body weight). This ensures that the BSL development is protective of both adult and non-adult populations.

Comment #4: The Nooksack comments stated concerns that the fish consumption rates used in development of the site-specific BSL were lower than values considered by the tribe to be more representative of potential tribal consumption rates. Specifically, the Nooksack comments referenced recent Swinomish recommendations for fish consumption rates (recommended 260 grams/day total fish consumption rate) and the historical salmon consumption rate referenced for the Columbia River tribal fishers in the 1974 Boldt decision (500 pounds total salmon consumed per year, or 620 grams/day total salmon consumption).

Response: The BSL was developed using fish consumption rate data from the Toy 1996 study of the Tulalip and Squaxin tribes. The use of the Toy study for development of the BSL remains appropriate, because it provides a peer-reviewed publication containing relevant data regarding tribal consumption rates within Puget Sound for the specific categories of seafood that are potentially affected by site-associated contaminants.

The Swinomish fish consumption recommendation and the underlying interview data on which it is based have not been made available to Ecology for review, nor have the data been peer-reviewed at this time. Ecology cannot therefore comment on the appropriateness of the Swinomish recommendations and whether these might be more or less appropriate for use than the Toy study.

The 1974 Boldt decision included discussion of salmon consumption rates for the Yakima Treaty tribes in the main stem of the Columbia River. These consumption rates are not appropriate for use in BSL development at the Whatcom Waterway Site because 1) the consumption rate information is from outside of Puget Sound, 2) the consumption rates are specifically for salmon which have not been impacted by site-associated contaminants, and 3) the consumption rates represent historical rather than current consumption practices. The Boldt decision did not provide information on crab, bottomfish or clam consumption rates for Puget Sound tribes, as provided by the Toy study used in BSL development. The issue of the relevancy for historical consumption rates (i.e., fish consumption rates prior to settlement by Europeans in the Pacific Northwest) versus current consumption rates (i.e., current fish consumption rates measured through interviews and observation and representative of current practices) is complex, and involves issues beyond the scope of the MTCA regulations.

Ecology encourages the Nooksack Tribe to consider as part of the discussion of fish consumption rates the additional factors incorporated by Ecology to ensure protectiveness of the BSL as applied at the site in the cleanup decision. These factors provide a substantial additional degree of additional protectiveness to the BSL such that potential health effects would not be expected even if overall fish consumption rates by tribal members were higher than documented in the Toy study. Ecology incorporated a number of additional factors in the BSL development and its application. The first of these factors included the assumption that tribal fishers consume 100% of their seafood from within the Whatcom Waterway site area. This provides a substantial increase in conservatism to the BSL, because diet fraction values of 50% or less are normally used in risk assessment and cleanup level development, and seafood consumption surveys confirm that use of a 100% diet fraction is a gross overestimate of site-associated consumption patterns. Second, Ecology assumed that 100% of the mercury present in the seafood was present as methylmercury, though this assumption is conservative for marine seafood species. Third, in applying the BSL to the site, Ecology applied the BSL on a point-by-point basis rather than to the area-wide

average sediment concentrations, though the BSL relationship was derived based on area-wide concentrations. This results in a substantial additional level of conservatism, because the surface-sediment concentrations that result are on average less than half of the BSL requirement. Finally, Ecology expects that the concentrations of sediment contaminants will decline over time following completion of the cleanup action due to sediment natural recovery, further reducing exposure risks at the site. However, the BSL is applied without taking into account this additional long-term improvement in sediment quality.

Ecology concludes that the BSL was developed using appropriate methodology consistent with MTCA requirements, and that the BSL as applied in the DCAP provides a significant protection against uncertainties in fish consumption rates or other assumptions. There is no evidence that the BSL is not protective of current or potential future seafood consumption rates for Nooksack or other seafood consumers.

Comment #5 & 6: The Nooksack comments stated concern about in-place management of contaminated sediments due to concerns about potential future exposure of these buried sediments. The comments stated that the concentrations of mercury and phenols that are known to be present in the Whatcom Waterway should not be managed in place.

Response: Capping of contaminated sediments has been successfully applied within the Puget Sound area. The capping in the Log Pond has been shown to be effective at preventing migration of mercury and phenol contaminants upward through the cap, even at much higher initial contaminant concentrations than those present within the remaining Site areas. Based on available information, the use of capping technologies as part of the cleanup action is appropriate. Specific capping methods will be refined during remedial design and permitting activities, and will be documented in the Engineering Design Report. That report will be available for public review and comment in late 2009 or early 2010.

Please note that confirmational monitoring of surface sediments is anticipated to be conducted in cap and natural recovery areas during years 1, 3, 5, 10, 20, and 30 following completion of the remedial action with potential modifications in schedule depending on prior sampling results. This may include a decrease or decrease in frequency and/or intensity of sampling efforts. The exact scope, frequency, and duration of monitoring will be developed as part of the Engineering Design Report.

Comment #7: The Nooksack comments stated that restoration of the historical fisheries productivity in the Whatcom Waterway vicinity should be incorporated as one of the cleanup objectives.

Response: Restoration of historical fisheries productivity is beyond the scope of Ecology's regulatory cleanup authority dictated by MTCA. However, as documented in the DSEIS, the proposed cleanup action will produce a net

beneficial impact to fisheries resources and will further the restoration objectives of the Bellingham Bay Demonstration Pilot.

Comment #8 & 9: Citing the comments listed above, the Nooksack comments state that the cleanup proposed in the DCAP is not protective of tribal health, and that such protection will require removal of all contaminated sediments from the Site

Response: The commenter's preference for an alternative cleanup approach involving full removal of contaminated sediments from the Site is noted (see Table 4-1). In accordance with MTCA, Section 5 of the DCAP presents an evaluation of a range of potential cleanup alternatives against a prescribed set of regulatory criteria. From this evaluation one cleanup alternative is identified as being "permanent to the maximum extent practicable" and is proposed by Ecology as the final remedy for the Site. The regulatory criteria for determining the cleanup alternative that is "permanent to the maximum extent practicable" include but are not limited to: permanence, protectiveness, cost, and long-term effectiveness. The proposed cleanup action protects human health and the environment given the Port's land and navigation use plans for the Site. Also see response to Comments above.

5.34 Commenter #34 (Owens, Michael)

Michael Owens provided written comments in an e-mail dated August 10, 2007 (comment #34-A, Appendix A).

Comment #1: Mr. Owens stated his support for the proposed cleanup action as defined in the draft Consent Decree.

Response: Mr. Owens' preference for the proposed cleanup action has been noted by Ecology (see Table 4-1). Ecology has evaluated the proposed cleanup remedy against MTCA criteria and has concluded that the remedy complies with MTCA threshold requirements and is permanent to the maximum extent practicable.

5.35 Commenter #35 (People for Puget Sound)

Tom Winter of the People for Puget Sound (PPS) spoke at the public hearing on August 8, 2007. A copy of Mr. Winter's hearing testimony is attached (comment #35-A, Appendix A). People for Puget Sound also provided written comments in an e-mail dated August 13, 2007 from Heather Trimm (comment #35-B, Appendix A) and in an attachment to that e-mail (comment #35-C, Appendix A). PPS submitted written and verbal comments during the previous public comment period on the RI/FS and DSEIS.

Comment #1, #2, #7, #9: The verbal and written comments from PPS stated that the organization feels that the objective of cleanup should be to maximize removal of mercury from the Site, using dredging "everywhere it makes sense". PPS specifically

seeks a cleanup with sediment removal intermediate between RI/FS Alternative 7 and RI/FS Alternative 8.

> Response: The PPS preference for additional sediment removal intermediate between that provided in Alternative 7 and that provided in Alternative 8 action is noted (see Table 4-2). The MTCA includes a requirement that cleanup solutions be "permanent to the maximum extent practicable". To make this determination a disproportionate cost analysis is performed that compares benefits and costs. MTCA states that where two or more alternatives are equal in benefits, Ecology shall select the less costly alternative provided that minimum requirements are met. The PPS comment and other similar comments received on the draft RI/FS, DSEIS and the draft Consent Decree that expressed a desire for more removal, complete removal, or opposed capping were interpreted by Ecology to mean a desire for the most protective, permanent and effective remedy. These comments confirm Ecology's assignment of the highest weighting factors to the overall protectiveness, permanence and long-term effectiveness benefits criteria in the disproportionate cost analysis presented in Section 5 of the DCAP. The disproportionate cost analysis indicates that the benefits of Alternatives 6, 7 and 8 are similar however the costs of Alternatives 7 and 8 are much greater than Alternative 6. Therefore Alternative 6 is identified as being "permanent to the maximum extent practicable" and Ecology's proposed remedy for the Site.

Comment #3, #10 and #11: The PPS comments cited concerns about potential formation of methylmercury and the potential for methylmercury to accumulate in seafood species. PPS referenced the continuing presence of methylmercury compounds at other cleanup sites with mercury-containing sediments including LaVaca Bay in Texas and SanPablo Bay in California. The comments argued that capping without prior dredging increases the concern that methylmercury will cause future problems.

> Response: Controlling potential future methylation and transport of mercury is also a priority of Ecology's. Given the tendency of methylmercury to bioaccumulate in seafood, tissue monitoring provides a direct endpoint by which the success of mercury control efforts can be measured. Monitoring of tissue mercury has shown that natural recovery of sediments and the capping of the Log Pond have been successful in reducing tissue mercury concentrations. Most mercury-impacted sediments within the Whatcom Waterway Site consist of buried sediments located in depositional, deep-water areas. In stable marine sediments, methylation occurs primarily in the top portions of the sediment column, within the bioactive zone. Methylation in deeper sediment horizons is constrained by geochemical properties of the sediments. In contrast, where impacted subsurface sediments are routinely disturbed, methylation of mercury can occur in the freshly exposed sediments. The sediments of LaVaca Bay and SanPablo Bay are both shallow-water systems exposed to continuing sources of mercury inputs and significant resuspension of subsurface sediments, illustrating this point. Controlling the concentration of methylmercury in the bioactive zone

and in sediment horizons that are frequently disturbed minimizes the potential for mercury methylation to occur.

Comment #4 & #16: PPS stated concerns that sea level rise is likely to occur due to climate change and expressed concern that the level of the rise may affect planned shoreline development within the project area, with the range of sea level rise estimates ranging from less than 1 foot to several meters.

Response: Ecology has been an active participant in evaluations of climate change and its potential impacts on people and the environment in Puget Sound. All waterfront areas within Puget Sound are facing the uncertainty associated with climate change and sea level rise estimates. Because the extent of sea level rise remains uncertain, Ecology will consider a range of potential sea level rise estimates during remedial design and permitting. These evaluations and the implications for the design of the cleanup will be documented in the Engineering Design Report which will be made available for public review. Concerns regarding potential climate change impacts related to land use/waterfront redevelopment activities are beyond the scope of Ecology's cleanup authority and should be addressed to the Port, the City or to permitting agencies associated with those development activities.

Comment #5: The PPS comments cited concerns that seismic activity could represent an exposure risk and that a seismic event could "dump considerable residue into the Sound. We feel that the sources for this debris should be minimized, until a better estimate exists for the extent of this seismic risk." PPS referenced recent geologic data reports provided by WWU faculty to the Port updating the understanding of faults within Whatcom County.

Response: As described in the DCAP and in the draft RI/FS and DSEIS Responsiveness Summary, detailed geotechnical and seismic evaluations are to be conducted for the cleanup action as part of remedial design. These studies will address the potential for sediment caps or other site areas to be disturbed during a seismic event. The results of these evaluations will be documented in the Engineering Design Report which will be made available for public review and comment. Concerns regarding potential seismic concerns related to land use/waterfront redevelopment activities are beyond the scope of Ecology's cleanup authority and should be addressed to the Port, the City or to permitting agencies associated with those development activities.

Comment #6 & #19: The PPS comments recommended "the utmost in habitat restoration and open space along the waterfront", stating that "this cleanup and the associated development plans are a once-in-a-lifetime opportunity to create a water's edge project that could significantly improve the health of the nearshore in Bellingham."

Response: Ecology's regulatory role with respect to the cleanup of the Whatcom Waterway site is to ensure that the cleanup action complies with MTCA and SMS

cleanup levels, and to ensure that the cleanup action complies with MTCA remedy selection criteria. While Ecology's staff are supportive of other beneficial activities such as the development of nearshore habitat or open space, the focus of our cleanup program staff must remain grounded in our primary regulatory role in order to ensure protection of human health and the environment. Comments related to the development of habitat restoration and open space should be directed to the Port and the City.

Comment #8: The PPS comments expressed disappointment that the cleanup proposal was not changed significantly since the RI/FS preferred alternatives, and stated that questions and comments raised during the RI/FS public comment period were not addressed.

Response: Consistent with our regulatory mandate, Ecology has considered *all* of the comments received from the public, from other regulatory and resource management agencies, and from affected stakeholders. All commenters are given due consideration by Ecology, and no commenters are given special treatment. All comments and questions from the previous comment period were addressed as part of the July 2007 responsiveness summary. Please note, however, that cleanup decisions cannot necessarily achieve unanimous concurrence with the opinions of commenting parties, and public comments must be considered along with the other factors defined in the MTCA remedy selection process.

Comment #12: The PPS comments stated that if capping is allowed as part of the cleanup action in areas not previously dredged, then cap thicknesses should be a minimum of 6-feet in thicknesses.

Response: As illustrated in the DCAP, Ecology considers it appropriate to use different cap thicknesses in different areas of the site. The proposed cleanup action incorporates a 6-foot cap thickness in higher-concentration areas adjacent to the Log Pond, with 3-foot nominal cap thicknesses in selected other areas. Ecology does not consider the use of a 6-foot cap thickness warranted in all cap areas. Final cap design details will be developed in the Engineering Design Report which will be made available for public review and comment.

Comment #13: PPS requested a table listing the amount of mercury (in pounds) that would be removed under each alternative and the amount remaining in place within each portion of the site.

Response: A table of this type has not been prepared by Ecology because it does not have a specific role in the alternatives analysis. However, the information (sample locations, concentrations, sediment volumes) necessary to develop different representations and estimates of contaminant mass is available in the RI/FS and you are free to develop whatever tables or graphics you believe are appropriate to your needs. All of the site data are additionally available in electronic format from Ecology.

Comment #14: PPS requested that subsurface sediment data be made available for the Starr Rock area of the site.

> Response: Surface sediments at Starr Rock currently comply with Site cleanup levels therefore monitored natural recovery is the proposed cleanup approach for this area of the Site. Subsurface data are not currently available. However, additional testing of this area is planned as part of sediment stability evaluations to be performed during remedial design. This information will be provided for public review during the remedial design phase of the project as part of an Engineering Design Report.

Comment #15: The PPS comments stated concern with the seafood consumption estimates used in development of the BSL, stating "We do not feel, however, that cumulative impacts of eating seafood from this area has been adequately explained and justified. Seafood consumption values should be treated with the most conservative approach."

> Response: As part of the development of site cleanup levels, Ecology has considered the potential impact of sediment mercury on food chain impacts to human health and the environment, including the potential impact to tribal subsistence fishers. The bioaccumulation screening level (BSL) developed for the site has been reviewed by multiple parties including the Corps of Engineers, the Whatcom County Health Department staff and the Washington State Department of Health (see Commenter #47). The protectiveness of the BSL and its application at the Site have been affirmed in these reviews, and Ecology concludes that its use as part of cleanup decision-making is appropriate. Additionally, please note that (as discussed in the RI/FS and DCAP), the BSL is to be applied by Ecology on a point-by-point basis rather than on an area-wide basis. This means that the average *area-wide* surface concentration of mercury achieved by the cleanup action will be well below the BSL. Additional factors that Ecology considers to ensure the conservativeness and protectiveness of the BSL are discussed in Section 4 of the RI Report.

Comments #17 and #18: PPS expressed concern that seismic events and tsunamis could impact the project site, scour the bottom uncovering capped sediment contaminants, and potentially sweep structures and other debris into the Sound. PPS requested that "a conservative approach should be taken – the amount of mercury-laden sediment and the number of structures and other debris that could be swept into the Sound should be minimized."

> Response: As described in the DCAP and in the draft RI/FS Responsiveness Summary, the potential for seismic and tsunami impacts on the cleanup action will be evaluated as part of remedial design. These studies will address the potential for sediment caps to be disturbed by these events and will provide the design basis for sediment caps to protect against such disturbances. The results of

these evaluations will be documented in the Engineering Design Report which will be made available for public review and comment. Concerns regarding potential tsunami impacts to land use/waterfront redevelopment activities are beyond the scope of Ecology's cleanup authority and should be addressed to the Port, the City or to permitting agencies associated with those development activities.

Comment #20: PPS stated that they have noted that at other cleanup sites in Puget Sound cleanup decisions have been influenced by navigation and land use/development. PPS emphasized that a different approach should be used.

Response: The proposed cleanup action for the Whatcom Waterway Site and other sites throughout Puget Sound are necessarily based upon the planned uses of the Site. Land and navigation uses inform the evaluation of exposure pathways. As a result a clear understanding of these uses is fundamental to developing cleanup actions that eliminate exposure pathways thereby protecting human health and the environment.

Comment #21: The PPS comments stated that "there are multiple ways to fund the cleanup and all of these avenues do not appear to have been explored."

Response: Under the MTCA regulations, cleanup is funded by the liable parties. If a liable party is a local government agency, remedial action grants from Ecology are available to fund up to 50% of costs subject to grant availability and eligibility requirements. While Ecology cannot compel the implementation of additional cleanup or mitigation actions beyond those required under MTCA, additional actions can voluntarily be taken by the liable parties. If PPS is proposing a funding strategy for accomplishing additional activities within the Site, please contact the Port or one of the other PLPs with your proposal.

5.36 Commenter #36 (Port of Bellingham)

The Port of Bellingham submitted written comments in a letter from Jim Darling, the Port's Executive Director, dated August 8, 2007 (comment #36-A, Appendix A). The Port also submitted a copy of Port Resolution #1241 as an attachment to that letter (comment #36-B, Appendix A). The Port of Bellingham submitted written comments during the previous public comment period on the RI/FS and DSEIS.

Comment #1: Mr. Darling stated the support of the Port of Bellingham's Board of Commissioners for the proposed cleanup approach as defined as Alternative 6 in Ecology's documents.

Response: The Port's preference for the proposed cleanup action has been noted by Ecology (see Table 4-2). Ecology has evaluated the proposed cleanup remedy against MTCA criteria and has concluded that the remedy complies with MTCA threshold requirements and is permanent to the maximum extent practicable.

Comment #2: Mr. Darling stated that the proposed cleanup plan includes extensive sediment cleanup and extensive restoration of salmon habitat, and that these types of actions are specifically prioritized in the Governor's 2020 Action Agenda for Puget Sound.

Response: Ecology concurs that the proposed cleanup action as defined in the DCAP accomplishes both cleanup and restoration actions consistent with the priorities of the Bellingham Bay Demonstration Pilot, and with the priorities of the Governor's 2020 Action Agenda for Puget Sound.

Comment #3: Mr. Darling stated on behalf of the Board of Commissioners that the Port looks forward to Ecology's continuing leadership in the partnership to clean up and restore Bellingham Bay.

Response: Ecology appreciates the Port's continued, cooperative participation in the activities of the Bellingham Bay Demonstration Pilot and the Port's cooperative implementation of MTCA investigation and cleanup activities at multiple sites. Ecology believes that this cooperative approach to implementing MTCA cleanup requirements has produced progress in the state's effort to accomplish cleanup and habitat restoration actions, and that the approach has proven to be a viable strategy for implementing these complex projects.

Comment #4: Mr. Darling attached a copy of Port Resolution No. 1241 dated December 2006 and relating to the Board of Commissioners' recommendation for selection of Alternative 6 for the cleanup of the Whatcom Waterway Site.

Response: The information contained in Port Resolution No. 1241 was previously considered by Ecology as part of the Port's comments on the RI/FS and DSEIS during late 2006. Ecology acknowledges the Port's continued preference for Alternative 6 for the reasons stated in Resolution No. 1241.

5.37 Commenter #37 (Post, David)

David Post submitted written comments in an e-mail dated July 12, 2007 (comment #37-A, Appendix A). Mr. Post also submitted written comments during the previous public comment period on the RI/FS and DSEIS.

Comment #1: Mr. Post stated a preference for Ecology "to do everything possible to remove the mercury and cap this site properly", including the use of targeted, high-tech dredging techniques.

Response: Mr. Post's preference for an alternative cleanup remedy has been noted by Ecology (see Table 4-2). The MTCA includes a requirement that cleanup solutions be "permanent to the maximum extent practicable". To make this determination a disproportionate cost analysis is performed that compares benefits

and costs. MTCA states that where two or more alternatives are equal in benefits, Ecology shall select the less costly alternative provided that minimum requirements are met. Mr. Post's comment and other similar comments received on the draft RI/FS, DSEIS and the DCAP that expressed a desire for more removal, complete removal, or opposition to capping were interpreted by Ecology to mean a desire for the most protective, permanent and effective remedy. These comments confirm Ecology's assignment of the highest weighting factors to the overall protectiveness, permanence and long-term effectiveness benefits criteria in the disproportionate cost analysis presented in Section 5 of the DCAP. The disproportionate cost analysis indicates that the benefits of Alternatives 6, 7 and 8 are similar however the costs of Alternatives 7 and 8 are much greater than Alternative 6. Therefore Alternative 6 is identified as being "permanent to the maximum extent practicable" and Ecology's proposed remedy for the Site.

5.38 Commenter #38 (RE Sources)

Wendy Steffensen of RE Sources (a.k.a., North Sound Baykeeper) spoke at the public hearing on August 8, 2007. A copy of Ms. Steffensen's testimony is attached (comment #38-A, Appendix A). RE Sources also submitted a written "Open Letter" to Ecology dated August 9 as an e-mail (comment #38-B, Appendix A) and as an identical attachment to that e-mail (comment #38-C, Appendix A). Julie Shoun and Jessica Doyle, interns for the Northsound Baykeeper, submitted an e-mail (comment #38-D, Appendix A) to Ecology containing a copy of a letter (comment #38-E, Appendix A) from Dr. Peter Homann of the Department of Environmental Science at Western Washington University. RE Sources also submitted written and verbal comments during the previous public comment period on the RI/FS and DSEIS.

Comment #1 & #12: RE Sources stated that they didn't feel that Ecology answered all of the organization's questions during the previous comment period on the RI/FS and DSEIS. RE Sources referenced its development of a public participation panel as part of their comment activities during the RI/FS and DSEIS comment period. In comment #12 RE Sources stated that the July 2007 responsiveness summary was "wholly inadequate and did not actually respond to the comments and questions posited by citizens of Washington state."

Response: Ecology appreciates the interest of RE Sources and other local interest groups in the cleanup of the Whatcom Waterway Site and Bellingham Bay. Ecology considers all public, agency and stakeholder input as part of the remedy selection process, within the constraints of that process. Ecology has prepared a detailed responsiveness summary, documenting the agency's responses to questions and comments raised during the previous comment period. Ecology has attempted to fully respond to all of the comments (93 as identified by Ecology) and questions raised by RE Sources as part of that effort. Please note that Ecology does not weight the comments of any one party over those of another, but considers the issues raised in the comments as part of remedy selection decisions. RE Sources was one of 162 commenters. It is not uncommon for

opinions and remedy preferences to differ among different parties, as reflected in the range of comments received on the RI/FS and DSEIS, which included support for very different alternatives (i.e., Alternatives 3, 4, 5, 6, 7 and 8 by different groups). Therefore please recognize that there is a difference between considering and responding to a comment, and agreeing with a comment.

Regarding the format of the responsiveness summary, Ecology elected to group like comments together in order to ensure that 1) the final responsiveness summary was of a readable length, and 2) that the relative frequency of a particular comment was communicated to the reader of the document. All comments were itemized and cross-linked so that commenters could determine easily where in the document their comments were addressed.

Comment #2 & #3: RE Sources stated that Ecology did not answer the question of whether the consumption of seafood in Bellingham Bay is acceptable for tribal fishers and whether the BSL is protective.

Response: This question has been addressed on several occasions by Ecology as part of the RI/FS, the DCAP and the previous responsiveness summary. The compliance with the BSL as implemented by Ecology at the Whatcom Waterway Site in the DCAP ensures that the consumption of seafood in Bellingham Bay is indeed acceptable for tribal fishers.

As part of the development of site cleanup levels, Ecology has considered the potential impact of sediment mercury on food chain impacts to human health and the environment, including the potential impact to tribal subsistence fishers. The fish consumption rates used in the analysis are based on targeted studies of high-consuming tribal populations, and are further based on the higher of adult and child seafood ingestion rates. The methylmercury reference dose used in the analysis to characterize mercury toxicity was developed by the federal government to ensure prevention of sub-acute effects in fetal and childhood exposure scenarios. This ensures protection of the most sensitive populations. The BSL was initially prepared as part of the 2000 RI/FS which was issued for public review and comment prior to finalization. The bioaccumulation screening level (BSL) developed for the site has been reviewed by multiple parties including the Corps of Engineers, the Whatcom County Health Department staff and the Washington State Department of Health (see Commenter #47). The protectiveness of the BSL and its application at the Site have been affirmed in these reviews, and Ecology concludes that its use as part of cleanup decision-making is appropriate. Additionally, please note that (as discussed in the RI/FS and DCAP), the BSL is to be applied by Ecology on a point-by-point basis rather than on the more typically-applied area-wide basis. This results in a much greater level of protection. Using this approach means that the average *area-wide* surface concentration of mercury achieved by the cleanup action will be well below the BSL, even though the BSL is used as the metric for a given sampling station.

Additional factors that ensure the protectiveness of the BSL are discussed in Section 4 of the 2006 RI Report.

As described in the RI/FS, concentrations of mercury in fish and shellfish in Bellingham Bay are below State, Federal and County thresholds of potential concern; and, have been declining. Measurements of seafood quality show a continued decline in tissue mercury concentrations consistent with natural recovery observations and the expected beneficial effects of Log Pond capping and sediment source control efforts. In a recent review of Bellingham Bay tissue data (see commenter #47) the Washington State Department of Health (DOH) concluded that no fish or crab consumption advisories are warranted in Bellingham Bay due to Site-associated contaminants, and that levels of mercury in Bellingham Bay crab, English sole and clams are lower than many fish available at the market.

Comment #4: RE Sources stated that the group needs a thorough evaluation of dredging and capping at different locations. RE Sources stated that dredging everywhere is not appropriate, but that an analysis of pros and cons is needed.

Response: The analysis in the RI/FS technology screening section included a review of issues related to dredging and capping, and additional information is available in regulatory guidance documents cited in the previous responsiveness summary. The issues associated with dredging and capping in specific site areas is included in the discussion of remedial alternatives in the RI/FS, and is discussed for each site unit and each alternative. Environmental impacts associated with the cleanup action, including the application of dredging and capping in specific site areas, are assessed and mitigation opportunities described in the DSEIS. The MTCA disproportionate cost analysis evaluates different alternatives against the MTCA remedy selection criteria, which is the appropriate method of evaluating remedial alternatives under MTCA.

Comment #5: RE Sources stated that the output of the RI/FS and DCAP were not fair. Regarding the cost-benefit weightings, the comments stated that the weighting factors incorporated by Ecology were good, but the group was disappointed because the outcome of the DCA did not change between the RI/FS and the DCAP.

Response: The disproportionate cost analysis performed in the DCAP was implemented by Ecology staff, using methodology developed by the agency and applied at other sites consistent with the MTCA regulations. Ecology concurs that the use of weighting factors is appropriate. Based upon previous public comments and the Department's concurrence with the issues raised over the previous disproportionate cost analysis, Ecology felt compelled to perform a more transparent, sophisticated, objective and discriminating disproportionate cost analysis. The fact that the selected remedial alternatives did not change between the RI/FS and the DCAP confirms that the appropriate alternative has been selected, consistent with the MTCA criteria. We have noted that RE Sources has

expressed a strong preference for a different alternative involving extensive additional sediment removal and other changes.

Comment #6: RE Sources requested a neutral, third-party evaluation.

Response: Ecology is responsible for ensuring implementation of the MTCA regulations and cleanup of the Whatcom Waterway Site. Please note that several additional reviews have been conducted by other regulatory agencies. The BSL has been reviewed by the state Department of Health (see comment #47), Whatcom County Health Department staff and the Corps of Engineers. The Department of Natural Resources and the Department of Fish and Wildlife have also reviewed the RI/FS and DCAP and have both submitted comments supporting the implementation of the selected remedy as defined in the DCAP. NOAA has also participated in the activities at the site and has supported the project through a Portfields grant, including facilitation of review of the project by the Corps of Engineers technical staff. Ecology has reviewed all comments received and has determined that it is appropriate to move forward with finalization of the Consent Decree at this time.

Comment #7: RE Sources was concerned that cost was "the be all and end all" of the remedy selection process, while recognizing that cost has a role in the MTCA regulations.

Response: Cost is a factor in the remedy selection process, but it is by no means the "be all and end all" in that process. MTCA regulatory requirements state that all cleanup alternatives must be capable of complying with site cleanup levels in order to be considered during the remedy selection process. All alternatives considered by Ecology as part of the remedy selection process for the Site meet the threshold requirements for cleanup actions, ensuring that environmental protection is achieved. This threshold evaluation is conducted *without regard to cost*. Cost is considered *only* as part of the subsequent disproportionate cost analysis which considers which of the qualifying remedial alternatives is "permanent to the maximum extent practicable". Cost is one factor considered in this evaluation, consistent with MTCA regulatory requirements as currently written.

Comment #8: RE Sources stated that the group wanted a 6-foot cap everywhere where caps are used.

Response: The RE Sources request for a 6-foot cap in all capping areas has been noted. However, Ecology does not consider this to be warranted by site conditions. Please note that Ecology staff have stated that a 6-foot cap is appropriate for use in some areas of the Site, specifically in portions of the site adjacent to the Log Pond. This is incorporated in the DCAP as currently written. This application of a 6-foot cap was not intended by Ecology to be applied to all other capping areas at the Site.

Comment #9: RE Sources stated that it wants dredging in all erosional areas.

Response: RE Sources has used the term "erosional areas" broadly in its comments, and Ecology does not necessarily concur with the RE Sources statements about which site areas are erosional. Ecology's evaluation in the RI/FS and DCAP considers the potential effects of erosion and prioritizes areas that are truly erosional for removal. Additional evaluation of sediment stability is to be performed as part of the Engineering Design Report, which will be subject to public review and comment prior to finalization.

Comment #10: RE Sources stated that it wants the BSL to be re-evaluated.

Response: As discussed in our response to comments #2 and #3 above, Ecology has developed the site-specific BSL to be protective of human health and the environment. The fish consumption rates used in the analysis are based on targeted studies of high-consuming tribal populations, and are further based on the higher of adult and child seafood ingestion rates. The methylmercury reference dose used in the analysis to characterize mercury toxicity was developed by the federal government to ensure prevention of sub-acute effects in fetal and childhood exposure scenarios. This ensures protection of the most sensitive populations. The BSL was initially prepared as part of the 2000 RI/FS which was issued for public review and comment prior to finalization. The bioaccumulation screening level (BSL) developed for the site has been reviewed by multiple parties including the Corps of Engineers, the Whatcom County Health Department staff and the Washington State Department of Health (see Commenter #47). The protectiveness of the BSL and its application at the Site have been affirmed in these reviews, and Ecology concludes that its use as part of cleanup decision-making is appropriate. Additionally, please note that (as discussed in the RI/FS and DCAP), the BSL is to be applied by Ecology on a point-by-point basis rather than on an area-wide basis. This means that the average *area-wide* surface concentration of mercury achieved by the cleanup action will be well below the BSL even though the BSL is used as the metric for a given sampling station. Additional factors that ensure the protectiveness of the BSL are discussed in Section 4 of the 2006 RI Report. Ecology concludes that it is appropriate to move forward with signing of the Consent Decree at this time, including application of the BSL at the site as discussed in the DCAP.

Comment #11 & #13: RE Sources stated that it wants the Log Pond cap re-evaluated. RE Sources asserted that capping in the Log Pond was designated an interim solution and was not evaluated as a final solution in the RI/FS. RE Sources stated that a "final evaluation is important as interim actions do not embrace the full spectrum of public participation opportunities."

Response: The implementation of the cap at the Log Pond was an Interim Action for the site, but was evaluated as and was intended to be a final action for the Log

Pond area of the Site. The Interim Action Agreed Order was finalized only after consideration by Ecology of public review and comment. The terminology "Interim" was intended to communicate that only a portion of the Whatcom Waterway Site (the Log Pond) was being addressed in an expedited fashion to reduce more immediate threats to human health and the environment and that other actions elsewhere in the Waterway were forthcoming. It was not intended to communicate that the action taken in the Log Pond was temporary.

Comment #14: RE Sources stated that Ecology "did not address specific samples where mercury concentrations were actually increasing, and not decreasing as postulated by Ecology's assertion that the Whatcom Waterway is a depositional area."

Response: Ecology's previous responsiveness summary discussed sampling data and concentration trends within the Log Pond and within other portions of the site. Please note that additional sediment stability evaluations will be conducted as part of the Engineering Design Report, which will be subject to public review and comment prior to finalization.

Comment #15: RE Sources stated that Ecology did not adequately address "alternative likely hypotheses for mercury recontamination at the Log Pond."

Response: The causes of the Log Pond erosion and recontamination issues were assessed as part of the RI Activities (refer to Appendix C of the RI Report), and appropriate contingency measures were developed as part of the FS activities (refer to Appendix D of the FS Report). Additional evaluations are to be conducted as part of the Engineering Design Report. However, Ecology does not concur that the alternative hypotheses presented by RE Sources are "likely", based on the monitoring data for the Log Pond and the previous evaluations conducted at the Site and vicinity.

Comment #16: RE Sources stated that Ecology did not answer "specific questions regarding the BSL, including 1) the exact source of the data used for the BSL regression, the reason for averaging individual samples, and the poor predictability of the regression."

Response: All data used for BSL development was clearly identified as to its source. Please note that averaging of individual samples is appropriate for sediment/tissue data analyses of this type. Dr. Homann, in his comments prepared on behalf of RE Sources affirmed that this data analysis approach is reasonable. Ecology does not concur that the regression analysis has "poor predictability". Ecology concurs that regression analysis involves some uncertainty, as does most scientific work. Uncertainty is addressed as part of the BSL in the use of conservative underlying assumptions, and in application of the final BSL to the site in a conservative manner (e.g., application of the BSL on a point-by-point basis, though the BSL was developed based on an area-wide basis). These two

factors are used by Ecology to ensure that the final application of the BSL is protective.

Comment #17: RE Sources stated that the BSL did not consider the entire amount of seafood eaten by tribal and subsistence eaters, nor did Ecology give the reason why the entire amount was not considered.

Response: The BSL considers seafood consumption by high-consuming tribal fishers, consistent with regional studies of seafood consumption rates. The BSL specifically incorporates the types of seafood that are affected or potentially affected by Site-associated mercury. This method has been affirmed by the state Department of Health in their review of the BSL (see Commenter #47).

Comment #18: RE Sources stated that Ecology did not provide subsurface data for mercury at Starr Rock, although it was requested. RE Sources stated that "subsurface data were given for all other site units. Starr Rock is a former dump site for dredgings of the Inner Whatcom Waterway and as such it is very contaminated and disturbance of this site could be very dangerous."

Response: The history of the Starr Rock disposal site has been clearly discussed in the RI/FS Work Plan from 1996, the 2000 RI/FS Report, the 2006 Supplemental RI/FS and in the DCAP. Sampling data available for the Starr Rock area are included in the 2000 RI/FS and 2006 Supplemental RI/FS. Subsurface sampling data has not been performed at Starr Rock. Ecology determined that subsurface sampling data were not required for development of the RI/FS or for remedy selection. Additional evaluations will be performed at Starr Rock as part of the Engineering Design Report as discussed in the previous responsiveness summary.

Comment #19: RE Sources commented that "equal description of the pros and cons of capping and dredging were not given in the RI/FS."

Response: Please refer to Ecology's response to comment #4 above.

Comment #20: RE Sources stated that "Ecology decided not to recommend a standard 6 foot cap for contamination, although it was publicly recommended by an Ecology sediment specialist."

Response: Please refer to Ecology's response to comment #8 above.

Comment #21: RE Sources stated: "Ecology mischaracterized the effects of tsunamis as similar to sea level rise. In fact, a tsunami will both raise and lower sea level and in lowering of sea level can create a great amount of scour and disturbance of the sea floor."

Response: Ecology's comments regarding tsunamis were not intended to dismiss the erosion potential of tsunamis, but simply to reflect the evaluations that have

been performed by NOAA which indicate that the Site area does not represent a high risk for tsunami-related damage, as expressed by relative risks and estimated depths of tsunami inundation. Potential seismic concerns, including the effects of tsunamis, on cap stability will be evaluated in detail as part of the Engineering Design Report as discussed in the previous responsiveness summary. That report will be subject to public review and comment.

Comment #22: RE Sources commented that although "some improvements have been made to the weighting of the [disproportionate cost analysis] matrix [in Section 5 of the DCAP], but we disagree with the overall conclusions….We appreciate that higher weights have been given to protectiveness, permanence and long-term effectiveness. We find it unusual, however, that there is no relative weight given to cost."

Response: With respect to Ecology's disproportionate cost analysis and the agency's use of weightings, please refer to Ecology's responses to comment #5 above. With respect to the application of cost in remedy selection, please refer to Ecology's responses to comment #7.

Comment #23: RE Sources stated that as part of the disproportionate cost analysis, the group disagreed with the "separating the public's concern for protectiveness, permanence and long-term effectiveness out of the overall consideration for public approval."

Response: The analysis of public concerns was performed using methods applied by Ecology at other sites consistent with the MTCA regulations. Comments relating to protectiveness, permanence and long-term effectiveness are aligned with Ecology's preference for permanent solutions. These types of comments are why Ecology uses weightings for the protectiveness, permanence and long-term effectiveness as part of the disproportionate cost analysis. Please note that this effectively increases the weightings given to these comments by the public.

Comment #24: RE Sources stated that it did not agree with the specific values listed in the DCAP disproportionate cost analysis (Table 5-2 of the DCAP) and that the group felt that "Ecology's analysis is overly subjective in favor of Alternatives 5 and 6." RE Sources stated "because it is difficult for anyone with a vested interest to assign scores to these proposed plans, we propose that an independent panel review these rankings in this and all future clean ups."

Response: Ecology disagrees that Ecology's analysis is overly subjective or is biased in favor of Alternatives 5 and 6. Please note that Ecology does have a vested interest in the project, as with all MTCA cleanup projects. Ecology's sole vested interest *is the protection of human health and the environment*. It should be made perfectly clear here that Ecology aggressively pursues cleanup without bias to the maximum extent practicable, to the limits of Ecology's regulatory authorities, in order to protect this vested interest in environmental protection. It is Ecology's responsibility to make remedy selection decisions under MTCA, with that decision documented in a draft and final cleanup action plan.

Comment #25: RE Sources stated that all 4 alternatives evaluated in the DCAP include the ASB cleanup. RE Sources objected, commenting that this is inappropriate "since the ASB is presently contained and does not represent a threat to the health of people or biota at this time." RE Sources requested that the disproportionate cost analysis be performed again but with the ASB cleanup "removed from the overall review", with the expectation that this re-analysis would produce a result that "Alternatives 7 and 8 would receive dramatically higher proportional scores relative to Alternatives 5 and 6."

Response: Ecology disagrees that the contamination in ASB does not pose a potential risk to human health and the environment. When the ASB was in full use as a wastewater treatment facility, it posed little risk to human health and the environment, because potential exposure pathways and risks were minimal. However, if wastewater uses are terminated, the potential ecological risks associated with the contamination within the ASB become significant. While the berm and bottom of the ASB present a relatively contained environment, the surface of the ASB allows for a significant exposure pathway, particularly to waterfoul and shorebirds. Upon termination of wastewater uses, the ASB can be expected to function as a freshwater lake ecosystem with is many inhabitants and potential pathways in the foodchain beyond the ASB boundaries. As such, remediation of the ASB is a requirement.

Additionally, land use is considered a part of Ecology's evaluation of protectiveness under MTCA and SMS regulations. In this case, the Port's proposal to reuse the ASB as a marina resulted in Ecology's requirement to remove rather than fill the ASB with soil or cap the contaminated sludges and sediments from this area of the Site. The Port's agreement to perform this action also provides a more permanent cleanup solution for this portion of the Site than the other two aforementioned remedies. The evaluation of cleanup requirements for the Whatcom Waterway similarly takes into account existing and planned future land uses as necessary to assess potential sediment disturbance. This is consistent with Ecology's procedures under MTCA and SMS regulations and cleanup guidance. The RI/FS included evaluation of a full range of cleanup alternatives, including remedial alternatives that were less responsive to local land use planning. Please refer to that document for an evaluation of the relative protectiveness of those cleanup alternatives.

Comment #26: RE Sources commented that "the total amount of mercury and total area of contamination that would be removed via each cleanup alternative, apart from that removed from the ASB" was not directly used in the disproportionate cost analysis, and argued that "this information should be used to determine whether the additional cleanup provided by alternative 7 and 8 is significant or only incremental, as Ecology has stated."

Response: The disproportionate cost analysis appropriately considers the incremental degree of risk reduction achieved by each of the cleanup alternatives, relative to the incremental costs associated with achieving this additional risk

reduction. The actual amount/volume of mercury removed or even the relative concentration is only one factor that is considered as part of this analysis. Relative contaminant concentrations are clearly presented in the RI/FS document, including mercury as well as other contaminants. Similarly, the volumes and areas of sediment remediation under different alternatives are clearly presented in the RI/FS and DCAP documents.

Comment #27: RE Sources stated that the Inner Waterway should be dredged "where possible in order to minimize risk…If parts of the Waterway are erosional, due perhaps to deflected wave patterns within the Waterway, capping would be contraindicated here."

Response: As discussed in Ecology's responses to Comment #9, Ecology does not necessarily agree with the Inner Waterway represents an erosional area. As discussed in the RI/FS report, the erosion potential associated with waves generally decreases with depth below the water surface. Most of the Inner Waterway consists of deeply buried sediment, located in deepwater areas. Additional stability evaluations will be conducted as part of the Engineering Design Report, as discussed in the previous responsiveness summary. The EDR will be subject to public review and comment.

Comment #28: RE Sources commented that "samples that were increasing in mercury concentration were not resampled".

Response: As discussed in the previous responsiveness summary, the purpose of the Pre-Remedial Design Evaluation was not to repeat the RI sampling effort, but was focused on filling specific data gaps relevant to anticipated remedial design activities. Additional data will be collected as part of the Engineering Design Report, remedy implementation and long-term monitoring.

Comment #29: RE Sources expressed concern that "much of unit 2 consists of unconsolidated material and woody material. In a seismic event this presents a significant liquefaction hazard. We believe that dangers of seismic hazards have been underestimated in this project."

Response: As discussed in the previous responsiveness summary, the Engineering Design Report will include an evaluation of seismic issues, including potential for liquefaction to disturb capped sediments. The EDR will be subject to public review and comment.

Comment #30: With respect to Unit 2 within the Inner Waterway, RE Sources requested that "if this area is to be capped, we ask that a six foot cap be used throughout as recommended by Ecology sediment specialist Pete Adolphson at a public forum."

Response: Please refer to Ecology's responses to comment #8 above.

Comment #31: With respect to Unit 3A located at the head of the Whatcom Waterway, RE Sources stated that "this area appears devoid of much life." RE Sources requested that Ecology "perform a comparison of similar tide-flats and make an evaluation of the health of this tide-flat prior to deciding to take no action at this area. The head of the Whatcom Waterway is a valuable area as it is a part of the estuary, but it is a disservice to habitat if we do not restore it as near as possible to its original and proper function. We believe that dredging in this area may be the best option…"

> Response: Bioassay testing previously performed in the head of the Whatcom Waterway demonstrated no toxicity in surface sediments. This testing does not support the assertion that the area is "devoid of much life." Please note, however that additional testing is to be performed within Unit 3A as part of the Engineering Design Report, as stated in the previous responsiveness summary.

Comment #32: For Unit 3a, RE Sources expressed concerns about seismic issues, similar to those expressed in Comment #29 for Unit 2. RE Sources stated, "Similar to Unit 2, Unit 3 consists of unconsolidated material and woody material. In a seismic event this presents a significant liquefaction hazard. We believe that dangers of seismic hazards have been underestimated in this project."

> Response: As noted in our repose to comment #29, a seismic evaluation will be conducted as part of the Engineering Design Report.

Comment #33: As in comments #11 and #13, RE Sources requested that "Ecology respond to the assertion that capping in the Log Pond was designated an interim solution and was not evaluated as a final solution in this RI/FS."

> Response: Please refer to Ecology's responses to comments #11 and #13.

Comment #34: RE Sources requested that Ecology "address the alternative likely hypotheses for mercury re-contamination at the Log Pond, as presented in the Baykeeper's comments on the RI/FS." RE Sources stated that it felt that "examination of these questions could lead to different cleanup plans."

> Response: Please refer to Ecology's responses to comment #15.

Comment #35: RE Sources stated that sediment areas located within Unit 5B, 6B and 6C consisted of steep-sloped and erosional areas.

> Response: Unit 5B, 6B and 6C are not steep-sloped, but in fact have slopes ranging from 4:1 (horizontal to vertical) to 10:1 or flatter. These are not considered steep slopes for application of sediment capping. Analyses of potential wave erosion and methods to mitigate potential erosive forces were performed for Unit 5B as part of the RI/FS and DCAP. Additional analysis of potential wave erosion will be conducted as part of the Engineering Design Report, which will be subject to public review and comment.

Comment #36: RE Sources requested that Ecology re-evaluate the use of an engineered cap within Units 5B, 6B and 6C, with appropriate data shared with the public.

> Response: The RI/FS provides sufficient data to determine that capping is sufficiently implementable within these areas to be considered as part of remedy selection. Additional data regarding cap design and stability considerations will be developed as part of the Engineering Design Report. The EDR will be subject to public review and comment prior to finalization.

Comment #37: RE Sources stated that "if Ecology still decides that an engineered cap is appropriate [for Units 5B, 6B and 6C], we believe that the monitoring of these areas must be especially rigorous given the climate under which they function. In the first two years, we suggest monitoring every 6 months and after large storm events; thereafter monitoring on a yearly basis should be the norm."

> Response: The DCAP presented a monitoring framework which will form the basis for future monitoring activities. The details of the monitoring plan will be appropriately defined as part of the Engineering Design Report after completion of supplemental design studies and development of additional detail regarding the cleanup methods and contingent remedial actions appropriate to different site areas. Monitoring activities at sediment sites appropriately use a variable monitoring frequency, with frequent monitoring during the first few years and reduced monitoring frequencies during later time periods. If monitoring has shown that the cap has successfully become a part of the natural benthic environment after 30 years, this situation is unlikely to change in the period thereafter.

Comments #38 and #39: RE Sources stated that "we requested subsurface data at Starr Rock in our RI/FS comments and it was not provided. We know that Starr Rock has been sampled previously and we are thus curious why the information has not been forthcoming." RE Sources stated that "examination of the subsurface data at Starr Rock in conjunction with analysis of its unique topography could lead to a more permanent solution than monitored natural recovery."

> Response: Please refer to Ecology's response to comment #18 above.

Comment #40: RE Sources stated that the monitoring plan for the site should include sampling for methylmercury as well as total mercury in the sediment and in the water and that this information will provide "information, now lacking on the availability of monomethyl mercury."

> Response: The final monitoring plan for the Site will be developed as part of the Engineering Design Report. That report will be subject to public review and comment. At this time Ecology has not proposed monitoring of methylmercury species in sediment or tissue as part of future monitoring. The proposed

monitoring framework includes monitoring of total mercury concentrations in sediment and tissue samples. Site-specific cleanup levels have been developed using the conservative assumption that all tissue mercury is present as methylmercury. Ecology believes that this monitoring strategy, coupled with this conservative assumption regarding mercury speciation, is protective of human health and the environment.

The measurement of total mercury in biota tissue provides direct measurement of potential food chain accumulation of mercury species. This endpoint-focused monitoring program provides more certainty than measurement of intermediate points in the potential transport of mercury. If increases in tissue mercury levels are observed, then the potential need for additional monitoring can be revisited.

Comment #41: RE Sources provided a specific sampling recommendation for sampling of crab tissue. These recommendations included 1) increase the number of crab sampling locations, 2) increase the number of crab sampled at each location, 3) sample crab at different time intervals during the sampling year to assess temporal variability of tissue mercury concentrations, and 4) record crab weight and size for each catch.

Response: The final monitoring plan for the Site will be developed as part of the Engineering Design Report. That report will be subject to public review and comment. The number of sampling locations, the number of crabs collected at each location and the timing of sample collection will be considered as part of that sampling. The recording of size and weight is appropriate and will be considered as part of monitoring plan development.

Comment #42: RE Sources recommended that the number of sediment samples collected during long-term monitoring be sufficient to provide sufficient statistical coverage, and that the rationale for the final sample number should be provided. RE Sources stated that the final sample number "may be greater than the 20-30 sample locations estimated". Further, RE Sources stated that "a robust dataset could be used to model other cleanups."

Response: The final monitoring plan for the Site will be developed as part of the Engineering Design Report. That report will be subject to public review and comment. The number of sampling locations will be re-evaluated as part of monitoring plan development. Ecology agrees that the data set needs to be robust. However, the data will not necessarily be applicable to modeling other sites, as site-specific conditions must be considered as part of all sediment cleanups.

Comment #43: RE Sources stated that "we offered an extensive criticism of the BSL calculation in our comment on the RI/FS. This criticism was largely discounted, but the reasons given were not of any substance. We request you revisit the comments on the BSL from the North Sound Baykeeper and give them proper attention."

Response: Please refer to Ecology's responses to comments #2, #3, #10, #16 and #17 relating to the BSL, its basis and the reviews of the BSL conducted by other parties.

Comment #44: In its comments criticizing the site-specific BSL RE Sources stated that "in the absence of a sound rationale [for the BSL], we again request that Ecology default to the MCL cleanup standard of 0.59 mg mercury/kg sediment, without the option for a bioassay override."

Response: Please refer to Ecology's responses to comments #2, #3, #10, #16 and #17 relating to the BSL, its basis and the reviews of the BSL conducted by other parties. Ecology re-states our conclusion that the BSL is appropriate for use as part of the cleanup levels at the Site, as defined in the DCAP. Additionally the Sediment Management Standards provide both Ecology and the regulated entity with methods to assess direct toxic effects using biological endpoints. If Ecology chose to disallow the direct biological testing results, this would violate regulations contained in WAC 173-204.

Comment #45: RE Sources stated that "the Toy study [consisting of a peer-reviewed survey published in 1996 regarding seafood consumption rates of the Tulalip and Squaxin Tribes] may underestimate consumption of seafood by tribal members." RE Sources requested that Ecology "re-evaluate consumption numbers in a conservative manner". RE Sources then cited fish consumption values used in a Swinomish Tribe 2005 risk assessment (260 gpd), the Columbia River Inter-tribal Fish Commission 99th percentile rates (389 gpd), and "earlier studies used in the Boldt decision (620 gpd)".

Response: The BSL was developed using fish consumption rate data from the Toy 1996 study of the Tulalip and Squaxin tribes. The use of the Toy study for development of the BSL remains appropriate, because it provides a peer-reviewed publication containing relevant data regarding tribal consumption rates within Puget Sound for the specific categories of seafood that are potentially affected by site-associated contaminants.

The Swinomish fish consumption recommendation and the underlying interview data on which it is based have not been made available to Ecology for review, nor have the data been peer-reviewed at this time. Ecology cannot therefore comment on the appropriateness of the Swinomish recommendations and whether these might be more or less appropriate for use than the Toy study.

The Columbia River Inter-tribal Fish Commission study reported a 90th percentile fish consumption rate of between 97 and 130 grams per day, and a 95th percentile of between 170 and 194 grams per day. These values are lower than those of the Toy study which reported 90th percentile total fish consumption rates of approximately 173 grams per day (for a 70 kg consumer). The use of the 99th percentile value from a targeted consumption rate study is inconsistent with deterministic risk assessment practice, and would only be appropriate as part of a

probabilistic risk assessment taking into account a range of values for other key assumptions.

The 1974 Boldt decision included discussion of salmon consumption rates for the Yakima Treaty tribes in the main stem of the Columbia River. These consumption rates are not appropriate for use in BSL development at the Whatcom Waterway Site because 1) the consumption rate information is from outside of Puget Sound, 2) the consumption rates are specifically for salmon which have not been impacted by site-associated contaminants, and 3) the consumption rates represent historical rather than current consumption practices. The Boldt decision did not provide information on crab, bottomfish or clam consumption rates for Puget Sound tribes, as provided by the Toy study used in BSL development. The issue of the relevancy for historical consumption rates (i.e., fish consumption rates prior to settlement by Europeans in the Pacific Northwest) versus current consumption rates (i.e., current fish consumption rates measured through interviews and observation and representative of current practices) is complex, and involves issues beyond the scope of the MTCA regulations.

Ecology encourages RE Sources to consider as part of the discussion of fish consumption rates the additional factors incorporated by Ecology to ensure protectiveness of the BSL as applied at the site in the cleanup decision. These factors provide a substantial degree of additional protectiveness to the BSL such that potential health effects would not be expected even if overall fish consumption rates by tribal members were higher than documented in the Toy study. Ecology incorporated a number of additional factors in the BSL development and its application. The first of these factors included the assumption that tribal fishers consume 100% of their seafood from within the Whatcom Waterway site area. This provides a substantial increase in conservatism to the BSL, because diet fraction values of 50% or less are normally used in risk assessment and cleanup level development, and seafood consumption surveys confirm that use of a 100% diet fraction is a gross overestimate of site-associated consumption patterns. Second, Ecology assumed that 100% of the mercury present in the seafood was present as methylmercury, though this assumption is conservative for marine seafood species. Third, in applying the BSL to the site, Ecology applied the BSL on a point-by-point basis rather than to the area-wide average sediment concentrations, though the BSL relationship was derived based on area-wide concentrations. This results in a substantial additional level of conservatism, because the surface-sediment concentrations that result, are on average less than half of the BSL requirement. Finally, Ecology expects that the concentrations of sediment contaminants will decline over time following completion of the cleanup action due to sediment natural recovery, further reducing exposure risks at the site. However, the BSL is applied without taking into account this additional long-term improvement in sediment quality.

Ecology concludes that the BSL was developed using appropriate methodology consistent with MTCA requirements, and that the BSL as applied in the DCAP

provides a significant protection against uncertainties in fish consumption rates or other assumptions. There is no evidence that the BSL is not protective of current or potential future seafood consumption rates for tribal or other seafood consumers.

Comment #46: RE Sources requested that records related to the Site cleanup be retained in perpetuity, for as long as the mercury exists on the site" because "in the future, other persons may need this information into understand the site and to make sound decisions regarding cleanup and use".

Response: Site records are retained by Ecology as part of the Site documentation. Institutional controls at the site include recording of restrictive covenants in County and in State of Washington land records. These measures provide for records retention to ensure that in the future, other persons may needing site information have that access, and can understand the site and make sound decisions regarding cleanup and use.

Comment #47: In document #38-C, RE Sources provided an identical copy of the Open Letter to Ecology, replicating comments #12 through ##46 listed above.

Response: Please refer to Ecology's responses to comments #12 through #46 above.

Comment #48: In his review of the averaging of tissue samples collected during discrete sampling events and that were used in the sediment-tissue regression analysis performed as part of the BSL development in the 2000 RI/FS, Dr. Peter Homann of the Department of Environmental Science at WWU stated, "the current analysis makes the correct assumption that the individual animals are not independent and correctly averages the data. From a regression-use standpoint, this also seems appropriate because for the scenario that people will be ingesting animals from a specific area over some period of time, a person will ingest multiple animals and the average mercury concentration of those animals will be more reflective of mercury exposure than the mercury concentration of any one animal."

Response: Ecology concurs that the use of averaging was appropriate for development of tissue/sediment regression analyses. Ecology reviewed and approved this method as part of the 2000 RI/FS which was subject to public review and comment.

Comment #49: In his review of the use of the regression analysis as part of the BSL development, Dr. Homann stated "the regression lines are the best, but imperfect, estimates of the actual relation between sediment mercury concentration and tissue composite mercury concentration…values derived from the regression line have uncertainty associated with them. The use of an upper confidence band, rather the regression line itself, would provide a more conservative value of the sediment cleanup screening level. Conversely, the use of the lower confidence band would yield a less

conservative value of the sediment cleanup screening level." Dr. Homann then stated potential difficulties associated with application of a confidence band approach to the data set, relating to potential violations of necessary assumptions relating to the uncertainty of the "X-axis" values in the regression. Dr. Homann stated that several statisticians have proposed alternate analyses for use when there is uncertainty in the X values, and "those alternative analyses produce somewhat different results, but as far as I know there is not a consensus on the best approach".

> Response: Ecology concurs that regression analysis provides the best method of estimating the relationship between sediment mercury concentrations and tissue concentrations. There is always uncertainty in this type of analysis. Ecology has incorporated additional factors in the derivation and application of the BSL to address uncertainty of the regression analysis and other assumptions underlying the BSL. These factors were discussed in Section 4 of the RI Report.

Comment #50: Regarding the extrapolation of the linear regression analysis beyond the highest measured values for sediment home-range and tissue concentrations, Dr. Homann states that this extrapolation (from 0.95 to 1.2 mg/kg sediment mercury concentration in the case of Dungeness Crabs) implicitly assumes that "the regression relations derived from the lower ranges can be extrapolated to higher ranges…Without additional evidence, there is no way to know if this extrapolation is correct, and it is not clear to me how to put an uncertainty value on it."

> Response: There is some degree of uncertainty with any regression analysis, including the extrapolation beyond the limits of the existing data. However, the extrapolation in this case is relatively small (0.95 to 1.2 mg/kg) and that extrapolation is the best method of estimation available using site-specific tissue and sediment data. Ecology has incorporated additional factors in the derivation and application of the BSL to address uncertainty of the regression analysis and other assumptions underlying the BSL. These factors were discussed in Section 4 of the RI Report.

5.39 Commenter #39 (Ringenbach, Dean F.)

Dean Ringenbach submitted written comments in an e-mail dated August 10, 2007 (comment #39-A, Appendix A).

Comment #1: Mr. Ringenbach stated his support for the proposed cleanup action as defined in the draft Consent Decree.

> Response: Mr. Ringenbach's preference for the proposed cleanup action has been noted by Ecology (see Table 4-1). Ecology has evaluated the proposed cleanup remedy against MTCA criteria and has concluded that the remedy complies with MTCA threshold requirements and is permanent to the maximum extent practicable.

5.40 Commenter #40 (Rhode, Leroy)

Leroy Rhode submitted written comments in an e-mail dated August 12, 2007 (comment #40-A, Appendix A).

Comment #1: Mr. Rohde stated his preference that the draft Consent Decree be approved.

Response: Mr. Rohde's preference for the proposed cleanup action has been noted by Ecology (see Table 4-1). Ecology has evaluated the proposed cleanup remedy against MTCA criteria and has concluded that the remedy complies with MTCA threshold requirements and is permanent to the maximum extent practicable.

Comment #2: Mr. Rohde expressed his concern that "it's well past time for studies, and time to move on" which Ecology interprets as a desire for timely implementation of the proposed cleanup action.

Response: The cleanup of the Whatcom Waterway Site is a high priority for the Department of Ecology. After review of public comments on the draft Consent Decree and exhibits, Ecology has determined that no significant alterations of these documents are required and that the cleanup should proceed into design and permitting. Ecology shares Mr. Rohde's desire for timely completion of this important project. Some additional studies are required as part of project design and permitting, and the time required to complete these studies is part of the estimated restoration time-frame for the cleanup action.

Comment #3: Mr. Rohde specifically expressed the hope that the proposed cleanup action would allow for future dredging at the Port dock.

Response: The proposed cleanup action includes dredging of contaminated sediments at the Port dock, consistent with continued deep draft navigation uses that are planned for this area.

5.41 Commenter #41 (Russell, Ann)

Ann Russell submitted written comments in an e-mail dated August 7, 2007 (comment #41-A, Appendix A).

Comment #1: Ms. Russell expressed her wish that mercury be removed from the Whatcom Waterway, the outside shoulder of the ASB lagoon, the area around the shipping terminal, the log pond and Starr Rock.

Response: Ms. Russel's support for an alternative cleanup approach has been noted by Ecology (see Table 4-1). The MTCA includes a requirement that cleanup solutions be "permanent to the maximum extent practicable". To make this determination a disproportionate cost analysis is performed that compares

benefits and costs. MTCA states that where two or more alternatives are equal in benefits, Ecology shall select the less costly alternative provided that minimum requirements are met. Ms. Russel's comment and other similar comments received on the draft RI/FS, DSEIS and the DCAP that expressed a desire for more removal, complete removal, or opposed capping were interpreted by Ecology to mean a desire for the most protective, permanent and effective remedy. These comments confirm Ecology's assignment of the highest weighting factors to the overall protectiveness, permanence and long-term effectiveness benefits criteria in the disproportionate cost analysis presented in Section 5 of the DCAP. The disproportionate cost analysis indicates that the benefits of Alternatives 6, 7 and 8 are similar however the costs of Alternatives 7 and 8 are much greater than Alternative 6. Therefore Alternative 6 is identified as being "permanent to the maximum extent practicable" and Ecology's proposed remedy for the Site.

Comment #2: Ms. Russell stated a preference to conduct restoration of habitat on the Whatcom Waterway after completing full removal of mercury.

Response: Ms. Russel's preference for additional removal of contaminated sediments was noted as part of the previous comment. Ecology's regulatory role with respect to the cleanup of the Whatcom Waterway site is to ensure that the cleanup action complies with MTCA and SMS cleanup levels, and to ensure that the cleanup action complies with MTCA remedy selection criteria. While Ecology's staff are supportive of other beneficial activities such as the development of nearshore habitat or open space, the focus of our cleanup program staff must remain grounded in our primary regulatory role in order to ensure protection of human health and the environment. Comments related to the development of habitat restoration and open space should be directed to the Port and the City.

Comment #3: Ms. Russell stated that removal does not need to be used for the ASB lagoon, but rather removal should be conducted to the extent possible in the areas with the "highest levels".

Response: Relative contaminant concentrations are one of the factors considered by Ecology in evaluating different remedial approaches for contaminated sediment sites. Other factors include the effects of buried sediments on human health and the environment given site exposure pathways, the potential for those sediments to be disturbed by future natural or anthropogenic activities, and the ability to safely manage the sediments in place with engineering and/or institutional controls. While the berm and bottom of the ASB present a relatively contained environment, the surface of the ASB allows for a significant exposure pathway, particularly to waterfoul and shorebirds. Upon termination of wastewater uses, the ASB can be expected to function as a freshwater lake ecosystem with is many inhabitants and potential pathways in the foodchain beyond the ASB boundaries. As such, remediation of the ASB is a requirement.

Land use is considered a part of Ecology's evaluation of protectiveness under MTCA and SMS regulations. In this case, the Port's proposal to reuse the ASB as a marina resulted in Ecology's requirement to remove rather than fill the ASB with soil or cap the contaminated sludges and sediments from this area of the Site. The Port's agreement to perform this action also provides a more permanent cleanup solution for this portion of the Site than the other two aforementioned remedies. The evaluation of cleanup requirements for the Whatcom Waterway similarly takes into account existing and planned future land uses as necessary to assess potential sediment disturbance. This is consistent with Ecology's procedures under MTCA and SMS regulations and cleanup guidance.

Comment #4: Ms. Russell stated a desire "…to see the Model Toxics Control Act grants go toward removing mercury form the loose aquatic environment…to see the financial emphasis of the marina removed from consideration entirely, and the money prioritized for cleaning up the most contaminated areas…"

Response: Under the MTCA regulations, cleanup is funded by the liable parties. If a liable party is a local government agency, remedial action grants from Ecology are available to fund up to 50% of costs subject to grant availability and eligibility requirements. The state grant funding sources established under the Model Toxics Control Act are subject to uniform grant eligibility and application procedures defined by regulation (WAC 173-322). The funds are allocated to eligible projects based on funding availability and grant match limitations established by the grant rules. The rules incorporate certain incentives (i.e., higher eligibility for certain costs and no eligibility for certain other costs) to further emphasize MTCA cleanup objectives. However, Ecology's ability to target grant monies to specific portions of grant-eligible projects is limited by the grant funding regulations.

5.42 Commenter #42 (Schmidt, Joe)

Joe Schmidt submitted written comments in an e-mail dated August 9, 2007 (comment #42-A, Appendix A).

Comment #1: Mr. Schmidt stated his feeling that the Port of Bellingham "made a mistake in their decision to let the responsible party, Georgia Pacific, off the hook and place the financial burden on the taxpayers."

Response: Ecology has not waived its rights against GP, and GP remains the entity responsible for release of mercury at the Site. However, following the Port's acquisition of the former GP mill site, the Port has assumed the leadership role for Site cleanup. This leadership was assumed by the Port under purchase and sale agreements between the Port and GP. Ecology's responsibility under MTCA regulations is to require the investigation and cleanup of contaminated sites consistent with MTCA criteria. The current Consent Decree to be signed by the Port and other parties accomplishes these objectives. Comments about whether

the Port's decision to acquire the GP properties under the transaction terms should be directed to the Port, not to Ecology.

Comment #2: Mr. Schmidt stated that though full mercury removal would be preferable, this would present a tremendous tax burden.

Response: The way in which cleanup actions are funded is not considered by Ecology as part of remedy selection. At times this means that Ecology must require implementation of costly cleanup actions that place a burden on taxpayers and rate-payers. Grant funding available through the Local Toxics Account is intended to reduce the financial impact of these actions. However, Ecology's regulatory role is to select cleanup actions that meet MTCA threshold criteria and that are permanent to the maximum extent practicable. The proposed cleanup approach has been determined by Ecology to meet these criteria. Several remedial alternatives involving additional contaminated sediment removal were determined to have additional costs that were substantial and disproportionate relative to the incremental risk reduction achieved.

Comment #3: Mr. Schmidt then stated concurrence with the proposed cleanup action, stating that the Ecology selected remedy is a "good start".

Response: Mr. Schmidt's statement of support for the proposed cleanup action has been noted by Ecology (see Table 4-1). Ecology has evaluated the proposed cleanup remedy against MTCA criteria and has concluded that the remedy complies with MTCA threshold requirements and is permanent to the maximum extent practicable.

Comment #4: Mr. Schmidt stated that "to procrastinate action any further would be a mistake" and requested that Ecology "please start this process so that we can get Bellingham Bay clean."

Response: The cleanup of the Whatcom Waterway Site is a high priority for the Department of Ecology. After review of public comments on the draft Consent Decree and exhibits, Ecology has determined that no significant alterations of these documents are required and that the cleanup should proceed into design and permitting. Ecology shares Mr. Schmidt's desire for timely completion of this important project. Some additional studies are required as part of project design and permitting, and the time required to complete these studies is part of the estimated restoration time-frame for the cleanup action.

5.43 Commenter #43 (Servais, John)

John Servais spoke at the public hearing on August 8, 2007. A copy of Mr. Servais' hearing testimony is attached (comment #43-A, Appendix A). Mr. Servais also provided comments during the previous public comment period on the RI/FS and DSEIS.

Comment #1: Mr. Servais stated that the existing sampling of the Site is inadequate because it did not include sufficient sampling, did not sample the hottest parts of the waterway and did not use a grid-based sampling strategy. Mr. Servais argued that additional sampling is required.

> Response: The Whatcom Waterway site has been fully investigated and multiple rounds of sediment sampling have been completed. Testing has been performed by multiple parties including Ecology, the Port, GP and other regulatory agencies. Core sampling has been performed throughout the Log Pond, ASB and Whatcom Waterway and within adjacent aquatic lands of the Site. The density of existing sampling data minimizes the potential for any significant hot spots to exist at the site.

Comment #2: Mr. Servais stated that the potential for damage to existing structures has not been evaluated as part of the RI/FS, and that project costs should incorporate costs of replacing docks that may be damaged by site construction activities.

> Response: Potential impacts of cleanup on shoreline and structure stability have been evaluated as part of the RI/FS and DSEIS. Under the Port's land use proposal, many of the existing wharf structures will be removed, and the shorelines of the Whatcom Waterway will be reconstructed with more stable sloping shorelines incorporating habitat benches. The DSEIS discussed the potential costs to mitigate structural concerns in the event that deep dredging was conducted within the Inner Waterway. Geotechnical and structural evaluations will be conducted as part of remedial design evaluations for the cleanup action. Potential impacts of the cleanup action to shorelines or structure stability are to be evaluated as part of those design studies, particularly in the Port terminal area where deep dredging is conducted under the proposed cleanup action. The results of geotechnical and structural evaluations will be documented in the Engineering Design Report which will be available for public review and comment.

Comment #3: Mr. Servais stated that he was concerned as a taxpayer about the effect of the cleanup action costs.

> Response: The way in which cleanup actions are to be funded is not considered by Ecology as part of Ecology's remedy selection process. Ecology's responsibility under MTCA regulations is to require the investigation and cleanup of contaminated sites consistent with MTCA criteria. The current Consent Decree to be signed by the Port and other parties accomplishes these objectives. Ecology understands that following the Port's acquisition of the former GP mill site, the Port has assumed the leadership role for Site cleanup and has developed a funding plan to pay for the cleanup action. This leadership was assumed by the Port under purchase and sale agreements between the Port and GP. Ecology has indicated that the project will be eligible for certain cleanup grants under state grant funding regulations. These grants are intended to reduce the financial impact of cleanup actions to taxpayers and rate-payers. Concerns about Port-associated property

taxes should be directed to the Port. Ecology has not control over taxation levels of local governments.

Comment #4: Mr. Servais stated concerns regarding the relationship between land use and the MTCA cleanup decision. Mr. Servais stated that the cleanup should not be based on planned land uses, because final approvals for the planned uses have not been achieved.

Response: The proposed cleanup action for the Whatcom Waterway Site is necessarily based upon the Port's planned uses of the Site. Land and navigation uses inform the evaluation of exposure pathways. As a result a clear understanding of these uses is fundamental to developing cleanup actions that eliminate exposure pathways thereby protecting human health and the environment. Ecology has considered existing and planned land uses as part of its cleanup decision, based on the best available information. In developing the Consent Decree, Ecology has acknowledged that additional permits and approvals are required in order to implement planned land uses. Ecology's cleanup decision for portions of the site could need to be revisited if planned land uses are not implemented. However, the understanding of current and planned land uses is sufficient for remedy selection, given the commitments of the potentially liable parties and the language included in the Consent Decree.

Comment #5: Mr. Servais implied that implementation of Ecology's proposed cleanup action could result in a "Love Canal" in Bellingham Bay.

Response: Ecology interprets Mr. Servais' statement about "Love Canal" as an argument in favor of an alternative cleanup approach and a statement that the remedy as proposed is not sufficiently protective. Mr. Servais' argument in favor of an alternative cleanup approach has been noted in Table 4-2. However, Ecology concludes that the selected cleanup action is appropriate, and is being conducted in strict accordance with MTCA and SMS requirements. MTCA includes a requirement that cleanup solutions be "permanent to the maximum extent practicable". To make this determination a disproportionate cost analysis is performed that compares benefits and costs. The benefits criteria include but are not limited to: permanence, protectiveness, cost, and long-term effectiveness. MTCA states that where two or more alternatives are equal in benefits, Ecology shall select the less costly alternative provided that minimum requirements are met. The disproportionate cost analysis indicates that the benefits of Alternatives 6, 7 and 8 are similar however the costs of Alternatives 7 and 8 are much greater than Alternative 6. Therefore Alternative 6 is identified as being "permanent to the maximum extent practicable" and Ecology's proposed remedy for the Site. Alternative 6 complies with MTCA and SMS and protects human health and the environment given the Port's land and navigation use plans for the Site. Ecology appreciates Mr. Servais' continued interest in the cleanup of the Site.

5.44 Commenter #44 (Shapiro, Alex)

Alex Shapiro provided written comments in an e-mail dated August 7, 2007 (comment #44-A, Appendix A). Mr. Shapiro also provided comments during the previous public comment period on the RI/FS and DSEIS.

Comments #1 and #2: Mr. Shapiro stated that he wanted to "voice my vote for total cleanup of the mercury in Whatcom Waterway", which Ecology interprets to be a preference for a modified version of RI/FS Alternative 8. In comment #2, Mr. Shapiro stated opposition to capping, saying "Don't just cap it."

> Response: Mr. Shapiro's statement of support for the proposed cleanup action has been noted by Ecology (see Table 4-2). Capping has been successfully applied in Puget Sound and elsewhere for remediation of contaminated sediments and must be considered as part of an alternatives analysis. The MTCA includes a requirement that cleanup solutions be "permanent to the maximum extent practicable". To make this determination a disproportionate cost analysis is performed that compares benefits and costs. MTCA states that where two or more alternatives are equal in benefits, Ecology shall select the less costly alternative provided that minimum requirements are met. Mr. Shapiro's comment and other similar comments received on the draft RI/FS, DSEIS and the draft Consent Decree that expressed a desire for more removal, complete removal, or opposed capping were interpreted by Ecology to mean a desire for the most protective, permanent and effective remedy. These comments confirm Ecology's assignment of the highest weighting factors to the overall protectiveness, permanence and long-term effectiveness benefits criteria in the disproportionate cost analysis presented in Section 5 of the DCAP. The disproportionate cost analysis indicates that the benefits of Alternatives 6, 7 and 8 are similar however the costs of Alternatives 7 and 8 are much greater than Alternative 6. Therefore Alternative 6 is identified as being "permanent to the maximum extent practicable" and Ecology's proposed remedy for the Site.

5.45 Commenter #45 (Timmer, William)

William Timmer provided written comments in an e-mail dated August 11, 2007 (comment #45-A, Appendix A).

Comment #1: Mr. Timmer stated his support for the draft Consent Decree.

> Response: Mr. Timmer's support for the proposed cleanup action has been noted by Ecology (see Table 4-1). Ecology has evaluated the proposed cleanup remedy against MTCA criteria and has concluded that the remedy complies with MTCA threshold requirements and is permanent to the maximum extent practicable.

Comment #2: Mr. Timmer expressed his concern that "to delay this plan with more studies and a continued discussion over cleanup options is wrong."

Response: The cleanup of the Whatcom Waterway Site is a high priority for the Department of Ecology. After review of public comments on the draft Consent Decree and exhibits, Ecology has determined that no significant alterations of these documents are required and that the cleanup should proceed into design and permitting. Ecology shares Mr. Timmer's desire for timely completion of this important project. Some additional studies are required as part of project design and permitting, and the time required to complete these studies is part of the estimated restoration time-frame for the cleanup action.

5.46 Commenter #46 (Washington Department of Fish and Wildlife)

The Washington Department of Fish and Wildlife (WDFW) provided written comments in a letter dated August 7, 2007 (comment #46-A, Appendix A). The WDFW also provided comments during the previous public comment period on the RI/FS and DSEIS.

Comment #1: Mr. Williams stated that WDFW concurs with Ecology's selection of Remedial Alternative 6 as the preferred cleanup strategy for the Site.

Response: The WDFW support for the proposed cleanup action has been noted by Ecology (see Table 4-2). Ecology has evaluated the proposed cleanup remedy against MTCA criteria and has concluded that the remedy complies with MTCA threshold requirements and is permanent to the maximum extent practicable.

Comments #2: Mr. Williams emphasized that Alternative 6 not only satisfies the state's rigorous sediment cleanup standards, but is consistent with the goals and objectives of the Bellingham Bay Demonstration Pilot and is consistent with the Bellingham Bay Comprehensive Strategy.

Response: Compliance with the goals and objectives of the Bellingham Demonstration Pilot and the Bellingham Bay Comprehensive Strategy are voluntary and are not part of the regulatory basis for selection of Alternative 6 by Ecology. However, Ecology agrees that this alternative, selected in compliance with MTCA remedy selection criteria, furthers the goals and objectives of the Pilot and the Bellingham Bay Comprehensive Strategy. As you know, an evaluation of RI/FS alternatives against the Pilot goals was conducted as part of the DSEIS, and the alternative was found to rank very high against those goals.

Comment #3: Mr. Williams stated that Alternative 6 effectively mitigates natural resource impacts through a broad range of habitat enhancement and creation actions.

Response: As documented in the DSEIS, Ecology concurs that Alternative 6 mitigates adverse habitat impacts associated with the cleanup, and provides a net beneficial impact to fish and wildlife habitat.

Comment #4: Mr. Williams stated that Alternative 6 can be implemented in a realistic time-frame.

Response: Restoration time-frame is one of the factors considered by Ecology as part of the evaluation of cleanup alternatives. Ecology concurs that the restoration time-frame for the proposed cleanup action is reasonable as required under MTCA and SMS regulations.

Comment #5: Mr. Williams commended Ecology's staff for their "tireless work and unbending commitment to ensuring that the cleanup of the Whatcom Waterway Site is permanent to the maximum extent practicable under MTCA."

Response: Ecology's regulatory role with respect to the cleanup of the Whatcom Waterway site is to ensure that the cleanup action complies with MTCA and SMS cleanup levels, and to ensure that the cleanup action complies with MTCA remedy selection criteria. We share your opinion that the proposed cleanup action complies with the MTCA remedy selection criteria.

5.47 Commenter #47 (Washington Department of Health)

The Washington State Department of Health (DOH) provided written comments in a letter dated August 13, 2007 (comment #47-A, Appendix A) and in an attachment to that letter (comment #47-B, Appendix A). The attachment consisted of a letter between DOH and the Whatcom County Health Department relating to the DOH review of the Whatcom Waterway site-specific Bioaccumulation Screening Level (BSL). The Whatcom County Health Department had requested DOH review of the BSL.

Comment #1: The DOH provided Ecology with a copy of its review of the BSL for incorporation into the public record.

Response: Ecology appreciates the review of the BSL conducted by DOH and has included the review as part of the public record for the Site.

Comments #2 through #8: The DOH review letter (comment #47-B) includes a detailed discussion of its review of the BSL. The letter provides a review of the overall evaluation approach, the key BSL assumptions, the validity of the underlying mercury toxicity data, the level of conservatism associated with the assumed diet fraction, the reasonableness of the fish consumption rates, the validity of the linear regression analyses performed, and the seafood tissue data on which the analysis was based.

Response: Ecology concurs with the information presented in the DOH review letter.

Comment #9: As part of its review of the BSL, DOH concludes that "Based on our review of the derivation of the BSL, the approach represents a reasonable approach for incorporating human health concerns into sediment cleanup decisions at the site. At this time no fish or crab consumption advisory is warranted in Bellingham Bay."

Response: Ecology concurs with the DOH conclusions.

Comment #10: DOH stated that it intends to provide input to long-term monitoring plans to be developed by Ecology, and will review tissue data that are generated to ensure that the public's health is protected. DOH recommended that tissue mercury measurements include flatfish and clams (if available) as well as crabs.

Response: Ecology appreciates DOH support in the development of long-term monitoring plans to be developed for the Site. The monitoring plan for the site will be developed as part of the Engineering Design Report expected during 2009. Ecology will consider inclusion of flatfish and clam monitoring as part of the tissue testing conducted as part of that plan.

Comments #11 & #12: DOH stated that the levels of mercury in Bellingham Bay crab have been declining and that the tissue mercury levels in Bellingham Bay crab, English sole, and clams are lower than many fish available at the market.

Response: The DOH comments are noted. Market seafood levels are not necessarily considered by Ecology in evaluation of cleanup levels under MTCA.

5.48 Commenter #48 (Washington Department of Natural Resources)

The Washington Department of Natural Resources (DNR) provided written comments in a letter from Doug Sutherland, the Commissioner of Public Lands, dated August 13, 2007 (comment #48-A, Appendix A). The DNR also provided comments during the previous public comment period on the RI/FS and DSEIS.

Comments #1 and #3: Commissioner Sutherland stated the support of the DNR for the approval of the draft Consent Decree and draft Cleanup Action Plan, as a step toward the goals of the Bellingham Bay Pilot project.

Response: The DNR support for the proposed cleanup action has been noted by Ecology (see Table 4-2). Ecology has evaluated the proposed cleanup remedy against MTCA criteria and has concluded that the remedy complies with MTCA threshold requirements and is permanent to the maximum extent practicable.

Comment #2: Commissioner Sutherland stated that DNR's staff has worked as part of the Pilot Project, with state, federal, tribal and local entities for over 10 years, and that they strongly support implementation of the actions of the Pilot Project, as the basis for a clean and healthy Puget Sound and the revitalization of Bellingham Bay.

Response: Ecology appreciates the DNR's continued, cooperative participation in the activities of the Bellingham Bay Demonstration Pilot and the DNR's cooperative implementation of MTCA investigation and cleanup activities at multiple sites. Ecology believes that this cooperative approach to implementing MTCA cleanup requirements has produced progress in the state's effort to

accomplish cleanup and habitat restoration actions, and that the approach has proven to be a viable strategy for implementing these complex projects.

Comment #4: Commissioner Sutherland stated that it is time to move ahead and begin the cleanup process.

Response: The cleanup of the Whatcom Waterway Site is a high priority for the Department of Ecology. After review of public comments on the draft Consent Decree and exhibits, Ecology has determined that no significant alterations of these documents are required and that the cleanup should proceed into design and permitting. Ecology shares Commissioner Sutherland's desire for timely completion of this important project. Some additional studies are required as part of project design and permitting, and the time required to complete these studies is part of the estimated restoration time-frame for the cleanup action.

5.49 Commenter #49 (Washington Public Ports Association)

The Washington Public Ports Association (WPPA) provided written comments in an e-mail dated August 13, 2007 from Eric Johnson, WPPA Deputy Director (comment #49-A, Appendix A).

Comments #1 & #5: Mr. Johnson stated support of the proposed Consent Decree for the Whatcom Waterway site on behalf of the member port districts of the WPPA, and because the Consent Decree represents the "best solution at hand".

Response: The WPPA's support for the proposed cleanup action has been noted by Ecology (see Table 4-1). Ecology has evaluated the proposed cleanup remedy against MTCA criteria and has concluded that the remedy complies with MTCA threshold requirements and is permanent to the maximum extent practicable.

Comment #2: Mr. Johnson stated his belief that the resolution of the long and thorough process of the Port, state and City to study the site and to develop a workable cleanup plan demonstrates that "the Model Toxics Control Act process worked".

Response: Ecology appreciates that the process to investigate and develop a cleanup plan for a contaminated sediment site under MTCA can be a long and difficult process. However, the process has proven successful elsewhere in Washington and this success has been replicated in Bellingham Bay.

Comment #3: Mr. Johnson stated opposition to rejection or significant amending of the Consent Decree, because this would delay the cleanup process and jeopardize the partnerships and would risk lengthy litigation.

Response: The cleanup of the Whatcom Waterway Site is a high priority for the Department of Ecology. After review of public comments on the draft Consent Decree and exhibits, Ecology has determined that no significant alterations of

these documents are required and that the cleanup should proceed into design and permitting. Ecology shares Mr. Johnson's desire for timely completion of this important project. Some additional studies are required as part of project design and permitting, and the time required to complete these studies is part of the estimated restoration time-frame for the cleanup action.

Comment #4: Mr. Johnson stated that Port districts in other waterfront communities are "watching this process carefully as a gauge of the Department of Ecology's role as a partner in remediation efforts."

Response: Ecology appreciates the Port's continued, cooperative participation in the activities of the Bellingham Bay Demonstration Pilot and the Port's cooperative implementation of MTCA investigation and cleanup activities at multiple sites. Ecology believes that this cooperative approach to implementing MTCA cleanup requirements has produced progress in the state's effort to accomplish cleanup and habitat restoration actions, and that the approach has proven to be a viable strategy for implementing these complex projects. However, Ecology reserves its rights to use enforcement actions or unilateral action where necessary to implement required cleanup actions consistent with MTCA requirements whether with Ports, local governments or other parties.

5.50 Commenter #50 (Whatcom Recreational Boaters Association)

The Whatcom Recreational Boaters Association provided written comments in an e-mail dated August 12, 2007 (comment #50-A, Appendix A). An identical copy of the e-mail was also submitted from Teresa and John Van Haalen (comment #50-B, Appendix A).

Comment #1: The comments from the Whatcom Recreational Boaters Association stated the support of the organization for Ecology's DCAP for the Whatcom Waterway Site.

Response: The support of the proposed cleanup action by the Whatcom Recreational Boaters Association has been noted by Ecology (see Table 4-1). Ecology has evaluated the proposed cleanup remedy against MTCA criteria and has concluded that the remedy complies with MTCA threshold requirements and is permanent to the maximum extent practicable.

Comment #2: The comments from the Whatcom Recreational Boaters Association urged Ecology to proceed with the cleanup action as soon as the public comment period is over.

Response: The cleanup of the Whatcom Waterway Site is a high priority for the Department of Ecology. After review of public comments on the draft Consent Decree and exhibits, Ecology has determined that no significant alterations of these documents are required and that the cleanup should proceed into design and permitting. Ecology shares the commenter's desire for timely completion of this

important project. Some additional studies are required as part of project design and permitting, and the time required to complete these studies is part of the estimated restoration time-frame for the cleanup action.

Comments #3 & 4: Comments 3 and 4 represent identical copies of comments 1 and 2 listed above. Refer to comments 1 and 2 for a discussion of these comments and Ecology's responses.

5.51 Commenter #51 (Wild, Scott)

Scott Wild submitted written comments in an e-mail dated July 14, 2007 (comment #51-A, Appendix A) and in a subsequent e-mail dated August 9, 2007 (comment #51-B, Appendix A). Mr. Wild also provided comments during the previous public comment period on the RI/FS and DSEIS.

Comment #1: Mr. Wild stated that he is "absolutely in favor of cleaning up the old GP site to the fullest extent possible before permitting any development on Bellingham's waterfront."

Response: Mr. Wild's preference for cleanup to the "fullest extent possible" is noted (see Table 4-2) by Ecology. However, this standard is not necessarily consistent with the MTCA regulatory requirements which stipulate that cleanup actions must comply with cleanup levels and other threshold requirements, and that the cleanup alternative that is selected must be "permanent to the maximum extent practicable" as defined under the regulations. Additionally, it is not Ecology's role to regulate the timing of development activities provided that those development activities do not interfere with cleanup actions or exacerbate existing conditions at cleanup sites.

Comments #2 and #4: Mr. Wild stated his opposition to capping, stating that "capping is not a long-term solution" and "we do not want to cap and cross our fingers".

Response: Mr. Wild's preference for an alternative cleanup strategy that does not involve capping is noted (see Table 4-2) by Ecology. However, Ecology disagrees with Mr. Wild's statement that capping is not a long-term solution. Capping has been successfully applied in Puget Sound and elsewhere for remediation of contaminated sediments and must be considered as part of an alternatives analysis. The MTCA includes a requirement that cleanup solutions be "permanent to the maximum extent practicable". To make this determination a disproportionate cost analysis is performed that compares benefits and costs. MTCA states that where two or more alternatives are equal in benefits, Ecology shall select the less costly alternative provided that minimum requirements are met. Mr. Wild's comment and other similar comments received on the draft RI/FS, DSEIS and the draft Consent Decree that expressed a desire for more removal, complete removal, or opposed capping were interpreted by Ecology to mean a desire for the most protective, permanent and effective remedy. These

comments confirm Ecology's assignment of the highest weighting factors to the overall protectiveness, permanence and long-term effectiveness benefits criteria in the disproportionate cost analysis presented in Section 5 of the DCAP. The disproportionate cost analysis indicates that the benefits of Alternatives 6, 7 and 8 are similar however the costs of Alternatives 7 and 8 are much greater than Alternative 6. Therefore Alternative 6 is identified as being "permanent to the maximum extent practicable" and Ecology's proposed remedy for the Site.

Comment #3: Mr. Wild stated his concern that citizen comment is not taken seriously in cleanup planning for the former GP site.

Response: Public comment is an important element of the MTCA process and Ecology attempted to legitimately interpret, consider and respond to all comments received on the draft RI/FS and DSEIS. Regarding the format of the Responsiveness Summary, Ecology elected to group like comments together in order to ensure that 1) the Responsiveness Summary was of a readable length, and 2) that the relative frequency of a particular comment was communicated to the reader of the document. All comments were itemized and cross-linked so that commenters could determine easily where in the document their comments were addressed. Comments were not watered down by the presentation in the draft RI/FS and DSEIS Responsiveness Summary, as both the specific comments and the frequency of those comments were clearly identified. Ecology encourages your continued interest in the investigation and cleanup of the former GP properties.

Comments #5: Mr. Wild stated a preference for additional sediment removal, stating "we want as many toxics as remotely feasible removed first."

Response: Mr. Wild's preference for an alternative cleanup strategy involving additional removal is noted (see Table 4-2) by Ecology. Please refer to Ecology's responses to comments #2 and #4 above.

Comment #6: Mr. Wild stated a willingness to pay for additional removal of contaminated sediments.

Response: Under the MTCA regulations, cleanup is funded by the liable parties. If a liable party is a local government agency, remedial action grants from Ecology are available to fund up to 50% of costs subject to grant availability and eligibility requirements. While Ecology cannot compel the implementation of additional cleanup or mitigation actions beyond those required under MTCA, additional actions can voluntarily be taken by the liable parties. If you are proposing a funding strategy for accomplishing additional activities within the Site, please contact the Port or one of the other PLPs with your proposal. As part of our work under the Bellingham Bay Demonstration Pilot and the Governor's 2020 Initiative, Ecology is interested in developing new methods of funding cleanup and restoration activities within Puget Sound.

5.52 Commenter #52 (Williams, Darren)

Darren Williams spoke at the public hearing on August 8, 2007. A copy of Mr. Williams' hearing testimony is attached (comment #52-A, Appendix A). Mr. Williams also submitted written comments in an e-mail dated August 12, 2007 (comment #52-B, Appendix A).

Comments #1, #7 and #9: Mr. Williams stated that in his belief there is no perfect plan that can provide 100% certainty, and that no cleanup plan will address 100% of public concerns.

> Response: Some uncertainty always remains in any scientific endeavor whether in the investigation of a site or the engineering of a cleanup solution. With respect to scientific data, Ecology uses the best information available at the time of the Ecology decisions. With respect to public input and differences of public opinion Ecology considers all public, agency and stakeholder input as part of the remedy selection process, within the constraints of the MTCA remedy selection process. It is not uncommon for opinions and remedy preferences to differ among different parties, as reflected in the range of comments received on the RI/FS and DSEIS.

Comment #2, #5 and #8: Mr. Williams stated his support for the proposed cleanup action, stating that the plan addresses most issues to the best of our ability, and specifically stating "I support this plan".

> Response: Mr. Williams' support of the proposed cleanup action has been noted by Ecology (see Table 4-1). Ecology has evaluated the proposed cleanup remedy against MTCA criteria and has concluded that the remedy complies with MTCA threshold requirements and is permanent to the maximum extent practicable.

Comment #3: Mr. Williams expressed his concern about the economic impact associated with allowing the waterway to fill in.

> Response: As part of the DSEIS, Ecology evaluated the consistency of the proposed cleanup action with planned local land and navigation uses. The proposed cleanup action is consistent with the Port's plans for continued deep draft uses of the Bellingham Shipping Terminal.

Comment #4: Mr. Williams emphasized that cleanup of the site should be performed cost-effectively, and that "as a taxpayer I want to get the most for my money".

> Response: Ecology has evaluated the proposed cleanup remedy against MTCA criteria and has concluded that the remedy complies with MTCA threshold requirements and is permanent to the maximum extent practicable. The second step in this evaluation considers the relationship between the remedy costs and the incremental degree of risk reduction associated with different cleanup

alternatives. This analysis is required by regulation and forms the basis of final remedy selection. It's focus is not dissimilar to Mr. Williams comment about cost-effectiveness.

Comment #6 and #11: Mr. Williams stated his desire to get started with the cleanup action. He stated that "I don't want to wait and study this thing for another 10 years to try and satisfy 100% of everyone's concerns because it won't happen. And take note sometimes that is the agenda. We bring up concern after concern after concern to stop anything from happening." He also stated that "the worst mistake we could make is to do nothing for another 20 years…"

Response: The cleanup of the Whatcom Waterway Site is a high priority for the Department of Ecology. After review of public comments on the draft Consent Decree and exhibits, Ecology has determined that no significant alterations of these documents are required and that the cleanup should proceed into design and permitting. Ecology shares the commenter's desire for timely completion of this important project. Some additional studies are required as part of project design and permitting, and the time required to complete these studies is part of the estimated restoration time-frame for the cleanup action.

Comment #10: Mr. Williams stated that "there will need to be corrections made to whatever method of cleanup is used, either during construction or after completion.".

Response: Contingency planning is an element of all remedial actions. Section 6.3.2 of the DCAP presented an overview of the types of construction and post-construction contingencies that are to be developed as part of the Engineering Design Report. Contingent actions are part of any cleanup action and cost contingencies are carried as part of project cost estimates in the DCAP. Detailed contingency response actions will be described in the Site Construction Quality Assurance Project Plan (CQAP) and the Compliance Monitoring and Contingency Response Plan (CMCRP) to be prepared as a part of remedial design, after completion of supplemental pre-design studies. The objective of these plans is to confirm that cleanup standards have been achieved, and also to confirm the long-term effectiveness of cleanup actions at the Site. Along with the information on monitoring; these plans will discuss the types of contingency actions that could potentially be required in response to monitoring observations, and will discuss triggers for different types of contingency response actions. The plans will be subject to public review as part of a draft Engineering Design Report.

5.53 Commenter #53 (Winslow, Frank & Josselyn)

Frank and Josselyn Winslow provided written comments in an e-mail dated August 9, 2007 (comment #53-A, Appendix A).

Comment #1: The comments from Mr. and Mrs. Winslow requested that Ecology be more responsive in its reply to questions put to the agency by the North Sound Baykeeper organization/ RE Sources.

Response: Ecology strives to be responsive to all questions and comments received during public comment periods, public meetings and public hearings, including questions and comments received from the North Sound Baykeeper organization / RE Sources.

Comment #2: Mr. and Mrs. Winslow expressed concern about the "privatization of the area". This was interpreted by Ecology to be opposition to the Port's proposal for private future ownership of portions of the New Whatcom redevelopment area.

Response: Comments regarding the distribution of public and private ownership within the New Whatcom area should be directed to the Port and the City. Ecology has no authority over these types of local land ownership and land use decisions.

5.54 Commenter #54 (Youngquist, Wayne)

Wayne Youngquist submitted written comments in an e-mail dated August 9, 2007 (comment #54-A, Appendix A).

Comment #1: Mr. Youngquist stated that "the Hg waste was created by the people of Bellingham and we should live with it rather than shipping our problems to become somebody else's problem…" Ecology interpreted this comment as a preference against use of off-site sediment disposal.

Response: The proposed cleanup approach includes the use of multiple cleanup technologies, including dredging, upland disposal, capping and monitored natural recovery. Off-site disposal in an appropriately designed and permitted upland facility is used where dredging of contaminated sediments is necessary. Mr. Youngquist's concern about potential creation of a new problem at the disposal site is noted. However, Ecology has determined the use of dredging and off-site upland disposal is an integral part of the proposed cleanup action that was determined to be permanent to the maximum extent practicable under MTCA requirements.

Comment #2: Mr. Youngquist stated that complete removal of mercury cannot be achieved due to naturally occurring levels of mercury in the environment.

Response: Ecology is aware that mercury is a naturally occurring substance, and complete removal of mercury from the environment cannot be achieved. However, the concentrations of mercury in marine sediments due to natural conditions are lower than those associated with the site-specific release of mercury that occurred at the Whatcom Waterway site. Implementation of

remedial activities as planned in the proposed cleanup action is warranted to protect human health and the environment and comply with MTCA regulatory criteria.

Comment #3 & 4: Mr. Youngquist stated that "much more can be done with $30 million in regards to community healthcare, education programs, public transportation, and…insuring our drinking water is free from Mercury." Mr. Youngquist then requested that Ecology "let logic rule the day" and "keep costs low and try and do a great job".

Response: Ecology has determined that the proposed cleanup action as documented in the draft Consent Decree and exhibits is protective of human health and the environment and is permanent to the maximum extent practicable. Ecology is required to comply with these regulatory requirements in making remedy selection decisions. Other alternatives involving additional sediment removal were evaluated, but the costs of these additional actions were determined to be substantial and disproportionate relative to the incremental degree of risk reduction achieved. Ecology has no regulatory authority to obligate expenditures of public funds for non-cleanup activities such as healthcare or education.

From: sv98229@comcast.net [mailto:sv98229@comcast.net]
Sent: Monday, August 13, 2007 1:58 PM
To: McInerney, Lucy (ECY)
Subject: Public Comment: Whatcom Waterway

#1-A

Re: Public Comment
Whatcom Waterway
Facility Site ID #2899

Dear Ms. McInerney:

The Whatcom Waterway Cleanup Action Plan's proposed breach of the Aerated Stabilization Basin (ASB) in order to create a pleasure craft marina is neither protective of human life and the environment or cost effective. 1

There is no 100% foolproof way to open the ASB to the bay without also opening a new pathway for contamination to spread into the bay. The additional pathway for hazardous contaminants poses additional risk to all bay users. 2

Creating a marina from the ASB costs approximately $21,000,000 for 350 to 450 boat slips. At an average $52,500 per slip, the proposal is not cost effective by any economic measure. The $21,000,000 figure is the probable cost difference between Design Concept 4(no marina) and Design Concept 5(with marina). The estimated number of boat slips is from the Port of Bellingham web site's New Marina FAQS. 3

I sincerely hope the Department of Ecology will reject any redevelopment plans requiring a breach in the Aerated Stabilization Basin.

Nancy Alyanak
Bellingham, WA

From: Ken Anderson [kandianderson@nas.com]
Sent: Monday, August 13, 2007 10:09 AM
To: McInerney, Lucy (ECY)
Subject: 10-10-06 LTR TO ECOLOGY

#2-A

Attachments: 8-13-07 LONG TEXT TO WA ECOLOGY.doc
10-10-06 FIRST LTR TO DEPT. OF ECOLOGY

October 9, 2006

Lucille McInerney, Site Manager

WA Department of Ecology
3190 160th Ave.
Bellevue, WA 98008-5452
Phone: (425) 849-7272
E-Mail: lpeb461@ecy.wa.gov

Dear Ms. McInerney:

This letter is written in response to a request found in the Bellingham Herald for public comments regarding the Bellingham Waterway Site.

As we all know, the cleanup of the ASB is a very complex and costly subject. In order that those interested may understand the issues being addressed, I suggest that communications be kept to the simplest possible terms that will convey the message desired.

As a taxpayer I am much concerned about cost involved in the cleanup of the ASB. No doubt substantial volumes of toxic sludge will be removed from the ASB at considerable cost. When convenient for you, I would appreciate knowing the presently estimated weight and volume of that material, and the estimated unit costs for dredging, processing for shipment, shipping, and depositing that material. 1

No doubt the costs will amount to many millions of dollars. As I see it at this time, arrangements for dredging and preparing the sludge for export can be competitively bid, something favorable to the owner. There may be, however, considerably less competition with regard to shipping the material to the deposit site.

If the Roosevelt dumpsite has already been selected, there would be no competition. The Port would be shipping to that site huge quantities of material, with most of it arriving on a regular basis. For those receiving the material with payments assured, that would appear to be a dream situation. Accordingly, the prices charged to the Port to dump material should be competitive and fair to both the owner of the site and the Port. I do hope those prices will be negotiated accordingly. 2

It is from the Bellingham Herald that I understand that a decision has been made to deepen the Whatcom Waterway so that it will accommodate ocean-going ships. If this understanding is correct, there is much to be said about the pros and cons of such a decision.

The most obvious benefit of such a decision is the long-term benefit of having certain large ships moored close to the City. The second benefit is less obvious. Let's assume that toxic sludge now in the ASB will leave the area in ocean-going barges towed by tugs. Following the deepening of the Whatcom waterway, those barges may be moored much closer to the storage piles of properly drained and dried sludge. Generally speaking, the closer the barges are moored to the stockpiles filling them, the greater the savings to the Port. 3

This is a complex matter that warrants very close examination in order to maximize those savings. However, if properly addressed, such a close study would pay for itself many times over in savings to the Port. As a P.E. with a strong interest in this matter, I would like to play a leading role in such a study, with your firm supplying the essential input I would use as the basis for my calculations.

In addition, I would very much appreciate a close review of my work by your people in order that we would all be comfortable with the quality of the documents prepared for the Port. By using such design teamwork, I am comfortable in stating that the Owner would receive quality documents in a timely manner at very reasonable costs.

There are many ways to complete the ASB cleanup study, but only one best way. With your firm supplying basic data and closely reviewing my work, we can find that best way to the benefit of all concerned. 4

I WILL BE TESTED.
Specifics can be worked out later.

and gathered some information regarding the cleanup of the lagoon in the past. Some of this information may now be obsolete. I would appreciate being updated so my future comments would be accurate.

First of all, the toxic water from the lagoon must have a disposal site. Just how and where does the Department of Ecology intend to dispose of this water?

8-13-07 SUBMITTAL TO WASHINGTON'S DEPARTMENT OF ECOLOGY

2. CLARIFICATION OF COSTS

I would appreciate knowing matters of cost. What will the $44 million cover? How much of that money has been spent so far? Specifics on where it has been spent would be gratefully received.

3. PREPARATION REQUIRED BEFORE THE WATERWAY DREDGING STARTS

1. Design the finished waterway and the cross-sections desired for it.

2. Compute the quantity to be excavated from the waterway and outside areas.

3. Design and construct a plant to treat that water.

4. Design the sludge treatment site. As mentioned below, one should consider using a common site for both the waterway and the ASB. A plan showing a preliminary design for the ASB sludge treatment is enclosed.

5. Make arrangements with the railroad to remove the sludge.

6. Make arrangements for the dumpsite.

7. Decide on the contracts that should be let to get the job done.

8. Prepare the plans and specifications for the contracts.

9. Contract out the work in a logical order.

4. COMMON GROUND BETWEEN THE WATERWAY AND THE ASB

1. Both will treat the same materials, specifically mercury-laden sludge and tainted seawater.

2. Both should use the same water-treatment plant to treat that water.

3. With design effort, both could use the same processing area and equipment to treat their sludge. This would result in major economies. If the Port elected to use separate facilities, it may pay dearly for that decision. A close study of this matter is certainly justified.

4. If common treatment processes are used, both would use the same railway spur and other transportation facilities to dispose of the sludge.

5. Both would use the same dumpsite.

6. In conclusion, if the above recommendations are used, by preparing the waterway for dredging, the Port will also have prepared most of the ASB for dredging, and thus will be saving a great deal of time and money.

5. DIFFERENCES BETWEEN THE WATERWAY AND ASB WORK.

1. All ASB sludge is in a confined area, whereas the highly contaminated waterway areas are in three places—one in the open bay, one at the outside tip of the ASB and one within the waterway.

2. The ASB material will be reasonably uniform, but the waterway material will vary from the highly contaminated locations called out above to the less contaminated material within the waterway itself. Does such a variation justify a different treatment process?

3. If common treatment facilities are used, the pipeline from the dredge to the treatment site will be longer, especially when cleaning up the site in the open bay.

4. If the common treatment site is used, the water carrying the waterway sludge will drain to the waterway while the ASB sludge will drain to the ASB.

5. The design of the waterway will involve slope stability, a problem of less importance with the ASB.

6. Portions of the diffusion pipe within the ASB must probably be removed for boat clearance when it is used as a marina.

6. DESIGN PROCESS FOR ASB WORK

The steps required to process the sludge from the ASB to the dump sites were assumed to be dredging, storing in wet tanks for draining, drying, storing in dry tanks, weighing, and shipment by rail to the dump site.

Based on contractor's equipment for dredging and drying, a working day's rate of production of 1,000 cubic yards, or 1100 tons of dry sludge was assumed to be realistic. A dredge should have no problem meeting this schedule but the drying outfit might have to work slightly longer hours.

There are other factors that must be considered before such a schedule can be proven to be realistic. For example, only a lab can tell us many important properties of the sludge. Some of these factors are listed below. The sludge properties can be determined early and economically. Many of those properties would apply to both ASB and waterway designs. No design can be solid without this input. It makes little sense to delay design by not retaining a good lab soon.

7. LAB DETERMINED PHYSICAL PROPERTIES OF SLUDGE

What is its specific gravity when saturated and when dried to specific moisture content? At what moisture content, or dryer, will the sludge become dusty and probably require covers when transported?

Will the sludge contaminate the steel walls containing it and make the steel unusable for later applications?

What slope, or angle of repose, will the sludge take under water, when saturated in a storage tank, and when dried to say a 3% moisture content in another storage tank?

Can a person walk on saturated or dried sludge? If so, what protective clothing would be recommended?

A dredge will pump the sludge into a storage tank. That sludge will be suspended in perhaps 90% water. Knowing the rate at which the sludge will settle to the bottom permitting the water to drain from the tank is very important.

Roughly, a day's dredging may produce two feet of settled sludge in the storage tank. But as much as twenty feet of water has carried the sludge into the tank during the day. That water must be siphoned from the tanks quickly.

8. PROCESSING THE TOXIC WATER

8

We all know that the water in the ASB is toxic. The same may apply to the water dredged from the most toxic area near and outside the waterway. A qualified lab should analyze that water and specify the treatment required to make it harmless. A plant should then be designed and constructed to treat the water. All this takes time. The sooner this issue is addressed, the less likely the absence of the plant will delay construction.

9. THE IMPORTANCE OF STORAGE

One of the best ways to keep the entire process on schedule is to provide adequate storage between the dredge and the dryer and between the dryer and the railcars. Such storage will act as a cushion to assure that production stays on schedule. With ample storage a temporary stoppage in one part of the production line will have a minimum effect on the overall production.

9

A daily production rate of one thousand cubic yards of dried sludge, weighing about 1100 tons seemed realistic, based on the capacities of many dredging outfits. The drying firms might have to work slightly longer hours to maintain that rate but it still appeared to be quite achievable.

In the design shown for the ASB, large tanks were selected, each having a capacity of at least six day's work, or 6000 cubic yards. The last day of the week would be used for rest or for catching up on the schedule, if required.

At one time the ASB had an estimated 350,000 cubic yards of sludge. Based on that figure and the 6,000 cubic yards of production per week, it would take some 350,000/6000 or some 58 working weeks to complete the sludge cleanup in the ASB once dredging had started. However, weather and other unknowns will bear heavily on the project. Still, it seems that if properly managed, the ASB cleanup could be completed comfortably within two years.

Mathematically, one should bear in mind that a circular structure contains the most area for a given perimeter. Most of the cost of the structure is in the cost of that perimeter. Also, if you double the height of that circular structure, you double both its perimeter area and its storage capacity. But if you double the radius of that structure you also double its perimeter area, but you quadruple its storage capacity. So, you are far better off to double the radius of that circular storage tank.

Considering all the pros and cons of the circular storage tank, if you double its height, you also double the pressure within that tank when full—meaning a stronger design would be required. But if you double its radius, you quadruple the area required. In the case of the ASB, the area for processing and storing the sludge may be at a premium so the locations of the storage tanks must be carefully chosen.

Based the capacities required, the Port would be far better off to construct a few large storage tanks than a number of smaller ones. As shown on the ASB sketch enclosed, just four large tanks seems to be the ideal number—two between the dredge and the dryer and two between the dryer and the railcars. One tank in each pair would be receiving material while the second tank would be delivering it to the next process.

Each of those tanks should hold about 6,000 cubic yards, or 162,000 cubic feet. Assume that the walls of the tanks will be fourteen feet high but the tanks will be filled to a height of only twelve feet. The circular area within the filled tank would then be 162,000/12 or 13,500 square feet. The radius squared would be 13,500/3.14 or 4299 and the radius of the tank would be 66 feet. In my preliminary design the radius was increased to 70 feet for the benefit of the additional storage.

Then the question comes up—just what material should be used for the walls of the storage tanks? My first vote would be for interlocking steel sheet piles driven into a flat compacted surface. Possibly the tanks would have concrete floors. But the quality of the sub-surface in the only available area is questionable. Garbage has been deposited nearby for a number of years. So, that is an issue that must also be addressed geologically. The sooner it is addressed, the sooner the storage design can proceed with confidence.

If the tanks have sheet pile walls, another factor that must be addressed is the fact that stress on the interlocks will increase with increasing tank sizes. Will those interlocks take the sludge pressure for the proposed tank sizes? Only a close study will tell.

And just what are the alternates to driven sheet pile walls? Two come to mind. They are welded steel tanks or concrete tanks. Each of these are more likely to cost more to build and are much more expensive to remove. An advantage of driven steel sheets is that they are probably cheaper to construct and they do have a higher salvage value when removed. A negative here is the fact that they may have been tainted by the sludge when in use.

10. FLOW SHEETS

I find that flow sheets, even in simplified form, can do a lot to clear up one's thinking on the sequence of work for a proposed project. Enclosed is a flow sheet for the construction of the ASB cleanup. Would it be possible to receive a similar form for the cleanup of the waterway? Thank you.

11. ENCLOSURES

Enclosed are a preliminary flow sheet for the ASB and the preliminary plan showing how ASB sludge could be processed and exported by rail.

#3-A

From: Rick Anderson / Garden Arches [mailto:rick@gardenarches.com]
Sent: Monday, August 13, 2007 11:36 AM
To: McInerney, Lucy (ECY)
Subject: Whatcom Waterway Cleanup--Comments for the record

I do not consider the Department of Ecology cleanup plan per the proposed consent decree between the Department and the Port of Bellingham to be an adequate resolution of the hazard created by the toxic materials contained in the Whatcom Waterway and surrounding areas. 1

The solution to the Whatcom Waterway contamination should be driven by what is best for the environment and the residents who will play, work and reside in this area for centuries to come. As we all know, mercury will not deteriorate over time.....much less within the 30 year monitoring phase proposed. Given the record of capping failures (including the GP log pond area) plus the threat of natural disaster this is an entirely inadequate solution to the Whatcom Waterway problem. Your cost analysis of the cleanup alternatives is distorted by including only 30 years of monitoring a hazard which will exist forever. Why does it not call for perpetual monitoring? That is the reality of the hazard. Please change your analysis to reflect the costs 2 3

of the real need for monitoring.....forever.

I find it amazing that at a time when the State of Washington is embarking on a monumental plan to clean the waters of our region that your agency would be willing to propose only a partial cleanup of our waterway. The complete removal of the mercury and other contaminants is 4

the only permanent solution. The solution proposed in the consent decree should be based on environmental and safety facts.....not on pressure from the Port of Bellingham to make the cleanup fit within their financial and development model. To do so would be extremely short sighted.....and a gross disservice to the present and future residents of Bellingham. Please correct the proposed consent decree to represent the true realities of the facts. Please order a complete and permanent cleanup of the Whatcom Waterway.

Sincerely,
Richard L. Anderson
4219 Adams Ave.
Bellingham, WA 98229
360-650-1587
rick@gardenarches.com

EXCERPTS FROM PUBLIC HEARING TRANSCRIPT #4-A
August 8, 2007, Bellingham Cruise Terminal

Frances Badgett
Ok thanks. I'm Frances Badgett and I'm representing the Bellingham Bay Foundation this evening. We are a non-profit and we have three goals: cleanup of the waterfront, public ownership, and a great redevelopment. 1

Now that we are shifting from the Port's cleanup to your joint cleanup with the Port, the Bellingham Bay Foundation would like to reiterate that we do not feel alternative 6 is protective for the community of Bellingham.

It's really important that the community have confidence in the cleanup and we feel that alternative 6 does not do that. It is, we would like a cleanup that is genuinely protective for generations to come or else the Whatcom waterway will not function as the community, habitat, and cultural resource that it should be.

I also add my comments to those who say that the responsiveness summary did not address the technical detail of those individual comments and that the comments were lumped together, and the same response was sort of attached to batches of comments and the end result. I realize that is to prevent repetitive, having to repeat yourselves over and over again. But the end result is that the responses do not seem considered or careful, especially given the level of detail and technical expertise that was reflected in those comments. 2

We are extremely lucky in this community to have geologists, to have Wendy Steffensen, to have Mike MacKay weigh in. Bellingham Bay Foundation was lucky to have Greg Glass speak on our behalf. And to not have any of that expertise reflected in the responsiveness summary or in the cleanup action plan seems absolutely a waste.

Despite some added dredging in the inner waterway, there's very little change between the document that so many of us in this room and in this community dispute. While the Foundation appreciates the addition of the 30-year monitoring period, we feel the monitoring period should be even longer, and it should be more frequent. Frequency being as big of problem as length. 3

With the Log Pond, we're almost at the 10-year mark, and then it doesn't get evaluated again until year 20, and then year 30, and what will the mercury levels be then? Since the surface mercury levels are going up. 4

What's interesting to me is you're partially removing the sediments in the inter waterway for remediation purposes as you state, yet you refuse to remove the most contaminated sediments, the Log Pond, ASB shoulder, Starr Rock, and the area around the shipping terminal because the Port insists on a luxury yacht marina at the ASB. The Bellingham Bay Foundation stands by its assertion that the ASB should be used for hydraulic 5

dredging and then either cleaned out and made into a park, development, habitat, whatever that should be the community's decision made by all of us.

In this document, Ecology states that the land use decision does not rest with you, you have no part in that decision. Yet you bend the protectiveness and efficacy of cleanup around that land use decision; that seems unbalanced. 6

In closing, I would like to say that ignoring the citizens' consistent, loud pleas for a higher level of cleanup than proposed by the Port is in direct conflict with the Governor's goals of a Puget Sound clean enough to swim, dig, and fish in by 2020. 7

In Section 5 of the draft cleanup plan, you state Ecology reserves the right to consider other information including issues raised during public comment and/or conduct its own evaluation of alternatives to assist in making its cleanup decision. It's my hope that you will assume this power that you have been given and not to capitulate to pressure from the Port.

Thank you.

From: Frances Badgett [mailto:frances@mac.com]
Sent: Monday, August 13, 2007 3:18 PM
To: McInerney, Lucy (ECY)
Subject: Comments

#4-B

Dear Lucy,

Herewith are my personal comments on the cleanup of the Whatcom Waterway.

Frances Badgett

Frances Badgett | 2514 West Street | Bellingham, WA 98225

Lucy McInerney, PE
Washington State Department of Ecology
3190 160th Avenue SE
Bellevue, WA 98008

August 13, 2007

Dear Ms. McInerney:

As a citizen who has read all of the documents relating to the Whatcom Waterway from the original EIS in 1999 to the present, I request that you consider the following comments regarding the Cleanup Action Plan and Responsiveness Summary. Additionally, I request that Ecology revisit the cleanup of Bellingham Bay, and particularly the decision to endorse a marina and bend the cleanup around that planned use for the ASB. 8

I would like to see the removal of mercury from the loose aquatic environment through hydraulic dredging, and subsequent disposal in an upland facility. 9

I understand that the Lummi Nation and Nooksack tribe are interested in seeing the breakwater of the ASB removed and the area returned to aquatic habitat. I support their position as a matter of historic and environmental social justice. 10

I question the use of the BSL as the standard for cleanup of the Whatcom Waterway, and have not seen a good justification, nor a clear description of how it is created or derived. The Whatcom County Health Department memo supporting the BSL was written without guidance from the Whatcom County Council or the County Executive. At the urging of concerned citizens, the County Executive requested the retraction of this letter. Given that Ecology determined the letter was a matter of record, and the record should stand, I would like to see documentation of this conflict over the BSL, and all conflicting information about the BSL entered into the Cleanup Action Plan. I have requested a letter about this twice and received no answer. 11

The lack of response to public comment troubles me. The community wrote letters, submitted scientific data, offered alternatives, and aided Ecology in every way possible to help solve the problem of how best to clean up the Whatcom Waterway. Those comments went ignored in the face of pressure from the Port of Bellingham. The Port is only one of many stakeholders in this process, which also includes tribes, taxpayers, fishermen, scientists and others who requested a more permanent cleanup than proposed under the preferred remedial alternative. I 12 13

would also like for Ecology, in the interest of public process and community dialogue, to request the Port halt the threat that if there is no marina, there will be no cleanup. These threats silence public discussion and create an unfortunate atmosphere for making the best decisions about the potential uses for the entire Whatcom Waterway. 14

This is now becoming Ecology's cleanup as well as the Port's, and with that the responsibility of overseeing the best remedy for the Whatcom Waterway, not the cheapest, not the fastest, not the smoothest. The first three goals of the Bellingham Bay Demonstration Pilot are human health and safety, ecological health, and the protection and restoration of ecosystems. I would like to see Ecology embrace these goals as well, rather than dismissing them as non-regulatory. Ecology, as regulator, could have a meaningful and significant role in restoring the Whatcom Waterway. It is my hope you will assume this role. 15

If we are to uphold the Governor's goals for a clean, safe, and healthy Puget Sound by 2020, we should use Bellingham Bay as the model, not an example of failure. In the words of Billy Frank Jr., "The salmon and orca are telling us that Puget Sound is sick. We have to start turning things around now before we lose forever everything we value about the Sound." 16

Sincerely,
Frances Badgett

Bellingham Bay Foundation Response to the Washington State Department of Ecology's

WHATCOM WATERWAY CLEANUP ACTION PLAN RESPONSIVENESS SUMMARY

#5-A

COMMENTS SUBMITTED TO:

Lucille T. McInerney, P.E.
Site Manager
Department of Ecology
3190 160th Avenue
Bellevue, WA 98008-5452
Phone: (425) 649-7272
E-mail: lpeb461@ecy.wa.gov

Dear Ms. McInerney:

The Bellingham Bay Foundation submitted principles during the RI/FS public comment period in December of 2006. The purpose of those principles was to work through the problems and potential remedies with a pragmatic view of Ecology's role and capabilities. These principles called for a higher level of cleanup than proposed by the Port. We stand by these principles as our community moves into the Cleanup Action Plan and Responsiveness Summary phase of the Whatcom Waterway project. We seek a remedy that values permanence over short-term financial considerations, and more protective monitoring for contamination left behind. We believe the public deserves more reassurance than provided in this DCAP and Responsiveness Summary about the permanence and protectiveness of cleanup of the toxic legacy left behind by Georgia-Pacific and accepted by the Port of Bellingham. 1 2

We maintain that the alternative proposed by the Port of Bellingham and endorsed by the Washington State Department of Ecology is not protective enough of human health and safety, not permanent in its preference for capping over removal and upland disposal of contamination, and not preventative enough in monitoring for potential cap failures. 3

We request that the Washington State Department of Ecology work toward more permanent solutions for the Whatcom Waterway, and to consider that the permanence of mercury in the environment requires a cleanup that is equally permanent. We request that the marina become secondary to a thorough cleanup.

Regulatory vs. Planning

Ecology has determined that the Bellingham Bay Demonstration Pilot is not regulatory in nature, and therefore not considered a valid metric of the methods or goals of cleanup. 4

Contradicting this philosophy, the planning decision of a marina (which Ecology also states is not within their purview) drives the entire justification for widespread capping and minimal permanent removal of mercury from the aquatic environment. "Clean Ocean Marina" is not a regulatory standard to which the Port of Bellingham must strive, but it is used by Ecology to suggest that it is a regulatory (and clean) aquatic standard. All of the alternatives proposed in the RI/FS documents were in compliance with regulations. We find this regulatory vs. planning distinction used far too conveniently by Ecology to justify a 5

sub-standard remediation of the Whatcom Waterway, and to bolster the remediation of the ASB (which is relatively clean) as a proper cleanup. 6

Responsiveness Summary

We contend that the response offered to our comments (and to other leading environmental groups) did not fully address our concerns. With a grant from the Washington State Department of Ecology, we had the advantage of excellent guidance from Greg Glass—a leading environmental consultant in the State of Washington—and we were charged with educating and engaging the public in the public comment period. Regrettably, the work we put into commenting, the work we put into getting the public to comment, and the work we did with Greg to create workable and sustainable solutions for the Whatcom Waterway was not reflected in the dismissive summary responses from Ecology. We are disappointed that very substantive and detailed comments were lumped together and addressed together. The responses did not reflect the substantive comments offered from this community. Also, we submitted signatures from the Healthy Bay Initiative and additional signatures from a petition we circulated in favor of removal over capping, and those were not counted among the comments, but were addressed (and, again dismissed) at the end of the summary. Breaking up comments into sections also watered down the community's overwhelming criticism of the Port's preferred remedial alternatives 5 and 6. 7 8 9

Log Pond Cap

Ecology failed to assure us adequately that ground water at the Log Pond was not affected, either from upland sources (the former Chlor-Alklai facility) or from other sources within the Whatcom Waterway. If the Log Pond Cap's rise in contamination is—as is stated in the Responsiveness Summary—from the unremediated sediments in adjacent areas, then we contend that mercury is moving along the cap's surface and that the cap is receiving unacceptable levels of contamination from nearby areas. Given that the previous Log Pond Cap was presumably engineered to be protective of the marine environment and, in a few short years, shows erosion and damage, we feel that the remediation of the Log Pond will be inadequate. 10 11

An argument against removing the Log Pond in its entirety is that habitat has begun to re-establish in that area, and dredging would destroy this habitat. However, armoring, repairing, and re-capping the eroded areas of the cap are likely to harm if not destroy this habitat as well. 12

The monitoring period for the Log Pond has been extended to 30 years, but the frequency of monitoring has not increased. The problems with monitoring are frequency as much as length. 30 years is also not long enough given the permanence of mercury. Also, the DCAP states, "Cap designs considered in the RI/FS are intended to provide stable conditions that do not require active scheduled cap maintenance." Given the lack of integrity in the current cap structure, we do not have confidence that the cap will be stable and effectively seal off contamination from the aquatic environment in the future. Given that the Log Pond serves as the capping model for the entire Whatcom Waterway, we require that the capping be absolute in its efficacy. Since this is not the case, we would be most comfortable with the complete removal of the Log Pond from the aquatic environment by hydraulic dredging, and thick capping over the residual 13 14

contamination.

The financial analysis for capping and monitoring is inadequate. The financial analysis does not include repair and maintenance of the cap, because the cap's engineering will not require additional maintenance. We insist that regular cap maintenance be calculated as part of the cap repair for the Log Pond, particularly given the wave action and turbidity of the water, the possibility of prop wash, the increase in sea level from Global Warming, and other factors that can severely impact the structure and integrity of the cap. The Log Pond analysis also has only two monitoring events in its schedule. The cap at the Log Pond and the caps in and around other areas of the Whatcom Waterway will have to monitored closely given the mix of residential population nearby, the possibility of increased boat traffic in the Whatcom Waterway, and other factors.

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The ASB

The Bellingham Bay Foundation offered several options for the use of the ASB as an interim remedial tool in cleanup as well as a receiving area for sediments (as illustrated in previous preferred remedial alternatives). The response from Ecology was inadequate. In order to hydraulically dredge the Log Pond and Inner Waterway, a contained facility nearby has to be available to receive the dredge spoils. We recommended using the ASB as an interim step in remediation, and requested this step be considered carefully. We did not receive a response that addresses our suggestion, because of the planned use of the ASB for a marina. It is contradictory for Ecology to use the planned use of the ASB as the basis for the Cleanup Action Plan, then claim to have no stake in the planning process for the ASB. We would like to see a full evaluation of the temporary use of the ASB for remediation purposes.

18

The Inner Waterway

We are encouraged to see increased dredging in the Whatcom Waterway for the purposes of remediation, but hydraulic dredging is preferable to mechanical dredging. We encourage Ecology to cap thickly over dredged areas, and to dredge more extensively for remediation.

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The BSL

The BSL requires a conservative application to ensure its protectiveness. Bellingham should benefit from a cleanup level that is, without this mechanism, already sufficiently protective. We recommend the SQS as the appropriate cleanup level for sensitive and regular consumers of fish from Bellingham Bay, including the Nooksack Tribe and Lummi Nation, their children, and the elderly.

21

Human Health Risk Assessment

The Foundation rejects the notion that the BSL is conservatively applied, therefore no Human Health Risk Assessment is necessary for the Whatcom Waterway. We insist a HHRA be provided to the public to ensure the efficacy of cleanup.

22

Additional Concerns

We are disappointed that the shoulder of the ASB and the area near the Bellingham Shipping Terminal are all scheduled for capping rather than

23

dredging. We are also disappointed that Starr Rock falls under monitored natural recovery. We would like to see these areas dredged and thickly capped over the residual contamination. 24

Conclusion

As we move forward in this process, we ask two questions: A. What does successful cleanup look like? B. What does failed remediation look like? Successful cleanup would be in line with the Governor's goals of having a Puget Sound safe enough for swimming, digging, and fishing. Our community has been cut off from the proper use and enjoyment of the Whatcom Waterway for over a century. We will never be able to revisit this moment at which we make these critical decisions about the future health of our bay. 25

But a failed remediation could be even worse than the industrial area we have now: we could have sick children, eroding caps, unhealthy habitat, and, worst of all, we could be the ones to set the tone for remediation Sound-wide, so that our low level of cleanup, this mediocre Alternative 6, would become the rule, rather than the exception. Ecology is under no compulsion to capitulate to the Port. As is stated in Section 5 of the DCAP, "Ecology reserves the right to consider other information, including issues raised during public comment, and/or to conduct its own evaluation of alternatives to assist in making its cleanup decision." It is our hope that you will assume this power that you've been given and listen to the many pleas from our community for a higher level of cleanup than proposed in these documents. 26

Sincerely,
The Bellingham Bay Foundation

BCS

Bellingham Cold Storage Company

#6-A

Lucille McInerny
Department of Ecology
3190 160th Ave
Bellevue, WA 98008-5452

August 9, 2007

Re: Whatcom Waterway Draft Cleanup Action Plan

Dear Ms. McInerny,

I am a longtime Bellingham resident, and an owner of a waterfront business located down the street from the proposed New Whatcom development. Over the past years I have closely followed the Port of Bellingham's progress on the development of this site.

I recently read the Ecology's Draft Cleanup Action Plan and support its conclusions. I am pleased that DOE based its recommendations on a great deal of scientific data, and had these recommendations checked by Washington State scientists and engineers. It's important that we do the maximum amount of clean-up possible while still maintaining the economic viability of the development. DOE's proposal strikes the right balance. 1 2

Running a water-dependent business, let alone developing a near-shore site, has become much more complex in the past decade because of the environmental regulations and increased oversight. Yet we all recognize that we need better stewardship of our shoreside to improve the health of the Bay and its ecosystem.

Thank you for all your hard work; all of us (well, most of us) in Bellingham look forward to a cleaned-up waterfront, and a vibrant New Whatcom development. 3

Sincerely,

Stowe Talbot

Stowe Talbot
Bellingham Cold Storage
2825 Roeder Ave.
Bellingham, WA 98225

2825 Roeder Avenue, P.O. Box 895
Bellingham, WA 98227-0895

Phone: (360) 733-1640
Facsimile: (360) 671-1259

Website: www.bellcold.com

From: Stowe Talbot [mailto:Stowe.Talbot@bellcold.com]
Sent: Thursday, August 09, 2007 3:21 PM
To: McInerney, Lucy (ECY)
Cc: Stowe Talbot
Subject: Whatcom Waterway Cleanup Plan

#6-B

Lucille McInerny
Department of Ecology
3190 160th Ave
Bellevue, WA 98008-5452

Dear Ms. McInerny,

I am a longtime Bellingham resident, and an owner of a waterfront business located down the street from the proposed New Whatcom development. Over the past years I have closely followed the Port of Bellingham's progress on the development of this site.

I recently read the Ecology's Draft Cleanup Action Plan and support its conclusions. I am pleased that DOE based its recommendations on a great deal of scientific data, and had these recommendations checked by Washington State scientists and engineers. It's important that we do the maximum amount of clean-up possible while still maintaining the economic viability of the development. DOE's proposal strikes the right balance. 4 5

Running a water-dependent business, let alone developing a near-shore site, has become much more complex in the past decade because of the environmental regulations and increased oversight. Yet we all recognize that we need better stewardship of our shoreside to improve the health of the Bay and its ecosystem.

Thank you for all your hard work; all of us (well, most of us) in Bellingham look forward to a cleaned-up waterfront, and a vibrant New Whatcom development. 6

Sincerely,

Stowe Talbot
Bellingham Cold Storage
2825 Roeder Ave.
Bellingham, WA 98225

BELLINGHAM/WHATCOM
CHAMBER OF COMMERCE & INDUSTRY

01 August 2007

#7-A

Lucille T. McInerney, P.E.
Site Manager
Department of Ecology
3190 160th Avenue
Bellevue, WA 98008-5452
VIA E-MAIL: lpeb461@ecy.wa.gov

RE : Draft Cleanup Action Plan and Draft Consent Decree

Ms. McInerney :

On behalf of the Board of Directors of the Chamber and our 800 members, I am writing to express our thoughts on the clean-up of the Whatcom Waterway Site in Bellingham, Washington.

After reviewing the materials from the Department of Ecology, **we are in support of the clean-up plan you are proposing, and that is endorsed by the Port of Bellingham, the City of Bellingham, and the Department of Natural Resources.** 1

The 137 acres of land which make up the former Georgia Pacific site, and were transferred to the Port of Bellingham in January 2005, provide Bellingham and Whatcom County with an outstanding opportunity to return former industrial land which has been heavily contaminated to a more open, public use. The unique partnership between the Port and the City of Bellingham will allow the site to be fully redeveloped, providing housing, jobs, recreation, waterway access, and a full gamut of services to our community. 2

In cleaning the contaminants on the site, we believe that we must choose the option which provides for a nexus between public safety, redevelopment potential and cost. We believe the Department of Ecology's proposed clean-up plan provides for this nexus by ensuring the full site can be used for redevelopment (including development of a public marina in the old GP Ponding Basin), while using approved methods to dredge, cap and provide for shoreline stabilization. 3

Many, many citizens of Bellingham and Whatcom County are excited about the potential of this important redevelopment project, and the membership of the Bellingham/Whatcom Chamber is certainly among them. Ecology's proposal will provide our community with the best opportunity to clean this site, and return it to the use of the community. **We ask that the clean-up plan proposed by the Department of Ecology move forward.** 4

Sincerely,

Kenneth Oplinger, ACE, President/CEO
Bellingham/Whatcom Chamber of Commerce & Industry

1201 Cornwall Avenue, Suite 100, Bellingham, WA 98225
Ph. 360/734-1330 Fax 360/734-1332 ken@bellingham.com

From: Steve Brinn [mailto:sbrinn@lumeniq.com]
Sent: Tuesday, August 07, 2007 9:33 AM
To: McInerney, Lucy (ECY)
Cc: 'Steve Brinn'; Kirsten Barron
Subject:

#8-A

Ms. McInerny:

I have reviewed the draft Clean-Up Action Plan for the Whatcom Waterway (the “Plan”).

I strongly endorse the proposed Plan as the most permanent mitigation option practicable under MTCA. DOE should be applauded for its thorough consideration of alternative approaches, careful consideration of public comment and rigorous, science-based selection of the best alternative clean-up plan for the waterway. 1 2

Regards,

Steve Brinn
891 East Lake Samish Dr.
Bellingham, WA 98229
360-303-3427

#9-A

From: Elisabeth Britt [mailto:elizabeth@pfscascade.com]
Sent: Monday, August 13, 2007 10:40 AM
To: McInerney, Lucy (ECY)
Subject: Comments regarding Draft Consent Decree and Draft Clean up Plan for Whatcom Waterway.

<<...>>

I have enclosed my comments regarding the Draft Consent Decree and Draft Clean up Plan for your review and consideration.

Thank you in advance for your thoughtful consideration of my concerns.

Sincerely,

Elisabeth Britt

Elisabeth Britt
1111 W Holly Street, Suite C-2
Bellingham, WA 98225
(360) 527-9877

#9-B

August 3, 2007

Lucy McInerney
WA State Dept of Ecology
3190 160th Avenue SE
Bellevue, WA 98008-5452
lpeb461@ecy.wa.gov

Dear Ms. McInerney,

The purpose of this letter is to communicate my concerns regarding the draft Consent Decree and Draft Cleanup Action Plan detailing Ecology's proposed cleanup action for the Whatcom Waterway site and the lack of Ecology's responsiveness to concerns that have been raised by the community over the last 12 months.

Maximum Removal of contaminated sediments from Whatcom Waterway and Bellingham Bay: I support the maximum removal of contaminated sediments from the aquatic environment in the ASB, the inner and outer Whatcom Waterway and Bellingham Bay. The maximum amount of mercury contaminated sediments should be removed by dredging and transported to an appropriate upland disposal site. After clean up, clean fill can be brought in to adjust the depth of the channel, as necessary. 1 2

Open Water Disposal of Dredged Material removed from the Whatcom Waterway: I do not support open water disposal of dredged sediments from the Whatcom Waterway or Bellingham Bay via the Dredged Material Management Program (PSDDA – DMMP). Mercury is a persistent bio toxin that does not decompose over time. Dredged mercury contaminated sediments should not be transported to the Rosario Strait Disposal site or the Bellingham Bay Disposal site. 3

The placing of dredged materials in the aquatic environment raises several key concerns, including questions about sediment and water quality, sediment transport, water circulation, impacts to fisheries, and impacts to biological communities, especially endangered/threatened species.

After sediment is placed in an open water disposal site, some or all of it is eventually transported to other areas, potentially resulting in adverse impacts to shellfish/finfish productive areas, resulting in an increase in dredging requirements on other projects. Disposing of material “in-water” usually creates a mound or otherwise obstructs water flow. Consequently, water circulation patterns in the vicinity of the disposal site are altered. Open water disposal often results in the direct smothering of benthic organisms at the disposal site and indirect impacts to organisms living down current from the site. Disposal often impacts commercial fisheries by decreasing the size and depth of net drifts, potentially creating snags in fishing areas, and obstructing fishing access with dredging equipment. 4

Lummi Nation: I would like to see the Dept of Ecology respond to the concerns that the Lummi Nation has raised in regards to the agency’s narrow evaluation of alternatives for the ASB. It is my understanding that the Lummi have requested an evaluation of removing the ASB from the water with reestablishment of intertidal and shallow sub tidal habitat and marine buffers and/or eelgrass rather than converting the ASB to a marina. 5

In addition, the Lummi Nation supports the removal and proper disposal of all of the contaminated sediments from the ASB, the adjacent Whatcom Waterway, and other contaminated sites along Bellingham Bay. They have asked the Port to conduct a thorough environmental assessment of the impacts associated with converting the ASB to a marina. At a minimum, they request that the "No Action" alternative should evaluate the ASB as: 1) a waste water treatment facility, 2) the return of the ASB to habitat, as stipulated in the original Army Corps of Engineer permit for the construction of the ASB; and, 3) the conversion of the ASB to a contaminated sediment site. I would also like to see an environmental assessment that evaluates all of the environmental impacts of each alternative including cumulative impacts, as requested by the Lummi Nation Business Council in their letter to Ecology dated July 10, 2007.

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Restoration of historical shellfish/crab/finfish harvests: Historically, before pulp mills and other industrial facilities began pumping hundreds of thousands of tons of contaminants into the bay, Bellingham Bay was a major shellfish, crab and finfish producer. If this natural resource can be restored by cleaning up the bay and waterway, fishers from the Lummi Nation and non-tribal community can grow and harvest shellfish, crab and finfish. The Port's economic study does not include restoration of Bellingham Bay's natural resources. A clean, healthy bay can result in the restoration of a multi million dollar per year commercial fishing industry. The projected revenue could provide badly needed jobs for members of the Lummi Nation and community at large.

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Ecology has an obligation to consider the rights of the public when drafting a clean up plan for a particular site. The **public trust doctrine** is the principle that certain resources are preserved for public use, and that the government is required to maintain it for the public's reasonable use. (Please see Illinois Central Railroad v. Illinois 146 U.S. 387 (1892). In that case the Illinois legislature had granted an enormous portion of the Chicago harbor to a railroad. A subsequent

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legislature sought to revoke the grant, claiming that original grant should not have been permitted in the first place. The court held that common law public trust doctrine prevented the government from alienating the public right to the lands under navigable waters (except in the case of very small portions of land which would have no effect on free access or navigation).

In subsequent cases it was held that this public right extended also to waters which were influenced by the tides regardless of whether or not they were strictly navigable. This concept also has been found to apply to the natural resources (mineral or animal) contained in the soil and water over those public trust lands. Please give the public's right adequate consideration as you move forward with the draft consent decree and the draft clean up plan.

Affordability of New Whatcom Re-development: The Port and City believe that their proposed actions are not financially viable if they do not have the right to mitigate for their impact to treaty rights. I believe that the Port and City's proposed land uses/redevelopment plans can be modified in a manner that address the interests of the community, including the Lummi Nation's concerns about treaty fishing rights. Sadly, it appears that the lack of responsiveness to public concern is going to result in a very expensive legal challenge for our community. 11

Capping as a "clean up" alternative: Capping is not considered a "clean up" alternative – it is a form of monitored natural recovery. Current proposed cap depths do not take into consideration that benthic animals living in Bellingham Bay can burrow up to 90 centimeters deep in marine sediment. Deep burrowing activity in recovering populations may re-suspend contaminants that are buried below the surface, exposing benthic animals and other marine life to levels of methylmercury that may result in higher methylmercury levels in the food chain over time. 12 13

Sub-aquatic underground transport of deep, historic, mercury deposits: To date, consultants have not conducted an assessment of sediment mobility via sub-aquatic ground water movement/transport in the Whatcom Waterway and the Log Pond. Consequently, we have no data regarding the transport of deeply buried mercury in the Whatcom Waterway/log pond via sub aquatic ground water transport through fine and course sands. 14

Sub aquatic ground water movement may result in re-suspension of mercury or the creation of mercury plumes in uncharted underground springs and rivers under the bay and waterway. Tests should be conducted to determine if sub aquatic springs, aquifers or underground streams exist in the Whatcom Waterway and other mercury contaminated regions of Bellingham Bay. The Port should be required to drill test wells to monitor sub aquatic ground water movement in areas that we know are historically high in mercury concentrations to document that capped mercury is not being transported by natural processes to other locations in Bellingham Bay. 15

Geological stability of Whatcom Waterway in the event of a major seismic event: What is the likelihood of re-contamination of the Whatcom Waterway from contaminated groundwater under the former G.P. Pulp and Chemical mill during a major seismic event that causes liquefaction? The current draft clean up plan does not contain adequate scientific data to protect public health during a major seismic event. Additional studies need to be conducted to ensure public safety. Sand boils and other seismic phenomena could result in significant recontamination of the Whatcom Waterway and Bellingham Bay. Please see WWU Geology Professor's comments submitted on August 8, 2007 for a detailed list of their concerns. 16

Thank you for providing me an opportunity to submit comments regarding the draft consent decree and draft clean up plan.

Sincerely,

Elisabeth Britt

EXCERPTS FROM PUBLIC HEARING TRANSCRIPT #10-A
August 8, 2007, Bellingham Cruise Terminal

Mark Buehrer
I've got a PowerPoint slide, is it possible to put that up? I do have handouts so I could submit that, right?

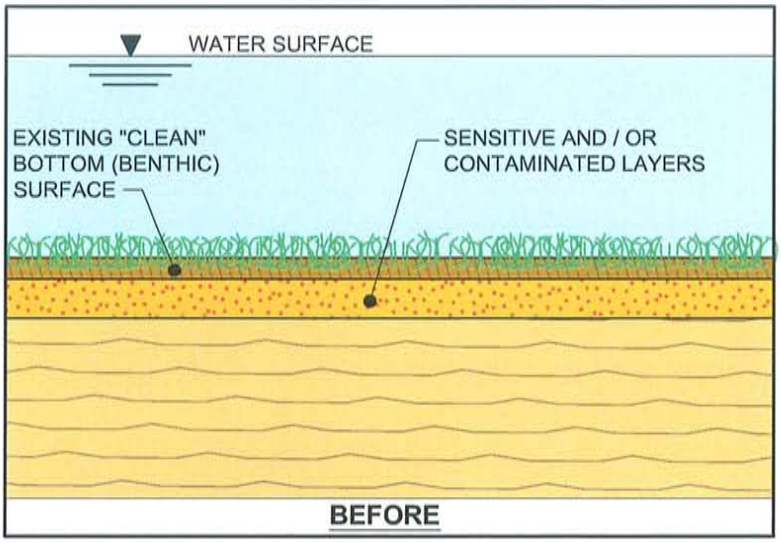
My name is Mark Buehrer. I'm the director of 2020 Engineering. Professional, licensed, civil engineer, 25 years plus experience.

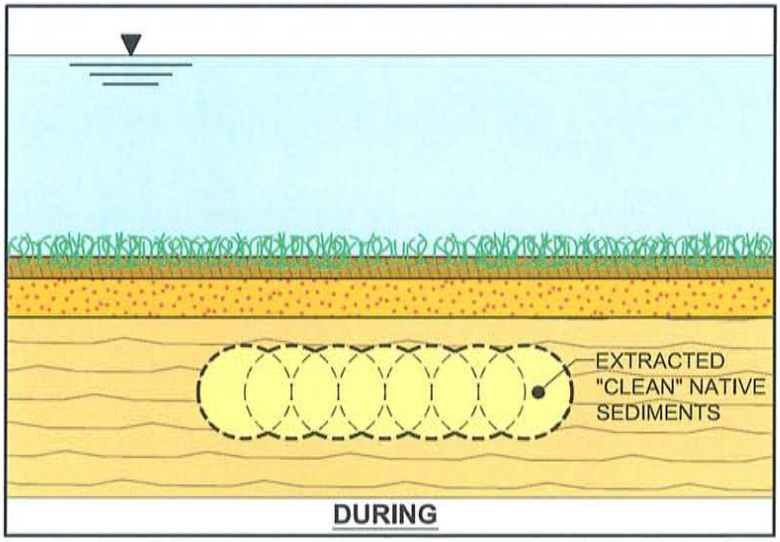
I've lived in Bellingham for 20 years. The concern I have is the method of dredging. I'm concerned that during the proposed dredging, the sediments are going to get stirred up and drift and disburse out into areas, perhaps contaminating areas that are capped and cleaned now. 1

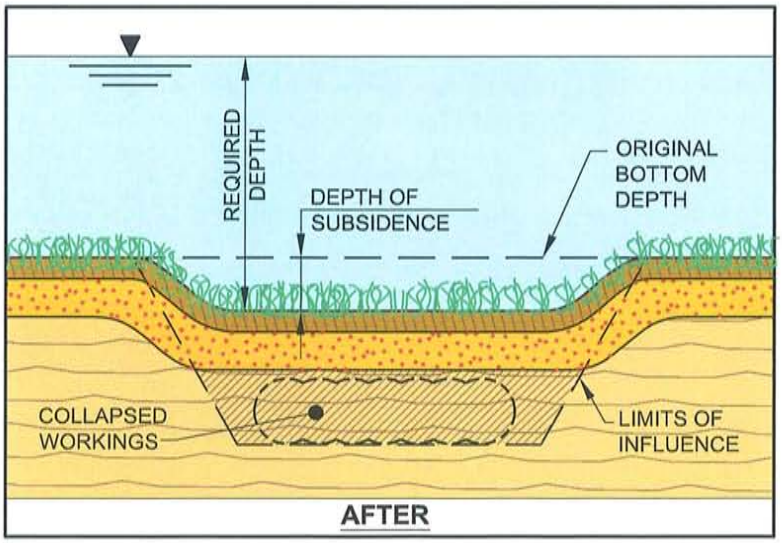
So, what I've got here is a method of dredging that could be performed that would actually, by using directional drilling technologies that are out there, actually take and remove the sediments that are underneath the contaminated layers. Take the clean sediments that are underneath there and as we move those clean sediments, it actually, the ground surface of the dredged area would settle, and you would obtain the depth of settlement that you would need for shipping. So, with that method you would only be dredging or removing clean materials. That clean material then could be used for capping other areas that are needed. There would be lots of cost savings because you're not dealing with a lot of contaminated materials, and in particular, the dredging technologies that are out there are pretty aggressive, and a lot of disbursement of soils and contaminations that are in there would be really hard to control it all. We shouldn't be making more of a mess with things that are already in a fairly stable state. 2

If anybody else is interested, I have a handout here that you could basically look at. It's pretty simple. Methods of doing this and I think it should be something that's looked into, and I think it could be a really good environmental solution; it would also be something that would save a lot of money and be really cost-effective. 3

Thank you.







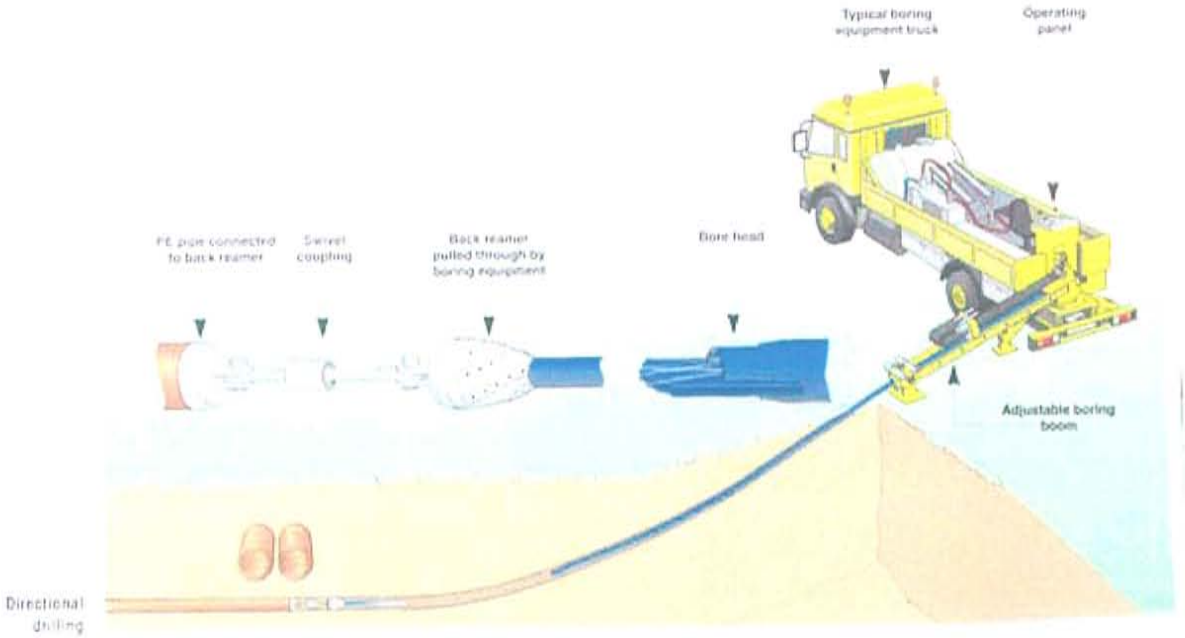
MINE DREDGING

- ✓ Allows Port facilities to provide the necessary depth for shipping lanes and docking with minimal environmental impacts
- ✓ "Clean" native sediments are extracted below the sensitive and/or contaminated layers
- ✓ Protects the existing healthy benthic habitat surface of the aquatic environment
- ✓ Maintains and/or improves "capped" contaminated sediments
- ✓ The extracted clean sediments can be used to "cap" contaminated sediments at other locations
- ✓ Prevents dispersion of contaminants that may occur underwater by conventional dredging methods
- ✓ Uses the latest technologies available *(i.e., horizontal directional drilling equipment with GPS controls to extract clean sediments)*

MINE DREDGING
OPERATION SEQUENCE

August 8, 2007

2020 ENGINEERING



HORIZONTAL DIRECTIONAL DRILLING EQUIPMENT

MAYOR'S OFFICE
Tim Douglas, Mayor
City Hall, 210 Lottie Street
Bellingham, WA 98225
Telephone (360) 676-6979
Fax (360) 738-7418

August 2, 2007

#11-A

Lucille McInerney
Site Manager
WA Department of Ecology
3190 160th Avenue
Bellevue, WA 98008-5452

Re: Whatcom Waterway site cleanup

Dear Ms. McInerney:

On behalf of the City of Bellingham, I want to express our eagerness to get on with the clean-up of Bellingham's central waterfront. Having been involved for two decades in pursuing a clean and healthy Puget Sound, I find us on the verge of taking a major step in precisely that direction. As you well know, key state agencies, the City of Bellingham, and the Port of Bellingham agreed several years ago to develop and implement the Bellingham Bay Pilot Project. Through that work, we have identified priority actions and undertaken many of them. 1 2

We now face the single most significant task: clean-up of the central waterfront. A solid, achievable alternative has been identified: Number 6. All the key parties are on board to get started. We lack only the Department of Ecology's decision. 3

If there is delay or if the preferred option is altered, we could see years more of analysis and debate. Meanwhile the will to proceed and the value of the dollars needed to complete the clean-up will erode. Puget Sound will lose this vital opportunity to restore its waters to environmental health. 4

Your prompt decision is our call to action.

Sincerely,

Tim Douglas, Mayor

From: Kevin Cournoyer [mailto:kjc@mac.com]
Sent: Sunday, July 15, 2007 1:55 PM
To: McInerney, Lucy (ECY)
Subject: Request additional time for public comment - Whatcom Waterway

#12-A

Dear Ms. McInerney:

I request additional time for public comment for the Whatcom Waterway documents you released on Thursday (7/12/07). (http://www.ecy.wa.gov/programs/tcp/sites/whatcom/ww.htm) There are extraordinary problems presented in those documents. You have rejected the reasoned pleas from the community, and it took you about seven months to do so. And so the community will need an extraordinary amount of time to respond to these documents. **I asked for an additional four months for the public comment period.** 1

Thanks,
Kevin Cournoyer

2514 West Street | Bellingham, WA 98225
(360) 527-1097 | kjc@mac.com

cc: Governor Christine Gregoire

#12-B

From: Kevin Cournoyer [mailto:kjc@mac.com]
Sent: Monday, August 13, 2007 4:27 PM
To: McInerney, Lucy (ECY)
Subject: Cournoyer - Comments for DCAP & Responsiveness Summary (Whatcom Waterway)

Dear Ms. McInerney:

Attached please find my comments (a Word document and a pdf) in response to your Draft Cleanup Action Plan and your Responsiveness Summary for the Whatcom Waterway cleanup site.

Regards,
Kevin Cournoyer

2514 West Street | Bellingham, WA 98225
(360) 527-1097 | kjc@mac.com

13 August 2007

Kevin Cournoyer
2514 West Street
Bellingham, WA 98225
kjc@mac.com
360.527.1097

#12-C

Lucille T. McInerney
Department of Ecology
3190 160th Avenue
Bellevue, WA 98008-5452

Dear Ms. McInerney:

Once again, I'd like to express my gratitude to the Department of Ecology for its oversight of the Whatcom Waterway Cleanup site. But I have, once again, serious problems with your work on this project. Very serious problems.

With the limited time provided to me, I've just finished evaluating your Responsiveness Summary (RS) and your Draft Cleanup Action Plan (DCAP). (My comments will be unavoidably brief, given the fact that you have not provided adequate time for a detailed response.) I'm genuinely dismayed by the deceptiveness of these documents. The deceptiveness is roughly similar in nature to the deceptiveness that permeates the Port's 2006 RI/FS and EIS for the Whatcom Waterway. Given that I've carefully observed the Port for many years, their RI/FS and EIS for the Whatcom Waterway were not surprising. It's the Port, after all. They're inherently corrupt. That's been well established, and it no longer surprises people. What is surprising—shocking, really—has been your responses to these documents and your responses to public concerns. 1

Comment Period

The public comments about the Port's Whatcom Waterway RI/FS and EIS were overwhelmingly negative. (In fact, I'd say that the negative feedback to the Port's plans for the Whatcom Waterway is unprecedented in the history of the Department of Ecology.) And you took seven months to respond to them. (Well, to respond to what you were willing to respond to. More on that later.) And you're giving the public the regulatory minimum to respond: 1 month. On July 15th, I sent you the following request: 2

From: Kevin Cournoyer <kjc@mac.com>
Date: July 15, 2007 1:55:26 PM PDT
To: Department of Ecology McInerney <lpeb461@ecy.wa.gov>
Subject: Request additional time for public comment - Whatcom Waterway

Dear Ms. McInerney:

I request additional time for public comment for the Whatcom Waterway documents you released on Thursday (7/12/07). (http://www.ecy.wa.gov/programs/tcp/sites/whatcom/ww.htm) There are extraordinary problems presented in those documents. You have rejected the reasoned pleas from the community, and it took you about seven months to do so. And so the community will need an extraordinary amount of time to respond to these documents. **I asked for an additional four months for the public comment period.** 3

Thanks,
Kevin Cournoyer

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You should remove the letter from the record and make clear its fraudulent nature. I have been working for weeks with Whatcom County officials to resolve this matter. At this time, this matter is still ongoing and unresolved—in part because of your recalcitrance. Both Ecology and Whatcom County need to do something about this problem.

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Conclusion

You have bent the efficacy of the cleanup of the Whatcom Waterway to the Port's unflinching desire for a marina in the ASB. This is the plain and simple truth. And the public is left to suffer the long-term consequences of this decision by you. Contrary to what you try to convey to the public, you did not have to bend the cleanup to the marina. You have the authority to force the Port of Bellingham into an involuntary cleanup action that's far more protective and permanent. But you chose not to. This callow response to the Port of Bellingham will haunt the reputation of the Department of Ecology forever. And it will be largely your fault. (I knew we were in trouble when Mike Stoner walked into the public hearing last December and winked at you. And you responded with a broad smile. Not what a citizen might expect from a regulatory authority in that situation. Simply put, the public has been gamed.) I'm completely stunned by your actions as an Ecology official. Your actions, to quote MTCA, have been "recalcitrant." Your aggressive indifference to the heart-felt pleas of thousands of Whatcom County residents will never be forgotten.

18

Sincerely,

Kevin Cournoyer

2514 West Street | Bellingham, WA 98225 | 360.527.1097 | kjc@mac.com

13 August 2007

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Bellingham, WA 98225
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360.527.1097

#12-D

Lucille T. McInerney
Department of Ecology
3190 160th Avenue
Bellevue, WA 98008-5452

Dear Ms. McInerney:

Once again, I'd like to express my gratitude to the Department of Ecology for its oversight of the Whatcom Waterway Cleanup site. But I have, once again, serious problems with your work on this project. Very serious problems.

With the limited time provided to me, I've just finished evaluating your Responsiveness Summary (RS) and your Draft Cleanup Action Plan (DCAP). (My comments will be unavoidably brief, given the fact that you have not provided adequate time for a detailed response.) I'm genuinely dismayed by the deceptiveness of these documents. The deceptiveness is roughly similar in nature to the deceptiveness that permeates the Port's 2006 RI/FS and EIS for the Whatcom Waterway. Given that I've carefully observed the Port for many years, their RI/FS and EIS for the Whatcom Waterway were not surprising. It's the Port, after all. They're inherently corrupt. That's been well established, and it no longer surprises people. What is surprising—shocking, really—has been your responses to these documents and your responses to public concerns.

Comment Period

The public comments about the Port's Whatcom Waterway RI/FS and EIS were overwhelmingly negative. (In fact, I'd say that the negative feedback to the Port's plans for the Whatcom Waterway is unprecedented in the history of the Department of Ecology.) And you took seven months to respond to them. (Well, to respond to what you were willing to respond to. More on that later.) And you're giving the public the regulatory minimum to respond: 1 month. On July 15th, I sent you the following request:

From: Kevin Cournoyer <kjc@mac.com>
Date: July 15, 2007 1:55:26 PM PDT
To: Department of Ecology McInerney <lpeb461@ecy.wa.gov>
Subject: Request additional time for public comment - Whatcom Waterway

Dear Ms. McInerney:

I request additional time for public comment for the Whatcom Waterway documents you released on Thursday (7/12/07). (http://www.ecy.wa.gov/programs/tcp/sites/whatcom/ww.htm) There are extraordinary problems presented in those documents. You have rejected the reasoned pleas from the community, and it took you about seven months to do so. And so the community will need an extraordinary amount of time to respond to these documents. **I asked for an additional four months for the public comment period.**

Thanks,
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You have not responded to this time-sensitive request for additional time for the public to comment. The deadline for comments is today. It's apparent that you're in a hurry. I'm not. And the evidence indicates that neither is the public. We want the cleanup done right, not quickly. Many members of the public need assistance from experts like Greg Glass and David Bricklin to help with their responses. Many members of the public need to carefully research all of your claims, all of your dissembling. Such efforts take time. But you're simply ignoring this plea for more time. Consequently, my responses to your responses are very short. And I've had to leave out a lot. I have a lot to say to you, but you're not giving me enough time to really say it.

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Concerned citizens were not given real point-by-point responses. First, you lumped together concerns of your choosing. And then you provided incredibly brief responses to often detailed and expansive concerns in a document that's very difficult to read and reference. (You left off page numbers, by the way.) And you did not respond at all to many, many, many concerns expressed by the public. This is a travesty. Repetitiveness is not a concern to the public. You should have answered every concern from every citizen as expansively and thoughtfully as possible. No detail should have been ignored. (You took seven months, after all.) No detail was unworthy of your careful analysis and consideration. I think it's fair to characterize your responses (and lack of responses) to the public as contemptuous.

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From: Dan Coffey [mailto:dan_coffey@comcast.net]
Sent: Friday, August 10, 2007 11:10 PM
To: McInerney, Lucy (ECY)
Subject: Whatcom Waterway Site Cleanup

#13-A

To Whom it May Concern:

I attended last Wednesday's meeting (8/8/2007) so I could better understand the issues that I have been hearing and reading. All along, I have been concerned what was planned for the former GP site and the Whatcom Waterway. Such a prime location, such a pristine area as Bellingham, (voted top place to live by how many magazines now?) it is not a secret that investors looking to make big cash would be flying in from all over. Somehow, I was holding on to the idea that because Washington State Department of Ecology was part of the process, at least the clean up would be thorough and done well. Like many people in Bellingham, I am an environmentalist and admire and respect those working in the field to protect that which sustains life. But as I heard the overview of the draft of the clean-up plan, as well as the questions and statements which followed, I am not so confident.

How can the Department of Ecology agree to the dredging of the ASB, stirring up contaminates that are, as I understand it, contained well right where they are? Regardless of what anyone wants to do with the site, how can the Department okay such a project? I keep hearing that it is the Waterways which need to be dredged and cleaned out and restored. Capping containments, especially in an area where earthquakes are possible (some say likely) isn't safe or secure, though I heard a Department of Ecology employee say caps are secure. Contaminates are deep in the sediment. 1 2 3

I don't see the point of listing again and again the concerns that have been brought to the Department of Ecology about the clean up proposals. I know many of you have heard and read them. I believe that you know in your heart what the right thing to do is. The people of Whatcom County that are taking the time to research and write you have the environment in mind and want to insure that the right thing is being done. The right thing is to take this amazing opportunity to properly and thoroughly clean up an area that has been abused and polluted for many years. As a parent and a citizen of Bellingham and Whatcom County, I implore you to do the right thing, even if it means the clean up takes years. Make the area safe for future generations. 4

Thank you.

Martha Dearstyne
1540 Marine Drive
Bellingham, WA 98225

From: John D'Onofrio [mailto:jdonofrio@nwcomputer.us]
Sent: Tuesday, August 07, 2007 3:24 PM
To: McInerney, Lucy (ECY)
Subject: Bellingham Bay clean-up

#14-A

Dear Lucy,

As a concerned citizen and board member of the Bellingham Bay Foundation, I wish to express my deep concern with the proposed capping remediation in our bay. While extended the monitoring period to 30 years is a (small) step in the right direction, it is woefully (and obviously) inadequate considering what we know about mercury contamination over time. 1 2

I find it a tragedy of almost Shakespearean proportions that we are being burdened with a toxic legacy for our children and children's children so that the owners of nice luxury yachts will have a convenient place to park them. The fact that the Port of Bellingham's single-minded desire for a marina has driven this outcome is both embarrassing and shameful. 3

Respectfully,

John D'Onofrio

From: NorthSound Baykeeper [mailto:northsound.baykeeper@gmail.com]
Sent: Monday, August 13, 2007 4:24 PM
To: McInerney, Lucy (ECY)
Subject: Comments on Whatcom Waterway Draft Cleanup Action Plan

#15-A

August 8, 2007

James Pendowski, Program Manager

Lucille T. McInerney, Whatcom Waterway Site Manager

Department of Ecology

3190 160th Ave.

Bellevue, WA 98008

RE: Response to Comments on the Whatcom Waterway Draft Consent Decree

Draft Cleanup Action Plan and Remedial Investigation / Feasibility Study

Having reviewed the draft Cleanup Action Plan and draft Consent Decree, I would like to state my response in hopes that it and others' comments may be truly considered. It seems apparent that little meaningful regard has been given to public comment on the RI/FS as well as other documents fundamental to the cleanup and redevelopment of Bellingham's waterfront. 1

It is now widely understood that the City, the Port, and the Department of Ecology have the political motivation to choose certain plans of action over others, even in the face of overwhelming public dissent. It is now time for the opinion of the public and organizations such as People for Puget Sound, ReSources, and the Lummi Nation, to receive significant attention instead of being brushed aside with flawed arguments strategically placed by the Port of Bellingham and others with a financial stake in what becomes of the waterfront. 2

In order for the Department of Ecology to fulfill its mission "*to protect, preserve and enhance Washington's environment, and promote the wise management of our air, land, and water",* these political ties must be severed in favor of a legitimate consideration of the scientific, social, and environmental concerns brought up by the public in numerous hearings and written comments. Please refer to the comments submitted by North Sound Baykeeper Wendy Steffensen for a comprehensive overview of the inadequacies in the current state of comment responsiveness. 3

Furthermore, I would like to express my support for cleanup alternatives 7 and 8. Without regard of the expense, human and environmental health should be paramount in redeveloping a site with such significant contamination. Fish consumption levels by subsistence fishers should be more adequately addressed in the cleanup plan as well. A 4 5

thoroughly protective cleanup action could set the standards high for industrial waterfront redevelopment around the country. Instead of going with the most inexpensive and quickest methods, Bellingham's waterfront cleanup and redevelopment plan should reflect the strong environmental values of the community.

Thank you for your time in considering my comments as well as those of the North Sound Baykeeper and the rest of the public.

Jessica Doyle, student at Huxley College of the Environment, WWU

From: Leonard Duncan [mailto:duncancands@msn.com]
Sent: Monday, August 13, 2007 9:53 AM
To: McInerney, Lucy (ECY)
Cc: Clint and Sara
Subject: comments re: Draft Clean up action Plan Whatcom Waterway

#16-A

Hello Ms. McInerney

I have attached a file containing some comments re: the Draft Clean up Action Plan.
Thanks for your consideration.

Clint Duncan

To: Lucille T. McInerney, P.E. Site Manager August 13, 2007
WDOE

#16-B

From:
L. Clint Duncan 2601 Lummi View Drive
Bellingham, WA 98226
Email duncancands@msn.com
Phone 360.961.7614

The following comments are directed to the Monitoring plan i.e. (EXHIBIT B -Draft Cleanup Action Plan – Whatcom Waterway Site, Bellingham, Washington).

It is my understanding that one of the goals of remediation is to reduce the potential impact of historic Hg contamination to human receptors. The monitoring plan should indicate the effectiveness of those efforts.

Contaminant Hg species in the waterway are converted to monomethylmercury which then is biomagnified and bioaccumulated by species living in the waterway. When humans ingest monomethyl mercury containing organisms they are poisoned.

I recommend that the monitoring plan be designed to;

a) Yield information concerning the total sediment mercury content. 1

b) Yield information concerning the temporal and spatial concentration of monomethyl mercury in the sediment, surrounding water, and surrounding suspended materials. 2

c) Assess the rate and efficiency with which target species such as the Dungeness crab accumulate and eliminate monomethyl mercury. 3

The ‘BSL’ was formulated in 2000 after limited sampling. Current literature indicates that the rate of monomethyl mercury production at the sediment water interface depends on a number of factors. The monitoring design should incorporate that knowledge. The rate and success of monomethyl mercury accumulation is species dependent. The monitoring plan should be designed to acquire that understanding or should be based on an understanding of those factors. 4

Thank you for considering these comments.
L. Clint Duncan

EXCERPTS FROM PUBLIC HEARING TRANSCRIPT
August 8, 2007, Bellingham Cruise Terminal

#17-A

George Dyson
Thank you. It's actually George Dyson. 435 W Polly Street, right on the downtown waterfront. So I'm speaking really as an adjacent property owner. With a very selfish agenda. I own property right next to the head of the waterway. I'm shocked. I'm repeating the comments exactly what I said 8 months ago. Which is really not been addressed. The head of the waterway is not being cleaned up in this, the chosen alternative. To me, that's not good and I think you know that. 1

There is a real problem with this cost benefit. You have to fairly account for the costs. I don't think we've looked at—the real costs long term of not cleaning up are going to add up and mount. All of this monitoring forever is very expensive compared to doing it. Now is the time. It's going to be a lot harder to cleanup once we dump more material on top and have even sort of greater risk. 2

It's also, I keep reiterating, it's driven by land use. It shouldn't only be driven by land use. It should be driven by water use. The question here is cleaning up the waterway. We should look at how that water is used. Bellingham is here because that was the navigation channel that put Bellingham on the map where it is. There's been no real public discussion of us relinquishing that forever. We forever will be giving up the right to that channel being navigable. 3

Maybe that's what we should be doing; maybe we shouldn't. I urge everyone to give that, as of now, that is a federal navigable waterway and it has to be cleaned up. Now you may say the owners are changing that—it's not changed yet. I think we're a little premature to say we're leaving that area not cleaned. Maybe we want to fill it again later, maybe we want to clean it and then fill it with sand, but we ought to clean it.

Now I'll just go through the points in my 7 minutes that I made before.

I question whether the head of the waterway is naturally recovered and also whether it's limited to 12 cm. If you wade out there in 12 cm gumboots you'll have mud in your feet right away. You need about 30 cm gumboots to walk around in there, let along dig clams or anything.

Sample data. I'm partly a scientist. I speak at scientific conferences. There's not good science behind this. The data is remarkably sparse. It's very questionable to make these $100,000,000 decisions based on the data we have. You need a real time series of change over time. We've had very, very spotty sampling. Certainly not enough to make these decisions. Likewise we have very poor data on actual sedimentation, which is changing. The inner waterway most of the sedimentation was wood debris. That source of sedimentation has stopped. We have no real evidence that Nooksack is sedimenting in the waterway or that Whatcom creek is. We don't know what is happening. Sediment may be eroding. 4

Likewise would be that layer of woody debris from the mill has a completely different biological activity from what will happen now. That as far as I know has not been looked at, at all, by any biologists or microbiologists.

The other important fact is that the standards for mercury contamination are not fixed; they've changed over the years. Look at what was acceptable here from in 1960 to 70 versus what is acceptable now. In 10 or 20 years from now, those standards again may change and that has not been put into the cost accounting of how much this is going to cost if regulations change and we have something that was acceptable now but is not acceptable once we've supposedly cleaned up. 5

I think the other ultimate cost is that by not cleaning up, we impact the property values of people like me who own property near this waterway. If it forever carries this taint of well we left all this stuff there and didn't do a thorough job, it makes that property less desirable. We have a clean ocean marina but not a clean waterway, and that's just simply not fair. 6

There was a lot of attention 8 months ago that we needed more monitoring, but when you read the fine print, or at least the fine print I read, all I saw was that we're going catch male Dungeness crabs from at least 3 sites at year 3, year 5, and year 10, and that's our biological tissue monitoring. I think that's just grossly insufficient in terms of make these big decisions on so little data. 7

So I guess I'll say what I said before: the problem with the preferred alternative for the cleanup of Whatcom waterway is that it doesn't. I think we can do way better as a community and we deserve better, and we've got the technical skills here to do a far better job of this at a reasonable cost and move ahead quickly. Thank you.

Moderator
Thank you. Mark Buehrer followed by Wendy Steffensen

#17-B

From: George Dyson [mailto:gdyson@gmail.com]
Sent: Sunday, August 12, 2007 10:19 PM
To: McInerney, Lucy (ECY)
Subject: Comments on Whatcom Waterway Draft Consent Decree

Lucille T. McInerney, P.E., Site Manager Department of Ecology, Northwest Regional Office 3190 160th Avenue Bellevue, WA 98008-5452

Dear Mrs. McInerney, and colleagues:

I have now studied the Draft Consent Decree and Draft Cleanup Action Plan issued by your office on July 12, 2007, as well as the responsiveness summary addressing the comments made at the end of last year.

The current draft documents are remarkably NON-responsive to many of the carefully-stated technical questions and comments raised by myself and others in December of last year. 8

Although Ecology has presented an impressive defense of its proposed cleanup plan, it will be difficult to move ahead on real cleanup action(s) with so many important questions left unresolved. I urge a renewed effort to genuinely bring all stakeholders to the table in the spirit of the Bellingham Bay Pilot initiative which we all had such hopes for more than a decade ago. 9

Thank you for your attention,

George Dyson
435 West Holly St., Bellingham WA 98225
360-734-9226

From: Larry Farr [mailto:farrlarry@comcast.net]
Sent: Monday, August 13, 2007 5:21 AM
To: McInerney, Lucy (ECY)
Subject: capping in Bellingham Bay waterfront redesign

#18-A

Just a quick comment...

I believe that the capping is a mistake in the inner waterway, on the ASB shoulder and Barge Dock as the potential for leaking is very real. 1

We live in what many experts believe is an earthquake area and if shaken the capped sloped sides and bottom will be disturbed. This action will place the aquatic natural life at risk and again call for a major clean up. At this point in time I have yet to hear any explanation for discovered sediments of mercury appearing on top of the existing caps. 2 3

Please do not leave contaminated sediment in these areas so that in 30 years we have to dredge again. Let's do this correctly the first time

Thanks

Larry Farr
1448 Sweetbay Court
Bellingham, Washington 98229

#19-A

From: Ilwu07@aol.com [mailto:Ilwu07@aol.com]
Sent: Friday, August 10, 2007 7:49 AM
To: McInerney, Lucy (ECY)
Subject: (no subject)

I am a member of Longshore Local # 7 Bellingham, Wa, and have read the proposal for the draft consent decree,and I am in favor of implementing this process as soon as possible. Brett E. Frost

1

2

From: Thomas Gotchy [mailto:tellytom@msn.com]
Sent: Monday, August 13, 2007 5:23 PM
To: McInerney, Lucy (ECY)
Subject: public comments, Whatcom Waterway clean-up

#20-A

We need to store the mercury in some other place than buried in the Whatcom Waterway under a layer of fill. Your scientific arguments for leaving the mercury in place relays on incredibly weak data, and very questionable science as was pointed out by many that attended the August 8th publicly meeting. Your presentation left me wondering if the Department of Ecology and the Port of Bellingham are sleeping in the same bed or have made some other cozy arrangement. It all seems pretty transparent to me. Do the proper scientific studies before taking us down some irreversible path, and try to be a bit more unbiased. Our Puget Sound and the people of Washington (and beyond) deserve at least that much respect from the Department of Ecology. 1 2 3

Sincerely, Thomas Gotchy
2911 Ellis Street
Bellingham, Washington

From: Mike MacKay [mailto:starsailor@fidalgo.net]
Sent: Sunday, August 12, 2007 9:25 PM
To: McInerney, Lucy (ECY)
Subject: Comments on draft Cleanup Plan

#21-A

Dear Ms. McInerney,

Attached are my comments concerning Ecology's draft Cleanup Plan for Whatcom Waterway.

Zapote Gregory-Raffel

#21-B

Portly De-Tale Number 63

fish feeling sad
salmon losing sand
scales of unmeasured worth
capping seems to be the plan...

1

magnificent marine life, you've become a shadow,
orcas starving, fish looking mighty fallow...
the port, ecology and city agree,
to sail with fear of liability,
the people spoke with passion and purpose,
but were dismissed with legal crafted word,
dismissed, compassion's voice unheard...

2

how can you price this fragile, graceful sea?
dismiss the creatures of lovely, salty weave?
deny the beauty hidden in inner furl?
tell us, what is your world? what is your world?
of precious fleeting pulse and dance of dulse,
or fluff reports that turn stewardship dust?
might of paper, or hearts to trust?

3

if you don't see it, it don't matter,
says the port, the city and ecology
that is their alma mater....
fish feeling sad,
no one to care..,
If you don't see it, it don't matter,
could you eat Bay crab off your platter,
or bottom fish or a salmon too-???
could you honestly take a bite,
could you, tell me, could you???

4

once our mighty sealife was
miraculous to behold,
"salmon is extinct"
the children will be told...
"fish all died-out"
our children will say,
in the waters of mercury
they'll be doomed to play...

5

fish feeling sad,
no one to care,
they have been had,
just like the natives who once carefully reflected,
just like the ones whose health is now neglected...

fish feeling sad, you may not see them,
you sure wouldn't want to be them,
breathing, living in toxic filth,
what a legacy to leave to tilth...
fish feeling sad,
fish losing sand..
scales of unmeasured worth,
searching for a better earth,

fish feeling sad....

zapote gregory 8/12/07

#22-A

From: Ham Hayes [mailto:hhayes@biztran.com]
Sent: Monday, August 13, 2007 5:02 PM
To: McInerney, Lucy (ECY)
Subject: Whacom Waterway Cleanup Comments

Comment #1. There should be more indepth discussion of risk managment, especially with regard to the localities, number of monitoring sites, types and frequency of monitoring. Postponing this discussion to later design reviews prevents the public from seeing the differences in risk managment and mitigation as a function of the alternatives. 1

Comment: #2 **From section 6.3.1 "Sediment Quality in Cap and Natural Recovery Areas (Confirmation**

Monitoring): ..... Sediment quality monitoring events are

anticipated to be conducted during years 1, 3, 5, 10, 20 and 30 after

completion of the remedial action. " Monitoring frequency should not decrease with time but stay the same or even increase. This is because erosional, subsidence or other tectonic forces may occur later in the lifetime of the project. 2

Comment #3. The risk management discussion does not address what the possible remediation actions and estimated costs might be should the selected option fail to meet any of the compliance standards. Recommend this be included now in this Consent Decree. 3

Respectfully submitted,

Hamilton Hayes
954 Puget St, Bellingham, WA 98229
360-319-1936

From: Libby [mailto:libmh@yahoo.com]
Sent: Wednesday, August 08, 2007 1:22 PM
To: McInerney, Lucy (ECY)
Subject: Whatcom Waterway Cleanup

#23-A

Dear Ms. McInerney,

I have been following the cleanup issue and concur with the issues raised in the "open letter" copied below. I am a resident of Bellingham as are my children and grandchild. The consequences of the decsions made now about the toxic waste will affect my family for generations. I believe there is an opportunity at the present time to do the right thing. Please consider these requests:

* Removal of contaminated sediments and an evaluation of safe dredging wherever sediment toxicity or erosion potential is high, such as at the log pond, Inner Waterway, Shipping Terminal and corner of the treatment lagoon. 1
* Six foot or thicker caps anywhere a cap is needed, in order to better isolate contaminated sediment from anchor, propeller and erosional disturbance. 2
* Re-evaluation of the cleanup options, given that the removal of mercury from the lagoon will not have any effect on the exposure of humans and wildlife to mercury, but removal of mercury from the Waterway will! 3
* A robust evaluation of concerns around seismicity, mercury contamination of the log pond cap and consumption of seafood by subsistence fishers. 4 5 6

Thank you for your consideration.

Sincerely,
Libby Hazen
116 Bayside Place
Bellingham, WA 98225

OPEN LETTER to Ecology from the North Sound Baykeeper and the Public Participation Panel:
RE: Response to Comments on the Whatcom Waterway Remedial Investigation/ Feasibility Study (RI/FS) 7

We find that the response to comments issued July 12, 2007 on the Whatcom Waterway RI/FS were wholly inadequate and did not actually respond to the comments and questions posited by citizens of Washington State. Moreover, we believe that a re-evaluation of the Remedial Investigation and Feasibility Study for the Whatcom Waterway may result in different cleanup decisions, than have been made by the Department of Ecology. As citizens and taxpayers, we urgently request that the Department of Ecology re-evaluate their answers to these questions and their final decision in order to correctly perform their duties.

A few examples of the comments and questions that we believe have been inadequately answered are herein listed:

- Ecology did not respond to the assertion that capping in the log pond was designated an interim solution and was not evaluated as a final solution in this RI/FS. This final evaluation is important as interim actions do not embrace the the full spectrum of public participation opportunities.
- Ecology did not address specific samples where mercury concentrations were actually increasing, and not decreasing as postulated by Ecology's assertion that the Whatcom Waterway is a depositional area. If, in fact, there are erosional areas in the Waterway, capping as a remediation method has severe limitations.
- Ecology did not adequately address alternative likely hypotheses for mercury re-contamination at the log pond.
- Ecology did not answer specific questions regarding the Biologic Screening Level (BSL); these included the exact source of the data used for the BSL regression, the reason for averaging individual samples, and the poor predictability of the regression.
- Ecology did not consider the entire amount of mercury ingested by seafood eaten by tribal and subsistence eaters, nor did they give the reason why the entire amount was not considered.
- Ecology did not provide subsurface levels of mercury at Starr Rock, although it was requested. Subsurface data were given for all other site units. Starr Rock is a former dump site for dredgings of the Inner Waterway and as such it is very contaminated and disturbance of this site could be very dangerous.
- Ecology did not address nor remedy the fact that equal description to the pros and cons of capping and dredging were not given in the Remedial Investigation.
- Ecology decided not to recommend a standard 6 foot cap for contamination, although it was publicly recommended by an Ecology sediment specialist.
- Ecology mischaracterized the effects of tsunamis as similar to sea level rise. In fact, a tsunami will both raise and lower sea level and in the lowering of sea level can create a great amount of scour and disturbance of the sea floor.

From: Eric Hirst [mailto:EricHirst@comcast.net]
Sent: Monday, August 06, 2007 7:12 AM
To: McInerney, Lucy (ECY)
Subject: Comment on Whatcom Waterway Cleanup

#24-A

Dear Lucy,

Although I am not able to attend the Department of Ecology public hearing on August 8, I hope you will include these comments in the official record on the Whatcom Waterway Cleanup.

I remain concerned that capping mercury in the waterway will not be an effective long-term strategy. Although I appreciate the Department of Ecology's commitment to monitor mercury levels in the waterway for 30 years (rather than 10 years, as earlier proposed), I would much prefer to see more mercury removed from the waterway. 1 2

I recognize that removing more mercury and monitoring more often for a longer time raise cleanup costs. However, in the long-term, conducting the cleanup properly the first time will be more cost effective. Less money will need to be spent on subsequent cleanups and repair, and the value of the land for redevelopment will be greater. 3 4 5

Thanks.

Eric

Eric and Susan Hirst
1932 Rhododendron Way
Bellingham, WA 98229
☎ 360-656-6690 EricHirst@comcast.net

EXCERPTS FROM PUBLIC HEARING TRANSCRIPT
August 8, 2007, Bellingham Cruise Terminal

#25-A

Tip Johnson

Thank you for the opportunity to comment on the Whatcom Waterway Cover-up. I remain unconvinced that it adequately protects the public's health, safety, and welfare. There are a number of reasons. Chief amongst them is that regulators refuse to account for hundreds of tons mercury that they know exists. 1

It's called a cleanup, but tossing mud over mercury is really a cover-up I don't think it's a long-term solution. I'm very concerned about leaving it loose in the environment.

Why is mercury a concern? I think we've all seen that, but I would really encourage people to Google University of Calgary Mercury and see a video micrograph of how mercury actively degenerates brain neurons. 2

You want to Google mercury cycling, you can see why it's irresponsible to leave it in the sediments, even the sub-sediments.

Based upon the mercury, the estimated mercury replacement in the chlor-alkali system which happens to correspond very closely with the industry estimates for mercury used per ton of pulp produced here, GP probably used around 600 tons of mercury in their operation.

We're talking about 15 to 20 tons in the bay; we know they buried another, oh, 15 tons on-site; we know they dumped it along Whatcom creek at the Haskell business site, a stream reserved for juvenile fishing. 3

That's about, so, OK, we've accounted for about 40 tons. My question is where is the rest of it? And how can we have a plan without knowing. How can you assert that your plan will protect the public's health, safety, and welfare when we've got all that other mercury around? 4

Regulators have refused to install mercury vapor monitors at ground zero, where the Port's proposed land uses will invite people to live there permanently and to come and visit and enjoy the waterfront. I don't know how we can assess the risk without having the information. 5

Regulators refuse to conduct a public health survey to see why Whatcom County has higher than ordinary instances of cognitive disorders and diseases often associated with mercury exposure.

Guess what regulators refused to test for when they did a 3-year air-quality study of downtown Bellingham? Mercury.

Seems to me the plan is tailored basically to prop up the Port's interest in privatizing the waterfront and building a marina for mega-yachts that few can locally afford. We're very careful to get the highest cost-benefit ratio for the project, but shouldn't that concern to other public interests that are directly affected by the project? Or if not, why not? Seems to me that there are some very important costs to consider. 6

What costs? Potentially poisoning the community for generations to come should be enough. Those are huge potential health costs, but there is more. The public, after paying for the remediation and infrastructure, will likely lose our only chance at assembling a broad public waterfront. But there is more. The public now owns an industrial water supply and a wastewater treatment facility that GP left behind. We should feel lucky to be able to recruit businesses with the prospect of water supply and water treatment but the Port's plan squanders this resource. The public will bear the cost of their foreclosing on the opportunity to attract family wage jobs. But then Port officials already have them. We cover those costs. 7

But there's more. Bellingham is going to need additional treatment capacity—it's not a question of if, it's a question of when. The very regulators pushing this plan are going to require us to treat stormwater; if we ever want jobs we'll need industrial treatment.

Bellingham is growing; eventually, we'll need additional sanitary treatment. Where will we do this? What will it cost? Who's going to pay? And with what jobs will we afford it?

I'm just amazed that regulators, the proponents, and virtually every elected official refused to address these vital public interests. Whose interests are they supposed to be addressing? I think this plan essentially steals from the public and benefits few. I don't believe it protects the public's health, safety, and welfare. I believe this project needs a much more comprehensive consideration of all the public costs involved. I understand it's not directly a MCTA concern, but if DOE is going to be requiring us to treat stormwater, that cost should be included in this analysis I believe. Thanks. 8

Moderator
Thank you. Elizabeth Kilanowski, followed by Darren Williams.

EXCERPTS FROM PUBLIC HEARING TRANSCRIPT
August 8, 2007, Bellingham Cruise Terminal

#26-A

Elizabeth Kilanowski
I'm Elizabeth Kilanowski. Can you hear me? Is that OK? Thank for the opportunity to address the public hearing tonight. I wish to enter into the record a memo sent from the faculty of Western Washington University's geology department to officials at Western Washington University, the City of Bellingham, and the Port of Bellingham. It's a public document; it addresses the seismic risks to the upland GP site. This site is adjacent to the Whatcom Waterway site which we're discussing tonight and the same seismic issues that are addressed in this memo apply to the Whatcom Waterway. 1

I have additional copies for folks here who want to get one.

Last fall in both the public hearing and written comments, I submitted testimony on seismic hazards including liquefaction. And Pete I'd like suggest that you not tell people that liquefaction doesn't affect or breech caps. They do; sand boils developed as a result of liquefactions. Liquefaction can and do breech caps so I'd suggest you don't say that anymore. 2

I am concerned that the seismic issues that I addressed last fall were not adequately addressed in the responsiveness summary. In addition, the person who did respond to my comments did not understand the nature of tsunamis and their effects on bottomlands. There was no reference listed that the writer had any knowledge of what they were talking about. They confused sea-level rise with two phenomena that include both sea-level rise and sea-level fall in equal measure. 3

I don't think that this process is ready to go forward to a Consent Decree. Thank you. 4

Moderator
Next is Darren Williams followed by Tom Winter.

MEMO

To: Kevin Raymond, Chair, WWU Board of Trustees
Cc: Karen Morse, WWU President
Bob Frazier, WWU Vice President for External Affairs
Tim Stewart, City of Bellingham Planning Director
Mike Stoner, Environmental Director, Port of Bellingham
Tom Downing, Chair, University Planning Committee
Arlan Norman, Dean of College of Sciences and Technology
Brad Smith, Dean of Huxley College of the Environment and City of Bellingham Waterfront Advisory Group
Date: June 1, 2007

From: WWU Geology Faculty: Dr. Scott Babcock, Dr. Jackie Caplan-Auerbach, Dr. Doug Clark, Dr. Juliet Crider, Dr. Susan DeBari, Dr. David Hirsch, Dr. Scott Linneman, Dr. Robert Mitchell, Dr. Elizabeth Schermer, Dr. Pete Stelling, Dr. Chris Suczek

Contact: Dr. Bernard Housen, WWU Geology, bernieh@cc.wwu.edu, 650-6573

Re: Oversight for assessment of geologic hazards of the GP Waterfront site

Summary: Geologists on the faculty at Western have continuing concerns about the safety of the former GP site for redevelopment that includes large buildings and other major infrastructure. Significant new findings showing increased seismic risk in Whatcom County are not yet incorporated into regional design criteria. Because of the high level of risk associated with the GP site and high cost associated with mitigating the hazard, we recommend convening an independent review panel to evaluate planning documents relevant to identification and mitigation of geologic hazards at the GP site. This panel can advise the WWU Board of Trustees and administration regarding the completeness, rigor and suitability of recommendations in those planning documents.

This memo provides a summary of a recent meeting between Geology Department faculty, Port of Bellingham staff (Mike Stoner, Fred Seeger, Brian Gouran), a member of the WWU administration (Bob Frazier), and the chair of the Faculty Senate University Planning Committee (Tom Downing), which took place on May 29, 2007. The intent of this memo is to highlight some of our Department's continuing concerns regarding the Waterfront redevelopment project, and to propose some possible solutions to some of these issues.

The discussions during this meeting were led by Mike Stoner, who presented an overview of the development project in terms of a risk identification-management-mitigation process. It is clear that the Port of Bellingham officials agree with some of the concerns our department has raised: this is a highly compromised and hazardous site that will require significant additional study, and significant ($100s of million) expenditures to mitigate the known liquefaction and lateral spread hazards. The meeting then evolved to a question-and-answer form of discussion, with the primary topics of discussion being the process by which the specific level of seismic hazard is defined, which agencies are responsible for the review and oversight of mitigation and development plans, and at what points within the overall process are such decisions made.

The main points of concern discussed at this meeting by members of the Geology faculty were related to the recent discovery of active faults in Whatcom County (e.g. the Boulder Creek Fault near Kendall), how this (and other) new science is being incorporated in building

regulations and design planning, and who is responsible for monitoring and responding to significant changes in local and regional seismic hazards. As we expressed in prior statements, current building codes and practices are highly formulaic; they rely on a combination of regional studies of seismicity and geology compiled by the US Geological Survey (and the State Department of Natural Resources) to determine what maximum seismic acceleration is probable for a given ZIP code over a 50 year period. This estimate is then used in all further seismic hazard mitigation studies, site plans, and building specifications according to the International Building Code (IBC). One concern that was discussed at length is the significant lag between "science" and "policy" in the identification and codification of seismic hazard levels in this region. Regulations and seismic hazard mitigation tools generally are not updated until many years after the discovery of a new fault. For the Waterfront, we know that the seismic risk at this site is much greater than that presently accounted for in any planning or mitigation efforts because of new discoveries of local faults. In our discussions with Mike Stoner, it is clear that for this project, the long build-out time for most construction will help to address some of these concerns. For structures proposed in, say 2015, much progress and improvement in our understanding of local and regional seismic hazards will have led to improvements in our ability to quantify and mitigate against these hazards as they relate to a specific building or project. However, in the nearer term, (for example, in assessing whether or not any existing structures are safe candidates for adaptive reuse) such issues are critical, and must be addressed in a clear and comprehensive manner.

The process by which these (and other) geological concerns may be addressed is complex (no one at this meeting was able to clearly identify which organization will have the final say on whether a proposed plan successfully identifies and mitigates against liquefaction hazards, for example). There are, however, two clearly identified steps in the overall process during which these issues will need to be addressed.

The first is within the Environmental Impact Statement process, where geological factors such as seismic hazards are identified and evaluated. The EIS will be used, among other information, as a basis for possible changes in the current land-use zoning for the site. In the 2006 City of Bellingham Critical Areas Ordinance the Waterfront site is listed as a Geologically Critical Area due to its liquefaction hazard; under current law (as we understand it) the COB Planning Director is responsible for review and approval of plans to mitigate against liquefaction and seismic hazards. The EIS will not provide building-site specific hazards identification/mitigation plans; however it will serve as an important framework for identification of the various geological hazards that are associated with the Waterfront site as a whole. This phase of the process is underway now, and members of the Geology faculty have transmitted many of our concerns about this site to the Port of Bellingham through the public EIS-Scoping process. Some of us will also review the draft EIS, when it is made available this summer, and provide additional input as is needed.

The second step occurs during the planning and permitting process for specific buildings or other projects on the site, and will occur during the extended build-out period if the Waterfront project proceeds. In this case, specific and detailed investigations of a building site will be conducted by geological and geotechnical professionals, who will use the IBC-based tools and formulae to determine the level of seismic hazard associated with that individual site. As with the EIS, the final approval of these mitigation plans will be made by the Planning Department of the City of Bellingham.

In both steps of this process, the degree to which any geological hazard is identified and mitigated against is a decision made by the applicant in conjunction with review and oversight conducted by the City of Bellingham. During our discussion, it was apparent that both the Port

of Bellingham and WWU are relying on the good faith efforts of private developers and consultants to insure that the level of hazard mitigation for all aspects of the Waterfront project will be adequate. There is also an implicit reliance on the expertise of the staff of the planning department and the city council, who will make the final decision on permitting for the site. While this process is safe and efficient for routine development projects, the extraordinary level of hazard and complexity associated with the Waterfront project call for a higher than normal level of study and oversight.

We believe that as an institution WWU has a choice to make at this stage. We can simply carry on with the process under its current framework, and place our trust in commercial developers and their consultants, who will deliver a development plan that meets the letter of the law, as it currently exists. Alternatively, in keeping with our stated commitment to leadership in sustainable development, WWU could pledge to insure that any development related to the Waterfront project meets a higher standard of geological safety, commensurate with the latest findings in local geologic hazards. We assert that the latter option is the only appropriate position for an institute of higher learning to take, particularly in light of recent earthquake-related disasters in Indonesia and Japan.

To this end, the faculty of the Geology Department strongly suggests that an independent review panel should be formed to critically examine all studies of the geological hazards associated with this site. We propose that the panel be comprised of five or six members, including WWU Geology faculty with relevant expertise, and additional members of the academic and geotechnical community with expertise in site assessment and earthquake engineering. The panel should be independent of the Port and of consulting firms hired by the Port or by WWU to engage in Waterfront hazard assessment and mitigation. The panel can provide advice to the WWU Board of Trustees and Administration regarding the completeness and rigor of the planning documents regarding hazard assessment and an evaluation of the suitability of recommended hazard mitigation strategies. This panel would work throughout WWU's Waterfront planning process, and establish close communication between Port of Bellingham, City of Bellingham, and WWU regarding the evolving nature of local and regional geological hazards.

As a broader goal, we also suggest that WWU work with the City of Bellingham to develop criteria for independent review of development projects that are located in areas identified as Geologically Critical Areas in the Critical Areas Ordinance, and to use any WWU related projects as models for application of these additional review criteria.

The Geology Department would be happy to consult further with the Board of Trustees, Western Administration, or other interested parties regarding these recommendations. We have also attached a copy of a letter sent early last year to President Morse expressing similar concerns. We would appreciate acknowledgement from the Board of Trustees that you have received and considered our recommendations

Appendix: copy of memo from Geology Department, resulting from their meeting with Port of Bellingham staff, and two consulting geologists from GeoEngineers

To: WWU President Karen Morse
Date: 10 February 2006

WWU Geology Department Position on Redevelopment of the Georgia Pacific Site

The proposed New Whatcom development is located on one of the most geologically hazardous location in the City of Bellingham. A recent meeting between Geology faculty, Port of Bellingham officials and representatives from GeoEngineers (the consultants concerned with hazards at this site) revealed that the Port and consultants are aware of the hazards involved and are actively working on mitigation plans. This is good, but everyone involved needs to be aware that great expense will be involved in mitigating these hazards; and that some significant level of additional hazard will be associated with this site even after these mitigation efforts are implemented. With this understood, the Geology Department at Western Washington University conditionally endorses further consideration of a development plan for the Georgia Pacific site at the Port of Bellingham.

Our greatest concerns are seismic and chemical hazards. At this point we have no information about plans for the identification and control of toxic chemicals on the site, so we must reserve judgment. As for seismic hazards, we understand that stone pillars (stone-filled columns driven into the bay mud) will be a critical mitigation element. We believe that it is very important to obtain further information on the performance of these structures during an actual earthquake, especially under the lateral spreading conditions of liquefaction. An additional seismic hazard that has not yet been addressed is the possible collapse of fill materials or the Nooksack Delta-front into Bellingham Bay during a major earthquake. Such an event could cause a substantial local tsunami.

The site design and mitigation plan will rely on International Building Code seismic hazard probability maps, currently provided by the U.S. Geological Survey. Unfortunately the approach is very formulaic—just put in a zip code and soil type and proceed to a plan. The problem is that the current formula does not consider recently discovered local faults. An alternative approach taken by Canadian seismologists just across the border produces a much higher seismic hazard for the same location, even without the local faults. These issues need to be resolved.

Another factor that needs further study is the soil/sediment response to ground shaking, particularly the susceptibility of the glaciomarine drift to liquefaction. It is presently considered to be minimal, but apparently little (if any) testing has been done to confirm this. The site appears to be similar to the port at Kobe, Japan, where, during an earthquake in 1995, seismic amplification in near surface (upper 30-50 feet) materials produced ground motion 2-4 times greater than in nearby bedrock. The current engineering models for Bellingham use an amplification factor of 1.2.

Because of existing conditions, we believe that it would be prudent to use a 100 year risk/hazard model at this site, rather than the standard 50 year model. In addition, we suggest that certain uses of the site, such as residential development, should be restricted due to the inherent hazards of the site.

Our final concern is oversight. Who, besides the City of Bellingham Planning Department, will review the site development plan to assess whether geological hazards spelled out in the Critical Areas Ordinance have been properly mitigated? Because of the nature of the site, critical assessment of the development plan requires a high level of geotechnical expertise. The Geology Department would be glad to assist in the review, but we are not geotechnical specialists. We suggest that an oversight panel should be convened.

From: dicky7@comcast.net [mailto:dicky7@comcast.net]
Sent: Monday, August 13, 2007 10:24 PM
To: McInerney, Lucy (ECY)
Subject: Draft Consent Decree

#27-A

My name
is Richard King @ 1516 Marine Dr
Bellingham Washington.

I am a tax payer in Whatcom county .I am writing this email in favor of the Draft Consent Decree for the Port Of Bellingham waterway. If the dredging and the cleanup are postponed any longer it may never happen, so lets go forward and get it done

1

2

From: Ilwu07@aol.com [mailto:Ilwu07@aol.com]
Sent: Friday, August 10, 2007 1:37 PM
To: McInerney, Lucy (ECY)
Subject: (no subject)

#28-A

I am a member of Longshore Local # 7 Bellingham WA, I have read the proposal for the draft Consent Decree and am in favor of the proposal. Richard M. Lindquist 1

LUMMI INDIAN BUSINESS COUNCIL
2616 KWINA ROAD · BELLINGHAM, WASHINGTON 98226 · (360)384-1489
DEPARTMENT_____EXT._____

August 8, 2007

Lucille T. McInerney, P.E.
Site Manager
Washington State Department of Ecology
3190 160th Avenue
Bellevue, WA 98008-5452

#29-A

SUBJECT: Lummi Nation Comments on Whatcom Waterway Site Public Review Draft Consent Decree

Dear Lucy,

This letter is the Lummi Nation's formal objection to the entry of the Consent Decree regarding the Whatcom Waterway site as improper, inadequate, and contrary to law. 1

The Lummi Nation is a fishing tribe and has used the waters and shorelines of Bellingham Bay since time immemorial. Prior to and following the arrival of Euro-Americans, the shorelines of Bellingham Bay were used as fishing villages, and are therefore culturally sensitive areas. The tidelands and waters of Bellingham Bay were used to harvest fin- and shellfish for commercial, subsistence, and ceremonial purposes. Lummi members actively fished the lands upon which the Aerated Stabilization Basin (ASB) was built until these lands were converted to the now abandoned or soon to be abandoned ASB.

The Lummi Nation is one of the signatories to the Point Elliot Treaty of January 22, 1855 (12 Stat. 927) which reserves certain rights for the Lummi people including but not limited to "the right of taking fish at usual and accustomed grounds and stations." *United States v. Washington*, 384 F. Supp. 312, 401 (WD WA 1974), *aff'd.*, 520 F.2d 676 (9th Cir. 1975), *cert. den.*, 423 U.S. 1086 (1976). The Treaty is the Supreme Law of the Land under Article VI of the United States Constitution, and it supercedes any state laws and regulations that attempt to qualify or diminish the Treaty right, save for those necessary for conservation. *Id.*, at 338 and 401. 2

The Treaty fishing right has a geographic component: "all usual and accustomed grounds and stations". The shorelands, tidelands, bedlands and waters of Bellingham Bay are part of the "usual and accustomed grounds and stations" of the Lummi Nation. *United States v. Washington*, 384 F.Supp. at 360. In *United States v. Winans*, 198 U.S. 371 (1905), the United States Supreme Court held that the Treaty fishing right included the right of the Indians to cross and occupy private land to get to their traditional fishing grounds, and also held that the license given the Winans brothers to operate a fish wheel that completely excluded the Indians from their fishing sites violated the Treaty. *Winans* has been followed in an unbroken line of cases to

the present day. The geographic scope of the Treaty right has been interpreted to prohibit the blocking or destruction of tribal usual and accustomed fishing places. In *Confederated Tribes of the Umatilla Reservation v. Alexander*, 440 F.Supp. 553 (D.OR 1977), the court enjoined the construction of a dam by the United States Army Corps of Engineers which would dam a stream in which the Umatilla Tribe had reserved fishing rights. In *Muckleshoot Tribe v. Hall*, 698 F.Supp. 1504 (WD WA 1988), the court prohibited the U.S. Corps of Engineers from issuing a permit that would have allowed a private developer to construct a marina that would occupy some of the Muckleshoot and Tulalip fishing sites. Most recently, in *Northwest Sea Farms v. Corps of Engineers*, 931 F.Supp. 1515 (WD WA 1996), the court upheld the denial of a Corps permit for the construction of a salmon aquaculture facility that would occupy Lummi fishing areas near Lummi Island. The geographic element of the Treaty fishing right can only be altered by Congress or an agreement with the affected Tribes.

Although the Lummi Nation still fishes the waters of Bellingham Bay, these culturally sensitive resources have been degraded by human activities and shoreline development which has precluded the use of traditional hunting, fishing, and gathering sites in and along the bay. At least 748 acres of the Bellingham Bay nearshore has been impacted (dredged, filled, or armored) including, but not limited to, the Squalicum Marina, the Georgia Pacific pulp mill site, the Whatcom Waterway, and the ASB. Not only have these actions destroyed valuable fish habitat, they have physically precluded the exercise of tribal treaty rights in these areas. The Whatcom Waterway, the ASB, and surrounding areas are now contaminated with a number of substances released from industrial waterfront activities including mercury discharges from the former Georgia Pacific chlor-alkali plant.

The taking of our traditional hunting, fishing, and gathering areas in Bellingham Bay by the Port of Bellingham, the City of Bellingham, and others is just one of many examples of how our ability to exercise our treaty rights has been reduced. Rather than restoring at least the approximately 33 acres of historic habitat and fishing areas that are currently impacted by the ASB, the Port of Bellingham would continue to preclude tribal use. If the Consent Decree is entered as currently proposed, it will continue the violation of the Treaty fishing rights of the Lummi Nation. There is no statute of limitations barring the enforcement of Treaty rights by an Indian Tribe. *United States v. Washington*, 157 F.3d 630, 649 (9th Cir. 1998), cert. den. 526 U.S. 1060 (1999), *Swim v. Bergland*, 696 F.2d 712, 718 (9th Cir. 1983). 3 4

The Consent Decree suffers these additional errors: (a) no evaluation of removing the ASB from the water with re-establishment of intertidal and shallow subtidal habitat and marine buffers and/or eelgrass, (b) no consideration of either cumulative effects of the incremental destruction of the natural conditions of Bellingham Bay upon Treaty rights and the ecosystem supporting these Treaty rights or of the new impacts that may result from the proposed conversion of the ASB to a marina, and (c) the use of current conditions as the baseline in evaluating alternatives rather than the more appropriate environmental baseline that existed along what is now the Bellingham waterfront prior to the substantial anthropogenic impacts to this environment. Lummi concerns and interest are more detailed in the letter to Ecology Director Jay Manning dated July 10, 2007, attached hereto. 5 6

The Consent Decree should not be entered until and unless the plans are altered to (a) remove the pollutants from the ASB, (b) restore the aquatic lands and waters that comprise the ASB, including removal of the breakwaters and other protection structures around the ASB, to the state that existed prior to the construction of the ASB, and (c) removal, to the maximum extent possible, of pollutants from the former ASB and other lands covered by the Consent Decree. 7 8 9

Sincerely,

Merle Jefferson

Merle Jefferson, Executive Director
Lummi Natural Resources Department

Cc: Evelyn Jefferson, Chairwoman, Lummi Indian Business Council
James Hillaire, Director, Lummi Cultural Department
Elden Hillaire, Chairman, Lummi Natural Resources and Fisheries Commission
Bob Kelly, Director, Nooksack Tribe Natural Resources Department
Jay Manning, Director, Washington State Department of Ecology
Randel Perry, U.S. Army Corps of Engineers
Jim Darling, Executive Director, Port of Bellingham
Tim Douglas, Mayor, City of Bellingham
The Honorable Governor Christine Gregoire

LUMMI INDIAN BUSINESS COUNCIL
2616 KWINA ROAD · BELLINGHAM, WASHINGTON 98226 · (360)384-1489
DEPARTMENT_____EXT._____

July 10, 2007

#29-B

Mr. Jay Manning, Director
Washington State Department of Ecology
P.O. Box 47600
Olympia, WA 98504-7600

SUBJECT: Lummi Nation Interests in Bellingham Bay Clean Up and Redevelopment

Dear Jay,

The purpose of this letter is to clarify the Lummi Nation's interests in the Bellingham Bay clean up and redevelopment effort and to explain our opposition to the conversion of the Aerated Stabilization Basin (ASB) to a marina by the Port of Bellingham. It was apparent from our June 19th meeting that we have not done an adequate job of informing people of our interests in this effort. As a result, elected and appointed officials may have a mistaken view that the Port's plans to convert the former ASB to a marina are unopposed.

The attached document details our interests. In summary, we want to maximize the removal of contaminated sediments in Bellingham Bay, we want at least the 33 acres of historic habitat and fishing areas that are currently impacted by the ASB to be restored, and we are not opposed to the redevelopment of upland areas of the former Georgia-Pacific pulp mill site in a manner that protects cultural and aquatic resources. We hope that you can support our goals. Please do not hesitate to contact our Natural Resources Department Director (Merle Jefferson, 360-384-2225) for further information regarding our interests in the Bellingham Bay portion of our traditional areas.

Sincerely,

Evelyn Jefferson

Evelyn Jefferson, Chairwoman
Lummi Indian Business Council

cc The Honorable Senator Patty Murray
The Honorable Senator Maria Cantwell
The Honorable Representative Rick Larsen
The Honorable Governor Christine Gregoire
The Honorable State Senator Harriet Spanel
The Honorable State Senator Dale Brandland
The Honorable State Representative Kelli Linville

The Honorable State Representative Doug Erickson
Elden Hillaire, Lummi Natural Resources Commission Chairman
Merle Jefferson, Lummi Natural Resources Department Director
Richard Grout, Washington Department of Ecology, BFO
Dan Swenson, Washington Department of Ecology, NWRO
Lucy McInerney, Washington Department of Ecology

#29-C

Lummi Nation Interests in Bellingham Bay Clean Up and Redevelopment
July 10, 2007

The Lummi Nation is a fishing tribe and has used the waters and shorelines of Bellingham Bay since time immemorial. Prior to and following the arrival of Euro-Americans, the shorelines of Bellingham Bay were used as fishing villages and the tidelands and waters of Bellingham Bay were used to harvest fin- and shellfish for commercial, subsistence, and ceremonial purposes. Although the Lummi Nation still fishes the waters of Bellingham Bay, the resources have been degraded by human activities and shoreline development has precluded the use of traditional hunting, fishing, and gathering sites along the bay. As shown in Figure 1 and detailed in Figure 2, approximately 748 acres of the Bellingham Bay nearshore has been impacted (dredged, filled, or armored) including the Squalicum Marina, the Georgia Pacific pulp mill site, the Whatcom Waterway, and the Aerated Stabilization Basin (ASB). In addition to these actions, which have destroyed valuable fish habitat, physically precluded the exercise of tribal treaty rights in these areas, and were conducted without compensation or mitigation for these impacts to our way of life, the Whatcom Waterway, the ASB, and surrounding areas are contaminated with a number of substances released from industrial waterfront activities including mercury discharges from the former Georgia Pacific chlor-alkali plant.

The taking of our traditional hunting, fishing, and gathering areas in Bellingham Bay by the Port of Bellingham, the City of Bellingham, and others is just one of many examples of how our ability to exercise our treaty rights has been taken by others. Additional examples of actions by others that have taken, without compensation, our ability to exercise our treaty rights include the listing of early-run chinook salmon under the Endangered Species Act due to habitat degradation, the closure of Portage Bay shellfish harvest areas due to poor nutrient management practices in the Nooksack River basin, the continued trespass on tribal tidelands, and the reductions in water quantity and water quality that we depend on due to the land uses of others. Now, rather than restoring at least the approximately 33 acres of historic habitat and fishing areas that are currently impacted by the ASB, the Port of Bellingham wants to take this area too and continue to preclude tribal use.

The Lummi Nation has worked with numerous other federal, tribal, state, and local government agencies most recently on efforts to cleanup portions of Bellingham Bay since the 1990s. Numerous clean-up plans have been proposed over the years and a few cleanup actions have been implemented. Throughout these efforts, the Lummi Nation position has been that contaminated sediments should be removed from the aquatic environment and disposed of at an appropriate upland disposal site.

Specifics concerns and issues that the Lummi Nation has regarding the current Bellingham Bay clean up and redevelopment plans are described in the correspondences listed in Table 1. These concerns and issues include: no evaluation of removing the ASB from the water with re-establishment of intertidal and shallow subtidal habitat and marine buffers and/or eelgrass, no consideration of either cumulative effects or environmental justice, and the use of current conditions as the baseline in evaluating alternatives rather than the more appropriate

environmental baseline that existed along what is now the Bellingham waterfront prior to the substantial anthropogenic impacts to this environment. Copies of the letters listed in Table 1 can be provided upon request. In more general terms, the Lummi Nation interests in the Bellingham Bay clean up and redevelopment can be summarized as follows:

1. The Lummi Nation does not oppose the redevelopment of the upland areas of the former Georgia-Pacific pulp mill and the overall goals of the Port of Bellingham and the City of Bellingham to clean up and convert this largely idle waterfront property to more beneficial uses. We believe that we are aligned with the City of Bellingham in that this clean up and redevelopment effort must be conducted in a manner that protects the environment, particularly any cultural resources that may exist on or adjacent to the site and the aquatic resources around the property.

2. The Lummi Nation supports the removal and proper disposal of all of the contaminated sediments from the Aerated Stabilization Basin (ASB), the adjacent Whatcom Waterway, and other contaminated sites along Bellingham Bay.

3. The Lummi Nation supports the removal of the entire rip-rap fill in Bellingham Bay used to build the ASB and the restoration of this area to eelgrass beds and fishing areas that existed prior to the construction of the ASB. This site was historically comprised of expansive eelgrass beds and remnants of these beds still exist along the exterior fringe of the ASB. This restoration activity is the same as Habitat Action No. 13 of the alternative sub-area strategies identified in the 2000 Comprehensive Strategy EIS developed by the Bellingham Bay Pilot Team (Pilot Team). The Pilot Team described Habitat Action No. 13 as the removal of the ASB from the water and establishment of intertidal and shallow subtidal habitat and marine buffers and/or eelgrass. As described in Appendix A of the 2006 draft Supplemental Environmental Impact Statement (SEIS) for the Bellingham Bay clean up, Habitat Action No. 13 would result in the single largest habitat gain (33 acres) of all of the actions identified by the Pilot Team.

4. The Lummi Nation opposes the conversion of the ASB to a marina. Due to the interference of recreational boat traffic on the ability of the Lummi Nation and its members to exercise treaty fishing rights, and the fact that a marina in the existing ASB location will not restore the historic eelgrass beds and will continue to preclude fishing in a 33-acre area, no additional marina facilities should be authorized in Bellingham Bay unless the impacts of this continued habitat degradation and additional boat traffic and moorage is mitigated to the satisfaction of the Lummi Nation.

5. The Lummi Nation believes that the Port of Bellingham must conduct a thorough environmental assessment of the impacts associated with converting the ASB to a marina. At a minimum, this environmental assessment should evaluate the "No Action" alternative (i.e., ASB continues as a wastewater treatment facility), the alternative described above as Habitat Action No. 13, the conversion of the ASB to a marina, and the conversion of the ASB to a contaminated sediment disposal site. This environmental assessment needs to thoroughly evaluate all of the environmental impacts of each alternative including cumulative impacts

and environmental justice issues associated with each alternative action. In the most recent scoping documents distributed by the Port of Bellingham, the Port of Bellingham considered the conversion of the ASB to a marina as a "No Action" alternative and apparently intends not to conduct an environmental assessment of the alternative uses of the ASB.

Table 1. Recent Lummi Nation Letters Regarding Bellingham Bay Clean Up and Redevelopment

Letter	Subject
Colonel Michael McCormick, District Engineer U.S. Army Corps of Engineers, September 8, 2006	Aerated Stabilization Basin (ASB) Impacts on Lummi Nation Treaty Rights
Ms. Lucille T. McInerney, P.E., Department of Ecology, December 8, 2006	Lummi Nation Comments on the October 10, 2006 Draft Remedial Investigation, Feasibility Study, and Supplemental Environmental Impact Statement: Bellingham Bay Comprehensive Strategy – Whatcom Waterway Cleanup Site
Mr. Andrew Maron, Alternate SEPA Official, Port of Bellingham, May 9, 2007	Lummi Nation Comments on the April 19, 2007 New Whatcom Redevelopment Project Environmental Impact Statement Draft Scoping Document

The Lummi Nation's interests and policy regarding the Bellingham Bay clean up are expressed in a 1992 resolution adopted by the Lummi Indian Business Council (LIBC Resolution 92-126). Resolution 92-126 resolves that, "The policy of the Lummi Nation is to ensure no further loss of the resource base or of environmental quality, and to restore and enhance damaged areas within the Lummi homeland and territories." Removal of the ASB and conversion of this area to eelgrass beds and fishing areas is consistent with this policy.

Representatives from the Lummi Nation have met with the City of Bellingham and the Port of Bellingham since 2004 in an effort to negotiate an agreement that would address our interests. We understand that the Port of Bellingham and the City of Bellingham believe that their proposed actions are not financially viable if they also have to adequately mitigate for their impacts to treaty rights. We disagree with this viewpoint, and believe that their proposed land uses/redevelopment plans can be modified in a manner that our interests can also be adequately addressed. In our view, the settlement discussions are at an impasse and we must now take political and legal steps to protect our interests.

In summary, we want to maximize the removal of contaminated sediments, we want at least the 33 acres of historic habitat and fishing areas that are currently impacted by the ASB to be restored, and we are not opposed to the redevelopment of upland areas of the former Georgia-Pacific pulp mill site in a manner that protects cultural and aquatic resources. We hope that you can support our goals. Please do not hesitate to contact the Lummi Natural Resources Department Director (Merle Jefferson, 360-384-2225) if you would like copies of the letters identified in Table 1 and/or further information regarding the Lummi Nation's interests in the Bellingham Bay portion of our traditional areas.

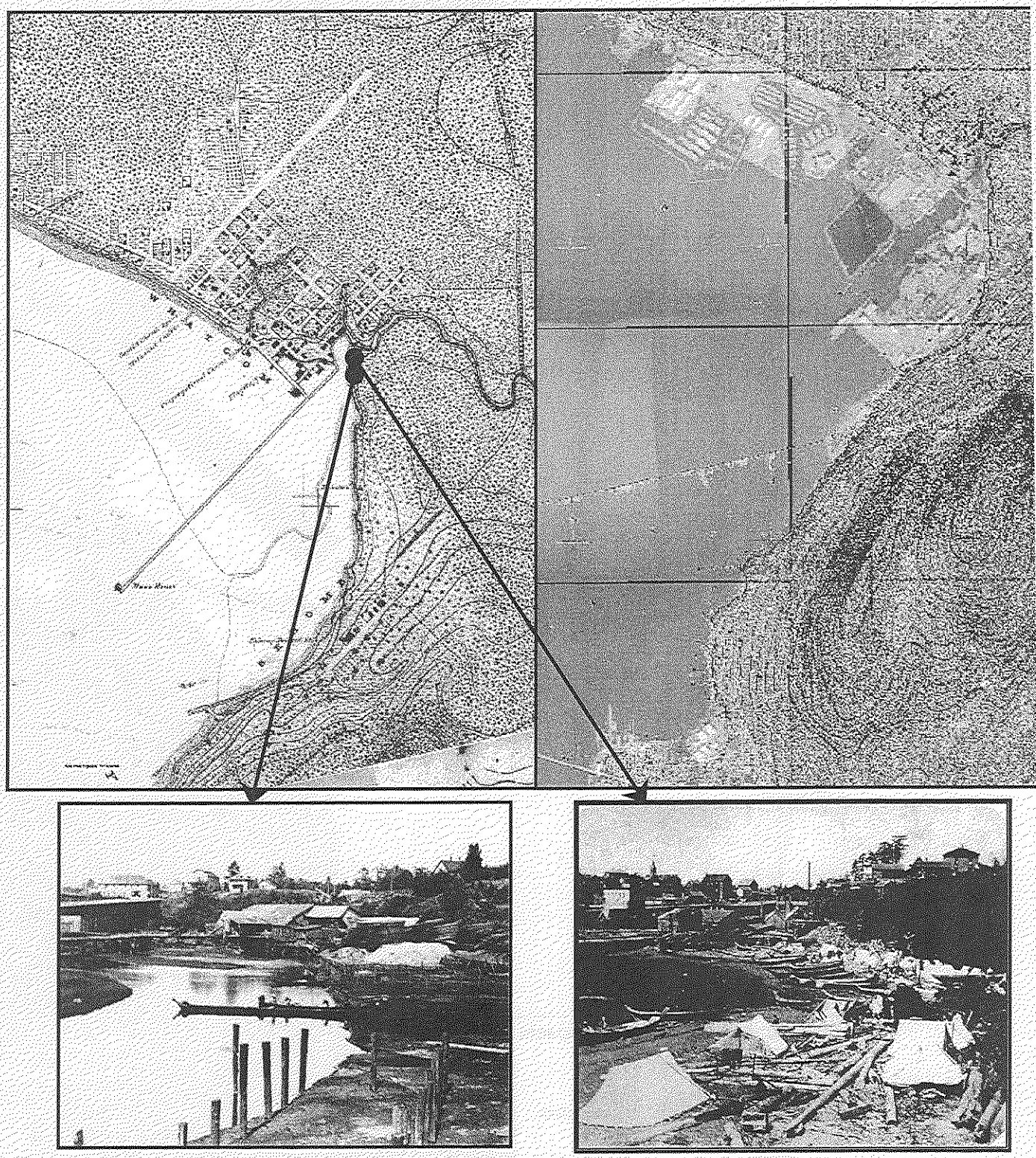

Figure 1. Bellingham Bay Nearshore Impacts

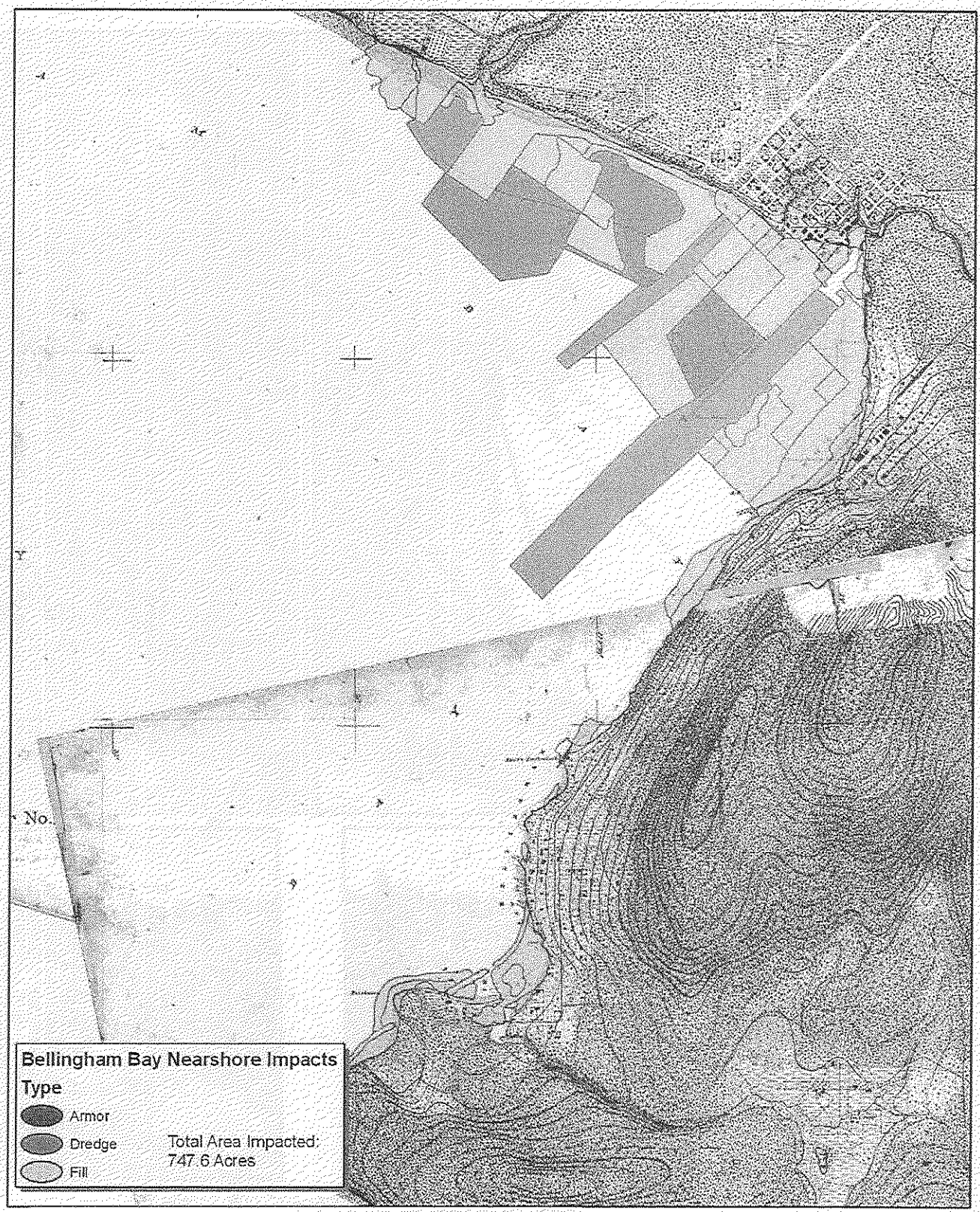

Figure 2. Bellingham Bay Nearshore Impacts

EXCERPTS FROM PUBLIC HEARING TRANSCRIPT
August 8, 2007, Bellingham Cruise Terminal

#30-A

Mike MacKay
Ok, thank you. My name is Mike MacKay. I live at 3107 Valet Street here in Bellingham. I'm speaking as a citizen of Bellingham, and I also work with the Lummi tribe. I have some background in fisheries and some knowledge, some firsthand knowledge of some of the salmon, juvenile salmon that do utilize this waterway and the log pond area.

But tonight I am speaking as a citizen. I've reviewed many of your documents although not thoroughly, and I hope to be able to provide some technical comments by the deadline date. I was also at the public hearing back in December and heard many of the comments by folks that I'm hearing again today. And I'll have to say too that I'm very disappointed in the outcome of the reports of the documents and the conclusions and the choice of the alternative that you selected. 1

I also go back quite a ways in terms of observing the process of sediment cleanup in Bellingham Bay, even before 1996, so even before there was a pilot, I attended a couple of those Ecology meetings you know. And what's remarkable is that over that span of probably 20 years, I've not really seen a significant shift in the policy and the direction Ecology has taken in terms of cleanup strategies. It's always been capping. It's been, you know, not really support of strong, scientific, biological testing.

I'll have to reiterate what George said about the amount of scientific information we have on the biological resources and the health effects of bioaccumulation. I mean we have so very, very little data it's just remarkable. In fact, one of your documents in the responsive summary indicated, if I can find it, says in referring to the crab bioaccumulation work and it refers to the data collected there. I don't know if I can find it. I think it's on this page here. Oh yes, it says sediment and tissue data used for the BSL development included paired data, and I also disagree very much with the BSL levels that you have calculated. 2 3

It says it's based on paired data with the most important data set being the Dungeness crab tissue data collected from Bellingham Bay.

Well, I'll have to say I'm at least partially responsible for perhaps up to half of that data set because of some comments we made years ago suggesting we'd go out and actually evaluate the mercury levels in the Dungeness crab, and as a result of some of those comments, Ecology responded, and their research unit actually came up, and we took them out in a boat, and we set our crab pots in Whatcom waterway, and we wet them all across the bay all the way out to Chuckanut Bay. Gathered samples, lo and behold, we found that there were levels of mercury that had this increasing concentration the closer you got to Whatcom waterway, which really surprised me. They didn't really look at the juvenile Dungeness crab as I had suggested. Instead they looked at adult legal males and people that know crab, they move all over the bay. They're very, very mobile animals,

and for there to be a trend that was evident just in those very few samples was pretty remarkable.

All that aside. I'll have to say I'm a supporter of decisions based on good science with empirical data. And we just definitely need more empirical data to do a better job of our health assessments.

Also, you know I find it also difficult to accept that the sediments that we're going to be removing are those that are in the ASB pond, which is not really exposed to the marine organisms that we eat, and it's also an area that we're proposing for removal is that outer waterway that you described, Lucy. And from a biological point of view, from a fisheries point of view, it's all about exposure risk to the animal. So what you really want to do is remove those sediments that are the hottest that are in closest proximity to the critters that are going to be bioaccumulating those contaminants, phenyls, and mercury. 4

So, I mean to me it was just obvious that the Log Pond would be the first place because it's a shallow intertidal zone where you know we can set out our sane net and catch juvenile Chinook and many other salmon species. You know, 6 months out of the year in the Log Pond, I've seen them. But instead, we're proposing removing sediments that are deeper and maybe not as associated with those marine organisms as those along the shoreline. 5

So anyway, I guess I got to wrap it up. But I'm also very disappointed of the 162 letters of comment in your responsiveness document, most were in support of alternatives that were more protective of human health and the environment. Not surprising, the key environment agency shared your preferred alternative 6, indicating that efforts were taken to present a unified policy by those 3 governments: the Port, Ecology, and the City of Bellingham.

I've concluded that in this case these governments have let us down, that they're not really representing the voice of the community. We want more protective actions, you know.

I believe, instead considering the opportunities to readjust the plan, using some of the well-founded, thoughtful, technical data that was presented by the Baykeeper and People for Puget Sound, you know that technical information was largely ignored and that's really sad. I think saddest of all is that we recognize that there's really well-meaning people in these agencies that have good backgrounds and understand what good science is and are able to make responsible decisions, and, but you know when you read that responsiveness summary, you just look at that poor staff member that had to sit down and write these responses to all these things people said. You only had to conclude, you could only conclude that the reason that effort was mounted was prepare a legal defense against what the public might say against this plan. And I just thought to myself, what a waste of human effort, you know, when that same energy can be used to come up with creative, out-of-the-box solutions to some of these cleanup problems. It's just so sad. 6

I'm going to leave you with that. Thank you very much.

From: Mike MacKay [mailto:starsailor@fidalgo.net]
Sent: Sunday, August 12, 2007 9:19 PM
To: McInerney, Lucy (ECY)
Subject: Whatcom Waterway Cleanup Plan Comments

#30-B

Lucy,

Attached please find my comments on the draft Cleanup Plan for Whatcom Waterway.

Mike MacKay

August 8, 2007

#30-C

James Pendowski, Program Manager
Lucille T. McInerney, Whatcom Waterway Site Manager
Department of Ecology
3190 160th Ave.
Bellevue, WA 98008

RE: Response to Comments on the Whatcom Waterway Draft Consent Decree
Draft Cleanup Action Plan and Remedial Investigation / Feasibility Study

Dear Mr. Pendowski and Ms. McInerney,

I have reviewed the draft Consent Decree, draft Cleanup Action Plan, and other documents stating Ecology's decision on actions to reduce sediment contamination in the Whatcom Waterway.

I do not believe these actions chosen by Ecology will be protective for human health, nor will they result in a cost effective solution towards the long-term health of the Whatcom Waterway. 7

I believe the alternatives chosen were primarily politically motivated and the science they were founded on severely biased. This may have resulted, in part, from a close relationship between Ecology and consultants representing the Port of Bellingham and the previous owner, Georgia Pacific West. 8

Your table in the Responsiveness Summary listing the preferred alternatives for those providing comments clearly shows that Ecology, Port of Bellingham, and the City of Bellingham all unified in one category, seeking less protective cleanup approaches than most of the comments representing the community at large. Its regrettable, but understandable, that citizens do not trust our governmental stewards to protect our environment or our public health.

I believe the science used to develop the bioaccumulation screening level (BSL) is flawed. It projects a cleanup level that does not lessen exposure to the extent that will prevent harm to at-risk populations. Of particular concern are those who are pregnant, children, and Tribal members who consume higher levels of seafood than those calculated in the BSL. 9 Ecology should require removal and proper land disposal of sediment exceeding the Minimum Cleanup Level (0.59 ppm) for mercury. 10 A 6.0' thick sediment cap should be placed in all other areas above the sediment quality standard of 0.41 ppm Hg. 11

I also believe that, for the purpose of reducing bioaccumulation risk in the Whatcom Waterway, you should use assume a biological active zone of 15 cm which is well within biological standards for this area. 12

The disproportionate cost analysis that Ecology used to select cleanup actions is biased towards less costly alternatives at the expense of the long-term health of our community. It does not adequately factor in risks to human health and the unacceptable costs that come with someone being exposed to toxins from Whatcom Waterway. One reason for this failure is that no adequate exposure model has been developed to evaluate human exposure pathways. Had Ecology conducted or required more robust biological testing of marine food organisms within the waterway, there would be today a much better understanding of exposure pathways. I strongly suggest that additional testing be conducted, especially with sub-legal Dungenese Crab, to evaluate the body burden in these crab prior to entering the human food chain.

13

14

Ecology's response to the many thoughtful, science-based written comments submitted by individuals and well-informed groups like People for Puget Sound, RE-SOURCES, and the Lummi Nation, appears to serve only your own legal defense strategy. Specific technical recommendations were largely ignored, using a one-size-fits-all response which is demeaning and reflects poorly on the leadership within your organization. I would like you to revisit those technical recommendations and provide either the specific information requested or an objective science-based evaluation of technical material provided.

15

I can imagine that some of your staff believe that public acceptance of any cleanup plan cannot be achieved. While I do not think this is the case, unless Ecology does better at gaining the public trust, it is unlikely that support for your cleanup plan will be found. I urge you to make significant changes to these documents, considering some of the technical recommendations provided during this public process.

16

As always, I appreciate the efforts of your staff, often not acknowledged, for actions that protect our health and the health of the 'unseen' marine resources in the Whatcom Waterway.

Sincerely,

Mike MacKay

From: Matthew [mailto:donmatthew@yahoo.com]
Sent: Thursday, July 12, 2007 10:19 PM
To: McInerney, Lucy (ECY)
Subject: mercury is toxic

#31-A

Please protect us and enforce the removal of the mercury from Bellingham Bay... And by the way, why is GP not involved in cleaning up. Or at least a fine or some front page press releases. 1 2

Concerned about the environment in Bellingham

#32-A

From: Ted Mischaikov [mailto:ted@m-kov.com]
Sent: Wednesday, August 01, 2007 6:00 PM
To: McInerney, Lucy (ECY)
Subject: RE: Public Comment Encouraged on Ecology's Whatcom Waterway Cleanup Plan

Ms. McInerny, 1
Please accept as public testimony my support for the Draft Cleanup Action Plan outlined below by your department. I think it is the right decision and should be implemented without delay.
Regards, 2
Ted Mischaikov

Ted Mischaikov
909 Harris Avenue
Suite 201F
Bellingham WA 98225

Voice: 360.734.7755
Fax: 360.734.7766

Draft Consent Decree Public Comment Period:

7/12/07 – 8/13/07

Questions, written comments, or to be added to the site mailing list:

Lucille T. McInerney, P.E.
Site Manager
Department of Ecology
3190 160th Avenue
Bellevue, WA 98008-5452
Phone: (425) 649-7272
E-mail: lpeb461@ecy.wa.gov

Ecology's Proposed Cleanup Action

Ecology's proposed cleanup action for this Site is described in detail in Section 6 of the DCAP. The proposed cleanup is depicted in Figure 1 and includes the following:

- **Outer Waterway:** Buried contaminated sediments in the Outer Whatcom Waterway next to the Bellingham Shipping Terminal will be removed by dredging. These sediments will be removed because they are likely to be disturbed by future deep-draft uses of this area. Contaminated dredged materials will be disposed of at a permitted upland facility.
- **Inner Waterway:** Buried contaminated sediments in the Inner Whatcom Waterway will be partially removed by dredging. The dredging will remove those sediments that may be disturbed by planned multi-purpose use of this Site area. Removed sediments will be disposed of at a permitted upland facility. Remaining contaminated sediments (principally those that are buried deepest within the waterway) will be contained in-place (capping). The sides of the waterway will be capped, with waterway sideslopes engineered to enhance slope stability and preserve nearshore aquatic habitat. An area of nearshore habitat located at the head of the waterway will be preserved.
- **Other Cap Areas:** Capping of contaminated surface sediments will be performed in two locations outside of the Inner Waterway. These include the "Aerated Stabilization Basin (ASB) Shoulder" and the "Barge Dock" Site areas shown in Figure 1.
- **Log Pond:** As part of the final cleanup action, contingency actions will be performed to contain contaminated surface sediments and to prevent cap erosion in the previously remediated Log Pond area of the Site.
- **ASB:** Contaminated sludges and sediments will be removed from the ASB and disposed of in a permitted upland facility. These materials will be removed because they would be disturbed by planned aquatic use of this area of the Site. Following the removal action, the ASB will be opened to connect the interior of the ASB to the waters of Bellingham Bay. Clean sand and stone materials from reshaping the ASB berm will be reused as part of other Site cleanup activities.
- **Remaining Site Areas:** Other areas of the Site include clean surface sediments that have deposited naturally over other more deeply-buried contaminated sediments. These areas are to be monitored to ensure that these sediments continue to comply with Site cleanup levels. This combination of natural sediment capping and monitoring is known as "monitored natural recovery".
- **Institutional Controls, Monitoring and Contingencies:** The cleanup action includes institutional controls, monitoring and contingencies. These actions are described in Section 6 of the DCAP. Institutional controls are use controls that will be implemented in areas where contaminated sediments have been capped. Monitoring and contingencies apply to all Site areas and will be further developed as part of remedy design and permitting. Section 6 of the DCAP describes the framework for monitoring and contingencies to be applied at the Site. Long-term monitoring is anticipated to continue for 30 years following completion of the cleanup action.

From: Llyn Doremus [mailto:ldoremus@nooksack-tribe.org]
Sent: Monday, August 13, 2007 2:52 PM
To: McInerney, Lucy (ECY)
Subject: Consent Decree comments

#33-A

Dear Lucy-
Attached are the Nooksack Tribe's comments to the Draft Consent Decree for the Whatcom Waterway Cleanup. Please note that the 3 attachments represent a three page letter, with individual files for each page of the letter. We will send the original signed letter via post office mail. The comments are sent via email to ensure that they arrive by the August 13 deadline.

Regards,

Llyn Doremus
Hydrologist
Dept of Natural Resources
Nooksack Indian Tribe
PO Box 157
Deming, WA 98244
(360) 592-5176 X 3291
(360) 592-5753 FAX

NOOKSACK INDIAN TRIBE

5016 Deming Road • P.O. Box 157 • Deming, WA 98244
Administration: (360) 592-5176 • Fax: (360) 592-2125

August 13, 2007

#33-B

Lucille McInerney
Site Manager
Department of Ecology
3190-160th Avenue
Bellevue, WA 98008-5452

Dear Lucielle McInerney,

SUBJECT: DRAFT CONSENT DECREE FOR WHATCOM WATERWAY SITE CLEANUP

This letter expresses the Nooksack Tribe's concerns regarding the Draft Consent Decree and the associated Cleanup Action Plan proposed for the Whatcom Waterway, Aerated Stabilization Basin and the Log Pond. The Cleanup, as it is currently described in the Cleanup Action Plan, presents risks to the health of Nooksack Tribal members (and to local residents) who consume fish and shellfish harvested from the Whatcom Waterway and its environs. 1

The Nooksack Tribe's rights to harvest fish and shellfish in the Whatcom Waterway vicinity, and the surrounding shore lands are recognized by the United States government in the Point Elliot Treaty. , Before the construction and operation of the various pulping operations, industrial production, and shipping maintenance and commercial activities, the Whatcom Creek estuary was an important gathering site for the Nooksack people. Those rights have been abridged for almost 100 years with the operation of pulp mills and the associated discharges to the Bellingham waterfront. Access to those traditional use areas was limited by the physical operations of industrial facilities and the quality of the waters receiving discharges was degraded. As a consequence of the pulp mill and other industrial facilities discharge, and the associated uptake of the constituents in that discharge by fish and shellfish living in those waters, consumption of fish and shellfish harvested from there was significantly reduced. With the anticipated cleanup of the Georgia Pacific pulp mill contaminants and the discharge byproducts from industrial activities at nearby properties, the Nooksack Tribe expects that harvest of their treaty protected fish and shellfish resources will resume. The cleanup of the Whatcom Waterway should be structured to facilitate Tribal harvest and the consumption of fish and shellfish without risks to health. . 2 3

We understand that the threshold concentration above which sediment cleanup will be required in the Whatcom Waterway was calculated using a method that incorporated human consumption of fish and shellfish harvested from the water front area. And, that a factor for health risk was calculated for average consumption rates and average toxics concentration in fish and shellfish harvested from environments contaminated with similar concentrations and constituents to those measured at this site. This factor was used as the

basis for determining the acceptable contaminant concentrations in remaining sediment. That risk factor was calculated using an average consumption rate of contaminated fish that we believe is not representative of Nooksack Fish and shellfish consumption rates. EPA developed an average consumption rate of 97 g/day for the general population for use in the calculations for cleanup of the Lower Duwamish Waterway. 4

While the average daily consumption of fish and shellfish used in these calculations of 70 grams per day may be characteristic of general non-native populations, it is not representative of consumption rates of the Nooksack Tribal members. The rates of consumption of fish and shellfish for Tribal members are higher than the rates for non-natives that were used into determine the "average consumption rates" used in the calculation. Subsistence fish and shellfish harvest are a major component of the Tribal diet. A number of studies on tribal consumption rates for shellfish and shellfish have been conducted recently, including the most recent study of Swinomish Tribal members for whom an average daily consumption rate of 260 grams was derived[1]. The Boldt decision identifies an annual consumption rate of 500 lbs/year or 620 grams per day for Tribal members. This exceeds the consumption rates used in the risk calculations for this proposed cleanup by eight times. A higher consumption rate must be used to accurately assess the health risks to Nooksack Tribal members if they are to safely resume harvesting and consuming shellfish and fish from the Whatcom Waterway vicinity.

In addition, we have concerns about a cleanup that leaves high concentrations of contaminants in sediments below the seafloor. In a dynamic estuary and shoreline area, sediment reworking by a variety of geomorphic, geologic and biologic processes will likely expose higher contamination concentration sediments to surface. Once exposed the sediments present the opportunity for biologic consumption, uptake and accumulation by organisms inhabiting the sediment/water interface. The concentrations of contaminants in sediment, in particular the mercury and phenols that are known to be present in the Whatcom Waterway, proposed for capping in stockpiling in place, should not be left in the Whatcom Waterway. 5 6

Prior to the initiation of industrial activities in the Bellingham Waterfront, the shoreline and near shore areas provided productive habitat for salmonid species (that are currently listed as threatened or endangered under the Endangered Species Act) and shellfish. The restoration of the historical productivity in the Whatcom Waterway vicinity should be incorporated as one of the cleanup objectives. While the cleanup plan recognizes the presence of some of the native fish and shellfish species found in the Whatcom Creek estuary, neither the habitat nor food requirements of those species were considered in the criteria used to guide and prioritize the selection of the preferred cleanup option. 7

Together these considerations suggest that the toxic concentrations in sediment remaining in the Whatcom Waterway pose a risk to the health of Nooksack tribal members. The cleanup proposed in the Draft Consent decree is not protective of tribal health, nor the treaty rights to fish and shellfish in the Whatcom Waterway vicinity. Adequate protection of 8

[1] Bioaccumulative Toxics in Subsistence-Harvested Shellfish – Contaminant Results and Risk Assessment, prepared by the Swinomish Tribe, Office of Planning and Community Development, December 2006.

Nooksack tribal rights and the health of tribal members will entail removal of all sediment contaminated with discharge from the pulp mill and other industrial discharges. 9

We appreciate your recognition of the importance of shellfish and fish to the health and well being of the Nooksack Tribe and its members. We anticipate working with Ecology and the Port of Bellingham to develop a cleanup plan that is protective of the treaty protected rights of the Nooksack Tribe for the harvest and consumption of the fish and shellfish from the Whatcom Creek estuary.

Sincerely,

Narcisco Cuman
Chairman
Nooksack Indian Tribe

#34-A

From: Ilwu07@aol.com [mailto:Ilwu07@aol.com]
Sent: Friday, August 10, 2007 7:35 AM
To: McInerney, Lucy (ECY)
Subject: (no subject)

Yes I am in favor of the draft consent decree. Michael A Owens ILWU # 7 1

EXCERPTS FROM PUBLIC HEARING TRANSCRIPT #35-A
August 8, 2007, Bellingham Cruise Terminal

Tom Winter
I'm Thomas C. Winter Jr. I'm speaking on behalf of People for Puget Sound. We're a non-profit, environmental organization whose mission is to protect and restore Puget Sound and the NW Straits.

Included is a specific goal to protect and restore the 2,000 miles of Puget Sound's shoreline by 2015.

Our objective for the Whatcom Waterway site is to remove the maximum possible amount of existing mercury safely and expeditiously. To minimize the methylation of any remaining residual and to protect the sound from future contaminants. We offer the following four comments for your consideration: 1

People for Puget Sound supports the removal of the greatest amount of contaminated sediment by dredging, at a level between alternatives 7 and 8 in the DCAP. We want to see dredging everywhere it makes sense. We're not sure that a complete analysis has been completed in all locations. 2

It is more expensive to dredge, but this cost difference is small when evaluated in the context of the long-term improvement to Puget Sound and the resulting benefits to future generations.

Second, despite the responsiveness summaries comment that methylation and deeper sediments is contained by geochemical properties, considerable uncertainty exists. 3

Capping the mercury laden sediment in place raises a concern that methyl mercury compounds will evolve and remain in these sediments for years. As illustrated by the experiences in LaVaca Bay, Texas, still there after 30 years. And San Pablo Bay, California, there over a century.

Third, the effects of rising sea levels are a major uncertainty. The shore elevation of the proposed developments is around 14 to 22 feet. The 100-year flood elevation is 12 to 13 feet. Estimates of sea-level rise by 2100 range from less than a foot to several meters, so the safety margin is small. 4

Fourth, the reported increased seismic risk in Whatcom County to include the recent discovery of active faults is unsettling. As illustrated by the June 1 memorandum by the Western Washington University Geology faculty. The one that is going to be placed into the record. 5

A major seismic event could dump considerable residue into the Sound. Overall, unacceptable uncertainty remains concerning this project. Hence People for Puget Sound recommends the following:

First, the removal of the mercury contaminated sediment to the maximum extent possible, while providing the utmost in habitat restoration and open space along the waterfront.

Second, the minimization along the waterfront of structures and other sources that could result in debris being dumped in the Sound in case of a major seismic event.

Thank you.

Moderator
Next we have George Dyson, followed by Mark Buehrer

#35-B

From: Heather Trim [mailto:htrim@pugetsound.org]
Sent: Monday, August 13, 2007 10:00 PM
To: McInerney, Lucy (ECY)
Cc: t2winterjr@yahoo.com
Subject: People For Puget Sound Comments Whatcom Waterway

Hi Lucy,

Attached is our comment letter on Whatcom Waterway.

Thanks so much,
Heather

Heather Trim
People For Puget Sound
911 Western Ave., Suite 580
Seattle, WA 98119
(206) 382-7007 X215
htrim@pugetsound.org
www.pugetsound.org

PEOPLE FOR PUGET SOUND
pugetsound.org

August 13, 2007

#35-C

Lucille T. McInerney, P.E.
Site Manager
Department of Ecology
3190 160th Avenue
Bellevue, WA 98008-5452
Via Email: lpeb461@ecy.wa.gov

RE: Whatcom Waterway Site Bellingham: Draft Consent Decree and Cleanup Action Plan

Dear Ms. McInerney,

Thank you for the opportunity to comment on the *draft Consent Decree and Cleanup Action Plan*: *Whatcom Waterway Site Bellingham* (public notice dated July 12, 2007).

People For Puget Sound is a nonprofit, citizens' organization whose mission is to protect and restore the health of Puget Sound and the Northwest Straits.

We view the Whatcom Waterway Site Cleanup project from the perspective of restoring the Sound's long-term characteristics. We believe that the Port of Bellingham as the main responsible party should remove the maximum possible amount of the existing mercury safely and expeditiously in order to minimize the methylation of any remaining residual and to protect the Sound from future contaminant releases from the site. 7

We are disappointed that the draft Action Plan does not improve the cleanup proposal beyond the draft Remedial Investigation/Feasibility Study (RI/FS). A large number of questions were raised during public comment on the RI/FS and yet these comments have not been wholly addressed and the cleanup plan is essentially unaltered. Some of these questions were issues of data gaps, thoroughness of the uncertainty analyses and issues about areas where mercury concentrations are continuing to rise, 8

We support the comments that you recently received from Wendy Steffensen of North Sound Baykeeper/RE Sources and we offer the following additional comments:

1. **Dredging.** People For Puget Sound supports the removal of the greatest possible amount of contaminated sediment by dredging - at a level between alternatives 7 and 8 in the draft Action Plan. We want to see dredging everywhere it makes sense and we are not sure that a complete analysis has been completed of all locations, including a full assessment of capping and dredging based on sediment toxicity in all locations. Areas prone to erosion should not be capped. 9

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It is more expensive to dredge, but this cost difference is small when evaluated in the context of the long-term improvement to Puget Sound and the resulting benefits to future generations.

2. **Capping.** Despite the statement in the draft document that methylation in deeper sediments is constrained by geochemical properties (pp. 16-17, RS), considerable uncertainty exists. Capping (without prior dredging) the mercury-laden sediment raises the concern that methylmercury compounds will evolve and remain in these sediments for years. As is well known, methylmercury can bioaccumulate in many edible saltwater fish and marine mammals to levels that are "many thousands of times greater than levels in the surrounding water" (e.g., UNEP Global Mercury Assessment report, Chap. 2; reproduced in Jul 7, 2006 GreenFacts). For example, concentrations in benthic food web organisms have been reported to remain elevated after 30+ years (David R. Sager, "Long-Term Variation in Mercury Concentrations in Estuarine Organisms with Changes in Releases into Lavaca Bay, TX," Marine Pollution Bulletin 44 (2002); source also from a chloralkalai facility). 10 11

   In addition, we oppose leaving mercury in place because of the risk of future breaches of the sediment area releasing contamination into the Sound. Where capping alone is allowed, and we believe this should be in a more limited geographic scope than is proposed in the draft Action Plan, the cap should be more protective (i.e., minimum of 6-feet thick). 12

3. **Mercury mass.** We would like to see a table that lists the amount of mercury (in pounds) that would be removed under each alternative and the amount, therefore, that would be left behind in each geographic area of the project 13

4. **Starr Rock.** Why is Starr Rock subsurface data not available to the public as part of this process? These data should have been included in this report, in response to previous comments. 14

5. **Seafood consumption.** We understand that the seafood consumption numbers are based on a "market basket" approach. We do not feel, however, that cumulative impacts of eating seafood from this area has been adequately explained and justified. Seafood consumption values should be treated with the most conservative approach. 15

6. **Climate Change.** The effects of rising sea level add a level of major uncertainty to this project. Sea level rise as well as other unknown effects due to Climate Change could result in considerable debris being dumped into the Sound. The Whatcom Waterway shore elevation at the location the Port is planning to build new structures is ~14 – 22 ft above Mean Lower Low Water (MLLW) level. The 100-year flood elevation is 12-13 ft. The highest high tide recorded to date (January 5, 1975) is 10.4 ft. The elevation safety margin, therefore, against rising sea levels is only a few feet. Estimates of the rise in sea level by 2100 range up to several meters (Jonathan T. Overpeck et al, "Paleoclimatic Evidence for Future Ice-Sheet Instability and Rapid Sea-Level Rise," Science, Vol. 311, 24 March 2006). More information is currently being developed including the forecast of new projections, but the reality is that we do not know yet all of the adverse impacts of Global Climate Change. 16

7. **Tsunamis.** Tsunamis can be characterized by surging whereby the water temporarily vacates seaward areas adjacent to shores. In addition to the rising waters sweeping shoreline facilities and other residue into the bay, these surges can "scour" the bottom, uncovering capped sediment contaminants. Statements in the draft document (pp. 32-33, RS) cite NOAA studies that indicate the site area is not identified as a high risk area for tsunami inundation. However, the risk does exist. We feel a conservative approach should be taken – the amount of mercury-laden sediment 17

and the number of structures and other debris that could be swept into the Sound should be minimized.

8. **Earthquakes.** The reported increased seismic risk in Whatcom County, to include the recent discovery of active faults, is unsettling (Western Washington University Geology Department faculty memo to Chairman, WWU Board of Trustees, re: Oversight for Assessment of Geological Hazards of the GP Waterfront Site, June 1, 2007). A major seismic event could dump considerable residue into the Sound. We feel the sources for this debris should be minimized, until a better estimate exists for the extent of this seismic risk. 18

9. **Open Space and Habitat.** Finally, we would like to see the maximum amount of habitat and open space included along the waterfront. This cleanup and the associated development plans are an once-in-a-lifetime opportunity to create a water's edge project that could significantly improve the health of the nearshore in Bellingham. 19

At this site, as we have noted at other cleanup sites in Puget Sound, we see that cleanup related decisions are being strongly driven by goals such as location of navigation and development desires. Given the governor's initiative - the Puget Sound Partnership - with the goal of restoring the health of Puget Sound by 2020, we would like to see a more proactive approach taken to cleanup in terms of long-term aquatic health. In the case of Bellingham Bay there is especially strong public support for a more comprehensive cleanup and we don't see the public agencies responding to this interest. There are multiple ways to fund the cleanup and all of these avenues do not appear to have been explored. 20 21

Thank you for your consideration. If you have any questions, please contact me at (206) 382-7007 or at htrim@pugetsound.org or Tom Winter at twinter@pugetsound.org.

Sincerely,

Heather Trim
Urban Bays Coordinator

PORT OF BELLINGHAM
Washington State

#36-A

August 8, 2007

Lucille McInerney
Site Manager
Washington Department of Ecology
3190 160th Avenue
Bellevue, WA 98008-5452

Re: Whatcom Waterway Site

Dear Ms. McInerney:

Congratulations on reaching this important milestone for the Whatcom Waterway site. Ecology's cleanup plan integrates over 10 years of scientific research in the Whatcom Waterway and offers a permanent and practical solution to the legacy of industrial contamination on Bellingham's waterfront. The Board of Commissioners for the Port of Bellingham strongly supports Ecology's proposed cleanup approach, referenced as Alternative 6 in Ecology's documents and Port Resolution #1241 (enclosed). 1

The cleanup of the Whatcom Waterway site is consistent with the local community's vision for a healthy, revitalized waterfront. Over the past several months the Port has been engaged in a series of public outreach events involving hundreds of people from Bellingham and Whatcom County. The response has been overwhelmingly supportive of Ecology's proposal.

Your agency's decision will be significant beyond Bellingham. The proposed plan for Whatcom Waterway includes the cleanup of over 200 acres of contaminated marine sediment and the restoration of almost three miles of nearshore salmon habitat. These types of actions are specifically prioritized in the Governor's 2020 Action Agenda for Puget Sound. The implementation of Ecology's plan will therefore set the stage for a very high-profile demonstration that the Governor's ambitious goal of a healthy Puget Sound is within our grasp. 2

On behalf of the Board of Commissioners, representing the 185,000 citizens of Whatcom County, we look forward to your continuing leadership in our partnership to clean up and restore Bellingham Bay. We stand at the ready to make your proposal a reality. 3

Sincerely,

For James S. Darling
Executive Director

Enclosure

1801 Roeder Avenue / P.O. Box 1677 / Bellingham, WA 98227-1677
(360) 676-2500 / FAX (360) 671-6411 / www.portofbellingham.com

#36-B

RESOLUTION NO. 1241

A RESOLUTION OF THE COMMISSION OF THE PORT OF BELLINGHAM, RECOMMENDING PREFERRED ALTERNATIVE NO. 6, AS DESCRIBED IN THE OCTOBER 10, 2006 DRAFT SUPPLEMENTAL REMEDIAL INVESTIGATION AND FEASIBILITY STUDY FOR THE WHATCOM WATERWAY SITE, TO THE WASHINGTON STATE DEPARTMENT OF ECOLOGY.

4

WHEREAS, the Port of Bellingham ("Port") and the Washington State Department of Ecology ("Ecology") have been working together since 1996 as co-managers of the Bellingham Bay Demonstration Pilot; and

WHEREAS, following closure of the local Georgia-Pacific pulp mill operations in 2001, the Port and the City of Bellingham have been working together to revitalize the waterfront by supporting a new mix of uses including light industry, business, academic, residential, moorage, public access, and habitat restoration; and

WHEREAS, in January 2005, following an extensive public involvement process, the Port acquired 137 acres of waterfront property from Georgia-Pacific, including significant areas of the Whatcom Waterway site such as shorelines, the Log Pond and the Aerated Stabilization Basin, in order to implement the community's vision for revitalizing the waterfront; and

WHEREAS, through interlocal agreement, the Port and City of Bellingham have determined that the most appropriate re-use of the Aerated Stabilization Basin is for a "Clean Ocean Marina", including public access, marine habitat and expanded moorage capacity; and

WHEREAS, in November 2005 the Port and the Washington Department of Natural Resources agreed in a Memorandum of Understanding that the current Whatcom Waterway federal channel, state waterway and harbor area designations should be updated to better reflect the current changes in the local economy, land uses, land use plans and navigation needs for the community waterfront; and

WHEREAS, the Port, as local sponsor for the Whatcom Waterway federal channel, has recommended that the channel be maintained adjacent to the Bellingham Shipping Terminal to support deep draft operations, but converted to a locally managed multi-purpose waterway in the inner portion of the channel; and

WHEREAS, the Port and Georgia-Pacific have entered into an Agreed Order with Ecology to update the Remedial Investigation/Feasibility Study ("RI/FS") and Environmental Impact Statement ("EIS") for the Whatcom Waterway site in order to reflect the results of recent sampling investigations, improving environmental conditions, changes in property ownership and the development of new waterfront land use plans; and

WHEREAS, the updated RI/FS and EIS for the Whatcom Waterway site have been issued for public comment by Ecology with Alternative 6 identified as one of the

"preferred" alternatives, because it ranks highest under the applicable regulatory criteria, and would provide a safe and effective cleanup, consistent with the current land use planning by the Port and City of Bellingham to revitalize the waterfront, according to the community's vision; and

WHEREAS, the estimated cost of Alternative 6 is $44 million, for which the Port has a viable funding plan, supported through multi-million dollar state grants which have been identified as a priority by both the Department of Ecology and the Governor of the State of Washington.

NOW, THEREFORE, BE IT RESOLVED by the Board of Commissioners of the Port of Bellingham, Washington, that Alternative 6 is recommended for selection by the Department of Ecology as the cleanup action plan for the Whatcom Waterway site under the Model Toxics Control Act.

ADOPTED in open session at a meeting of the Commission of the Port of Bellingham on the 5th day of December 2006, and duly authenticated by the signatures of the Commission and the seal of the Commission affixed hereto.

PORT OF BELLINGHAM COMMISSION

Jim Jorgensen, President

Scott L. Walker, Vice President

Douglas G. Smith, Secretary

From: David Post [mailto:musicpostjams@yahoo.com]
Sent: Thursday, July 12, 2007 5:03 PM
To: McInerney, Lucy (ECY)
Subject: bellingham--whatcom waterway cleanup

#37-A

Dear People,
As a citizen of Bellingham, WA, and someone who plans to raise a family here, I implore you to do everything possible to remove the mercury and cap this site properly. There is no decline in the toxicity of mercury. With targeted, high-tech dredging techniques, the reward of removing this mercury will outweigh any risks involved over the long term. Please, please do not just do the least expensive thing. We cannot afford to do a less than extraordinary job of cleaning this site and making it safe for our/your children for generations to come. Thank you,

1

David Post
301 S. Garden St.
Bellingham, WA 98225
360-306-1543

David Post, Artistic Director
Bellingham Arts Academy for Youth
www.baay.org
Bellingham Preschool of the Arts
www.artspreschool.com
david@baay.org
360-306-1543

Be the change you want to see in the world...

EXCERPTS FROM PUBLIC HEARING TRANSCRIPT #38-A
August 8, 2007, Bellingham Cruise Terminal

Wendy Steffensen
Hello my name is Wendy Steffensen. I'm the North Sound Baykeeper with RE Sources. RE Sources is a local non-profit environmental group here in town. We have well over 500 members most in Whatcom County and many in Bellingham.

So I submit these comments on their behalf. The North Sound Baykeeper has been involved in this process for a long time. Before I became the North Sound Baykeeper about 4 years ago, we were involved since '96. We've been involved since then, attending meetings, doing research on this process, submitting comments. This last round of RI/FS documents, we actually convened a public participation panel and spent many, many hours going through those documents and really digging in and researching the issues. We submitted extensive comments. And I appreciate some of the changes that Ecology made, but we were all very disappointed in the actual responsiveness summary. We didn't feel that Ecology answered our questions and maybe part of that is because Ecology decided to lump all of the questions into categories and answer them as kind of a pooled way. 1

We asked some specific technical questions and did not get specific technical answers back. So we're disappointed. One of the things that I would like to mention as part of that. We talked about the level of mercury in seafood, and while Pete is right, the level of mercury in seafood right now is above the regional norm and that may be OK for you and I who are occasional consumers. But the question we still have is whether it is OK for subsistence and tribal fishers. 2

We did extensive calculations and we asked very specific questions that called the calculation of the BSL, the bioaccumulation screening level, into question, and we did not receive answers back. So for me, the question on the table is still: is the seafood in Bellingham Bay safe enough to eat for people who eat it at high levels? And I think that is an important consideration that we need to address before we move on. 3

In addition, we also ask that there be a thorough evaluation of capping and dredging at different sites. We realize, you know, the best thing would be to not have done this in the place and then let's dredge it, let's remove it all and contain it all and not have any problems. 4

We realize that dredging everywhere isn't going to be a safe solution. So what we asked for was actual analysis of kind of the pros and cons associated with capping and dredging at each site unit, and we weren't given that. But what we were given in the RI/FS was kind of a glowing report of how capping works and dredging doesn't, very short treatment of dredging, much more extensive treatment of capping. It was not balanced, and I realize that this was written by the Port consultant and there's a method—there's a specific cleanup option that would make sense for the Port—but we're relying on Ecology to make sure that these things get equal weight and are evaluated fairly, and we

don't believe that happened RI/FS and we're hoping and it didn't happen in this cleanup action plan either. So I don't, I'm really asking that you all go back and do a better job of being fair in these documents.

I noticed that in the cost-benefit analysis, you actually assigned weighting factors to protectiveness and permanence, and that made a lot of sense. What of course was interesting to me that we still came up with the same answer. And maybe that's exactly what it is, but what we did, Ecology assigned the values to each of those factors, and if my colleagues and I sat around the table, we would probably come up with different answers. So I'm wondering if there shouldn't be a neutral third party to look at that because I believe Ecology has already basically bought into the decision of alternative 6 and so I think that needs to be re-evaluated. 5 6

In addition, cost, protectiveness, implementability, and all of these seven factors, they're all weighed against cost, like cost is a major factor. And I'm curious and this may be kind of a MCTA sticking point, but I'm curious why cost isn't one factor and not like the be all and end all that everything gets weighted against. 7

So in closing, I'll just say what we'd like is a 6-foot cap everywhere, dredging in all erosional areas. Right now you're capping some erosional areas and that's a concern. And a re-evaluation of the bioaccumulation screening level, contamination mechanism at the Log Pond cap, and seisimicity. And I'll be turning in further comments. Thank you. 8 9 10 11

#38-B

From: NorthSound Baykeeper [mailto:northsound.baykeeper@gmail.com]
Sent: Thursday, August 09, 2007 3:14 PM
To: McInerney, Lucy (ECY); Pendowski, Jim (ECY)
Subject: comments on the WW DCAP

Please accept these comments as part of the recors on the Whatcom Waterway Draft Cleanup Action Plan. They are both attached and pasted in.

Wendy Steffensen
North Sound Baykeeper
RE Sources

North Sound Baykeeper

RE Sources

2309 Meridian Street

Bellingham, WA 98225

August 9, 2007

These comments are submitted on behalf of RE Sources' North Sound Baykeeper, Wendy Steffensen, and her Public Participation Panel, which includes, but is not limited to the following members:

Dr. Clint Duncan, Emeritus Chemistry Professor

Elizabeth Kilanowski, Citizen

Dr. Charlie Maliszewski, Microbiologist, retired

Stan Parker, Sierra Club; Vice Chair

Dr. Tom Pratum, North Cascades Audubon, Chemist

Bert Rubash, Citizen

Wendy Steffensen, North Sound Baykeeper, Toxicologist/ Water quality scientist

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1) We find that the response to comments issued July 12, 2007 on the Whatcom Waterway RI/FS were wholly inadequate and did not actually respond to the comments and questions posited by citizens of Washington State. This comment is relevant to the draft cleanup action plan because we believe that a re-evaluation of the response to comments for the Remedial Investigation and Feasibility Study may result in different cleanup decisions, than have previously been made. As citizens and taxpayers, we urgently request that the Department of Ecology re-evaluate their answers to these questions and their final decision in order to correctly perform their duties. 12

A few examples of the comments and questions that we believe have been inadequately answered are herein listed:

- Ecology did not respond to the assertion that capping in the log pond was designated an interim solution and was not evaluated as a final solution in this RI/FS. This final evaluation is important as interim actions do not embrace the full spectrum of public participation opportunities. 13
- Ecology did not address specific samples where mercury concentrations were actually increasing, and not decreasing as postulated by Ecology's assertion that the Whatcom Waterway is a depositional area. If, in fact, there are erosional areas in the Waterway, capping as a remediation method has severe limitations. 14
- Ecology did not adequately address alternative likely hypotheses for mercury re-contamination at the log pond. 15
- Ecology did not answer specific questions regarding the Biologic Screening Level (BSL); these included the exact source of the data used for the BSL regression, the reason for averaging individual samples, and the poor predictability of the regression. 16
- Ecology did not consider the entire amount of mercury ingested by seafood eaten by tribal and subsistence eaters, nor did they give the reason why the entire amount was not considered. 17
- Ecology did not provide subsurface levels of mercury at Starr Rock, although it was requested. Subsurface data were given for all other site units. Starr Rock is a former dump site for dredgings of the Inner Whatcom Waterway and as such it is very contaminated and disturbance of this site could be very dangerous. 18
- Ecology did not address nor remedy the fact that equal description to the pros and cons of capping and dredging were not given in the RI/FS. 19
- Ecology decided not to recommend a standard 6 foot cap for contamination, although it was publicly recommended by an Ecology sediment specialist. 20
- Ecology mischaracterized the effects of tsunamis as similar to sea level rise. In fact, a tsunami will both raise and lower sea level and in the lowering of sea level can create a great amount of scour and disturbance of the sea floor. 21

2) In regard to section 5, "Basis for Selection of the Proposed Cleanup Action," we find that some improvements have been made to the weighting of the matrix, but we disagree with the overall conclusions. Firstly, we acknowledge that the weighting system is qualitative, and therefore subjective. We appreciate that higher weights have been given to protectiveness, permanence and long-term effectiveness. We find it unusual, however, that there is no relative weight given to cost. We also do not agree with separating the public's concern for protectiveness, permanence and long-term effectiveness out of the overall consideration for public approval. 22 23

We believe that the values applied to each criterion for each cleanup alternative, as shown in Table 5-2, "Summary of MTCA Alternatives Evaluation and Ranking"are skewed. Permanence and Protectiveness (i.e. a combined 50% of all factored criteria) have identical values of 5, 6, 7, and 8 for alternatives 5, 6, 7, and 8, respectively. Long-Term Effectiveness has values of 7, 8, 9, and 9 for alternatives, 5, 6, 7, and 8. On the other hand, the gradation of values assigned to short term risk, implementability, and public concerns have wider gaps between the scores, and do not appear commensurate with the proposed plans. Short term risk is given a score of 8, 7, 6 and 4; implementability is given a score of 8, 8, 4 and 3; and public concerns are given scores of 7, 8, 5, and 4, for alternatives 5, 6, 7, and 8, respectively. Because it is difficult for anyone with a vested interest to assign scores to these proposed plans, we propose that an independent panel review these rankings in this and all future clean ups. We believe that Ecology's analysis is overly subjective in favor of Alternatives 5 and 6. 24

Moreover, all 4 alternatives include the ASB cleanup. Since 75 –80% of the work in alternatives 5 and 6 is attributable to the ASB, one must conclude that Ecology considers the ASB cleanup to be of paramount importance to the Bellingham Bay cleanup. This is interesting to note since the ASB is presently contained and does not represent a threat to the health of people or biota at this time. 25

We propose that the constant factor of ASB cleanup be removed from the overall review. If this were done, we believe that Alternatives 7 and 8 would receive dramatically higher proportional scores relative to Alternatives 5 and 6 in Permanence, Protectiveness and Long-term Effectiveness especially if one takes into account the overwhelming Public Concern for these three criteria. We believe that the constant ASB values appear to unfairly skew the scores for these three most important criteria.

Within the draft document, the following is stated, "At this site, quantitative data is available regarding the estimated amount of contamination that will be removed (dredged), the estimated areas that will be contained (capped) and the estimated areas of monitored natural recovery." What is not included, however, is the total amount of mercury and total area of contamination that would be removed via each cleanup alternative, apart from that removed from the ASB. This information should be used to determine whether the additional cleanup provided by alternatives 7 and 8 is significant or only incremental, as Ecology has stated. 26

3) The remedies for each site unit in the draft cleanup plan do not differ significantly from that presented in the RI/FS. We note the following and ask that Ecology reconsider their plans for the following site units:

- Unit 2. This is the Inner Waterway and as we have noted previously, contamination in this area is 20 times higher than the MCL. We believe that this area should be dredged where possible in order to minimize risk. We believe that parts of the Waterway may be erosional, as evidenced by a significant number of samples which have been increasing in mercury concentration. This comment was not addressed in the RI/FS. If parts of the Waterway are erosional, due perhaps to deflected wave patterns within the Waterway, capping would be contraindicated here. We also note that samples that were increasing in mercury concentration were not resampled (see Baykeeper comments on the RI/FS). Another significant argument for dredging in this area is that much of Unit 2 consists of unconsolidated material and woody material. In a seismic event this presents a significant liquefaction hazard. We believe that dangers of seismic hazards have been underestimated in this project. If this area is to be capped, we ask that a six foot cap be used throughout as recommended by Ecology sediment specialist Pete Adolphson at a public forum. 27 28 29 30
- Unit 3a. This is the head of the Whatcom Waterway. As we have noted previously, this area appears devoid of much life. Ecology's answer is that mercury and other contaminant levels are below the level of concern, and that dredging will not be used in this area in order to preserve the "emergent tide-flat." We ask, "What is there to preserve?" We request that Ecology perform a comparison of similar tide-flats and make an evaluation of the health of this tide-flat prior to deciding to take no action at this area. The head of the Whatcom Waterway is a valuable area as it is a part of the estuary, but it is a disservice to habitat if we do not restore it as near as possible to its original and proper function. We believe that dredging in this area may be the best option. Similar to Unit 2, Unit 3 consists of unconsolidated material and woody material. In a seismic event this presents a significant liquefaction hazard. We believe that dangers of seismic hazards have been underestimated in this project. 31 32
- Unit 4. This is the log pond, which has been previously capped. We find that Ecology did not respond adequately to our comments regarding the log pond. We ask that Ecology respond to the assertion that capping in the log pond was designated an interim solution and was not evaluated as a final solution in this RI/FS. This final evaluation is important as interim actions do not embrace the full spectrum of public participation opportunities. We also ask that Ecology address the alternative likely hypotheses for mercury re-contamination at the log pond, as presented in the Baykeeper's comments on the RI/FS. We note that an examination of these questions could lead to different cleanup plans, and thus their examination is of paramount importance. 33 34
- Units5b, 6b, and 6c. These units are steep-sloped and erosional and proposed to be covered with engineered caps. We find that caps are difficult to place in steep areas and should not be placed in erosional areas. We point to the log pond as an area where a cap eroded via wave action, although it was not anticipated. We ask 35

that you re-evaluate the use of an engineered cap with appropriate data shared with the public. We believe the most responsible solution in erosion-prone areas is to dredge the contaminants. If Ecology still decides that an engineered cap is appropriate, we believe that the monitoring of these areas must be especially rigorous given the climate under which they function. In the first two years, we suggest monitoring every 6 months and after large storm events; thereafter monitoring on a yearly basis should be the norm. 36 37

- Unit 7. This unit is Starr Rock, a former dredge disposal site for mercury-laden sediments. We requested subsurface data at Starr Rock in our RI/FS comments and it was not provided. We know that Starr Rock has been sampled previously and we are thus curious why the information has not been forthcoming. We believe that examination of the subsurface data at Starr Rock in conjunction with analysis of its unique topography could lead to a more permanent solution than monitored natural recovery. 38 39

4) We believe that the monitoring plan should be improved from that which appears in section 6.3. The following are our recommendations:

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- Sample crab at the same intervals as sediment, and
    -) Increase the number of crab sampling locations (This monitoring change would provide information re the coupling of crab tissue and sediment mercury concentrations as well as the 'recovery or lack of recovery'), 41
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- Ensure that a sufficient number of sediment samples are taken to provide sufficient statistical coverage. Rationale for the number of samples should be provided. Note that this number may be greater than the 20-30 sample locations estimated and that a robust dataset could be used to model other cleanups. 42

5) The cleanup levels upon which Ecology is still relying are the MCL of 0.59 mg mercury /kg sediment and the BSL of 1.2 mg mercury/ kg sediment. We offered an extensive criticism of the BSL calculation in our comment on the RI/ FS. This criticism was largely discounted, but the reasons given were not of any substance. We request that you revisit the comments on the BSL from the North Sound Baykeeper and give them proper attention. In the absence of a sound rationale, we again request that Ecology 43

default to the MCL cleanup standard of 0.59 mg mercury/ kg sediment, without the option for a bioassay override. 44

In addition, we find that the Toy study may underestimate consumption of seafood by tribal members. In the absence of site-specific data from the Lummi Nation and Nooksack Tribe, we ask that you re-evaluate consumption numbers in a conservative manner. For example, the Swinomish Tribe in their 2005 risk assessment suggest 260 gpd, the Columbia River Inter-tribal Fish Commission suggested a rate of 389 gpd at the 99^{th} percentile rate, and earlier studies used in the Boldt decision estimated fish consumption at 620 gpd. These consumption rate values are all significantly higher than that used in the Toy study. 45

6) Regarding language in the consent decree, we ask that records be retained in perpetuity, for as long as the mercury exists on the site. In the future, other persons may need this information into understand the site and to make sound decisions regarding cleanup and use. 46

North Sound Baykeeper
RE Sources
2309 Meridian Street
Bellingham, WA 98225

#38-C

August 9, 2007

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5) The cleanup levels upon which Ecology is still relying are the MCL of 0.59 mg mercury /kg sediment and the BSL of 1.2 mg mercury/ kg sediment. We offered an extensive criticism of the BSL calculation in our comment on the RI/ FS. This criticism was largely discounted, but the reasons given were not of any substance. We request that you revisit the comments on the BSL from the North Sound Baykeeper and give them proper attention. In the absence of a sound rationale, we again request that Ecology default to the MCL cleanup standard of 0.59 mg mercury/ kg sediment, without the option for a bioassay override.

In addition, we find that the Toy study may underestimate consumption of seafood by tribal members. In the absence of site-specific data from the Lummi Nation and Nooksack Tribe, we ask that you re-evaluate consumption numbers in a conservative manner. For example, the Swinomish Tribe in their 2005 risk assessment suggest 260 gpd, the Columbia River Inter-tribal Fish Commission suggested a rate of 389 gpd at the 99th percentile rate, and earlier studies used in the Boldt decision estimated fish consumption at 620 gpd. These consumption rate values are all significantly higher than that used in the Toy study.

6) Regarding language in the consent decree, we ask that records be retained in perpetuity, for as long as the mercury exists on the site. In the future, other persons may need this information into understand the site and to make sound decisions regarding cleanup and use.

From: NorthSound Baykeeper [mailto:northsound.baykeeper@gmail.com]
Sent: Monday, August 13, 2007 3:33 PM
To: McInerney, Lucy (ECY)
Subject: Comments of the Dept. Of Ecology Cleanup Plan

#38-D

August 13, 2007

James Pendowski, Program Manager

Lucille T. McInerney, Whatcom Waterway Site Manager

Department of Ecology

3190 160th Ave.

Bellevue, WA 98008

Dear Mr. Pendowski and Mrs. McInerney,

Here are the comments made by Peter Homann on response made by the Department of Ecology for the Draft Cleanup Action Plan. Mr. Homann has been a well respected scientist and professor for many years at Western and had some concerns about the data mercury and its assessments. Please consider his comments in addition to those of the North Sound Baykeeper.

Sincerely,

Julie Shoun and Jessica Doyle, Interns for the North Sound Baykeeper

From: Peter Homann

Re: Screening-Level Assessment of Mercury Bioaccumulation

#38-E

Dear Mr. Pendowski and Ms. McInerney,

Thank you for the opportunity to review sections of Whatcom Waterways Final RI/FS, July 25, 2000, Anchor Environmental, L.L.C. and Hart Crowser. I focused on sections related to the mercury sediment-tissue regression analysis and its applications (6.3.3, 6.5, 6.6.2, 6.8).

The assessment uses available data to determine an empirical relation via linear regression between mercury concentration in sediments and mercury concentration in selected marine animal species. These types of assessments have many implicit and explicit assumptions.

Section 6.3.3. The averaging of tissue concentrations from animals within highly overlapping home ranges, or using composite samples from animals within highly overlapping home ranges, seems appropriate. Using values for individual animals within highly overlapping home ranges would be a form of pseudoreplication, i.e. making the incorrect assumption that the individuals are statistically independent when they are not. The current analysis makes the correct assumption that the individual animals are not independent and correctly averages the data. From a regression-use standpoint, this also seems appropriate because for the scenario that people will be ingesting animals from a specific area over some period of time, a person will ingest multiple animals and the average mercury concentration of those animals will be more reflective of mercury exposure than the mercury concentration of any one animal. 48

Sections 6.5 and 6.6.2. There are several assumptions in the development and use of the regression equations that can cause uncertainty but that have not been considered in the Section 6.8 Uncertainty Analysis.

The regression lines are the best, but imperfect, estimates of the actual relation between sediment mercury concentration and tissue composite mercury concentration. The actual relation may have a slope and/or intercept greater than or less than the regression lines; consequently, values derived from the regression line have uncertainty associated with them. The degree of uncertainty associated with values derived from the regression lines may be evaluated with confidence bands (J.H. Zar. 1999. Biostatistical Analysis, 4th ed., Prentice Hall, p. 339-344). The use of an upper confidence band, rather the regression line itself, would provide a more conservative value of the sediment cleanup screening level. Conversely, use of the lower confidence band would yield a less conservative value of the sediment cleanup screening level. 49

One of several assumptions in setting confidence intervals in regression analysis is that the "measurements of X are obtained without error" (J.H. Zar. 1999. Biostatistical Analysis, 4 th ed., Prentice Hall, p. 332), or that we assume "that the error in the X data are negligible, or at least small compared with the measurement errors in Y." This assumption seems to be violated in this study because there is uncertainty in the home-

range average sediment mercury concentrations. Several statisticians have proposed alternate analyses when there is uncertainty in X values, and those alternate analyses produce somewhat different results, but as far as I know there is not a consensus on the best approach.

The regression equations are used beyond the ranges of measured home-range average sediment mercury concentrations, i.e. the highest values for English sole are ~0.7 mg Hg/kg dry weight and for crab ~0.95 mg Hg/kg dry weight, while the calculated sediment cleanup screening level is 1.2 mg Hg/kg dry weight. This latter calculation implicitly assumes that the regression relations derived from the lower ranges can be extrapolated to higher ranges, i.e. that the straight-line relation observed at <0.7 mg Hg/kg dry weight or 0.95 mg Hg/kg dry weight extends to 1.2 mg Hg/kg dry weight or higher. Without additional evidence, there is no way to know if this extrapolation is correct, and it is not clear to me how to put an uncertainty value on it.

Sincerely,

Peter Homann, Ph.D., Dept of Environmental Science, WWU

From: Ilwu07@aol.com [mailto:Ilwu07@aol.com]
Sent: Friday, August 10, 2007 11:20 AM
To: McInerney, Lucy (ECY)
Subject: (no subject)

#39-A

I am a member of Longshore Local # 7 in Bellingham Wa since 1980 a third generation longshoreman. I am in favor of the proposed draft consent decree. Dean F. Ringenbach 1

#40-A

From: Leroy Rohde [mailto:ditchdigger@mybluelight.com]
Sent: Sunday, August 12, 2007 12:55 PM
To: McInerney, Lucy (ECY)
Subject: draft consent decree

I was unable to attend the meeting at the cruise terminal on the 8th of August, but would like to exress my concerns . I think it's well past time for studdies, and time to move on. I would like to see the draft consent decree approved, I hope that this would allow for future dredging at the port dock. My livelyhood depends on it. Thank you. 1 2 3

sincerly, Leroy Rohde

#41-A

From: Ann Russell [mailto:ann.russell1@gmail.com]
Sent: Tuesday, August 07, 2007 9:01 AM
To: McInerney, Lucy (ECY)
Subject: Whatcom Waterway Comment

Dear Ms. McInerney-

I am writing to comment on the Department of Ecology's plans for the Whatcom Waterway Cleanup.

First let me thank you for the Department's attention to the concerns of Whatcom County citizens like myself.

I am writing to express my wish that mercury be removed from the Whatcom Waterway and the nearshore areas. This includes the outside shoulder of the ASB lagoon, the area around the shipping terminal, the log pond and Starr Rock. 1

I believe we have a unique chance to show forward thinking in the cleanup of the Whatcom Waterway. A chance for the children and grandchildren of Bellingham to look back and say we did the right thing. It seems so common that we look back now and wonder what cretinous practices our parents and grandparents used. We can break that cycle with the full removal of mercury and the restoration of habitat on the Whatcom Waterway. 2

I agree with the Bellingham Bay Foundations position that we need to remove the most contamination as possible particularly in the areas with the highest levels. That is not the ASB lagoon but the areas I listed above. 3

I would prefer to see the Model Toxics Control Act grants go toward removing mercury from the loose aquatic environment, rather than continuing the monitor-and-repair cycle of capping. I would like to see the financial emphasis of the marina removed from consideration entirely, and the money prioritized for cleaning up the most contaminated areas, particularly the areas that contain the most mercury. 4

Thank you for your time.

Sincerely,
Ann Russell
1225 Grant St.
Bellingham, WA 98225
360-510-8008

From: Jodee [mailto:thequeenb68@msn.com]
Sent: Thursday, August 09, 2007 4:19 PM
To: McInerney, Lucy (ECY)
Subject:

#42-A

To Whom it may concern:

I attended the public hearing on August 8th and feel that everyone in attendance is in agreement that the mercury in Bellingham Bay must be dealt with. I personally feel that the Port of Bellingham made a mistake in their decision to let the responsible party, Georgia Pacific, off the hook and place the financial burden on the taxpayers. However, the past is the past and it is time to look ahead and get this problem solved. It would be best to remove all of the mercury from the water though that would create a tremendous tax burden on the residence of Whatcom county. The plan "Ecology Selected Remedy" is a good start on the clean up process and should be implemented as soon as possible. Further studies are important, I understand, but to procrastinate action any further would be a mistake. Please start this process so that we can get Bellingham Bay clean.

1
2
3
4

Sincerely,

Joe Schmidt

EXCERPTS FROM PUBLIC HEARING TRANSCRIPT
August 8, 2007, Bellingham Cruise Terminal

#43-A

John Servais
I'm John Servais. I live here in Bellingham. One clarification throughout this evening is you folks up here have talked about this you have referred to it as the Consent Decree. It's actually the draft Consent Decree and I think we need to keep that in mind and bring that up often.

And I do want to make a comment that it's too bad that we all have to be spending a beautiful August evening inside and there's a lot of sail boaters out there and the races and a lot of them have a deep love and concern for clean, healthy water in Bellingham Bay. They made the wiser decision to be sailing tonight.

You know, Lucy, you and I know each other from back in 1996 when I was coming to these Bellingham Bay pilot meetings. And back then I expressed an acute frustration, and I put forth on the record at that time that before you go planning what you're going to do to clean up the waterway, that you do a grid analysis of where the mercury is. That was never done. Instead, DOE selected different places to choose to test for mercury with test holes. That has allowed, in my opinion, looking at where they were taken, to avoid the worst mercury contamination in the upper waterway.

Only a grid when taking test samples from a dense grid can provide us with a true picture of what and how much and where the mercury is. We still don't know, as Tip Johnson's mentioned, a couple others, we have no idea, you folks don't know, Georgia Pacific knows, and they're not telling and nobody can force them to tell. And we've bought all their liability for a dollar. So here we are tonight. 1

But the point of that is that for 10 years, DOE and the Port of Bellingham have a zero track record of helping us clean up the waterway or stop the pollution. While DOE and the Port for 30 years watched GP dump hundreds of tons of mercury into our environment. And it is only now that GP is gone away that oh my gosh we'll clean it up. But now it's at our tax dollar, not at GP's cost.

You know the Port put me on the 20/15 waterfront or WIST – Whatcom International Waterway or shipping terminal committee back in 1992. We existed for about a year. We met, we discussed what the future would be for the shipping facilities in Bellingham Bay, and as we had engineers and others talk to us, we found out that if they dredged, the docks would fall over. If you dredge now those docks are going to fall over. If you dredge the outer waterway as you're planning to, it would bring it down to a depth that the docks are going to fall over. That cost is not in there anywhere. We want to bring NOAA in here and dredge a little bit the docks will fall over. 2

So we have accounted for the millions of dollars that it's going to take to put those docks back up. And that's something that needs to be taken into consideration somewhere

because we folks here, Whatcom County, Port of Bellingham District, or Bellingham, are going to be paying the taxes for all of this stuff. 3

You're making this plan here tonight based upon this draft decree, based upon the uses of the property. You said that that this was based upon it, and yet as George Dyson related, you're going about it backwards. The uses have not yet been approved and so the uses may not be the actual end uses. But if the cleanup plan or the cover up plan or whatever we're doing actually takes place, and then later those uses are not implemented, we have the wrong clean up for what the uses may be. 4

The ASB is very much up in the air. As I understand, the Lummi and the Nooksack have not signed off and might not sign off. They might require the Port to put that back into a mudflat. Truck all the rock off somewhere else. Maybe not that extreme, but a marina is not a given at all.

The criteria, a couple of other specific things for the record. I've said we have no knowledge of where the mercury is. We have no grid testing. Those are two very important things and I'm trying to check my notes here very quickly. I'm going to close with this. I'm a NW citizen—we're keeping a record of these things, and we're going to be putting these things up. Like the bridge in Minneapolis that's now turning out to be designed by some bad criteria, we're going to keep track online the records and the individuals of the departments that are approving of what many of us feel is a dead end, no pun intended, plan for our beautiful Bellingham Bay. And when in 5, and 10, and 15, and 20 years from now, it turns out to be a love canal, we do want to remember that it was purposely entered into and that many of us pointed out the problems that were going to arise, and that it was just steamrollered through anyways. 5

So thank you very much for the opportunity to comment.

From: Alex Shapiro [mailto:akira@niftywerks.com]
Sent: Tuesday, August 07, 2007 7:45 AM
To: McInerney, Lucy (ECY)
Subject:

#44-A

1

hey lucy, I want to voice my vote for TOTAL CLEANUP of the mercury in whatcom waterway. Don't just cap it!!!

2

Alex Shapiro
5930 Bell Creek rd/ box 86
Maple Falls, WA 98266
360-592-1387

#45-A

From: Ilwu07@aol.com [mailto:Ilwu07@aol.com]
Sent: Saturday, August 11, 2007 9:31 AM
To: McInerney, Lucy (ECY)
Subject: Whatcom Waterway Draft Consent Decree

Dear Lucille T. McInerney,

I am writing to express my support for the draft Consent Decree of the Whatcom Waterway. Do to work I was not able to attend the meeting last week. 1

This draft has had a substantial amount of time to be developed and I beilieve it is a good solution to clean up the water way and settle liability so that the Port, the City, and the People of Whatcom County can move on with our future plans for our waterfront. To delay this plan with more studies and a continued discussion over clean up options is wrong. 2

Please approve this draft Consent Decree so we can clean up our waterway and get on with creating a better waterfront.

Thank you,
William Timmer

State of Washington
DEPARTMENT OF FISH AND WILDLIFE
Region 4 Office: 16018 Mill Creek Boulevard - Mill Creek, Washington 98012 - (425) 775-1311

August 7, 2007

#46-A

Washington Department of Ecology
Attention: Lucille McInerney
3190 160th Avenue
Bellevue, Washington 98008-5452

SUBJECT: WDFW Comments – Draft Consent Decree and Draft Cleanup Action Plan – Whatcom Waterway Site, Bellingham, Whatcom County, WRIA 01

Dear Mrs. McInerney,

The Washington Department of Fish and Wildlife (WDFW) has reviewed the Draft Consent Decree and the Draft Cleanup Action Plan for the Whatcom Waterway Site. WDFW concurs with Ecology's selection of Remedial Alternative 6 as the preferred cleanup strategy for the Whatcom Waterway Site. Remedial Alternative 6 not only satisfies the state's rigorous sediment cleanup standards but is consistent with the goals and objectives of the Bellingham Bay Demonstration Pilot, is consistent with the Bellingham Bay Comprehensive Strategy, effectively mitigates natural resource impacts through a broad range of habitat enhancement and creation actions, and can be implemented in a realistic time frame. WDFW commends Ecology's staff for their tireless work and unbending commitment to ensuring that the cleanup of the Whatcom Waterway Site is permanent to the maximum extent practicable under MTCA. 1 2 3 4 5

WDFW appreciates the opportunity to provide these comments and looks forward to working with Ecology as the cleanup progresses. If you have any questions, please call me at (360) 466-4345, extension 250.

Sincerely,

Brian Williams

Brian Williams
Area Habitat Biologist
Region 4

#47-A

STATE OF WASHINGTON
DEPARTMENT OF HEALTH
Division of Environmental Health
Office of Environmental Health Assessments
234 Israel Road S.E. Town Center 3 PO Box 47846 Olympia, Washington 98504-7846
Tel: 360.236.3184 Toll Free: 1.877.485.7316 FAX: 360.236.2251
TDD Relay Service: 1.800.833.6388

August 13, 2007

Lucille T. McInerney, P.E.
Site Manager
Department of Ecology
3190 160th Avenue
Bellevue, Washington 98008-5424

Dear Ms. McInerney:

Subject: Whatcom Waterway Draft Consent Decree Public Comment

Thank you for the opportunity to review the Whatcom Waterway Draft Consent Decree. The Whatcom County Health Department requested that the Washington State Department of Health (DOH) review the site-specific mercury bioaccumulation screening level (BSL) and provide judgment about whether it provides a reasonable estimate of a health-based sediment screening level. DOH's response to Whatcom County is enclosed for incorporation into the public record. 1

Please contact me at (360) 236-3377 or 1-877-485-7316 if you have any questions.

Sincerely,

Gary Palcisko
Toxicologist

Enclosure

WASHINGTON STATE DEPARTMENT OF HEALTH
Office of Environmental Health Assessments

August 13, 2007 #47-B

TO: Regina Delahunt
Whatcom County Health Department

FROM: Gary Palcisko
Toxicologist
Office of Environmental Health Assessments
Washington State Department of Health

SUBJECT: REVIEW OF WHATCOM WATERWAY SITE-SPECIFIC BIOACCUMULATION SCREENING LEVEL (BSL)

Background:

The Whatcom Waterway, located in Bellingham, WA, is in the midst of a remedial investigation/feasibility study (RI/FS). As part of this process, cleanup alternatives are chosen to protect human health and the environment. A sediment bioaccumulation screening level (BSL) of 1.2 milligrams of mercury per kilogram of sediment (mg/kg) dry weight (dw) was derived to be protective of humans that consume seafood from the site. The Whatcom County Health Department requested that the Washington State Department of Health (DOH) review the site-specific mercury BSL and provide judgment about whether it provides a reasonable estimate of a health-based sediment screening level. 2

The site-specific BSL was based primarily on a linear regression of mercury concentrations in adult male Dungeness crabs from numerous areas of Bellingham Bay versus mean total mercury in sediment from the same areas (assuming a crab home range of 10 km^2). Relationships between sediment mercury and mercury in clams and flatfish were also examined. In short, a BSL of 1.2 mg/kg (dw) in sediment was determined to approximate a tissue concentration of 186 micrograms per kilogram (ug/kg) (ww) in crabs and flatfish. This level was assumed to be protective of a tribal fish consumer that eats 31.2 grams of crab and bottomfish per day from the site. This also assumes a consumption rate of 38.5 grams of shellfish per day with average concentration of 40 ug/kg.

Mercury dose

The following equation and Table 1 show assumptions that were used to estimate a mercury dose from crab, bottomfish, and shellfish from the site.

$$\text{Non-cancer dose} = \frac{(C_{crab}(IR_{crab}) + C_{clam}(IR_{clam})) \times CF1 \times CF2}{BW}$$

Table 1. Non-cancer dose equation parameters and assumptions.

Parameter	Name	Value	Units	Notes
C crab	Concentration in Crab	186	ug/kg	Estimated level in crab where sediment concentration = 1.2 mg/kg
C clam	Concentration in clams	40	ug/kg	Estimated level in clams where sediment concentration = 1.2 mg/kg
CF_1	Conversion Factor	0.001	mg/ug	Number of milligrams per microgram
IR crab	Crab Ingestion Rate	31.2	g/day	Tulalip 90th percentile crab consumption rate (23.4 g/day) + Tulalip 90th percentile flatfish consumption rate (7.8 g/day)
IR clams	Clam/mussel Ingestion Rate	38.5	g/day	Tulalip 90th percentile clams and mussels consumption rate
CF_2	Conversion Factor	0.001	kg/g	Number of kilograms per gram
BW	Body Weight	70	kg	Average adult bodyweight

3

The values in Table 1 applied to the equation above results in a dose of 0.000105 mg/kg/day. This dose is almost equivalent to EPA's mercury reference dose. A reference dose (RfD) is defined as a dose below which non-cancer adverse health effects are not expected to occur (so called "safe" doses). The mercury reference dose was derived from epidemiological studies of children born to women from fish-eating populations. A maternal dose of 0.001 mg/kg/day is expected to result in neurodevelopmental deficits in 5% of exposed fetuses. An "uncertainty factor" of 10 was applied to that dose to account for inter-human variability to yield the lower, more protective RfD. A dose that exceeds the RfD indicates only the potential for adverse health effects.

4

A simple metric called a hazard quotient is commonly used to describe the relative health hazard associated with a dose. A hazard quotient is numerically defined as:

hazard quotient = estimated dose/ reference dose

A hazard quotient less than one is not considered to represent a health hazard, but the more it exceeds one and approaches an actual toxic effect level, the more a concern for potential human health impacts.

Under the Model Toxics Control Act (MTCA), cleanup levels based on human health endpoints are typically established based on a target hazard quotient of one for exposures that occur at the site. Exposures that occur outside the site boundary are not typically factored into the derivation of cleanup levels. In cases where fish consumption is an exposure pathway to site-related contaminants, an assumption is that 50% of a consumer's seafood consumption comes from the site. To be more health protective, the BSL at Whatcom Waterway was derived assuming that 100 percent of crab, bottomfish, clams and mussels come from the site. Salmon consumption and other fish consumption such as tuna were not included in estimating doses from site-related contaminants because they accumulate mercury outside the site boundary.

5

To determine whether or not the BSL represents a reasonable estimate of health-based sediment screening level, two questions should be answered:

1) ***Are the assumed consumption rates of site-related seafood appropriate?***

Consumption rates used to derive the BSL were taken from a fish consumption survey of the Tulalip Tribe. Ninetieth percentile consumption rates for crab, bottomfish, and clams and mussels were used as estimates of high-end consumption of seafood caught at the site. Much of a high-end consumer's fish diet is anadromous fish (e.g. salmon), but mercury in salmon is not likely to originate from Whatcom Waterway. Since cleanup of the site will have little effect on mercury levels in salmon, consumption of salmon (and other fish not expected to be present at Whatcom Waterway) were not included in estimating a site related dose. 6

Consumption rates for the Nooksack and Lummi Tribes are not available; therefore the Tulalip consumption rates were used instead. The site-related seafood consumption (1 gram per kilogram of bodyweight per day) is lower but comparable to that used by EPA Region 10 for the Lower Duwamish Waterway cleanup effort (1.2 g/kg/day). We believe that the consumption rates chosen represent a reasonable estimate of high-end fish consumption at Whatcom Waterway.

2) ***How were observed relationships between mercury in tissue versus sediment used to predict a cleanup level?***

7

Equations based on linear regressions of observed mercury in crab and clam versus mercury in sediment were used to generate the following equations:

Concentration in tissue (ug/kg) = y-intercept + slope * sediment concentration (mg/kg)

Crab concentration (ug/kg) = 0.047 + (0.116 * (1.2))

= 0.186 ug/kg

Clam concentration (ug/kg) = 0.032 + 0.007 * (1.2))

= 0.040 ug/kg

As mentioned previously, concentrations generated by the equations above combined with exposure assumptions presented in Table 1 yield a dose of 0.000105 mg/kg/day. To obtain a dose equal to the reference dose, the sediment concentration would need to be altered from 1.2 to 1.11 ppm (i.e., a crab mercury concentration of 0.175 ppm and a clam mercury level of 0.0397 ppm).

The approach above represents a reasonable attempt to determine a health-based sediment cleanup level. A possible short-coming of the above regressions is that tissue results were grouped based on location to produce an average concentration instead of using each individual observation in the regression. Additionally, composite samples were treated identically to individual samples thereby giving equal weight to each sample. When accounting for these factors, DOH found there to be only minor differences in the resulting numbers.

Mercury levels measured in Whatcom Waterway seafood

It is clear that mercury levels in crabs from Whatcom Waterway are higher than those from unimpacted areas (e.g., Chuckanut Bay, Dungeness Bay, and Freshwater Bay). Sampling of crabs from Whatcom Waterway in the 1990's revealed average mercury levels of about 150 ppb. Based on recent crab sampling conducted by RE-Sources for Sustainable Communities and the North Sound Bay Keeper, mercury levels have decreased by roughly 50%. Active remediation at the site would be expected to further reduce these levels over time.

No flatfish were sampled at the site, but a robust data set from the Puget Sound Assessment and Monitoring Program (PSAMP) was used to determine the importance of sediment levels and bioaccumulation in English sole. Generally, age was the main factor with regard to mercury levels, but location was also an important factor (e.g., fish from urban areas had relatively higher mercury levels in tissue compared to non-urban areas). English sole from Bellingham Bay had low mercury levels, but these fish tended to be younger than others sampled from Puget Sound. Additionally, it is not clear if English sole are present in Whatcom Waterway or whether starry flounder are more likely to be present in that environment.

No clams were sampled from the site, so it is not known precisely what mercury levels are in clams there. Clams harvested near Post Point in Bellingham Bay contained about 20 ppb mercury.

8

Table 2. Mercury concentrations in tissue from Whatcom Waterway and other locations

Species	Location	Year Sampled	N	Average Hg (ppb)	Source
Dungeness Crab	Whatcom Waterway	1990	5	150	Ecology 1991
		1997	6	140	Ecology 1997
		2006	7	82.6	RE-Sources 2006
	Chuckanut Bay	1990	5	60	Ecology 1991
	Dungeness Bay [a]	2002	3	60	Malcolm Pirnie 2005
	Freshwater Bay [a]	2002	3	40	Malcolm Pirnie 2005
English Sole [b]	Bellingham Bay	1991, 1992, 1993	9	31	PSAMP 2001
Littleneck Clams	Post Point (Bellingham)	1992	3	20	DOH 1996

a- result reported is crab muscle only
b- average age was 2.6 years for Bellingham Bay E. Sole.

Conclusions

Based on our review of the derivation of the BSL, the approach represents a reasonable approach for incorporating human health concerns into sediment cleanup decisions at the site.

9

At this time, no fish or crab consumption advisory is warranted in Bellingham Bay. However, bivalves should not be consumed due to presence of pathogens associated with stormwater and sewage treatment outfalls. 10

Long-term monitoring will be required by Ecology to ensure that the remediation is effective. DOH will provide input to long-term monitoring plans and review tissue data that are generated to ensure that the public's health is protected. In addition to measuring mercury levels in crabs, flatfish and clams (if available) should also be sampled. 11

Mercury levels in Whatcom Waterway crabs, although elevated compared to crabs from reference locations, have declined since sampling began in the 1990's. Levels of mercury in Bellingham Bay crab, English sole, and clams are lower than many fish available at the market. With this in mind, DOH encourages Washingtonians to eat fish as part of a healthy diet but to avoid those fish that contain higher levels of contaminants. DOH prepared a fish guide to help consumers choose fish low in contaminants. See DOH fish guide at: 12

http://www.doh.wa.gov/ehp/oehas/fish/fishchart.htm

References:

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Toy KA, Polissar NL, Liao S, and GD Mittelstaedt. 1996 A Fish Consumption Survey of the Tulalip and Squaxin Island Tribes of the Puget Sound Region. October 1996.

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Washington State Department of Health (DOH) 1996. Puget Sound Ambient Monitoring Program: 1992 and 1993 Shellfish Chemical Contaminant Data Report. May 1996.

cc: Lucy McInerney
Jim Pendowski
John Wolpers
Peter Adolphson

WASHINGTON STATE DEPARTMENT OF
Natural Resources

DOUG SUTHERLAND
Commissioner of Public Lands

August 13, 2007

#48-A

Lucille McInerney
Washington Department of Ecology
3190 160th Avenue
Bellevue, WA 98008-5452

Re: Whatcom Waterway site Cleanup

Dear Mrs. McInerney:

On behalf of the Washington State Department of Natural Resources (DNR), I want to express our support for the approval of the Draft Consent Decree and the Draft Cleanup Action Plan for the Whatcom Waterway Site. As you know, my staff has worked as part of the Pilot Project, with state, federal, tribal and local entities for over 10 years. We strongly support implementation of the actions of the Pilot Project, as the basis for a clean and healthy Puget Sound and the revitalization of Bellingham Bay. This Draft Consent Decree is a major step towards these goals. 1 2

DNR has reviewed both the Draft Consent Decree and the Draft Cleanup Action Plan for the Whatcom Waterway Site. DNR supports the Department of Ecology's selection of Remedial Alternative 6 as the preferred cleanup strategy for the Whatcom Waterway site. 3

It is time to move ahead and begin the clean up process. We have an incredible opportunity to make a difference in the future of Bellingham Bay and restore Puget Sound as a healthy ecosystem. 4

We look forward to the finalization of these documents and the beginning of their implementation.

Sincerely,

Doug Sutherland
Commissioner of Public Lands

1111 WASHINGTON ST SE ▮ PO BOX 47000 ▮ OLYMPIA, WA 98504-7000
TEL: (360) 902-1000 ▮ FAX: (360) 902-1775 ▮ TTY: (360) 902-1125
Equal Opportunity/Affirmative Action Employer

From: Kathleen Olson [mailto:kolson@washingtonports.org]
Sent: Monday, August 13, 2007 10:00 AM
To: McInerney, Lucy (ECY)
Cc: Jim Darling; MCNAIR, FRAN (DNR); mayorsoffice@cob.org
Subject: Whatcom Waterway Comment Letter

#49-A

August 13, 2007

Lucille T. McInerney, P.E.
Site Manager
Department of Ecology
3190 160th Avenue
Bellevue, WA 98008-5452

Dear Ms. McInerney:

This is a comment letter on the proposed consent decree regarding the cleanup of the Whatcom Waterway site in Bellingham Bay. On behalf of the 75 port districts in the state, the Washington Public Ports Association encourages the Department of Ecology to approve the draft consent decree as final, including the attached cleanup action plan. This decision will enable all of the parties to the agreement to begin this important phase of the Bellingham Bay cleanup. 1

The discussion of how best to clean up and revitalize Bellingham Bay has been a very long and thorough process. The port, state and city have worked tirelessly to study the site and to develop a workable cleanup plan that now has the support of a significant majority within the Whatcom County community. The best simple summary of the process so far: *The Model Toxics Control Act process worked.* 2

But this process must still lead to an outcome. This consent decree has identified a solution that protects human health and the environment by legally binding the parties involved and establishing a framework from which to proceed with cleanup. Rejecting or significantly amending this decree would delay the cleanup process and jeopardize the partnerships that have been forged with over ten years of cooperation, and would risk lengthy litigation. 3

Port districts in other waterfront communities are watching this process carefully as a gauge of the Department of Ecology's role as a partner in remediation efforts. This decree is a clear signal of the best way to promote remediation efforts with other ports and local governments. 4

WPPA and its member port districts consider environmental stewardship a top priority. In the case of the Whatcom Waterway site, the decree under review is the best solution at hand. Moreover, it will help establish a precedent in similar negotiations elsewhere in the state. 5

Thank you very much for this opportunity to comment.

Sincerely,

Eric D. Johnson, Deputy Director
Washington Public Ports Association

c: Jim Darling, Port of Bellingham
Tim Douglas, City of Bellingham
Fran McNair, Department of Natural Resources

#50-A

To: Lucille T. McInerney, P.E.
From: Board of Directors, Whatcom Recreational Boaters Association
Date: August 12, 2007
Subject: Support for Whatcom Waterway Site Draft Cleanup Action Plan

Please enter the following comments into public record in <u>support</u> of the Department of Ecology's Draft Cleanup Action Plan for the Whatcom Waterway Site located within Bellingham Bay: 1

The Board of Directors of the non-profit Whatcom Recreational Boaters Association has reviewed the proposals detailed in Section 6 of the DCAP. We would like to thank the Department of Ecology for the thorough process used to develop the plan and we urge you to proceed with this action as soon as the public comment period is over. 2

The Whatcom Recreational Boaters Association (WRBA) Board of Directors represents approximately 500 households who are members of four local boating clubs: the Corinthian and Bellingham Yacht Clubs, the Bellingham Sail and Power Squadron, and the Wheel and Keel Boat Club, together with some individuals and boating related businesses. The mission statement for WRBA is as follows:

The Whatcom Recreational Boaters Association is a non-profit group formed by local boating clubs and individual boaters, to represent, promote and protect boating and related recreational activities, and the interests of recreational boaters in the Whatcom County area.

From: Teresa and John Van Haalen [mailto:vhaalen@comcast.net]
Sent: Sunday, August 12, 2007 7:08 PM
To: McInerney, Lucy (ECY)
Subject: Public Comment, Whatcom Waterway Site Draft Cleanup Action Plan

#50-B

From: Teresa and John Van Haalen <vhaalen@comcast.net>
Date: Sun, 12 Aug 2007 10:24:36 -0700
To: <lpeg461@ecy.wa.gov>
Conversation: Public Comment, Whatcom Waterway Site Draft Cleanup Action Plan
Subject: Public Comment, Whatcom Waterway Site Draft Cleanup Action Plan

To: Lucille T. McInerney, P.E.
From: Board of Directors, Whatcom Recreational Boaters Association
Date: August 12, 2007
Subject: Support for Whatcom Waterway Site Draft Cleanup Action Plan

Please enter the following comments into public record in support of the Department of Ecology's Draft Cleanup Action Plan for the Whatcom Waterway Site located within Bellingham Bay: 3

The Board of Directors of the non-profit Whatcom Recreational Boaters Association has reviewed the proposals detailed in Section 6 of the DCAP. We would like to thank the Department of Ecology for the thorough process used to develop the plan and we urge you to proceed with this action as soon as the public comment period is over. 4

The Whatcom Recreational Boaters Association (WRBA) Board of Directors represents approximately 500 households who are members of four local boating clubs: the Corinthian and Bellingham Yacht Clubs, the Bellingham Sail and Power Squadron, and the Wheel and Keel Boat Club, together with some individuals and boating related businesses. The mission statement for WRBA is as follows:

The Whatcom Recreational Boaters Association is a non-profit group formed by local boating clubs and individual boaters, to represent, promote and protect boating and related recreational activities, and the interests of recreational boaters in the Whatcom County area.

#51-A

From: swild7@juno.com [mailto:swild7@juno.com]
Sent: Saturday, July 14, 2007 8:51 PM
To: McInerney, Lucy (ECY)
Subject: B'ham Waterfront

This citizen is absolutely in favor of cleaniing up the old GP site to the fullest extent possible before permitting any development on Bellingham's waterfront. 1
Capping is not a long term solution. 2

Scott Wild
Wild Card Adventures
1242 St. Paul St.
Bellingham, WA 98229 USA
360-756-2180; swild7@juno.com

From: swild7@juno.com [mailto:swild7@juno.com]
Sent: Thursday, August 09, 2007 3:45 PM
To: McInerney, Lucy (ECY)
Subject: B'ham Bay

#51-B

Dear Ms. McInerney;

It does not seem that citizen comment is taken very seriously, if considered at all, when it comes to planning the clean-up of the old GP site on Bellingham's waterfront. 3

Again and again a vast majority of our population, myself included, has made it perfectly clear that a more thorough clean-up than the Port or City officials propose is called for. We do not want to cap and cross our fingers. We want as many toxics as remotely feasible removed first. We are willing to pay for it. We do not want to leave a legacy of harmful pollution for our grandchildren to deal with. 4 5 6

Please, let's really clean this mess up now.

Scott Wild
Wild Card Adventures
1242 St. Paul St.
Bellingham, WA 98229 USA
360-756-2180; swild7@juno.com

EXCERPTS FROM PUBLIC HEARING TRANSCRIPT
August 8, 2007, Bellingham Cruise Terminal

#52-A

Darren Williams
Yeah, I'm Darren Williams. I'm a Whatcom County resident. I also represent the Longshoreman Union here in Bellingham Bay. I'm going to speak from a couple different points today because I'm a Whatcom County resident, a taxpayer—I have great concern about how much money this is costing; I'm also a person who enjoys the recreation. So I want to speak to what this plan will do for enhancing some recreation. According to our community vision, we've all seen here in a slide earlier tonight. I'm also going to talk from the standpoint of being a labor officer. I represent about 60 people who work on the waterfront of Bellingham Bay. And have been doing such since the teens—1917. We've been an organized labor union since 1934. So we have an interest in making sure that we move forward. That's what I think is important.

There's no perfect plan. There's not a single concern that is going to be addressed 100%. 1
What we've seen tonight is a plan that addresses most issues to the best of its ability.
And that's the direction that I believe we need to go. We need to implement this plan and 2
get something going. We've been working on the docks down there watching the waterway fill in with mercury and sediment and everything else since the last time it was dredged back in the 60's. Nothing has happened.

There have been many results of that as well. We've lost jobs because we can't get ships 3
in there anymore. Now the community is moving into a new phase on the waterfront. We want to implement a different kind of waterfront. Well, we're going to have do things a little bit different. One of them is we have to do it cost-effectively. I cannot see 4
spending over $100,000,000 down there and anyone being able to afford it. So as a tax-payer, I want to get the most for my money.

So as you put up the graphs and whether they're 100% accurate or not, I don't know. But 5
I do know that there's some compromise that has to be made. And there has to be compromise made or nothing will happen. So I'll keep it short by saying I support this plan. I think we should move forward with it, and we should get started. It's another 6 6
years even if we started today before anything's going to get completed. That's another 6 years I don't want to wait. I don't want to wait and study this thing for another 10 years to try and satisfy 100% of everyone's concerns because it won't happen. And take note, 7
sometimes that is the agenda. We bring up concern after concern after concern to stop anything from happening.

Well, I think today we've got a plan that will work, and we should move forward on it. Thank you.

Moderator
Next we have Tom Winter who will be followed by George Dyson.

#52-B

From: Darren C. Williams [mailto:williamsdarrenc@msn.com]
Sent: Sunday, August 12, 2007 9:46 AM
To: McInerney, Lucy (ECY)
Subject: Whatcom Waterway Cleanup Draft Consent Decree

Washington State Department of Ecology,

I would like to express my support for the Draft Consent Decree for Whatcom Waterway Cleanup as written. In my opinion the Dept. of Ecology has done a complete study and analyses of the project. Although alternative 6 may not completely satisfy all of the special interest groups, it does present a solution to the cleanup that will enable the community to move forward in a safe and affordable manner. 8 9

Regardless of the short comings of alternative 6, I believe no matter what plan is developed there will be a special interest group that opposes the plan in favor of their own view point. It is also my opinion there will need to be corrections made to what ever method of cleanup is used, either during construction or after completion. There for the worst mistake we could make is to do nothing for another 20 years while science does what science does best, attempt to prove the prior opinion incorrect. In closing I would urge the Department of Ecology moving forward now with the long over do cleanup of the Whatcom Waterway. 10 11

Thank you for your time,

Darren C. Williams
4089 Y Rd
Bellingham, WA 98226

From: Frank Winslow [fwinslow@nas.com]
Sent: Thursday, August 09, 2007 11:46 AM
To: McInerney, Lucy (ECY)
Subject: Whatcom Waterway Cleanup

#53-A

Ms McInerney

As long time residents of Bellingham who deplore the lack of government ability to adequately prevent contamination by industry of public areas, please be more responsive in your reply to questions put to you on the Whatcom Waterway RI/FS by the North Sound Baykeeper organization/ RE Sources. I share Tip Johnson's concern quoted in the 9 Aug 07 Bellingham Herald that privatization of the area will give short shrift to mercury's threat to public health. 1 2

Frank and Josselyn Winslow

From: Wayne Youngquist [mailto:w.youngquist@comcast.net]
Sent: Thursday, August 09, 2007 7:59 AM
To: McInerney, Lucy (ECY)
Subject:

#54-A

Dear Reader of Emails,

re: Bellingham Bay Mercury Cleanup

I live near Bellingham Bay and would like to comment on the proposals concerning the cleanup.

1. The Hg waste was created by the people of Bellingham and we should live with it rather than shipping our problems to become somebody else's problem (as long as it can be controlled and is not causing illnesses to our kids) 2. Hg is common in this area and floats down the Nooktsack River, so we can't totally cleanse ourselves of it anyways 3. Let's spend our money on improving the lives of our citizens and not excessively spend it on one less important (though visually impressive issue). Much more can be done with $30,000,000+ in regards to community healthcare, education programs, public transportation, and most importantly 'insuring our drinking water is free from Mercury'.

1

2

3

Please let logic rule the day and not emotional headline grabbers. Keep our costs low and try and do a great job.

4

Thanks,

Wayne Youngquist
Bellingham, WA
360-305-4887

From: sv98229@comcast.net [mailto:sv98229@comcast.net]
Sent: Monday, August 13, 2007 1:58 PM
To: McInerney, Lucy (ECY)
Subject: Public Comment: Whatcom Waterway

#1-A

Re: Public Comment
Whatcom Waterway
Facility Site ID #2899

Dear Ms. McInerney:

The Whatcom Waterway Cleanup Action Plan's proposed breach of the Aerated Stabilization Basin (ASB) in order to create a pleasure craft marina is neither protective of human life and the environment or cost effective. 1

There is no 100% foolproof way to open the ASB to the bay without also opening a new pathway for contamination to spread into the bay. The additional pathway for hazardous contaminants poses additional risk to all bay users. 2

Creating a marina from the ASB costs approximately $21,000,000 for 350 to 450 boat slips. At an average $52,500 per slip, the proposal is not cost effective by any economic measure. The $21,000,000 figure is the probable cost difference between Design Concept 4(no marina) and Design Concept 5(with marina). The estimated number of boat slips is from the Port of Bellingham web site's New Marina FAQS. 3

I sincerely hope the Department of Ecology will reject any redevelopment plans requiring a breach in the Aerated Stabilization Basin.

Nancy Alyanak
Bellingham, WA

From: Ken Anderson [kandianderson@nas.com]
Sent: Monday, August 13, 2007 10:09 AM
To: McInerney, Lucy (ECY)
Subject: 10-10-06 LTR TO ECOLOGY

#2-A

Attachments: 8-13-07 LONG TEXT TO WA ECOLOGY.doc
10-10-06 FIRST LTR TO DEPT. OF ECOLOGY

October 9, 2006

Lucille McInerney, Site Manager

WA Department of Ecology
3190 160th Ave.
Bellevue, WA 98008-5452
Phone: (425) 849-7272
E-Mail: lpeb461@ecy.wa.gov

Dear Ms. McInerney:

This letter is written in response to a request found in the Bellingham Herald for public comments regarding the Bellingham Waterway Site.

As we all know, the cleanup of the ASB is a very complex and costly subject. In order that those interested may understand the issues being addressed, I suggest that communications be kept to the simplest possible terms that will convey the message desired.

As a taxpayer I am much concerned about cost involved in the cleanup of the ASB. No doubt substantial volumes of toxic sludge will be removed from the ASB at considerable cost. When convenient for you, I would appreciate knowing the presently estimated weight and volume of that material, and the estimated unit costs for dredging, processing for shipment, shipping, and depositing that material. 1

No doubt the costs will amount to many millions of dollars. As I see it at this time, arrangements for dredging and preparing the sludge for export can be competitively bid, something favorable to the owner. There may be, however, considerably less competition with regard to shipping the material to the deposit site.

If the Roosevelt dumpsite has already been selected, there would be no competition. The Port would be shipping to that site huge quantities of material, with most of it arriving on a regular basis. For those receiving the material with payments assured, that would appear to be a dream situation. Accordingly, the prices charged to the Port to dump material should be competitive and fair to both the owner of the site and the Port. I do hope those prices will be negotiated accordingly. 2

It is from the Bellingham Herald that I understand that a decision has been made to deepen the Whatcom Waterway so that it will accommodate ocean-going ships. If this understanding is correct, there is much to be said about the pros and cons of such a decision.

The most obvious benefit of such a decision is the long-term benefit of having certain large ships moored close to the City. The second benefit is less obvious. Let's assume that toxic sludge now in the ASB will leave the area in ocean-going barges towed by tugs. Following the deepening of the Whatcom waterway, those barges may be moored much closer to the storage piles of properly drained and dried sludge. Generally speaking, the closer the barges are moored to the stockpiles filling them, the greater the savings to the Port. 3

This is a complex matter that warrants very close examination in order to maximize those savings. However, if properly addressed, such a close study would pay for itself many times over in savings to the Port. As a P.E. with a strong interest in this matter, I would like to play a leading role in such a study, with your firm supplying the essential input I would use as the basis for my calculations.

In addition, I would very much appreciate a close review of my work by your people in order that we would all be comfortable with the quality of the documents prepared for the Port. By using such design teamwork, I am comfortable in stating that the Owner would receive quality documents in a timely manner at very reasonable costs.

There are many ways to complete the ASB cleanup study, but only one best way. With your firm supplying basic data and closely reviewing my work, we can find that best way to the benefit of all concerned. 4

I WILL BE TESTED.
Specifics can be worked out later.

and gathered some information regarding the cleanup of the lagoon in the past. Some of this information may now be obsolete. I would appreciate being updated so my future comments would be accurate.

First of all, the toxic water from the lagoon must have a disposal site. Just how and where does the Department of Ecology intend to dispose of this water?

8-13-07 SUBMITTAL TO WASHINGTON'S DEPARTMENT OF ECOLOGY

2. CLARIFICATION OF COSTS

I would appreciate knowing matters of cost. What will the $44 million cover? How much of that money has been spent so far? Specifics on where it has been spent would be gratefully received.

3. PREPARATION REQUIRED BEFORE THE WATERWAY DREDGING STARTS

1. Design the finished waterway and the cross-sections desired for it.

2. Compute the quantity to be excavated from the waterway and outside areas.

3. Design and construct a plant to treat that water.

4. Design the sludge treatment site. As mentioned below, one should consider using a common site for both the waterway and the ASB. A plan showing a preliminary design for the ASB sludge treatment is enclosed.

5. Make arrangements with the railroad to remove the sludge.

6. Make arrangements for the dumpsite.

7. Decide on the contracts that should be let to get the job done.

8. Prepare the plans and specifications for the contracts.

9. Contract out the work in a logical order.

4. COMMON GROUND BETWEEN THE WATERWAY AND THE ASB

1. Both will treat the same materials, specifically mercury-laden sludge and tainted seawater.

2. Both should use the same water-treatment plant to treat that water.

3. With design effort, both could use the same processing area and equipment to treat their sludge. This would result in major economies. If the Port elected to use separate facilities, it may pay dearly for that decision. A close study of this matter is certainly justified.

4. If common treatment processes are used, both would use the same railway spur and other transportation facilities to dispose of the sludge.

5. Both would use the same dumpsite.

6. In conclusion, if the above recommendations are used, by preparing the waterway for dredging, the Port will also have prepared most of the ASB for dredging, and thus will be saving a great deal of time and money.

5. DIFFERENCES BETWEEN THE WATERWAY AND ASB WORK.

1. All ASB sludge is in a confined area, whereas the highly contaminated waterway areas are in three places—one in the open bay, one at the outside tip of the ASB and one within the waterway.

2. The ASB material will be reasonably uniform, but the waterway material will vary from the highly contaminated locations called out above to the less contaminated material within the waterway itself. Does such a variation justify a different treatment process?

3. If common treatment facilities are used, the pipeline from the dredge to the treatment site will be longer, especially when cleaning up the site in the open bay.

4. If the common treatment site is used, the water carrying the waterway sludge will drain to the waterway while the ASB sludge will drain to the ASB.

5. The design of the waterway will involve slope stability, a problem of less importance with the ASB.

6. Portions of the diffusion pipe within the ASB must probably be removed for boat clearance when it is used as a marina.

6. DESIGN PROCESS FOR ASB WORK

The steps required to process the sludge from the ASB to the dump sites were assumed to be dredging, storing in wet tanks for draining, drying, storing in dry tanks, weighing, and shipment by rail to the dump site.

Based on contractor's equipment for dredging and drying, a working day's rate of production of 1,000 cubic yards, or 1100 tons of dry sludge was assumed to be realistic. A dredge should have no problem meeting this schedule but the drying outfit might have to work slightly longer hours.

There are other factors that must be considered before such a schedule can be proven to be realistic. For example, only a lab can tell us many important properties of the sludge. Some of these factors are listed below. The sludge properties can be determined early and economically. Many of those properties would apply to both ASB and waterway designs. No design can be solid without this input. It makes little sense to delay design by not retaining a good lab soon.

7. LAB DETERMINED PHYSICAL PROPERTIES OF SLUDGE

What is its specific gravity when saturated and when dried to specific moisture content? At what moisture content, or dryer, will the sludge become dusty and probably require covers when transported?

Will the sludge contaminate the steel walls containing it and make the steel unusable for later applications?

What slope, or angle of repose, will the sludge take under water, when saturated in a storage tank, and when dried to say a 3% moisture content in another storage tank?

Can a person walk on saturated or dried sludge? If so, what protective clothing would be recommended?

A dredge will pump the sludge into a storage tank. That sludge will be suspended in perhaps 90% water. Knowing the rate at which the sludge will settle to the bottom permitting the water to drain from the tank is very important.

Roughly, a day's dredging may produce two feet of settled sludge in the storage tank. But as much as twenty feet of water has carried the sludge into the tank during the day. That water must be siphoned from the tanks quickly.

8. PROCESSING THE TOXIC WATER

8

We all know that the water in the ASB is toxic. The same may apply to the water dredged from the most toxic area near and outside the waterway. A qualified lab should analyze that water and specify the treatment required to make it harmless. A plant should then be designed and constructed to treat the water. All this takes time. The sooner this issue is addressed, the less likely the absence of the plant will delay construction.

9. THE IMPORTANCE OF STORAGE

One of the best ways to keep the entire process on schedule is to provide adequate storage between the dredge and the dryer and between the dryer and the railcars. Such storage will act as a cushion to assure that production stays on schedule. With ample storage a temporary stoppage in one part of the production line will have a minimum effect on the overall production.

9

A daily production rate of one thousand cubic yards of dried sludge, weighing about 1100 tons seemed realistic, based on the capacities of many dredging outfits. The drying firms might have to work slightly longer hours to maintain that rate but it still appeared to be quite achievable.

In the design shown for the ASB, large tanks were selected, each having a capacity of at least six day's work, or 6000 cubic yards. The last day of the week would be used for rest or for catching up on the schedule, if required.

At one time the ASB had an estimated 350,000 cubic yards of sludge. Based on that figure and the 6,000 cubic yards of production per week, it would take some 350,000/6000 or some 58 working weeks to complete the sludge cleanup in the ASB once dredging had started. However, weather and other unknowns will bear heavily on the project. Still, it seems that if properly managed, the ASB cleanup could be completed comfortably within two years.

Mathematically, one should bear in mind that a circular structure contains the most area for a given perimeter. Most of the cost of the structure is in the cost of that perimeter. Also, if you double the height of that circular structure, you double both its perimeter area and its storage capacity. But if you double the radius of that structure you also double its perimeter area, but you quadruple its storage capacity. So, you are far better off to double the radius of that circular storage tank.

Considering all the pros and cons of the circular storage tank, if you double its height, you also double the pressure within that tank when full—meaning a stronger design would be required. But if you double its radius, you quadruple the area required. In the case of the ASB, the area for processing and storing the sludge may be at a premium so the locations of the storage tanks must be carefully chosen.

Based the capacities required, the Port would be far better off to construct a few large storage tanks than a number of smaller ones. As shown on the ASB sketch enclosed, just four large tanks seems to be the ideal number—two between the dredge and the dryer and two between the dryer and the railcars. One tank in each pair would be receiving material while the second tank would be delivering it to the next process.

Each of those tanks should hold about 6,000 cubic yards, or 162,000 cubic feet. Assume that the walls of the tanks will be fourteen feet high but the tanks will be filled to a height of only twelve feet. The circular area within the filled tank would then be 162,000/12 or 13,500 square feet. The radius squared would be 13,500/3.14 or 4299 and the radius of the tank would be 66 feet. In my preliminary design the radius was increased to 70 feet for the benefit of the additional storage.

Then the question comes up—just what material should be used for the walls of the storage tanks? My first vote would be for interlocking steel sheet piles driven into a flat compacted surface. Possibly the tanks would have concrete floors. But the quality of the sub-surface in the only available area is questionable. Garbage has been deposited nearby for a number of years. So, that is an issue that must also be addressed geologically. The sooner it is addressed, the sooner the storage design can proceed with confidence.

If the tanks have sheet pile walls, another factor that must be addressed is the fact that stress on the interlocks will increase with increasing tank sizes. Will those interlocks take the sludge pressure for the proposed tank sizes? Only a close study will tell.

And just what are the alternates to driven sheet pile walls? Two come to mind. They are welded steel tanks or concrete tanks. Each of these are more likely to cost more to build and are much more expensive to remove. An advantage of driven steel sheets is that they are probably cheaper to construct and they do have a higher salvage value when removed. A negative here is the fact that they may have been tainted by the sludge when in use.

10. FLOW SHEETS

I find that flow sheets, even in simplified form, can do a lot to clear up one's thinking on the sequence of work for a proposed project. Enclosed is a flow sheet for the construction of the ASB cleanup. Would it be possible to receive a similar form for the cleanup of the waterway? Thank you.

11. ENCLOSURES

Enclosed are a preliminary flow sheet for the ASB and the preliminary plan showing how ASB sludge could be processed and exported by rail.

#3-A

From: Rick Anderson / Garden Arches [mailto:rick@gardenarches.com]
Sent: Monday, August 13, 2007 11:36 AM
To: McInerney, Lucy (ECY)
Subject: Whatcom Waterway Cleanup--Comments for the record

I do not consider the Department of Ecology cleanup plan per the proposed consent decree between the Department and the Port of Bellingham to be an adequate resolution of the hazard created by the toxic materials contained in the Whatcom Waterway and surrounding areas. 1

The solution to the Whatcom Waterway contamination should be driven by what is best for the environment and the residents who will play, work and reside in this area for centuries to come. As we all know, mercury will not deteriorate over time.....much less within the 30 year monitoring phase proposed. Given the record of capping failures (including the GP log pond area) plus the threat of natural disaster this is an entirely inadequate solution to the Whatcom Waterway problem. Your cost analysis of the cleanup alternatives is distorted by including only 30 years of monitoring a hazard which will exist forever. Why does it not call for perpetual monitoring? That is the reality of the hazard. Please change your analysis to reflect the costs 2 3

of the real need for monitoring.....forever.

I find it amazing that at a time when the State of Washington is embarking on a monumental plan to clean the waters of our region that your agency would be willing to propose only a partial cleanup of our waterway. The complete removal of the mercury and other contaminants is 4

the only permanent solution. The solution proposed in the consent decree should be based on environmental and safety facts.....not on pressure from the Port of Bellingham to make the cleanup fit within their financial and development model. To do so would be extremely short sighted.....and a gross disservice to the present and future residents of Bellingham. Please correct the proposed consent decree to represent the true realities of the facts. Please order a complete and permanent cleanup of the Whatcom Waterway.

Sincerely,
Richard L. Anderson
4219 Adams Ave.
Bellingham, WA 98229
360-650-1587
rick@gardenarches.com

EXCERPTS FROM PUBLIC HEARING TRANSCRIPT #4-A
August 8, 2007, Bellingham Cruise Terminal

Frances Badgett
Ok thanks. I'm Frances Badgett and I'm representing the Bellingham Bay Foundation this evening. We are a non-profit and we have three goals: cleanup of the waterfront, public ownership, and a great redevelopment. 1

Now that we are shifting from the Port's cleanup to your joint cleanup with the Port, the Bellingham Bay Foundation would like to reiterate that we do not feel alternative 6 is protective for the community of Bellingham.

It's really important that the community have confidence in the cleanup and we feel that alternative 6 does not do that. It is, we would like a cleanup that is genuinely protective for generations to come or else the Whatcom waterway will not function as the community, habitat, and cultural resource that it should be.

I also add my comments to those who say that the responsiveness summary did not address the technical detail of those individual comments and that the comments were lumped together, and the same response was sort of attached to batches of comments and the end result. I realize that is to prevent repetitive, having to repeat yourselves over and over again. But the end result is that the responses do not seem considered or careful, especially given the level of detail and technical expertise that was reflected in those comments. 2

We are extremely lucky in this community to have geologists, to have Wendy Steffensen, to have Mike MacKay weigh in. Bellingham Bay Foundation was lucky to have Greg Glass speak on our behalf. And to not have any of that expertise reflected in the responsiveness summary or in the cleanup action plan seems absolutely a waste.

Despite some added dredging in the inner waterway, there's very little change between the document that so many of us in this room and in this community dispute. While the Foundation appreciates the addition of the 30-year monitoring period, we feel the monitoring period should be even longer, and it should be more frequent. Frequency being as big of problem as length. 3

With the Log Pond, we're almost at the 10-year mark, and then it doesn't get evaluated again until year 20, and then year 30, and what will the mercury levels be then? Since the surface mercury levels are going up. 4

What's interesting to me is you're partially removing the sediments in the inter waterway for remediation purposes as you state, yet you refuse to remove the most contaminated sediments, the Log Pond, ASB shoulder, Starr Rock, and the area around the shipping terminal because the Port insists on a luxury yacht marina at the ASB. The Bellingham Bay Foundation stands by its assertion that the ASB should be used for hydraulic 5

dredging and then either cleaned out and made into a park, development, habitat, whatever that should be the community's decision made by all of us.

In this document, Ecology states that the land use decision does not rest with you, you have no part in that decision. Yet you bend the protectiveness and efficacy of cleanup around that land use decision; that seems unbalanced. 6

In closing, I would like to say that ignoring the citizens' consistent, loud pleas for a higher level of cleanup than proposed by the Port is in direct conflict with the Governor's goals of a Puget Sound clean enough to swim, dig, and fish in by 2020. 7

In Section 5 of the draft cleanup plan, you state Ecology reserves the right to consider other information including issues raised during public comment and/or conduct its own evaluation of alternatives to assist in making its cleanup decision. It's my hope that you will assume this power that you have been given and not to capitulate to pressure from the Port.

Thank you.

From: Frances Badgett [mailto:frances@mac.com]
Sent: Monday, August 13, 2007 3:18 PM
To: McInerney, Lucy (ECY)
Subject: Comments

#4-B

Dear Lucy,

Herewith are my personal comments on the cleanup of the Whatcom Waterway.

Frances Badgett

Frances Badgett | 2514 West Street | Bellingham, WA 98225

Lucy McInerney, PE
Washington State Department of Ecology
3190 160th Avenue SE
Bellevue, WA 98008

August 13, 2007

Dear Ms. McInerney:

As a citizen who has read all of the documents relating to the Whatcom Waterway from the original EIS in 1999 to the present, I request that you consider the following comments regarding the Cleanup Action Plan and Responsiveness Summary. Additionally, I request that Ecology revisit the cleanup of Bellingham Bay, and particularly the decision to endorse a marina and bend the cleanup around that planned use for the ASB. 8

I would like to see the removal of mercury from the loose aquatic environment through hydraulic dredging, and subsequent disposal in an upland facility. 9

I understand that the Lummi Nation and Nooksack tribe are interested in seeing the breakwater of the ASB removed and the area returned to aquatic habitat. I support their position as a matter of historic and environmental social justice. 10

I question the use of the BSL as the standard for cleanup of the Whatcom Waterway, and have not seen a good justification, nor a clear description of how it is created or derived. The Whatcom County Health Department memo supporting the BSL was written without guidance from the Whatcom County Council or the County Executive. At the urging of concerned citizens, the County Executive requested the retraction of this letter. Given that Ecology determined the letter was a matter of record, and the record should stand, I would like to see documentation of this conflict over the BSL, and all conflicting information about the BSL entered into the Cleanup Action Plan. I have requested a letter about this twice and received no answer. 11

The lack of response to public comment troubles me. The community wrote letters, submitted scientific data, offered alternatives, and aided Ecology in every way possible to help solve the problem of how best to clean up the Whatcom Waterway. Those comments went ignored in the face of pressure from the Port of Bellingham. The Port is only one of many stakeholders in this process, which also includes tribes, taxpayers, fishermen, scientists and others who requested a more permanent cleanup than proposed under the preferred remedial alternative. I 12 13

would also like for Ecology, in the interest of public process and community dialogue, to request the Port halt the threat that if there is no marina, there will be no cleanup. These threats silence public discussion and create an unfortunate atmosphere for making the best decisions about the potential uses for the entire Whatcom Waterway. 14

This is now becoming Ecology's cleanup as well as the Port's, and with that the responsibility of overseeing the best remedy for the Whatcom Waterway, not the cheapest, not the fastest, not the smoothest. The first three goals of the Bellingham Bay Demonstration Pilot are human health and safety, ecological health, and the protection and restoration of ecosystems. I would like to see Ecology embrace these goals as well, rather than dismissing them as non-regulatory. Ecology, as regulator, could have a meaningful and significant role in restoring the Whatcom Waterway. It is my hope you will assume this role. 15

If we are to uphold the Governor's goals for a clean, safe, and healthy Puget Sound by 2020, we should use Bellingham Bay as the model, not an example of failure. In the words of Billy Frank Jr., "The salmon and orca are telling us that Puget Sound is sick. We have to start turning things around now before we lose forever everything we value about the Sound." 16

Sincerely,
Frances Badgett

Bellingham Bay Foundation Response to the Washington State Department of Ecology's

WHATCOM WATERWAY CLEANUP ACTION PLAN RESPONSIVENESS SUMMARY

#5-A

COMMENTS SUBMITTED TO:

Lucille T. McInerney, P.E.
Site Manager
Department of Ecology
3190 160th Avenue
Bellevue, WA 98008-5452
Phone: (425) 649-7272
E-mail: lpeb461@ecy.wa.gov

Dear Ms. McInerney:

The Bellingham Bay Foundation submitted principles during the RI/FS public comment period in December of 2006. The purpose of those principles was to work through the problems and potential remedies with a pragmatic view of Ecology's role and capabilities. These principles called for a higher level of cleanup than proposed by the Port. We stand by these principles as our community moves into the Cleanup Action Plan and Responsiveness Summary phase of the Whatcom Waterway project. We seek a remedy that values permanence over short-term financial considerations, and more protective monitoring for contamination left behind. We believe the public deserves more reassurance than provided in this DCAP and Responsiveness Summary about the permanence and protectiveness of cleanup of the toxic legacy left behind by Georgia-Pacific and accepted by the Port of Bellingham. 1 2

We maintain that the alternative proposed by the Port of Bellingham and endorsed by the Washington State Department of Ecology is not protective enough of human health and safety, not permanent in its preference for capping over removal and upland disposal of contamination, and not preventative enough in monitoring for potential cap failures. 3

We request that the Washington State Department of Ecology work toward more permanent solutions for the Whatcom Waterway, and to consider that the permanence of mercury in the environment requires a cleanup that is equally permanent. We request that the marina become secondary to a thorough cleanup.

Regulatory vs. Planning

Ecology has determined that the Bellingham Bay Demonstration Pilot is not regulatory in nature, and therefore not considered a valid metric of the methods or goals of cleanup. 4

Contradicting this philosophy, the planning decision of a marina (which Ecology also states is not within their purview) drives the entire justification for widespread capping and minimal permanent removal of mercury from the aquatic environment. "Clean Ocean Marina" is not a regulatory standard to which the Port of Bellingham must strive, but it is used by Ecology to suggest that it is a regulatory (and clean) aquatic standard. All of the alternatives proposed in the RI/FS documents were in compliance with regulations. We find this regulatory vs. planning distinction used far too conveniently by Ecology to justify a 5

sub-standard remediation of the Whatcom Waterway, and to bolster the remediation of the ASB (which is relatively clean) as a proper cleanup. 6

Responsiveness Summary

We contend that the response offered to our comments (and to other leading environmental groups) did not fully address our concerns. With a grant from the Washington State Department of Ecology, we had the advantage of excellent guidance from Greg Glass—a leading environmental consultant in the State of Washington—and we were charged with educating and engaging the public in the public comment period. Regrettably, the work we put into commenting, the work we put into getting the public to comment, and the work we did with Greg to create workable and sustainable solutions for the Whatcom Waterway was not reflected in the dismissive summary responses from Ecology. We are disappointed that very substantive and detailed comments were lumped together and addressed together. The responses did not reflect the substantive comments offered from this community. Also, we submitted signatures from the Healthy Bay Initiative and additional signatures from a petition we circulated in favor of removal over capping, and those were not counted among the comments, but were addressed (and, again dismissed) at the end of the summary. Breaking up comments into sections also watered down the community's overwhelming criticism of the Port's preferred remedial alternatives 5 and 6. 7 8 9

Log Pond Cap

Ecology failed to assure us adequately that ground water at the Log Pond was not affected, either from upland sources (the former Chlor-Alklai facility) or from other sources within the Whatcom Waterway. If the Log Pond Cap's rise in contamination is—as is stated in the Responsiveness Summary—from the unremediated sediments in adjacent areas, then we contend that mercury is moving along the cap's surface and that the cap is receiving unacceptable levels of contamination from nearby areas. Given that the previous Log Pond Cap was presumably engineered to be protective of the marine environment and, in a few short years, shows erosion and damage, we feel that the remediation of the Log Pond will be inadequate. 10 11

An argument against removing the Log Pond in its entirety is that habitat has begun to re-establish in that area, and dredging would destroy this habitat. However, armoring, repairing, and re-capping the eroded areas of the cap are likely to harm if not destroy this habitat as well. 12

The monitoring period for the Log Pond has been extended to 30 years, but the frequency of monitoring has not increased. The problems with monitoring are frequency as much as length. 30 years is also not long enough given the permanence of mercury. Also, the DCAP states, "Cap designs considered in the RI/FS are intended to provide stable conditions that do not require active scheduled cap maintenance." Given the lack of integrity in the current cap structure, we do not have confidence that the cap will be stable and effectively seal off contamination from the aquatic environment in the future. Given that the Log Pond serves as the capping model for the entire Whatcom Waterway, we require that the capping be absolute in its efficacy. Since this is not the case, we would be most comfortable with the complete removal of the Log Pond from the aquatic environment by hydraulic dredging, and thick capping over the residual 13 14

contamination.

The financial analysis for capping and monitoring is inadequate. The financial analysis does not include repair and maintenance of the cap, because the cap's engineering will not require additional maintenance. We insist that regular cap maintenance be calculated as part of the cap repair for the Log Pond, particularly given the wave action and turbidity of the water, the possibility of prop wash, the increase in sea level from Global Warming, and other factors that can severely impact the structure and integrity of the cap. The Log Pond analysis also has only two monitoring events in its schedule. The cap at the Log Pond and the caps in and around other areas of the Whatcom Waterway will have to monitored closely given the mix of residential population nearby, the possibility of increased boat traffic in the Whatcom Waterway, and other factors. 15 16 17

The ASB

The Bellingham Bay Foundation offered several options for the use of the ASB as an interim remedial tool in cleanup as well as a receiving area for sediments (as illustrated in previous preferred remedial alternatives). The response from Ecology was inadequate. In order to hydraulically dredge the Log Pond and Inner Waterway, a contained facility nearby has to be available to receive the dredge spoils. We recommended using the ASB as an interim step in remediation, and requested this step be considered carefully. We did not receive a response that addresses our suggestion, because of the planned use of the ASB for a marina. It is contradictory for Ecology to use the planned use of the ASB as the basis for the Cleanup Action Plan, then claim to have no stake in the planning process for the ASB. We would like to see a full evaluation of the temporary use of the ASB for remediation purposes. 18

The Inner Waterway

We are encouraged to see increased dredging in the Whatcom Waterway for the purposes of remediation, but hydraulic dredging is preferable to mechanical dredging. We encourage Ecology to cap thickly over dredged areas, and to dredge more extensively for remediation. 19 20

The BSL

The BSL requires a conservative application to ensure its protectiveness. Bellingham should benefit from a cleanup level that is, without this mechanism, already sufficiently protective. We recommend the SQS as the appropriate cleanup level for sensitive and regular consumers of fish from Bellingham Bay, including the Nooksack Tribe and Lummi Nation, their children, and the elderly. 21

Human Health Risk Assessment

The Foundation rejects the notion that the BSL is conservatively applied, therefore no Human Health Risk Assessment is necessary for the Whatcom Waterway. We insist a HHRA be provided to the public to ensure the efficacy of cleanup. 22

Additional Concerns

We are disappointed that the shoulder of the ASB and the area near the Bellingham Shipping Terminal are all scheduled for capping rather than 23

dredging. We are also disappointed that Starr Rock falls under monitored natural recovery. We would like to see these areas dredged and thickly capped over the residual contamination. 24

Conclusion

As we move forward in this process, we ask two questions: A. What does successful cleanup look like? B. What does failed remediation look like? Successful cleanup would be in line with the Governor's goals of having a Puget Sound safe enough for swimming, digging, and fishing. Our community has been cut off from the proper use and enjoyment of the Whatcom Waterway for over a century. We will never be able to revisit this moment at which we make these critical decisions about the future health of our bay. 25

But a failed remediation could be even worse than the industrial area we have now: we could have sick children, eroding caps, unhealthy habitat, and, worst of all, we could be the ones to set the tone for remediation Sound-wide, so that our low level of cleanup, this mediocre Alternative 6, would become the rule, rather than the exception. Ecology is under no compulsion to capitulate to the Port. As is stated in Section 5 of the DCAP, "Ecology reserves the right to consider other information, including issues raised during public comment, and/or to conduct its own evaluation of alternatives to assist in making its cleanup decision." It is our hope that you will assume this power that you've been given and listen to the many pleas from our community for a higher level of cleanup than proposed in these documents. 26

Sincerely,
The Bellingham Bay Foundation

BCS

Bellingham Cold Storage Company

#6-A

Lucille McInerny
Department of Ecology
3190 160th Ave
Bellevue, WA 98008-5452

August 9, 2007

Re: Whatcom Waterway Draft Cleanup Action Plan

Dear Ms. McInerny,

I am a longtime Bellingham resident, and an owner of a waterfront business located down the street from the proposed New Whatcom development. Over the past years I have closely followed the Port of Bellingham's progress on the development of this site.

I recently read the Ecology's Draft Cleanup Action Plan and support its conclusions. I am pleased that DOE based its recommendations on a great deal of scientific data, and had these recommendations checked by Washington State scientists and engineers. It's important that we do the maximum amount of clean-up possible while still maintaining the economic viability of the development. DOE's proposal strikes the right balance. 1 2

Running a water-dependent business, let alone developing a near-shore site, has become much more complex in the past decade because of the environmental regulations and increased oversight. Yet we all recognize that we need better stewardship of our shoreside to improve the health of the Bay and its ecosystem.

Thank you for all your hard work; all of us (well, most of us) in Bellingham look forward to a cleaned-up waterfront, and a vibrant New Whatcom development. 3

Sincerely,

Stowe Talbot

Stowe Talbot
Bellingham Cold Storage
2825 Roeder Ave.
Bellingham, WA 98225

2825 Roeder Avenue, P.O. Box 895
Bellingham, WA 98227-0895

Phone: (360) 733-1640
Facsimile: (360) 671-1259

Website: www.bellcold.com

From: Stowe Talbot [mailto:Stowe.Talbot@bellcold.com]
Sent: Thursday, August 09, 2007 3:21 PM
To: McInerney, Lucy (ECY)
Cc: Stowe Talbot
Subject: Whatcom Waterway Cleanup Plan

#6-B

Lucille McInerny
Department of Ecology
3190 160th Ave
Bellevue, WA 98008-5452

Dear Ms. McInerny,

I am a longtime Bellingham resident, and an owner of a waterfront business located down the street from the proposed New Whatcom development. Over the past years I have closely followed the Port of Bellingham's progress on the development of this site.

I recently read the Ecology's Draft Cleanup Action Plan and support its conclusions. I am pleased that DOE based its recommendations on a great deal of scientific data, and had these recommendations checked by Washington State scientists and engineers. It's important that we do the maximum amount of clean-up possible while still maintaining the economic viability of the development. DOE's proposal strikes the right balance. 4 5

Running a water-dependent business, let alone developing a near-shore site, has become much more complex in the past decade because of the environmental regulations and increased oversight. Yet we all recognize that we need better stewardship of our shoreside to improve the health of the Bay and its ecosystem.

Thank you for all your hard work; all of us (well, most of us) in Bellingham look forward to a cleaned-up waterfront, and a vibrant New Whatcom development. 6

Sincerely,

Stowe Talbot
Bellingham Cold Storage
2825 Roeder Ave.
Bellingham, WA 98225

BELLINGHAM/WHATCOM
CHAMBER OF COMMERCE & INDUSTRY

01 August 2007

#7-A

Lucille T. McInerney, P.E.
Site Manager
Department of Ecology
3190 160th Avenue
Bellevue, WA 98008-5452
VIA E-MAIL: lpeb461@ecy.wa.gov

RE : Draft Cleanup Action Plan and Draft Consent Decree

Ms. McInerney :

On behalf of the Board of Directors of the Chamber and our 800 members, I am writing to express our thoughts on the clean-up of the Whatcom Waterway Site in Bellingham, Washington.

After reviewing the materials from the Department of Ecology, **we are in support of the clean-up plan you are proposing, and that is endorsed by the Port of Bellingham, the City of Bellingham, and the Department of Natural Resources.** 1

The 137 acres of land which make up the former Georgia Pacific site, and were transferred to the Port of Bellingham in January 2005, provide Bellingham and Whatcom County with an outstanding opportunity to return former industrial land which has been heavily contaminated to a more open, public use. The unique partnership between the Port and the City of Bellingham will allow the site to be fully redeveloped, providing housing, jobs, recreation, waterway access, and a full gamut of services to our community. 2

In cleaning the contaminants on the site, we believe that we must choose the option which provides for a nexus between public safety, redevelopment potential and cost. We believe the Department of Ecology's proposed clean-up plan provides for this nexus by ensuring the full site can be used for redevelopment (including development of a public marina in the old GP Ponding Basin), while using approved methods to dredge, cap and provide for shoreline stabilization. 3

Many, many citizens of Bellingham and Whatcom County are excited about the potential of this important redevelopment project, and the membership of the Bellingham/Whatcom Chamber is certainly among them. Ecology's proposal will provide our community with the best opportunity to clean this site, and return it to the use of the community. **We ask that the clean-up plan proposed by the Department of Ecology move forward.** 4

Sincerely,

Kenneth Oplinger, ACE, President/CEO
Bellingham/Whatcom Chamber of Commerce & Industry

1201 Cornwall Avenue, Suite 100, Bellingham, WA 98225
Ph. 360/734-1330 Fax 360/734-1332 ken@bellingham.com

From: Steve Brinn [mailto:sbrinn@lumeniq.com]
Sent: Tuesday, August 07, 2007 9:33 AM
To: McInerney, Lucy (ECY)
Cc: 'Steve Brinn'; Kirsten Barron
Subject:

#8-A

Ms. McInerny:

I have reviewed the draft Clean-Up Action Plan for the Whatcom Waterway (the “Plan”).

I strongly endorse the proposed Plan as the most permanent mitigation option practicable under MTCA. DOE should be applauded for its thorough consideration of alternative approaches, careful consideration of public comment and rigorous, science-based selection of the best alternative clean-up plan for the waterway. 1 2

Regards,

Steve Brinn
891 East Lake Samish Dr.
Bellingham, WA 98229
360-303-3427

#9-A

From: Elisabeth Britt [mailto:elizabeth@pfscascade.com]
Sent: Monday, August 13, 2007 10:40 AM
To: McInerney, Lucy (ECY)
Subject: Comments regarding Draft Consent Decree and Draft Clean up Plan for Whatcom Waterway.

<<...>>

I have enclosed my comments regarding the Draft Consent Decree and Draft Clean up Plan for your review and consideration.

Thank you in advance for your thoughtful consideration of my concerns.

Sincerely,

Elisabeth Britt

Elisabeth Britt
1111 W Holly Street, Suite C-2
Bellingham, WA 98225
(360) 527-9877

#9-B

August 3, 2007

Lucy McInerney
WA State Dept of Ecology
3190 160th Avenue SE
Bellevue, WA 98008-5452
lpeb461@ecy.wa.gov

Dear Ms. McInerney,

The purpose of this letter is to communicate my concerns regarding the draft Consent Decree and Draft Cleanup Action Plan detailing Ecology's proposed cleanup action for the Whatcom Waterway site and the lack of Ecology's responsiveness to concerns that have been raised by the community over the last 12 months.

Maximum Removal of contaminated sediments from Whatcom Waterway and Bellingham Bay: I support the maximum removal of contaminated sediments from the aquatic environment in the ASB, the inner and outer Whatcom Waterway and Bellingham Bay. The maximum amount of mercury contaminated sediments should be removed by dredging and transported to an appropriate upland disposal site. After clean up, clean fill can be brought in to adjust the depth of the channel, as necessary. 1 2

Open Water Disposal of Dredged Material removed from the Whatcom Waterway: I do not support open water disposal of dredged sediments from the Whatcom Waterway or Bellingham Bay via the Dredged Material Management Program (PSDDA – DMMP). Mercury is a persistent bio toxin that does not decompose over time. Dredged mercury contaminated sediments should not be transported to the Rosario Strait Disposal site or the Bellingham Bay Disposal site. 3

The placing of dredged materials in the aquatic environment raises several key concerns, including questions about sediment and water quality, sediment transport, water circulation, impacts to fisheries, and impacts to biological communities, especially endangered/threatened species.

After sediment is placed in an open water disposal site, some or all of it is eventually transported to other areas, potentially resulting in adverse impacts to shellfish/finfish productive areas, resulting in an increase in dredging requirements on other projects. Disposing of material “in-water” usually creates a mound or otherwise obstructs water flow. Consequently, water circulation patterns in the vicinity of the disposal site are altered. Open water disposal often results in the direct smothering of benthic organisms at the disposal site and indirect impacts to organisms living down current from the site. Disposal often impacts commercial fisheries by decreasing the size and depth of net drifts, potentially creating snags in fishing areas, and obstructing fishing access with dredging equipment. 4

Lummi Nation: I would like to see the Dept of Ecology respond to the concerns that the Lummi Nation has raised in regards to the agency’s narrow evaluation of alternatives for the ASB. It is my understanding that the Lummi have requested an evaluation of removing the ASB from the water with reestablishment of intertidal and shallow sub tidal habitat and marine buffers and/or eelgrass rather than converting the ASB to a marina. 5

In addition, the Lummi Nation supports the removal and proper disposal of all of the contaminated sediments from the ASB, the adjacent Whatcom Waterway, and other contaminated sites along Bellingham Bay. They have asked the Port to conduct a thorough environmental assessment of the impacts associated with converting the ASB to a marina. At a minimum, they request that the "No Action" alternative should evaluate the ASB as: 1) a waste water treatment facility, 2) the return of the ASB to habitat, as stipulated in the original Army Corps of Engineer permit for the construction of the ASB; and, 3) the conversion of the ASB to a contaminated sediment site. I would also like to see an environmental assessment that evaluates all of the environmental impacts of each alternative including cumulative impacts, as requested by the Lummi Nation Business Council in their letter to Ecology dated July 10, 2007.

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Restoration of historical shellfish/crab/finfish harvests: Historically, before pulp mills and other industrial facilities began pumping hundreds of thousands of tons of contaminants into the bay, Bellingham Bay was a major shellfish, crab and finfish producer. If this natural resource can be restored by cleaning up the bay and waterway, fishers from the Lummi Nation and non-tribal community can grow and harvest shellfish, crab and finfish. The Port's economic study does not include restoration of Bellingham Bay's natural resources. A clean, healthy bay can result in the restoration of a multi million dollar per year commercial fishing industry. The projected revenue could provide badly needed jobs for members of the Lummi Nation and community at large.

8

9

Ecology has an obligation to consider the rights of the public when drafting a clean up plan for a particular site. The **public trust doctrine** is the principle that certain resources are preserved for public use, and that the government is required to maintain it for the public's reasonable use. (Please see Illinois Central Railroad v. Illinois 146 U.S. 387 (1892). In that case the Illinois legislature had granted an enormous portion of the Chicago harbor to a railroad. A subsequent

10

legislature sought to revoke the grant, claiming that original grant should not have been permitted in the first place. The court held that common law public trust doctrine prevented the government from alienating the public right to the lands under navigable waters (except in the case of very small portions of land which would have no effect on free access or navigation).

In subsequent cases it was held that this public right extended also to waters which were influenced by the tides regardless of whether or not they were strictly navigable. This concept also has been found to apply to the natural resources (mineral or animal) contained in the soil and water over those public trust lands. Please give the public's right adequate consideration as you move forward with the draft consent decree and the draft clean up plan.

Affordability of New Whatcom Re-development: The Port and City believe that their proposed actions are not financially viable if they do not have the right to mitigate for their impact to treaty rights. I believe that the Port and City's proposed land uses/redevelopment plans can be modified in a manner that address the interests of the community, including the Lummi Nation's concerns about treaty fishing rights. Sadly, it appears that the lack of responsiveness to public concern is going to result in a very expensive legal challenge for our community. 11

Capping as a "clean up" alternative: Capping is not considered a "clean up" alternative – it is a form of monitored natural recovery. Current proposed cap depths do not take into consideration that benthic animals living in Bellingham Bay can burrow up to 90 centimeters deep in marine sediment. Deep burrowing activity in recovering populations may re-suspend contaminants that are buried below the surface, exposing benthic animals and other marine life to levels of methylmercury that may result in higher methylmercury levels in the food chain over time. 12 13

Sub-aquatic underground transport of deep, historic, mercury deposits: To date, consultants have not conducted an assessment of sediment mobility via sub-aquatic ground water movement/transport in the Whatcom Waterway and the Log Pond. Consequently, we have no data regarding the transport of deeply buried mercury in the Whatcom Waterway/log pond via sub aquatic ground water transport through fine and course sands. 14

Sub aquatic ground water movement may result in re-suspension of mercury or the creation of mercury plumes in uncharted underground springs and rivers under the bay and waterway. Tests should be conducted to determine if sub aquatic springs, aquifers or underground streams exist in the Whatcom Waterway and other mercury contaminated regions of Bellingham Bay. The Port should be required to drill test wells to monitor sub aquatic ground water movement in areas that we know are historically high in mercury concentrations to document that capped mercury is not being transported by natural processes to other locations in Bellingham Bay. 15

Geological stability of Whatcom Waterway in the event of a major seismic event: What is the likelihood of re-contamination of the Whatcom Waterway from contaminated groundwater under the former G.P. Pulp and Chemical mill during a major seismic event that causes liquefaction? The current draft clean up plan does not contain adequate scientific data to protect public health during a major seismic event. Additional studies need to be conducted to ensure public safety. Sand boils and other seismic phenomena could result in significant recontamination of the Whatcom Waterway and Bellingham Bay. Please see WWU Geology Professor's comments submitted on August 8, 2007 for a detailed list of their concerns. 16

Thank you for providing me an opportunity to submit comments regarding the draft consent decree and draft clean up plan.

Sincerely,

Elisabeth Britt

EXCERPTS FROM PUBLIC HEARING TRANSCRIPT #10-A
August 8, 2007, Bellingham Cruise Terminal

Mark Buehrer
I've got a PowerPoint slide, is it possible to put that up? I do have handouts so I could submit that, right?

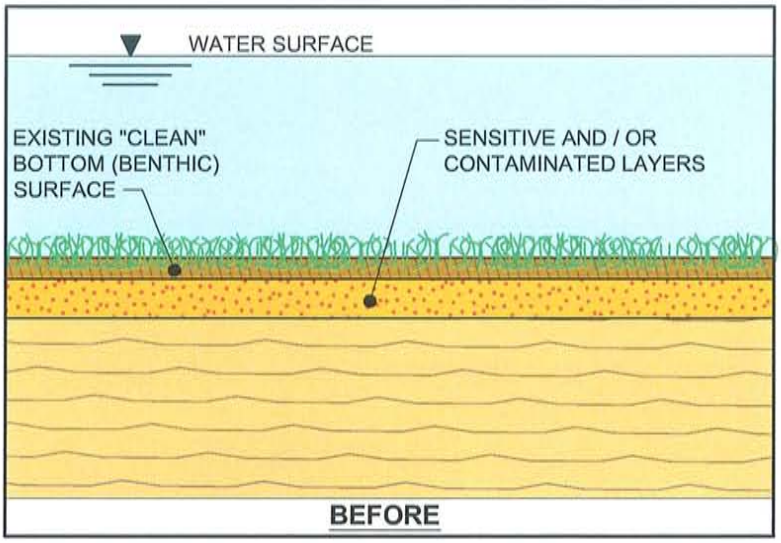
My name is Mark Buehrer. I'm the director of 2020 Engineering. Professional, licensed, civil engineer, 25 years plus experience.

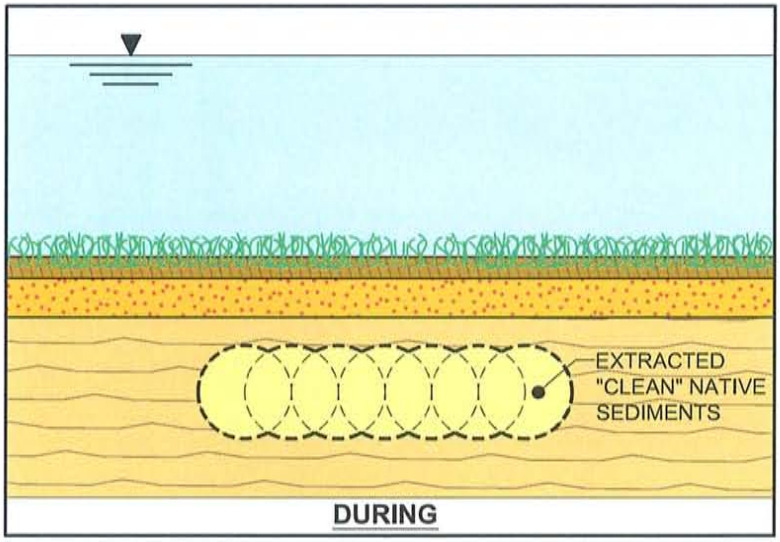
I've lived in Bellingham for 20 years. The concern I have is the method of dredging. I'm concerned that during the proposed dredging, the sediments are going to get stirred up and drift and disburse out into areas, perhaps contaminating areas that are capped and cleaned now. 1

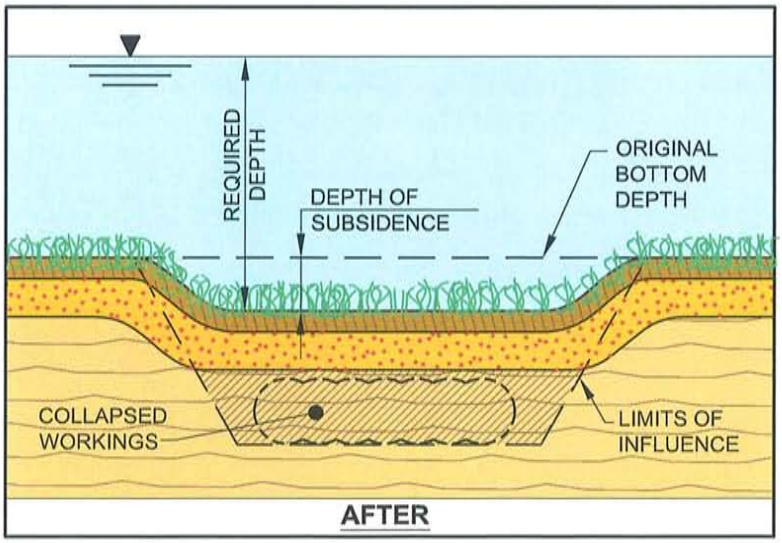
So, what I've got here is a method of dredging that could be performed that would actually, by using directional drilling technologies that are out there, actually take and remove the sediments that are underneath the contaminated layers. Take the clean sediments that are underneath there and as we move those clean sediments, it actually, the ground surface of the dredged area would settle, and you would obtain the depth of settlement that you would need for shipping. So, with that method you would only be dredging or removing clean materials. That clean material then could be used for capping other areas that are needed. There would be lots of cost savings because you're not dealing with a lot of contaminated materials, and in particular, the dredging technologies that are out there are pretty aggressive, and a lot of disbursement of soils and contaminations that are in there would be really hard to control it all. We shouldn't be making more of a mess with things that are already in a fairly stable state. 2

If anybody else is interested, I have a handout here that you could basically look at. It's pretty simple. Methods of doing this and I think it should be something that's looked into, and I think it could be a really good environmental solution; it would also be something that would save a lot of money and be really cost-effective. 3

Thank you.







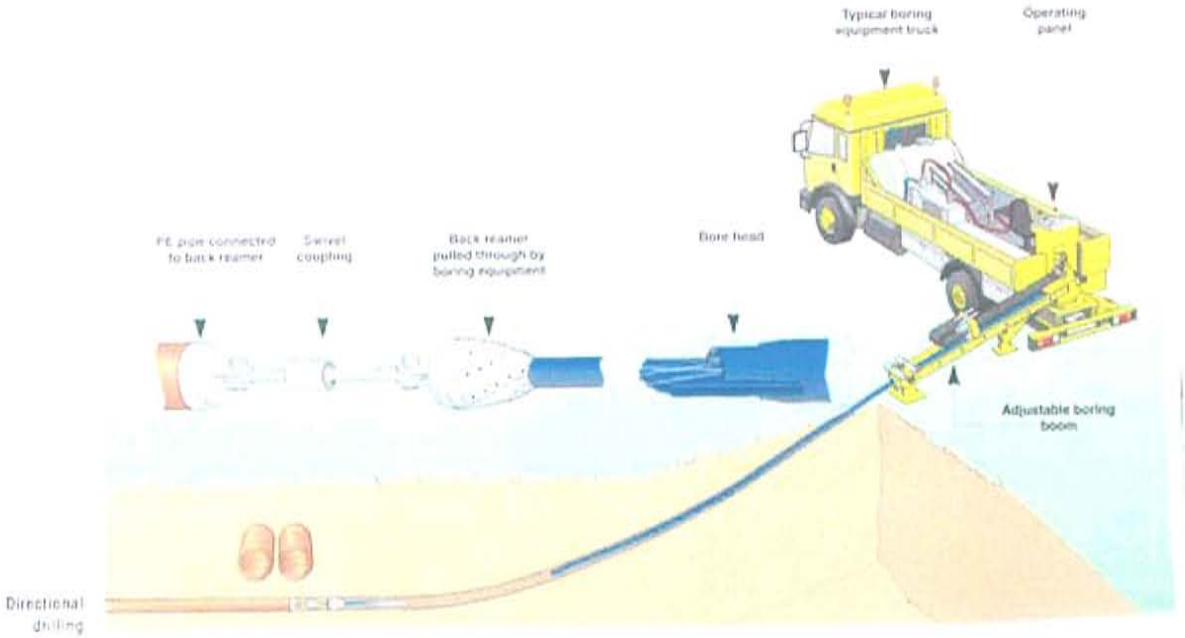
MINE DREDGING

- ✓ Allows Port facilities to provide the necessary depth for shipping lanes and docking with minimal environmental impacts
- ✓ "Clean" native sediments are extracted below the sensitive and/or contaminated layers
- ✓ Protects the existing healthy benthic habitat surface of the aquatic environment
- ✓ Maintains and/or improves "capped" contaminated sediments
- ✓ The extracted clean sediments can be used to "cap" contaminated sediments at other locations
- ✓ Prevents dispersion of contaminants that may occur underwater by conventional dredging methods
- ✓ Uses the latest technologies available *(i.e., horizontal directional drilling equipment with GPS controls to extract clean sediments)*

MINE DREDGING
OPERATION SEQUENCE

August 8, 2007

2020 ENGINEERING



HORIZONTAL DIRECTIONAL DRILLING EQUIPMENT

MAYOR'S OFFICE
Tim Douglas, Mayor
City Hall, 210 Lottie Street
Bellingham, WA 98225
Telephone (360) 676-6979
Fax (360) 738-7418

August 2, 2007

#11-A

Lucille McInerney
Site Manager
WA Department of Ecology
3190 160th Avenue
Bellevue, WA 98008-5452

Re: Whatcom Waterway site cleanup

Dear Ms. McInerney:

On behalf of the City of Bellingham, I want to express our eagerness to get on with the clean-up of Bellingham's central waterfront. Having been involved for two decades in pursuing a clean and healthy Puget Sound, I find us on the verge of taking a major step in precisely that direction. As you well know, key state agencies, the City of Bellingham, and the Port of Bellingham agreed several years ago to develop and implement the Bellingham Bay Pilot Project. Through that work, we have identified priority actions and undertaken many of them. 1 2

We now face the single most significant task: clean-up of the central waterfront. A solid, achievable alternative has been identified: Number 6. All the key parties are on board to get started. We lack only the Department of Ecology's decision. 3

If there is delay or if the preferred option is altered, we could see years more of analysis and debate. Meanwhile the will to proceed and the value of the dollars needed to complete the clean-up will erode. Puget Sound will lose this vital opportunity to restore its waters to environmental health. 4

Your prompt decision is our call to action.

Sincerely,

Tim Douglas, Mayor

From: Kevin Cournoyer [mailto:kjc@mac.com]
Sent: Sunday, July 15, 2007 1:55 PM
To: McInerney, Lucy (ECY)
Subject: Request additional time for public comment - Whatcom Waterway

#12-A

Dear Ms. McInerney:

I request additional time for public comment for the Whatcom Waterway documents you released on Thursday (7/12/07). (http://www.ecy.wa.gov/programs/tcp/sites/whatcom/ww.htm) There are extraordinary problems presented in those documents. You have rejected the reasoned pleas from the community, and it took you about seven months to do so. And so the community will need an extraordinary amount of time to respond to these documents. **I asked for an additional four months for the public comment period.** 1

Thanks,
Kevin Cournoyer

2514 West Street | Bellingham, WA 98225
(360) 527-1097 | kjc@mac.com

cc: Governor Christine Gregoire

#12-B

From: Kevin Cournoyer [mailto:kjc@mac.com]
Sent: Monday, August 13, 2007 4:27 PM
To: McInerney, Lucy (ECY)
Subject: Cournoyer - Comments for DCAP & Responsiveness Summary (Whatcom Waterway)

Dear Ms. McInerney:

Attached please find my comments (a Word document and a pdf) in response to your Draft Cleanup Action Plan and your Responsiveness Summary for the Whatcom Waterway cleanup site.

Regards,
Kevin Cournoyer

2514 West Street | Bellingham, WA 98225
(360) 527-1097 | kjc@mac.com

13 August 2007

Kevin Cournoyer
2514 West Street
Bellingham, WA 98225
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360.527.1097

#12-C

Lucille T. McInerney
Department of Ecology
3190 160th Avenue
Bellevue, WA 98008-5452

Dear Ms. McInerney:

Once again, I'd like to express my gratitude to the Department of Ecology for its oversight of the Whatcom Waterway Cleanup site. But I have, once again, serious problems with your work on this project. Very serious problems.

With the limited time provided to me, I've just finished evaluating your Responsiveness Summary (RS) and your Draft Cleanup Action Plan (DCAP). (My comments will be unavoidably brief, given the fact that you have not provided adequate time for a detailed response.) I'm genuinely dismayed by the deceptiveness of these documents. The deceptiveness is roughly similar in nature to the deceptiveness that permeates the Port's 2006 RI/FS and EIS for the Whatcom Waterway. Given that I've carefully observed the Port for many years, their RI/FS and EIS for the Whatcom Waterway were not surprising. It's the Port, after all. They're inherently corrupt. That's been well established, and it no longer surprises people. What is surprising—shocking, really—has been your responses to these documents and your responses to public concerns. 1

Comment Period

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ASB

I could not have been more clear that the ASB needs to be used to help remediate the Whatcom Waterway. Many technical comments were broached by me and others that were either ignored or summarily dismissed. And when reasons were given, they we're often highly speculative—and, well, highly biased—and not based on a RI or other research. And this fact simply reinforces my original request that Ecology needs to completely start over. Ecology simply cannot state things like 7

"…the [use of the] ASB area for sediment dewatering was not evaluated as part of the remedial alternatives." [5.17]

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"Under the Shoreline Act, we consider the ASB filled, even though it's a lagoon. It's a wastewater treatment plant, much like a sewage treatment plant. <u>It's not a water body of the State.</u> <u>It's uplands.</u>" [http://www.bbayf.org/public/public_08.html]

I suggest you have a long conversation with this man. A man, by the way, the Port of Bellingham attempted to get fired for making this statement, for telling the truth.

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You repeatedly refer to something called a "Clean Ocean Marina." For the record, there's no such thing. That phrase is a marketing nonsense created by the Port of Bellingham to persuade the public to accept a marina in the ASB. Nothing more. No such marina has ever been built before. There are no standards established anywhere for such a marina. It's a fantasy. And a regulatory authority like the Department of Ecology should not unthinkingly repeat that marketing phrase in these documents. It's unseemly. And such actions reveal, once again, your bias.

9

"Adequate," "Sufficient," and "Appropriate"

Most of your responses to public concerns are highly dismissive and condescending in nature. You often quickly wrap up your responses with something like the "remedy" is "adequate" or "sufficient" or "appropriate." Adequate for whom? You and the Port of Bellingham. Not the public. It's just enough of a so-called "cleanup" to reach the true and only objective that means anything to the Port of Bellingham: a marina in the ASB. Given the fact that your selected remedial alternative is not, according to the public, either "adequate," "sufficient," or "appropriate," your responses (or lack of responses) to their concerns are truly galling.

10

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This is just one of many examples of your deceptiveness. You said I said "institutional controls" would not be necessary in Alt. 3. I, for one, did not even use the phrase "institutional controls." (I said "deed restrictions" and "restrictive covenants.") I, for one, did not mention specifically Alternative 3. I mentioned Alternative "J." Is Alt. J exactly the same as "Alt. 3." No. And I used the word "possibly." So you reshaped the comment before you attempted to discredit it. Where else did you do this "maneuver" in your responses? Finally, I was quoting from a FS approved by *you*, Ms. McInerney. So, in a way, you're now contradicting yourself. I'll repeat that section from my comments for emphasis:

11

All the sediments, for example, in the entire Alt. J dredge prism are far below 24 mg/kg. After filling the ASB, you would possibly not even need deed restrictions or restrictive convenants. From page 34 of the 2002 RI/FS for the Whatcom Waterway site:

"Under MTCA, in those situations where hazardous substances remain on-site at concentrations above applicable cleanup levels, institutional controls such as deed restrictions or restrictive covenants may be required to protect the integrity of the remedial action and prevent exposure to contaminants remaining at the site. However, based on data collected during the RI/FS (Anchor and Hart Crowser 2000), sediment concentrations within WW Area Alternative J dredge prism (Figure 12) are below prospective Method B MTCA soil cleanup levels for unrestricted land uses, particularly if water quality is already addressed (see above). For example, the MTCA Method B (unrestricted land use) cleanup level for mercury in soil to protect from potential soil contact exposures is 18 mg/kg (Ecology 2001), while the maximum sediment mercury concentration within the Alternative J dredge prism is 12 mg/kg. Thus, MTCA restrictive covenants (WAC 170-340-440(4)(a)) may not be applicable to the ASB CDF."

Whatcom County Department of Health

On at least two occasions, you cite a letter from the Whatcom County Department of Health (WCDH) to buttress the Port's and Ecology's BSL analysis. There's just one problem: **The letter is not the work of the Whatcom County Department of Health.** It was written without any authority from anyone (not the Director of WCDH, not the County Executive, no one) by a Port appointee to the WAG (Waterfront Advisory Group) and a member of the Marina Advisory Committee who happens to work at the WCDH. He just grabbed a sheet of WCDH letterhead, wrote the letter and sent it to you entirely on his own at about the precise time he was applying for a job at the Port of Bellingham. I'm talking about Jeff Hegedus.

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According to Regina Delahunt, the Director of WCDH, the County has asked you to remove this fraudulent letter from the record and you have flatly refused. (She indicated that you said, "the record stands.")

You should remove the letter from the record and make clear its fraudulent nature. I have been working for weeks with Whatcom County officials to resolve this matter. At this time, this matter is still ongoing and unresolved—in part because of your recalcitrance. Both Ecology and Whatcom County need to do something about this problem.

CDF vs. CND

There are several arguments I made in my original comments that you either ignored or brushed aside with breathtaking alacrity. I simply don't have time to go through each one of these examples. But I'll repeat one of them here:

CDF vs. CND. For years, the ASB has been defined as a CDF—a Confined Disposal Facility. That's what it was in the 2002 Modified Preferred Alternative or Alt. J. In how it's engineered, it's actually similar to other CDFs on the West coast. CDFs rank favorably, according to MTCA, with regard to the disposal of contaminants. CNDs (Confined Nearshore Disposal sites)? Not so much. It's obvious that this definition—this pesky CDF thing, if you will—would cause problems for the Port of Bellingham in any fair ranking of the various alternatives. So, with the willful complicity of the Department of Ecology, they changed the disposal designation of the ASB from a CDF to a CND. The explanation for this change is not, as far I can determine, in the narrative of the RI/FS. (There's not much more than one *passing* reference to it in the EIS [e.g., pp. 4-24–4-25], but it's couched in the usual speculative language of these documents ["...may require...."] and it's not supported with any hard evidence—no referenced documents or reports whatsoever.) If pressed, I'm told that Ecology will unearth a report that speculates that the removal of sludges and the aerating fans (the weirs) and berm construction might damage the bentonite liner and, thus, degrade the disposal ranking of the ASB. Is this report tenable? Maybe. Has it be substantiated empirically? No. It might be right. It might be wrong. (I have not personally seen this report. There's absolutely no direct reference to this report, as far as I can determine, in the RI/FS or EIS.) But it's hardly a compelling case to reclassify the disposal designation of the ASB. If the bentonite were damaged, you can replace it—simply reline the ASB. And there are other possibilities, which would require further investigation. (There are scenarios wherein you do not have to construct a berm, for example.) All of this is spelled out in the Healthy Bay Principles created by Frances Badgett and Greg Glass for the Bellingham Bay Foundation. They provide you with numerous rational scenarios wherein you could use the ASB for the purposes of remediating the Whatcom Waterway; in other words, for remediating a highly vulnerable aquatic environment by using a confined, engineered upland environment, the ASB. No matter how inconvenient this fact might be for the Port, for all intents and purposes, the ASB is still a Confined Disposal Facility (CDF). Whether it remains that way permanently or temporarily will require further investigation and study. Next time I request that the authors of the RI/FS be honest about the ASB. A wide array of real alternatives should be brought before the public—before the real owners of this property—for review and comment.

13

14

Log Pond

It's now clear that something has to be done about the Log Pond. And I'm not talking about more capping. Both the Port and you have lost all credibility after a year of explanations for the Log Pond's cap failure. You always explain away the failure with a high school debater's ploy: trivialize the problem. But that simply won't work. The scope and nature of the mercury concentrations in the Log Pond are simply too extreme.

15

Removing the mercury from the Log Pond has never been on the table—no such alternative has ever been investigated in a RI. That must change. Your reasons for focusing exclusively on capping the Log Pond are invariably specious. (For example, removal would destroy habitat. That's absurd. Piling a thicker cap on the existing cap will likely destroy habitat. And what's more "permanent" than a thorough removal with capped residuals? Nothing.) And using the ASB to help remediate the Log Pond should be explored in a RI. I'm talking about hydraulic dredging, dewatering, and then final removal to an off-site Title D landfill. This option must be seriously explored. Otherwise, for one thing, you're going to have to budget for creating a very, very frequent monitoring program that lasts…forever. Because we're talking about hundreds of ppm of mercury in the open aquatic environment. Your "safe at depth" comments are now threadbare and ridiculous. Mercury, a bioaccumulative neurotoxin, is forever. What does "forever" look like on a spreadsheet?

16

17

Conclusion

You have bent the efficacy of the cleanup of the Whatcom Waterway to the Port's unflinching desire for a marina in the ASB. This is the plain and simple truth. And the public is left to suffer the long-term consequences of this decision by you. Contrary to what you try to convey to the public, you did not have to bend the cleanup to the marina. You have the authority to force the Port of Bellingham into an involuntary cleanup action that's far more protective and permanent. But you chose not to. This callow response to the Port of Bellingham will haunt the reputation of the Department of Ecology forever. And it will be largely your fault. (I knew we were in trouble when Mike Stoner walked into the public hearing last December and winked at you. And you responded with a broad smile. Not what a citizen might expect from a regulatory authority in that situation. Simply put, the public has been gamed.) I'm completely stunned by your actions as an Ecology official. Your actions, to quote MTCA, have been "recalcitrant." Your aggressive indifference to the heart-felt pleas of thousands of Whatcom County residents will never be forgotten.

18

Sincerely,

Kevin Cournoyer

2514 West Street | Bellingham, WA 98225 | 360.527.1097 | kjc@mac.com

13 August 2007

Kevin Cournoyer
2514 West Street
Bellingham, WA 98225
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#12-D

Lucille T. McInerney
Department of Ecology
3190 160th Avenue
Bellevue, WA 98008-5452

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Concerned citizens were not given real point-by-point responses. First, you lumped together concerns of your choosing. And then you provided incredibly brief responses to often detailed and expansive concerns in a document that's very difficult to read and reference. (You left off page numbers, by the way.) And you did not respond at all to many, many, many concerns expressed by the public. This is a travesty. Repetitiveness is not a concern to the public. You should have answered every concern from every citizen as expansively and thoughtfully as possible. No detail should have been ignored. (You took seven months, after all.) No detail was unworthy of your careful analysis and consideration. I think it's fair to characterize your responses (and lack of responses) to the public as contemptuous.

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This is just one of many examples of your deceptiveness. You said I said "institutional controls" would not be necessary in Alt. 3. I, for one, did not even use the phrase "institutional controls." (I said "deed restrictions" and "restrictive covenants.") I, for one, did not mention specifically Alternative 3. I mentioned Alternative "J." Is Alt. J exactly the same as "Alt. 3." No. And I used the word "possibly." So you reshaped the comment before you attempted to discredit it. Where else did you do this "maneuver" in your responses? Finally, I was quoting from a FS approved by *you*, Ms. McInerney. So, in a way, you're now contradicting yourself. I'll repeat that section from my comments for emphasis:

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"Under MTCA, in those situations where hazardous substances remain on-site at concentrations above applicable cleanup levels, institutional controls such as deed restrictions or restrictive covenants may be required to protect the integrity of the remedial action and prevent exposure to contaminants remaining at the site. However, based on data collected during the RI/FS (Anchor and Hart Crowser 2000), sediment concentrations within WW Area Alternative J dredge prism (Figure 12) are below prospective Method B MTCA soil cleanup levels for unrestricted land uses, particularly if water quality is already addressed (see above). For example, the MTCA Method B (unrestricted land use) cleanup level for mercury in soil to protect from potential soil contact exposures is 18 mg/kg (Ecology 2001), while the maximum sediment mercury concentration within the Alternative J dredge prism is 12 mg/kg. Thus, MTCA restrictive covenants (WAC 170-340-440(4)(a)) may not be applicable to the ASB CDF."

Whatcom County Department of Health

On at least two occasions, you cite a letter from the Whatcom County Department of Health (WCDH) to buttress the Port's and Ecology's BSL analysis. There's just one problem: **The letter is not the work of the Whatcom County Department of Health.** It was written without any authority from anyone (not the Director of WCDH, not the County Executive, no one) by a Port appointee to the WAG (Waterfront Advisory Group) and a member of the Marina Advisory Committee who happens to work at the WCDH. He just grabbed a sheet of WCDH letterhead, wrote the letter and sent it to you entirely on his own at about the precise time he was applying for a job at the Port of Bellingham. I'm talking about Jeff Hegedus.

According to Regina Delahunt, the Director of WCDH, the County has asked you to remove this fraudulent letter from the record and you have flatly refused. (She indicated that you said, "the record stands.")

You should remove the letter from the record and make clear its fraudulent nature. I have been working for weeks with Whatcom County officials to resolve this matter. At this time, this matter is still ongoing and unresolved—in part because of your recalcitrance. Both Ecology and Whatcom County need to do something about this problem.

CDF vs. CND

There are several arguments I made in my original comments that you either ignored or brushed aside with breathtaking alacrity. I simply don't have time to go through each one of these examples. But I'll repeat one of them here:

CDF vs. CND. For years, the ASB has been defined as a CDF—a Confined Disposal Facility. That's what it was in the 2002 Modified Preferred Alternative or Alt. J. In how it's engineered, it's actually similar to other CDFs on the West coast. CDFs rank favorably, according to MTCA, with regard to the disposal of contaminants. CNDs (Confined Nearshore Disposal sites)? Not so much. It's obvious that this definition—this pesky CDF thing, if you will—would cause problems for the Port of Bellingham in any fair ranking of the various alternatives. So, with the willful complicity of the Department of Ecology, they changed the disposal designation of the ASB from a CDF to a CND. The explanation for this change is not, as far I can determine, in the narrative of the RI/FS. (There's not much more than one *passing* reference to it in the EIS [e.g., pp. 4-24–4-25], but it's couched in the usual speculative language of these documents ["...may require...."] and it's not supported with any hard evidence—no referenced documents or reports whatsoever.) If pressed, I'm told that Ecology will unearth a report that speculates that the removal of sludges and the aerating fans (the weirs) and berm construction might damage the bentonite liner and, thus, degrade the disposal ranking of the ASB. Is this report tenable? Maybe. Has it be substantiated empirically? No. It might be right. It might be wrong. (I have not personally seen this report. There's absolutely no direct reference to this report, as far as I can determine, in the RI/FS or EIS.) But it's hardly a compelling case to reclassify the disposal designation of the ASB. If the bentonite were damaged, you can replace it—simply reline the ASB. And there are other possibilities, which would require further investigation. (There are scenarios wherein you do not have to construct a berm, for example.) All of this is spelled out in the Healthy Bay Principles created by Frances Badgett and Greg Glass for the Bellingham Bay Foundation. They provide you with numerous rational scenarios wherein you could use the ASB for the purposes of remediating the Whatcom Waterway; in other words, for remediating a highly vulnerable aquatic environment by using a confined, engineered upland environment, the ASB. No matter how inconvenient this fact might be for the Port, for all intents and purposes, the ASB is still a Confined Disposal Facility (CDF). Whether it remains that way permanently or temporarily will require further investigation and study. Next time I request that the authors of the RI/FS be honest about the ASB. A wide array of real alternatives should be brought before the public—before the real owners of this property—for review and comment.

Log Pond

It's now clear that something has to be done about the Log Pond. And I'm not talking about more capping. Both the Port and you have lost all credibility after a year of explanations for the Log Pond's cap failure. You always explain away the failure with a high school debater's ploy: trivialize the problem. But that simply won't work. The scope and nature of the mercury concentrations in the Log Pond are simply too extreme.

Removing the mercury from the Log Pond has never been on the table—no such alternative has ever been investigated in a RI. That must change. Your reasons for focusing exclusively on capping the Log Pond are invariably specious. (For example, removal would destroy habitat. That's absurd. Piling a thicker cap on the existing cap will likely destroy habitat. And what's more "permanent" than a thorough removal with capped residuals? Nothing.) And using the ASB to help remediate the Log Pond should be explored in a RI. I'm talking about hydraulic dredging, dewatering, and then final removal to an off-site Title D landfill. This option must be seriously explored. Otherwise, for one thing, you're going to have to budget for creating a very, very frequent monitoring program that lasts…forever. Because we're talking about hundreds of ppm of mercury in the open aquatic environment. Your "safe at depth" comments are now threadbare and ridiculous. Mercury, a bioaccumulative neurotoxin, is forever. What does "forever" look like on a spreadsheet?

Conclusion

You have bent the efficacy of the cleanup of the Whatcom Waterway to the Port's unflinching desire for a marina in the ASB. This is the plain and simple truth. And the public is left to suffer the long-term consequences of this decision by you. Contrary to what you try to convey to the public, you did not have to bend the cleanup to the marina. You have the authority to force the Port of Bellingham into an involuntary cleanup action that's far more protective and permanent. But you chose not to. This callow response to the Port of Bellingham will haunt the reputation of the Department of Ecology forever. And it will be largely your fault. (I knew we were in trouble when Mike Stoner walked into the public hearing last December and winked at you. And you responded with a broad smile. Not what a citizen might expect from a regulatory authority in that situation. Simply put, the public has been gamed.) I'm completely stunned by your actions as an Ecology official. Your actions, to quote MTCA, have been "recalcitrant." Your aggressive indifference to the heart-felt pleas of thousands of Whatcom County residents will never be forgotten.

Sincerely,

Kevin Cournoyer

2514 West Street | Bellingham, WA 98225 | 360.527.1097 | kjc@mac.com

From: Dan Coffey [mailto:dan_coffey@comcast.net]
Sent: Friday, August 10, 2007 11:10 PM
To: McInerney, Lucy (ECY)
Subject: Whatcom Waterway Site Cleanup

#13-A

To Whom it May Concern:

I attended last Wednesday's meeting (8/8/2007) so I could better understand the issues that I have been hearing and reading. All along, I have been concerned what was planned for the former GP site and the Whatcom Waterway. Such a prime location, such a pristine area as Bellingham, (voted top place to live by how many magazines now?) it is not a secret that investors looking to make big cash would be flying in from all over. Somehow, I was holding on to the idea that because Washington State Department of Ecology was part of the process, at least the clean up would be thorough and done well. Like many people in Bellingham, I am an environmentalist and admire and respect those working in the field to protect that which sustains life. But as I heard the overview of the draft of the clean-up plan, as well as the questions and statements which followed, I am not so confident.

How can the Department of Ecology agree to the dredging of the ASB, stirring up contaminates that are, as I understand it, contained well right where they are? Regardless of what anyone wants to do with the site, how can the Department okay such a project? I keep hearing that it is the Waterways which need to be dredged and cleaned out and restored. Capping containments, especially in an area where earthquakes are possible (some say likely) isn't safe or secure, though I heard a Department of Ecology employee say caps are secure. Contaminates are deep in the sediment. 1 2 3

I don't see the point of listing again and again the concerns that have been brought to the Department of Ecology about the clean up proposals. I know many of you have heard and read them. I believe that you know in your heart what the right thing to do is. The people of Whatcom County that are taking the time to research and write you have the environment in mind and want to insure that the right thing is being done. The right thing is to take this amazing opportunity to properly and thoroughly clean up an area that has been abused and polluted for many years. As a parent and a citizen of Bellingham and Whatcom County, I implore you to do the right thing, even if it means the clean up takes years. Make the area safe for future generations. 4

Thank you.

Martha Dearstyne
1540 Marine Drive
Bellingham, WA 98225

From: John D'Onofrio [mailto:jdonofrio@nwcomputer.us]
Sent: Tuesday, August 07, 2007 3:24 PM
To: McInerney, Lucy (ECY)
Subject: Bellingham Bay clean-up

#14-A

Dear Lucy,

As a concerned citizen and board member of the Bellingham Bay Foundation, I wish to express my deep concern with the proposed capping remediation in our bay. While extended the monitoring period to 30 years is a (small) step in the right direction, it is woefully (and obviously) inadequate considering what we know about mercury contamination over time. 1 2

I find it a tragedy of almost Shakespearean proportions that we are being burdened with a toxic legacy for our children and children's children so that the owners of nice luxury yachts will have a convenient place to park them. The fact that the Port of Bellingham's single-minded desire for a marina has driven this outcome is both embarrassing and shameful. 3

Respectfully,

John D'Onofrio

From: NorthSound Baykeeper [mailto:northsound.baykeeper@gmail.com]
Sent: Monday, August 13, 2007 4:24 PM
To: McInerney, Lucy (ECY)
Subject: Comments on Whatcom Waterway Draft Cleanup Action Plan

#15-A

August 8, 2007

James Pendowski, Program Manager

Lucille T. McInerney, Whatcom Waterway Site Manager

Department of Ecology

3190 160th Ave.

Bellevue, WA 98008

RE: Response to Comments on the Whatcom Waterway Draft Consent Decree

Draft Cleanup Action Plan and Remedial Investigation / Feasibility Study

Having reviewed the draft Cleanup Action Plan and draft Consent Decree, I would like to state my response in hopes that it and others' comments may be truly considered. It seems apparent that little meaningful regard has been given to public comment on the RI/FS as well as other documents fundamental to the cleanup and redevelopment of Bellingham's waterfront. 1

It is now widely understood that the City, the Port, and the Department of Ecology have the political motivation to choose certain plans of action over others, even in the face of overwhelming public dissent. It is now time for the opinion of the public and organizations such as People for Puget Sound, ReSources, and the Lummi Nation, to receive significant attention instead of being brushed aside with flawed arguments strategically placed by the Port of Bellingham and others with a financial stake in what becomes of the waterfront. 2

In order for the Department of Ecology to fulfill its mission "*to protect, preserve and enhance Washington's environment, and promote the wise management of our air, land, and water",* these political ties must be severed in favor of a legitimate consideration of the scientific, social, and environmental concerns brought up by the public in numerous hearings and written comments. Please refer to the comments submitted by North Sound Baykeeper Wendy Steffensen for a comprehensive overview of the inadequacies in the current state of comment responsiveness. 3

Furthermore, I would like to express my support for cleanup alternatives 7 and 8. Without regard of the expense, human and environmental health should be paramount in redeveloping a site with such significant contamination. Fish consumption levels by subsistence fishers should be more adequately addressed in the cleanup plan as well. A 4 5

thoroughly protective cleanup action could set the standards high for industrial waterfront redevelopment around the country. Instead of going with the most inexpensive and quickest methods, Bellingham's waterfront cleanup and redevelopment plan should reflect the strong environmental values of the community.

Thank you for your time in considering my comments as well as those of the North Sound Baykeeper and the rest of the public.

Jessica Doyle, student at Huxley College of the Environment, WWU

From: Leonard Duncan [mailto:duncancands@msn.com]
Sent: Monday, August 13, 2007 9:53 AM
To: McInerney, Lucy (ECY)
Cc: Clint and Sara
Subject: comments re: Draft Clean up action Plan Whatcom Waterway

#16-A

Hello Ms. McInerney

I have attached a file containing some comments re: the Draft Clean up Action Plan.
Thanks for your consideration.

Clint Duncan

To: Lucille T. McInerney, P.E. Site Manager August 13, 2007
WDOE

#16-B

From:
L. Clint Duncan 2601 Lummi View Drive
Bellingham, WA 98226
Email duncancands@msn.com
Phone 360.961.7614

The following comments are directed to the Monitoring plan i.e. (EXHIBIT B -Draft Cleanup Action Plan – Whatcom Waterway Site, Bellingham, Washington).

It is my understanding that one of the goals of remediation is to reduce the potential impact of historic Hg contamination to human receptors. The monitoring plan should indicate the effectiveness of those efforts.

Contaminant Hg species in the waterway are converted to monomethylmercury which then is biomagnified and bioaccumulated by species living in the waterway. When humans ingest monomethyl mercury containing organisms they are poisoned.

I recommend that the monitoring plan be designed to;

a) Yield information concerning the total sediment mercury content. 1

b) Yield information concerning the temporal and spatial concentration of monomethyl mercury in the sediment, surrounding water, and surrounding suspended materials. 2

c) Assess the rate and efficiency with which target species such as the Dungeness crab accumulate and eliminate monomethyl mercury. 3

The ‘BSL’ was formulated in 2000 after limited sampling. Current literature indicates that the rate of monomethyl mercury production at the sediment water interface depends on a number of factors. The monitoring design should incorporate that knowledge. The rate and success of monomethyl mercury accumulation is species dependent. The monitoring plan should be designed to acquire that understanding or should be based on an understanding of those factors. 4

Thank you for considering these comments.
L. Clint Duncan

EXCERPTS FROM PUBLIC HEARING TRANSCRIPT
August 8, 2007, Bellingham Cruise Terminal

#17-A

George Dyson

Thank you. It's actually George Dyson. 435 W Polly Street, right on the downtown waterfront. So I'm speaking really as an adjacent property owner. With a very selfish agenda. I own property right next to the head of the waterway. I'm shocked. I'm repeating the comments exactly what I said 8 months ago. Which is really not been addressed. The head of the waterway is not being cleaned up in this, the chosen alternative. To me, that's not good and I think you know that. 1

There is a real problem with this cost benefit. You have to fairly account for the costs. I don't think we've looked at—the real costs long term of not cleaning up are going to add up and mount. All of this monitoring forever is very expensive compared to doing it. Now is the time. It's going to be a lot harder to cleanup once we dump more material on top and have even sort of greater risk. 2

It's also, I keep reiterating, it's driven by land use. It shouldn't only be driven by land use. It should be driven by water use. The question here is cleaning up the waterway. We should look at how that water is used. Bellingham is here because that was the navigation channel that put Bellingham on the map where it is. There's been no real public discussion of us relinquishing that forever. We forever will be giving up the right to that channel being navigable. 3

Maybe that's what we should be doing; maybe we shouldn't. I urge everyone to give that, as of now, that is a federal navigable waterway and it has to be cleaned up. Now you may say the owners are changing that—it's not changed yet. I think we're a little premature to say we're leaving that area not cleaned. Maybe we want to fill it again later, maybe we want to clean it and then fill it with sand, but we ought to clean it.

Now I'll just go through the points in my 7 minutes that I made before.

I question whether the head of the waterway is naturally recovered and also whether it's limited to 12 cm. If you wade out there in 12 cm gumboots you'll have mud in your feet right away. You need about 30 cm gumboots to walk around in there, let along dig clams or anything.

Sample data. I'm partly a scientist. I speak at scientific conferences. There's not good science behind this. The data is remarkably sparse. It's very questionable to make these $100,000,000 decisions based on the data we have. You need a real time series of change over time. We've had very, very spotty sampling. Certainly not enough to make these decisions. Likewise we have very poor data on actual sedimentation, which is changing. The inner waterway most of the sedimentation was wood debris. That source of sedimentation has stopped. We have no real evidence that Nooksack is sedimenting in the waterway or that Whatcom creek is. We don't know what is happening. Sediment may be eroding. 4

Likewise would be that layer of woody debris from the mill has a completely different biological activity from what will happen now. That as far as I know has not been looked at, at all, by any biologists or microbiologists.

The other important fact is that the standards for mercury contamination are not fixed; they've changed over the years. Look at what was acceptable here from in 1960 to 70 versus what is acceptable now. In 10 or 20 years from now, those standards again may change and that has not been put into the cost accounting of how much this is going to cost if regulations change and we have something that was acceptable now but is not acceptable once we've supposedly cleaned up. 5

I think the other ultimate cost is that by not cleaning up, we impact the property values of people like me who own property near this waterway. If it forever carries this taint of well we left all this stuff there and didn't do a thorough job, it makes that property less desirable. We have a clean ocean marina but not a clean waterway, and that's just simply not fair. 6

There was a lot of attention 8 months ago that we needed more monitoring, but when you read the fine print, or at least the fine print I read, all I saw was that we're going catch male Dungeness crabs from at least 3 sites at year 3, year 5, and year 10, and that's our biological tissue monitoring. I think that's just grossly insufficient in terms of make these big decisions on so little data. 7

So I guess I'll say what I said before: the problem with the preferred alternative for the cleanup of Whatcom waterway is that it doesn't. I think we can do way better as a community and we deserve better, and we've got the technical skills here to do a far better job of this at a reasonable cost and move ahead quickly. Thank you.

Moderator
Thank you. Mark Buehrer followed by Wendy Steffensen

#17-B

From: George Dyson [mailto:gdyson@gmail.com]
Sent: Sunday, August 12, 2007 10:19 PM
To: McInerney, Lucy (ECY)
Subject: Comments on Whatcom Waterway Draft Consent Decree

Lucille T. McInerney, P.E., Site Manager Department of Ecology, Northwest Regional Office 3190 160th Avenue Bellevue, WA 98008-5452

Dear Mrs. McInerney, and colleagues:

I have now studied the Draft Consent Decree and Draft Cleanup Action Plan issued by your office on July 12, 2007, as well as the responsiveness summary addressing the comments made at the end of last year.

The current draft documents are remarkably NON-responsive to many of the carefully-stated technical questions and comments raised by myself and others in December of last year. 8

Although Ecology has presented an impressive defense of its proposed cleanup plan, it will be difficult to move ahead on real cleanup action(s) with so many important questions left unresolved. I urge a renewed effort to genuinely bring all stakeholders to the table in the spirit of the Bellingham Bay Pilot initiative which we all had such hopes for more than a decade ago. 9

Thank you for your attention,

George Dyson
435 West Holly St., Bellingham WA 98225
360-734-9226

From: Larry Farr [mailto:farrlarry@comcast.net]
Sent: Monday, August 13, 2007 5:21 AM
To: McInerney, Lucy (ECY)
Subject: capping in Bellingham Bay waterfront redesign

#18-A

Just a quick comment...

I believe that the capping is a mistake in the inner waterway, on the ASB shoulder and Barge Dock as the potential for leaking is very real. 1

We live in what many experts believe is an earthquake area and if shaken the capped sloped sides and bottom will be disturbed. This action will place the aquatic natural life at risk and again call for a major clean up. At this point in time I have yet to hear any explanation for discovered sediments of mercury appearing on top of the existing caps. 2 3

Please do not leave contaminated sediment in these areas so that in 30 years we have to dredge again. Let's do this correctly the first time

Thanks

Larry Farr
1448 Sweetbay Court
Bellingham, Washington 98229

#19-A

From: Ilwu07@aol.com [mailto:Ilwu07@aol.com]
Sent: Friday, August 10, 2007 7:49 AM
To: McInerney, Lucy (ECY)
Subject: (no subject)

I am a member of Longshore Local # 7 Bellingham, Wa, and have read the proposal for the draft consent decree,and I am in favor of implementing this process as soon as possible. Brett E. Frost

1

2

From: Thomas Gotchy [mailto:tellytom@msn.com]
Sent: Monday, August 13, 2007 5:23 PM
To: McInerney, Lucy (ECY)
Subject: public comments, Whatcom Waterway clean-up

#20-A

We need to store the mercury in some other place than buried in the Whatcom Waterway under a layer of fill. Your scientific arguments for leaving the mercury in place relays on incredibly weak data, and very questionable science as was pointed out by many that attended the August 8th publicly meeting. Your presentation left me wondering if the Department of Ecology and the Port of Bellingham are sleeping in the same bed or have made some other cozy arrangement. It all seems pretty transparent to me. Do the proper scientific studies before taking us down some irreversible path, and try to be a bit more unbiased. Our Puget Sound and the people of Washington (and beyond) deserve at least that much respect from the Department of Ecology. 1 2 3

Sincerely, Thomas Gotchy
2911 Ellis Street
Bellingham, Washington

From: Mike MacKay [mailto:starsailor@fidalgo.net]
Sent: Sunday, August 12, 2007 9:25 PM
To: McInerney, Lucy (ECY)
Subject: Comments on draft Cleanup Plan

#21-A

Dear Ms. McInerney,

Attached are my comments concerning Ecology's draft Cleanup Plan for Whatcom Waterway.

Zapote Gregory-Raffel

#21-B

Portly De-Tale Number 63

fish feeling sad
salmon losing sand
scales of unmeasured worth
capping seems to be the plan...

1

magnificent marine life, you've become a shadow,
orcas starving, fish looking mighty fallow...
the port, ecology and city agree,
to sail with fear of liability,
the people spoke with passion and purpose,
but were dismissed with legal crafted word,
dismissed, compassion's voice unheard...

2

how can you price this fragile, graceful sea?
dismiss the creatures of lovely, salty weave?
deny the beauty hidden in inner furl?
tell us, what is your world? what is your world?
of precious fleeting pulse and dance of dulse,
or fluff reports that turn stewardship dust?
might of paper, or hearts to trust?

3

if you don't see it, it don't matter,
says the port, the city and ecology
that is their alma mater....
fish feeling sad,
no one to care..,
If you don't see it, it don't matter,
could you eat Bay crab off your platter,
or bottom fish or a salmon too-???
could you honestly take a bite,
could you, tell me, could you???

4

once our mighty sealife was
miraculous to behold,
"salmon is extinct"
the children will be told...
"fish all died-out"
our children will say,
in the waters of mercury
they'll be doomed to play...

5

fish feeling sad,
no one to care,
they have been had,
just like the natives who once carefully reflected,
just like the ones whose health is now neglected...

fish feeling sad, you may not see them,
you sure wouldn't want to be them,
breathing, living in toxic filth,
what a legacy to leave to tilth...
fish feeling sad,
fish losing sand..
scales of unmeasured worth,
searching for a better earth,

fish feeling sad....

zapote gregory 8/12/07

#22-A

From: Ham Hayes [mailto:hhayes@biztran.com]
Sent: Monday, August 13, 2007 5:02 PM
To: McInerney, Lucy (ECY)
Subject: Whacom Waterway Cleanup Comments

Comment #1. There should be more indepth discussion of risk managment, especially with regard to the localities, number of monitoring sites, types and frequency of monitoring. Postponing this discussion to later design reviews prevents the public from seeing the differences in risk managment and mitigation as a function of the alternatives. 1

Comment: #2 **From section 6.3.1 "Sediment Quality in Cap and Natural Recovery Areas (Confirmation**

Monitoring): ..... Sediment quality monitoring events are

anticipated to be conducted during years 1, 3, 5, 10, 20 and 30 after

completion of the remedial action. " Monitoring frequency should not decrease with time but stay the same or even increase. This is because erosional, subsidence or other tectonic forces may occur later in the lifetime of the project. 2

Comment #3. The risk management discussion does not address what the possible remediation actions and estimated costs might be should the selected option fail to meet any of the compliance standards. Recommend this be included now in this Consent Decree. 3

Respectfully submitted,

Hamilton Hayes
954 Puget St, Bellingham, WA 98229
360-319-1936

From: Libby [mailto:libmh@yahoo.com]
Sent: Wednesday, August 08, 2007 1:22 PM
To: McInerney, Lucy (ECY)
Subject: Whatcom Waterway Cleanup

#23-A

Dear Ms. McInerney,

I have been following the cleanup issue and concur with the issues raised in the "open letter" copied below. I am a resident of Bellingham as are my children and grandchild. The consequences of the decsions made now about the toxic waste will affect my family for generations. I believe there is an opportunity at the present time to do the right thing. Please consider these requests:

* Removal of contaminated sediments and an evaluation of safe dredging wherever sediment toxicity or erosion potential is high, such as at the log pond, Inner Waterway, Shipping Terminal and corner of the treatment lagoon. 1
* Six foot or thicker caps anywhere a cap is needed, in order to better isolate contaminated sediment from anchor, propeller and erosional disturbance. 2
* Re-evaluation of the cleanup options, given that the removal of mercury from the lagoon will not have any effect on the exposure of humans and wildlife to mercury, but removal of mercury from the Waterway will! 3
* A robust evaluation of concerns around seismicity, mercury contamination of the log pond cap and consumption of seafood by subsistence fishers. 4 5 6

Thank you for your consideration.

Sincerely,
Libby Hazen
116 Bayside Place
Bellingham, WA 98225

OPEN LETTER to Ecology from the North Sound Baykeeper and the Public Participation Panel:
RE: Response to Comments on the Whatcom Waterway Remedial Investigation/ Feasibility Study (RI/FS) 7

We find that the response to comments issued July 12, 2007 on the Whatcom Waterway RI/FS were wholly inadequate and did not actually respond to the comments and questions posited by citizens of Washington State. Moreover, we believe that a re-evaluation of the Remedial Investigation and Feasibility Study for the Whatcom Waterway may result in different cleanup decisions, than have been made by the Department of Ecology. As citizens and taxpayers, we urgently request that the Department of Ecology re-evaluate their answers to these questions and their final decision in order to correctly perform their duties.

A few examples of the comments and questions that we believe have been inadequately answered are herein listed:

- Ecology did not respond to the assertion that capping in the log pond was designated an interim solution and was not evaluated as a final solution in this RI/FS. This final evaluation is important as interim actions do not embrace the the full spectrum of public participation opportunities.
- Ecology did not address specific samples where mercury concentrations were actually increasing, and not decreasing as postulated by Ecology's assertion that the Whatcom Waterway is a depositional area. If, in fact, there are erosional areas in the Waterway, capping as a remediation method has severe limitations.
- Ecology did not adequately address alternative likely hypotheses for mercury re-contamination at the log pond.
- Ecology did not answer specific questions regarding the Biologic Screening Level (BSL); these included the exact source of the data used for the BSL regression, the reason for averaging individual samples, and the poor predictability of the regression.
- Ecology did not consider the entire amount of mercury ingested by seafood eaten by tribal and subsistence eaters, nor did they give the reason why the entire amount was not considered.
- Ecology did not provide subsurface levels of mercury at Starr Rock, although it was requested. Subsurface data were given for all other site units. Starr Rock is a former dump site for dredgings of the Inner Waterway and as such it is very contaminated and disturbance of this site could be very dangerous.
- Ecology did not address nor remedy the fact that equal description to the pros and cons of capping and dredging were not given in the Remedial Investigation.
- Ecology decided not to recommend a standard 6 foot cap for contamination, although it was publicly recommended by an Ecology sediment specialist.
- Ecology mischaracterized the effects of tsunamis as similar to sea level rise. In fact, a tsunami will both raise and lower sea level and in the lowering of sea level can create a great amount of scour and disturbance of the sea floor.

From: Eric Hirst [mailto:EricHirst@comcast.net]
Sent: Monday, August 06, 2007 7:12 AM
To: McInerney, Lucy (ECY)
Subject: Comment on Whatcom Waterway Cleanup

#24-A

Dear Lucy,

Although I am not able to attend the Department of Ecology public hearing on August 8, I hope you will include these comments in the official record on the Whatcom Waterway Cleanup.

I remain concerned that capping mercury in the waterway will not be an effective long-term strategy. Although I appreciate the Department of Ecology's commitment to monitor mercury levels in the waterway for 30 years (rather than 10 years, as earlier proposed), I would much prefer to see more mercury removed from the waterway. 1 2

I recognize that removing more mercury and monitoring more often for a longer time raise cleanup costs. However, in the long-term, conducting the cleanup properly the first time will be more cost effective. Less money will need to be spent on subsequent cleanups and repair, and the value of the land for redevelopment will be greater. 3 4 5

Thanks.

Eric

Eric and Susan Hirst
1932 Rhododendron Way
Bellingham, WA 98229
☎ 360-656-6690 EricHirst@comcast.net

EXCERPTS FROM PUBLIC HEARING TRANSCRIPT
August 8, 2007, Bellingham Cruise Terminal

#25-A

Tip Johnson

Thank you for the opportunity to comment on the Whatcom Waterway Cover-up. I remain unconvinced that it adequately protects the public's health, safety, and welfare. There are a number of reasons. Chief amongst them is that regulators refuse to account for hundreds of tons mercury that they know exists. 1

It's called a cleanup, but tossing mud over mercury is really a cover-up I don't think it's a long-term solution. I'm very concerned about leaving it loose in the environment.

Why is mercury a concern? I think we've all seen that, but I would really encourage people to Google University of Calgary Mercury and see a video micrograph of how mercury actively degenerates brain neurons. 2

You want to Google mercury cycling, you can see why it's irresponsible to leave it in the sediments, even the sub-sediments.

Based upon the mercury, the estimated mercury replacement in the chlor-alkali system which happens to correspond very closely with the industry estimates for mercury used per ton of pulp produced here, GP probably used around 600 tons of mercury in their operation.

We're talking about 15 to 20 tons in the bay; we know they buried another, oh, 15 tons on-site; we know they dumped it along Whatcom creek at the Haskell business site, a stream reserved for juvenile fishing. 3

That's about, so, OK, we've accounted for about 40 tons. My question is where is the rest of it? And how can we have a plan without knowing. How can you assert that your plan will protect the public's health, safety, and welfare when we've got all that other mercury around? 4

Regulators have refused to install mercury vapor monitors at ground zero, where the Port's proposed land uses will invite people to live there permanently and to come and visit and enjoy the waterfront. I don't know how we can assess the risk without having the information. 5

Regulators refuse to conduct a public health survey to see why Whatcom County has higher than ordinary instances of cognitive disorders and diseases often associated with mercury exposure.

Guess what regulators refused to test for when they did a 3-year air-quality study of downtown Bellingham? Mercury.

Seems to me the plan is tailored basically to prop up the Port's interest in privatizing the waterfront and building a marina for mega-yachts that few can locally afford. We're very careful to get the highest cost-benefit ratio for the project, but shouldn't that concern to other public interests that are directly affected by the project? Or if not, why not? Seems to me that there are some very important costs to consider. 6

What costs? Potentially poisoning the community for generations to come should be enough. Those are huge potential health costs, but there is more. The public, after paying for the remediation and infrastructure, will likely lose our only chance at assembling a broad public waterfront. But there is more. The public now owns an industrial water supply and a wastewater treatment facility that GP left behind. We should feel lucky to be able to recruit businesses with the prospect of water supply and water treatment but the Port's plan squanders this resource. The public will bear the cost of their foreclosing on the opportunity to attract family wage jobs. But then Port officials already have them. We cover those costs. 7

But there's more. Bellingham is going to need additional treatment capacity—it's not a question of if, it's a question of when. The very regulators pushing this plan are going to require us to treat stormwater; if we ever want jobs we'll need industrial treatment.

Bellingham is growing; eventually, we'll need additional sanitary treatment. Where will we do this? What will it cost? Who's going to pay? And with what jobs will we afford it?

I'm just amazed that regulators, the proponents, and virtually every elected official refused to address these vital public interests. Whose interests are they supposed to be addressing? I think this plan essentially steals from the public and benefits few. I don't believe it protects the public's health, safety, and welfare. I believe this project needs a much more comprehensive consideration of all the public costs involved. I understand it's not directly a MCTA concern, but if DOE is going to be requiring us to treat stormwater, that cost should be included in this analysis I believe. Thanks. 8

Moderator
Thank you. Elizabeth Kilanowski, followed by Darren Williams.

EXCERPTS FROM PUBLIC HEARING TRANSCRIPT
August 8, 2007, Bellingham Cruise Terminal

#26-A

Elizabeth Kilanowski
I'm Elizabeth Kilanowski. Can you hear me? Is that OK? Thank for the opportunity to address the public hearing tonight. I wish to enter into the record a memo sent from the faculty of Western Washington University's geology department to officials at Western Washington University, the City of Bellingham, and the Port of Bellingham. It's a public document; it addresses the seismic risks to the upland GP site. This site is adjacent to the Whatcom Waterway site which we're discussing tonight and the same seismic issues that are addressed in this memo apply to the Whatcom Waterway. 1

I have additional copies for folks here who want to get one.

Last fall in both the public hearing and written comments, I submitted testimony on seismic hazards including liquefaction. And Pete I'd like suggest that you not tell people that liquefaction doesn't affect or breech caps. They do; sand boils developed as a result of liquefactions. Liquefaction can and do breech caps so I'd suggest you don't say that anymore. 2

I am concerned that the seismic issues that I addressed last fall were not adequately addressed in the responsiveness summary. In addition, the person who did respond to my comments did not understand the nature of tsunamis and their effects on bottomlands. There was no reference listed that the writer had any knowledge of what they were talking about. They confused sea-level rise with two phenomena that include both sea-level rise and sea-level fall in equal measure. 3

I don't think that this process is ready to go forward to a Consent Decree. Thank you. 4

Moderator
Next is Darren Williams followed by Tom Winter.

MEMO

To: Kevin Raymond, Chair, WWU Board of Trustees
Cc: Karen Morse, WWU President
Bob Frazier, WWU Vice President for External Affairs
Tim Stewart, City of Bellingham Planning Director
Mike Stoner, Environmental Director, Port of Bellingham
Tom Downing, Chair, University Planning Committee
Arlan Norman, Dean of College of Sciences and Technology
Brad Smith, Dean of Huxley College of the Environment and City of Bellingham Waterfront Advisory Group
Date: June 1, 2007

From: WWU Geology Faculty: Dr. Scott Babcock, Dr. Jackie Caplan-Auerbach, Dr. Doug Clark, Dr. Juliet Crider, Dr. Susan DeBari, Dr. David Hirsch, Dr. Scott Linneman, Dr. Robert Mitchell, Dr. Elizabeth Schermer, Dr. Pete Stelling, Dr. Chris Suczek

Contact: Dr. Bernard Housen, WWU Geology, bernieh@cc.wwu.edu, 650-6573

Re: Oversight for assessment of geologic hazards of the GP Waterfront site

Summary: Geologists on the faculty at Western have continuing concerns about the safety of the former GP site for redevelopment that includes large buildings and other major infrastructure. Significant new findings showing increased seismic risk in Whatcom County are not yet incorporated into regional design criteria. Because of the high level of risk associated with the GP site and high cost associated with mitigating the hazard, we recommend convening an independent review panel to evaluate planning documents relevant to identification and mitigation of geologic hazards at the GP site. This panel can advise the WWU Board of Trustees and administration regarding the completeness, rigor and suitability of recommendations in those planning documents.

This memo provides a summary of a recent meeting between Geology Department faculty, Port of Bellingham staff (Mike Stoner, Fred Seeger, Brian Gouran), a member of the WWU administration (Bob Frazier), and the chair of the Faculty Senate University Planning Committee (Tom Downing), which took place on May 29, 2007. The intent of this memo is to highlight some of our Department's continuing concerns regarding the Waterfront redevelopment project, and to propose some possible solutions to some of these issues.

The discussions during this meeting were led by Mike Stoner, who presented an overview of the development project in terms of a risk identification-management-mitigation process. It is clear that the Port of Bellingham officials agree with some of the concerns our department has raised: this is a highly compromised and hazardous site that will require significant additional study, and significant ($100s of million) expenditures to mitigate the known liquefaction and lateral spread hazards. The meeting then evolved to a question-and-answer form of discussion, with the primary topics of discussion being the process by which the specific level of seismic hazard is defined, which agencies are responsible for the review and oversight of mitigation and development plans, and at what points within the overall process are such decisions made.

The main points of concern discussed at this meeting by members of the Geology faculty were related to the recent discovery of active faults in Whatcom County (e.g. the Boulder Creek Fault near Kendall), how this (and other) new science is being incorporated in building

regulations and design planning, and who is responsible for monitoring and responding to significant changes in local and regional seismic hazards. As we expressed in prior statements, current building codes and practices are highly formulaic; they rely on a combination of regional studies of seismicity and geology compiled by the US Geological Survey (and the State Department of Natural Resources) to determine what maximum seismic acceleration is probable for a given ZIP code over a 50 year period. This estimate is then used in all further seismic hazard mitigation studies, site plans, and building specifications according to the International Building Code (IBC). One concern that was discussed at length is the significant lag between "science" and "policy" in the identification and codification of seismic hazard levels in this region. Regulations and seismic hazard mitigation tools generally are not updated until many years after the discovery of a new fault. For the Waterfront, we know that the seismic risk at this site is much greater than that presently accounted for in any planning or mitigation efforts because of new discoveries of local faults. In our discussions with Mike Stoner, it is clear that for this project, the long build-out time for most construction will help to address some of these concerns. For structures proposed in, say 2015, much progress and improvement in our understanding of local and regional seismic hazards will have led to improvements in our ability to quantify and mitigate against these hazards as they relate to a specific building or project. However, in the nearer term, (for example, in assessing whether or not any existing structures are safe candidates for adaptive reuse) such issues are critical, and must be addressed in a clear and comprehensive manner.

The process by which these (and other) geological concerns may be addressed is complex (no one at this meeting was able to clearly identify which organization will have the final say on whether a proposed plan successfully identifies and mitigates against liquefaction hazards, for example). There are, however, two clearly identified steps in the overall process during which these issues will need to be addressed.

The first is within the Environmental Impact Statement process, where geological factors such as seismic hazards are identified and evaluated. The EIS will be used, among other information, as a basis for possible changes in the current land-use zoning for the site. In the 2006 City of Bellingham Critical Areas Ordinance the Waterfront site is listed as a Geologically Critical Area due to its liquefaction hazard; under current law (as we understand it) the COB Planning Director is responsible for review and approval of plans to mitigate against liquefaction and seismic hazards. The EIS will not provide building-site specific hazards identification/mitigation plans; however it will serve as an important framework for identification of the various geological hazards that are associated with the Waterfront site as a whole. This phase of the process is underway now, and members of the Geology faculty have transmitted many of our concerns about this site to the Port of Bellingham through the public EIS-Scoping process. Some of us will also review the draft EIS, when it is made available this summer, and provide additional input as is needed.

The second step occurs during the planning and permitting process for specific buildings or other projects on the site, and will occur during the extended build-out period if the Waterfront project proceeds. In this case, specific and detailed investigations of a building site will be conducted by geological and geotechnical professionals, who will use the IBC-based tools and formulae to determine the level of seismic hazard associated with that individual site. As with the EIS, the final approval of these mitigation plans will be made by the Planning Department of the City of Bellingham.

In both steps of this process, the degree to which any geological hazard is identified and mitigated against is a decision made by the applicant in conjunction with review and oversight conducted by the City of Bellingham. During our discussion, it was apparent that both the Port

of Bellingham and WWU are relying on the good faith efforts of private developers and consultants to insure that the level of hazard mitigation for all aspects of the Waterfront project will be adequate. There is also an implicit reliance on the expertise of the staff of the planning department and the city council, who will make the final decision on permitting for the site. While this process is safe and efficient for routine development projects, the extraordinary level of hazard and complexity associated with the Waterfront project call for a higher than normal level of study and oversight.

We believe that as an institution WWU has a choice to make at this stage. We can simply carry on with the process under its current framework, and place our trust in commercial developers and their consultants, who will deliver a development plan that meets the letter of the law, as it currently exists. Alternatively, in keeping with our stated commitment to leadership in sustainable development, WWU could pledge to insure that any development related to the Waterfront project meets a higher standard of geological safety, commensurate with the latest findings in local geologic hazards. We assert that the latter option is the only appropriate position for an institute of higher learning to take, particularly in light of recent earthquake-related disasters in Indonesia and Japan.

To this end, the faculty of the Geology Department strongly suggests that an independent review panel should be formed to critically examine all studies of the geological hazards associated with this site. We propose that the panel be comprised of five or six members, including WWU Geology faculty with relevant expertise, and additional members of the academic and geotechnical community with expertise in site assessment and earthquake engineering. The panel should be independent of the Port and of consulting firms hired by the Port or by WWU to engage in Waterfront hazard assessment and mitigation. The panel can provide advice to the WWU Board of Trustees and Administration regarding the completeness and rigor of the planning documents regarding hazard assessment and an evaluation of the suitability of recommended hazard mitigation strategies. This panel would work throughout WWU's Waterfront planning process, and establish close communication between Port of Bellingham, City of Bellingham, and WWU regarding the evolving nature of local and regional geological hazards.

As a broader goal, we also suggest that WWU work with the City of Bellingham to develop criteria for independent review of development projects that are located in areas identified as Geologically Critical Areas in the Critical Areas Ordinance, and to use any WWU related projects as models for application of these additional review criteria.

The Geology Department would be happy to consult further with the Board of Trustees, Western Administration, or other interested parties regarding these recommendations. We have also attached a copy of a letter sent early last year to President Morse expressing similar concerns. We would appreciate acknowledgement from the Board of Trustees that you have received and considered our recommendations

Appendix: copy of memo from Geology Department, resulting from their meeting with Port of Bellingham staff, and two consulting geologists from GeoEngineers

To: WWU President Karen Morse
Date: 10 February 2006

WWU Geology Department Position on Redevelopment of the Georgia Pacific Site

The proposed New Whatcom development is located on one of the most geologically hazardous location in the City of Bellingham. A recent meeting between Geology faculty, Port of Bellingham officials and representatives from GeoEngineers (the consultants concerned with hazards at this site) revealed that the Port and consultants are aware of the hazards involved and are actively working on mitigation plans. This is good, but everyone involved needs to be aware that great expense will be involved in mitigating these hazards; and that some significant level of additional hazard will be associated with this site even after these mitigation efforts are implemented. With this understood, the Geology Department at Western Washington University conditionally endorses further consideration of a development plan for the Georgia Pacific site at the Port of Bellingham.

Our greatest concerns are seismic and chemical hazards. At this point we have no information about plans for the identification and control of toxic chemicals on the site, so we must reserve judgment. As for seismic hazards, we understand that stone pillars (stone-filled columns driven into the bay mud) will be a critical mitigation element. We believe that it is very important to obtain further information on the performance of these structures during an actual earthquake, especially under the lateral spreading conditions of liquefaction. An additional seismic hazard that has not yet been addressed is the possible collapse of fill materials or the Nooksack Delta-front into Bellingham Bay during a major earthquake. Such an event could cause a substantial local tsunami.

The site design and mitigation plan will rely on International Building Code seismic hazard probability maps, currently provided by the U.S. Geological Survey. Unfortunately the approach is very formulaic—just put in a zip code and soil type and proceed to a plan. The problem is that the current formula does not consider recently discovered local faults. An alternative approach taken by Canadian seismologists just across the border produces a much higher seismic hazard for the same location, even without the local faults. These issues need to be resolved.

Another factor that needs further study is the soil/sediment response to ground shaking, particularly the susceptibility of the glaciomarine drift to liquefaction. It is presently considered to be minimal, but apparently little (if any) testing has been done to confirm this. The site appears to be similar to the port at Kobe, Japan, where, during an earthquake in 1995, seismic amplification in near surface (upper 30-50 feet) materials produced ground motion 2-4 times greater than in nearby bedrock. The current engineering models for Bellingham use an amplification factor of 1.2.

Because of existing conditions, we believe that it would be prudent to use a 100 year risk/hazard model at this site, rather than the standard 50 year model. In addition, we suggest that certain uses of the site, such as residential development, should be restricted due to the inherent hazards of the site.

Our final concern is oversight. Who, besides the City of Bellingham Planning Department, will review the site development plan to assess whether geological hazards spelled out in the Critical Areas Ordinance have been properly mitigated? Because of the nature of the site, critical assessment of the development plan requires a high level of geotechnical expertise. The Geology Department would be glad to assist in the review, but we are not geotechnical specialists. We suggest that an oversight panel should be convened.

From: dicky7@comcast.net [mailto:dicky7@comcast.net]
Sent: Monday, August 13, 2007 10:24 PM
To: McInerney, Lucy (ECY)
Subject: Draft Consent Decree

#27-A

My name
is Richard King @ 1516 Marine Dr
Bellingham Washington.

I am a tax payer in Whatcom county .I am writing this email in favor of the Draft Consent Decree for the Port Of Bellingham waterway. If the dredging and the cleanup are postponed any longer it may never happen, so lets go forward and get it done

1

2

From: Ilwu07@aol.com [mailto:Ilwu07@aol.com]
Sent: Friday, August 10, 2007 1:37 PM
To: McInerney, Lucy (ECY)
Subject: (no subject)

#28-A

I am a member of Longshore Local # 7 Bellingham WA, I have read the proposal for the draft Consent Decree and am in favor of the proposal. Richard M. Lindquist 1

LUMMI INDIAN BUSINESS COUNCIL
2616 KWINA ROAD · BELLINGHAM, WASHINGTON 98226 · (360)384-1489
DEPARTMENT_____EXT._____

August 8, 2007

Lucille T. McInerney, P.E.
Site Manager
Washington State Department of Ecology
3190 160th Avenue
Bellevue, WA 98008-5452

#29-A

SUBJECT: Lummi Nation Comments on Whatcom Waterway Site Public Review Draft Consent Decree

Dear Lucy,

This letter is the Lummi Nation's formal objection to the entry of the Consent Decree regarding the Whatcom Waterway site as improper, inadequate, and contrary to law. 1

The Lummi Nation is a fishing tribe and has used the waters and shorelines of Bellingham Bay since time immemorial. Prior to and following the arrival of Euro-Americans, the shorelines of Bellingham Bay were used as fishing villages, and are therefore culturally sensitive areas. The tidelands and waters of Bellingham Bay were used to harvest fin- and shellfish for commercial, subsistence, and ceremonial purposes. Lummi members actively fished the lands upon which the Aerated Stabilization Basin (ASB) was built until these lands were converted to the now abandoned or soon to be abandoned ASB.

The Lummi Nation is one of the signatories to the Point Elliot Treaty of January 22, 1855 (12 Stat. 927) which reserves certain rights for the Lummi people including but not limited to "the right of taking fish at usual and accustomed grounds and stations." *United States v. Washington*, 384 F. Supp. 312, 401 (WD WA 1974), *aff'd.*, 520 F.2d 676 (9th Cir. 1975), *cert. den.*, 423 U.S. 1086 (1976). The Treaty is the Supreme Law of the Land under Article VI of the United States Constitution, and it supercedes any state laws and regulations that attempt to qualify or diminish the Treaty right, save for those necessary for conservation. *Id.*, at 338 and 401. 2

The Treaty fishing right has a geographic component: "all usual and accustomed grounds and stations". The shorelands, tidelands, bedlands and waters of Bellingham Bay are part of the "usual and accustomed grounds and stations" of the Lummi Nation. *United States v. Washington*, 384 F.Supp. at 360. In *United States v. Winans*, 198 U.S. 371 (1905), the United States Supreme Court held that the Treaty fishing right included the right of the Indians to cross and occupy private land to get to their traditional fishing grounds, and also held that the license given the Winans brothers to operate a fish wheel that completely excluded the Indians from their fishing sites violated the Treaty. *Winans* has been followed in an unbroken line of cases to

the present day. The geographic scope of the Treaty right has been interpreted to prohibit the blocking or destruction of tribal usual and accustomed fishing places. In *Confederated Tribes of the Umatilla Reservation v. Alexander*, 440 F.Supp. 553 (D.OR 1977), the court enjoined the construction of a dam by the United States Army Corps of Engineers which would dam a stream in which the Umatilla Tribe had reserved fishing rights. In *Muckleshoot Tribe v. Hall*, 698 F.Supp. 1504 (WD WA 1988), the court prohibited the U.S. Corps of Engineers from issuing a permit that would have allowed a private developer to construct a marina that would occupy some of the Muckleshoot and Tulalip fishing sites. Most recently, in *Northwest Sea Farms v. Corps of Engineers*, 931 F.Supp. 1515 (WD WA 1996), the court upheld the denial of a Corps permit for the construction of a salmon aquaculture facility that would occupy Lummi fishing areas near Lummi Island. The geographic element of the Treaty fishing right can only be altered by Congress or an agreement with the affected Tribes.

Although the Lummi Nation still fishes the waters of Bellingham Bay, these culturally sensitive resources have been degraded by human activities and shoreline development which has precluded the use of traditional hunting, fishing, and gathering sites in and along the bay. At least 748 acres of the Bellingham Bay nearshore has been impacted (dredged, filled, or armored) including, but not limited to, the Squalicum Marina, the Georgia Pacific pulp mill site, the Whatcom Waterway, and the ASB. Not only have these actions destroyed valuable fish habitat, they have physically precluded the exercise of tribal treaty rights in these areas. The Whatcom Waterway, the ASB, and surrounding areas are now contaminated with a number of substances released from industrial waterfront activities including mercury discharges from the former Georgia Pacific chlor-alkali plant.

The taking of our traditional hunting, fishing, and gathering areas in Bellingham Bay by the Port of Bellingham, the City of Bellingham, and others is just one of many examples of how our ability to exercise our treaty rights has been reduced. Rather than restoring at least the approximately 33 acres of historic habitat and fishing areas that are currently impacted by the ASB, the Port of Bellingham would continue to preclude tribal use. If the Consent Decree is entered as currently proposed, it will continue the violation of the Treaty fishing rights of the Lummi Nation. There is no statute of limitations barring the enforcement of Treaty rights by an Indian Tribe. *United States v. Washington*, 157 F.3d 630, 649 (9th Cir. 1998), cert. den. 526 U.S. 1060 (1999), *Swim v. Bergland*, 696 F.2d 712, 718 (9th Cir. 1983). 3 4

The Consent Decree suffers these additional errors: (a) no evaluation of removing the ASB from the water with re-establishment of intertidal and shallow subtidal habitat and marine buffers and/or eelgrass, (b) no consideration of either cumulative effects of the incremental destruction of the natural conditions of Bellingham Bay upon Treaty rights and the ecosystem supporting these Treaty rights or of the new impacts that may result from the proposed conversion of the ASB to a marina, and (c) the use of current conditions as the baseline in evaluating alternatives rather than the more appropriate environmental baseline that existed along what is now the Bellingham waterfront prior to the substantial anthropogenic impacts to this environment. Lummi concerns and interest are more detailed in the letter to Ecology Director Jay Manning dated July 10, 2007, attached hereto. 5 6

The Consent Decree should not be entered until and unless the plans are altered to (a) remove the pollutants from the ASB, (b) restore the aquatic lands and waters that comprise the ASB, including removal of the breakwaters and other protection structures around the ASB, to the state that existed prior to the construction of the ASB, and (c) removal, to the maximum extent possible, of pollutants from the former ASB and other lands covered by the Consent Decree. 7 8 9

Sincerely,

Merle Jefferson

Merle Jefferson, Executive Director
Lummi Natural Resources Department

Cc: Evelyn Jefferson, Chairwoman, Lummi Indian Business Council
James Hillaire, Director, Lummi Cultural Department
Elden Hillaire, Chairman, Lummi Natural Resources and Fisheries Commission
Bob Kelly, Director, Nooksack Tribe Natural Resources Department
Jay Manning, Director, Washington State Department of Ecology
Randel Perry, U.S. Army Corps of Engineers
Jim Darling, Executive Director, Port of Bellingham
Tim Douglas, Mayor, City of Bellingham
The Honorable Governor Christine Gregoire

LUMMI INDIAN BUSINESS COUNCIL
2616 KWINA ROAD · BELLINGHAM, WASHINGTON 98226 · (360)384-1489
DEPARTMENT_____EXT._____

July 10, 2007

#29-B

Mr. Jay Manning, Director
Washington State Department of Ecology
P.O. Box 47600
Olympia, WA 98504-7600

SUBJECT: Lummi Nation Interests in Bellingham Bay Clean Up and Redevelopment

Dear Jay,

The purpose of this letter is to clarify the Lummi Nation's interests in the Bellingham Bay clean up and redevelopment effort and to explain our opposition to the conversion of the Aerated Stabilization Basin (ASB) to a marina by the Port of Bellingham. It was apparent from our June 19th meeting that we have not done an adequate job of informing people of our interests in this effort. As a result, elected and appointed officials may have a mistaken view that the Port's plans to convert the former ASB to a marina are unopposed.

The attached document details our interests. In summary, we want to maximize the removal of contaminated sediments in Bellingham Bay, we want at least the 33 acres of historic habitat and fishing areas that are currently impacted by the ASB to be restored, and we are not opposed to the redevelopment of upland areas of the former Georgia-Pacific pulp mill site in a manner that protects cultural and aquatic resources. We hope that you can support our goals. Please do not hesitate to contact our Natural Resources Department Director (Merle Jefferson, 360-384-2225) for further information regarding our interests in the Bellingham Bay portion of our traditional areas.

Sincerely,

Evelyn Jefferson

Evelyn Jefferson, Chairwoman
Lummi Indian Business Council

cc The Honorable Senator Patty Murray
The Honorable Senator Maria Cantwell
The Honorable Representative Rick Larsen
The Honorable Governor Christine Gregoire
The Honorable State Senator Harriet Spanel
The Honorable State Senator Dale Brandland
The Honorable State Representative Kelli Linville

The Honorable State Representative Doug Erickson
Elden Hillaire, Lummi Natural Resources Commission Chairman
Merle Jefferson, Lummi Natural Resources Department Director
Richard Grout, Washington Department of Ecology, BFO
Dan Swenson, Washington Department of Ecology, NWRO
Lucy McInerney, Washington Department of Ecology

#29-C

Lummi Nation Interests in Bellingham Bay Clean Up and Redevelopment
July 10, 2007

The Lummi Nation is a fishing tribe and has used the waters and shorelines of Bellingham Bay since time immemorial. Prior to and following the arrival of Euro-Americans, the shorelines of Bellingham Bay were used as fishing villages and the tidelands and waters of Bellingham Bay were used to harvest fin- and shellfish for commercial, subsistence, and ceremonial purposes. Although the Lummi Nation still fishes the waters of Bellingham Bay, the resources have been degraded by human activities and shoreline development has precluded the use of traditional hunting, fishing, and gathering sites along the bay. As shown in Figure 1 and detailed in Figure 2, approximately 748 acres of the Bellingham Bay nearshore has been impacted (dredged, filled, or armored) including the Squalicum Marina, the Georgia Pacific pulp mill site, the Whatcom Waterway, and the Aerated Stabilization Basin (ASB). In addition to these actions, which have destroyed valuable fish habitat, physically precluded the exercise of tribal treaty rights in these areas, and were conducted without compensation or mitigation for these impacts to our way of life, the Whatcom Waterway, the ASB, and surrounding areas are contaminated with a number of substances released from industrial waterfront activities including mercury discharges from the former Georgia Pacific chlor-alkali plant.

The taking of our traditional hunting, fishing, and gathering areas in Bellingham Bay by the Port of Bellingham, the City of Bellingham, and others is just one of many examples of how our ability to exercise our treaty rights has been taken by others. Additional examples of actions by others that have taken, without compensation, our ability to exercise our treaty rights include the listing of early-run chinook salmon under the Endangered Species Act due to habitat degradation, the closure of Portage Bay shellfish harvest areas due to poor nutrient management practices in the Nooksack River basin, the continued trespass on tribal tidelands, and the reductions in water quantity and water quality that we depend on due to the land uses of others. Now, rather than restoring at least the approximately 33 acres of historic habitat and fishing areas that are currently impacted by the ASB, the Port of Bellingham wants to take this area too and continue to preclude tribal use.

The Lummi Nation has worked with numerous other federal, tribal, state, and local government agencies most recently on efforts to cleanup portions of Bellingham Bay since the 1990s. Numerous clean-up plans have been proposed over the years and a few cleanup actions have been implemented. Throughout these efforts, the Lummi Nation position has been that contaminated sediments should be removed from the aquatic environment and disposed of at an appropriate upland disposal site.

Specifics concerns and issues that the Lummi Nation has regarding the current Bellingham Bay clean up and redevelopment plans are described in the correspondences listed in Table 1. These concerns and issues include: no evaluation of removing the ASB from the water with re-establishment of intertidal and shallow subtidal habitat and marine buffers and/or eelgrass, no consideration of either cumulative effects or environmental justice, and the use of current conditions as the baseline in evaluating alternatives rather than the more appropriate

environmental baseline that existed along what is now the Bellingham waterfront prior to the substantial anthropogenic impacts to this environment. Copies of the letters listed in Table 1 can be provided upon request. In more general terms, the Lummi Nation interests in the Bellingham Bay clean up and redevelopment can be summarized as follows:

1. The Lummi Nation does not oppose the redevelopment of the upland areas of the former Georgia-Pacific pulp mill and the overall goals of the Port of Bellingham and the City of Bellingham to clean up and convert this largely idle waterfront property to more beneficial uses. We believe that we are aligned with the City of Bellingham in that this clean up and redevelopment effort must be conducted in a manner that protects the environment, particularly any cultural resources that may exist on or adjacent to the site and the aquatic resources around the property.

2. The Lummi Nation supports the removal and proper disposal of all of the contaminated sediments from the Aerated Stabilization Basin (ASB), the adjacent Whatcom Waterway, and other contaminated sites along Bellingham Bay.

3. The Lummi Nation supports the removal of the entire rip-rap fill in Bellingham Bay used to build the ASB and the restoration of this area to eelgrass beds and fishing areas that existed prior to the construction of the ASB. This site was historically comprised of expansive eelgrass beds and remnants of these beds still exist along the exterior fringe of the ASB. This restoration activity is the same as Habitat Action No. 13 of the alternative sub-area strategies identified in the 2000 Comprehensive Strategy EIS developed by the Bellingham Bay Pilot Team (Pilot Team). The Pilot Team described Habitat Action No. 13 as the removal of the ASB from the water and establishment of intertidal and shallow subtidal habitat and marine buffers and/or eelgrass. As described in Appendix A of the 2006 draft Supplemental Environmental Impact Statement (SEIS) for the Bellingham Bay clean up, Habitat Action No. 13 would result in the single largest habitat gain (33 acres) of all of the actions identified by the Pilot Team.

4. The Lummi Nation opposes the conversion of the ASB to a marina. Due to the interference of recreational boat traffic on the ability of the Lummi Nation and its members to exercise treaty fishing rights, and the fact that a marina in the existing ASB location will not restore the historic eelgrass beds and will continue to preclude fishing in a 33-acre area, no additional marina facilities should be authorized in Bellingham Bay unless the impacts of this continued habitat degradation and additional boat traffic and moorage is mitigated to the satisfaction of the Lummi Nation.

5. The Lummi Nation believes that the Port of Bellingham must conduct a thorough environmental assessment of the impacts associated with converting the ASB to a marina. At a minimum, this environmental assessment should evaluate the "No Action" alternative (i.e., ASB continues as a wastewater treatment facility), the alternative described above as Habitat Action No. 13, the conversion of the ASB to a marina, and the conversion of the ASB to a contaminated sediment disposal site. This environmental assessment needs to thoroughly evaluate all of the environmental impacts of each alternative including cumulative impacts

and environmental justice issues associated with each alternative action. In the most recent scoping documents distributed by the Port of Bellingham, the Port of Bellingham considered the conversion of the ASB to a marina as a "No Action" alternative and apparently intends not to conduct an environmental assessment of the alternative uses of the ASB.

Table 1. Recent Lummi Nation Letters Regarding Bellingham Bay Clean Up and Redevelopment

Letter	Subject
Colonel Michael McCormick, District Engineer U.S. Army Corps of Engineers, September 8, 2006	Aerated Stabilization Basin (ASB) Impacts on Lummi Nation Treaty Rights
Ms. Lucille T. McInerney, P.E., Department of Ecology, December 8, 2006	Lummi Nation Comments on the October 10, 2006 Draft Remedial Investigation, Feasibility Study, and Supplemental Environmental Impact Statement: Bellingham Bay Comprehensive Strategy – Whatcom Waterway Cleanup Site
Mr. Andrew Maron, Alternate SEPA Official, Port of Bellingham, May 9, 2007	Lummi Nation Comments on the April 19, 2007 New Whatcom Redevelopment Project Environmental Impact Statement Draft Scoping Document

The Lummi Nation's interests and policy regarding the Bellingham Bay clean up are expressed in a 1992 resolution adopted by the Lummi Indian Business Council (LIBC Resolution 92-126). Resolution 92-126 resolves that, "The policy of the Lummi Nation is to ensure no further loss of the resource base or of environmental quality, and to restore and enhance damaged areas within the Lummi homeland and territories." Removal of the ASB and conversion of this area to eelgrass beds and fishing areas is consistent with this policy.

Representatives from the Lummi Nation have met with the City of Bellingham and the Port of Bellingham since 2004 in an effort to negotiate an agreement that would address our interests. We understand that the Port of Bellingham and the City of Bellingham believe that their proposed actions are not financially viable if they also have to adequately mitigate for their impacts to treaty rights. We disagree with this viewpoint, and believe that their proposed land uses/redevelopment plans can be modified in a manner that our interests can also be adequately addressed. In our view, the settlement discussions are at an impasse and we must now take political and legal steps to protect our interests.

In summary, we want to maximize the removal of contaminated sediments, we want at least the 33 acres of historic habitat and fishing areas that are currently impacted by the ASB to be restored, and we are not opposed to the redevelopment of upland areas of the former Georgia-Pacific pulp mill site in a manner that protects cultural and aquatic resources. We hope that you can support our goals. Please do not hesitate to contact the Lummi Natural Resources Department Director (Merle Jefferson, 360-384-2225) if you would like copies of the letters identified in Table 1 and/or further information regarding the Lummi Nation's interests in the Bellingham Bay portion of our traditional areas.

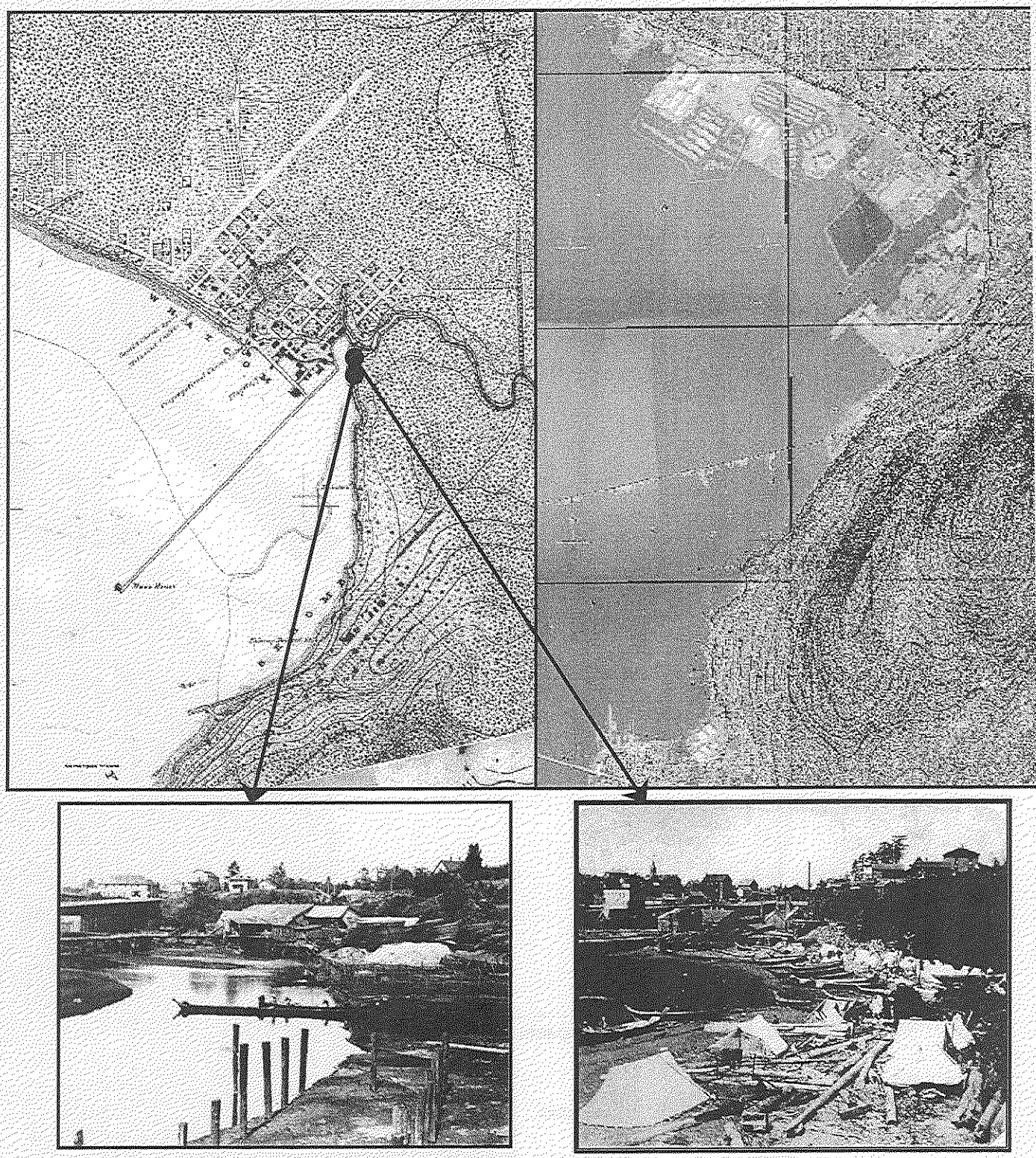

Figure 1. Bellingham Bay Nearshore Impacts

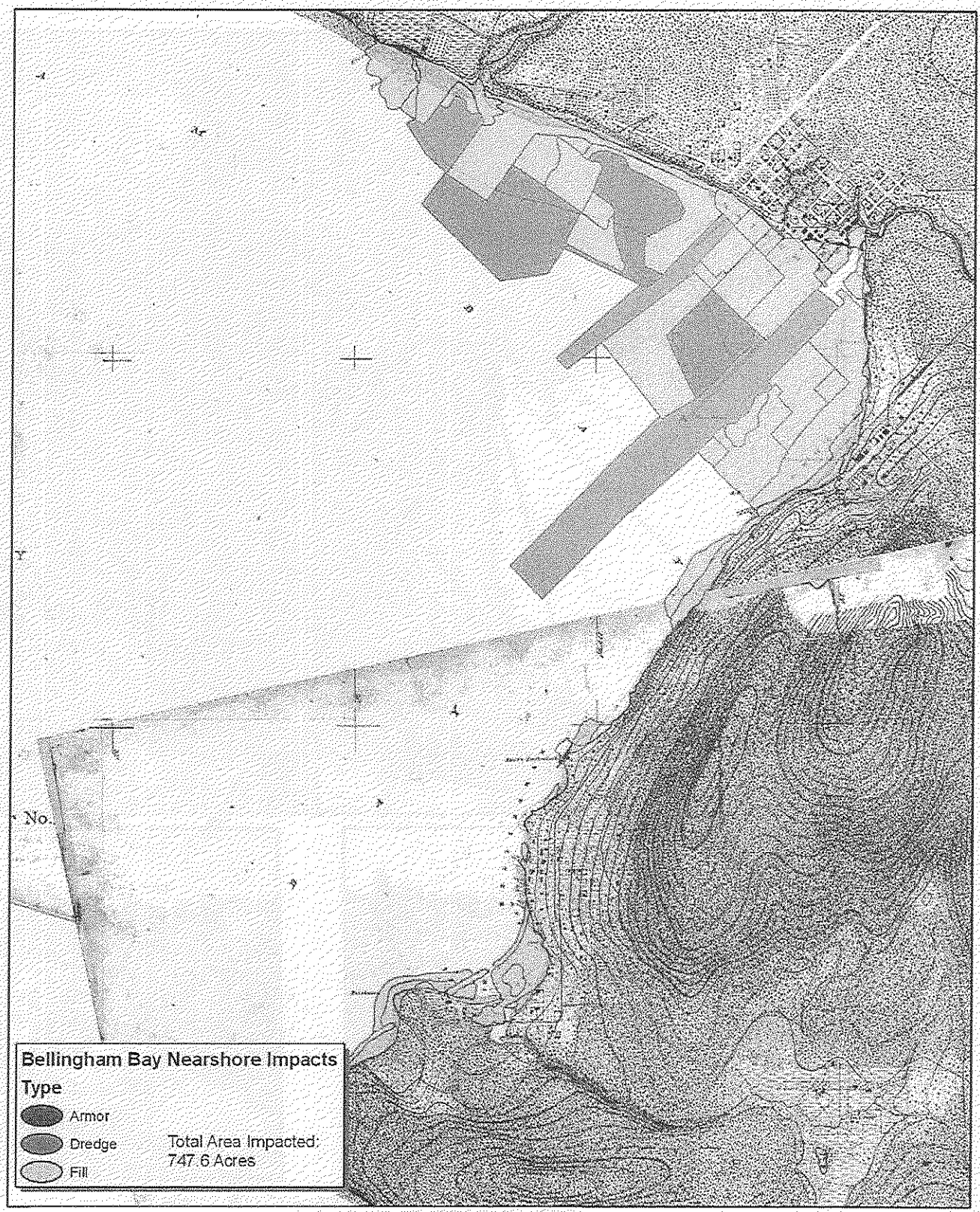

Figure 2. Bellingham Bay Nearshore Impacts

EXCERPTS FROM PUBLIC HEARING TRANSCRIPT
August 8, 2007, Bellingham Cruise Terminal

#30-A

Mike MacKay
Ok, thank you. My name is Mike MacKay. I live at 3107 Valet Street here in Bellingham. I'm speaking as a citizen of Bellingham, and I also work with the Lummi tribe. I have some background in fisheries and some knowledge, some firsthand knowledge of some of the salmon, juvenile salmon that do utilize this waterway and the log pond area.

But tonight I am speaking as a citizen. I've reviewed many of your documents although not thoroughly, and I hope to be able to provide some technical comments by the deadline date. I was also at the public hearing back in December and heard many of the comments by folks that I'm hearing again today. And I'll have to say too that I'm very disappointed in the outcome of the reports of the documents and the conclusions and the choice of the alternative that you selected. 1

I also go back quite a ways in terms of observing the process of sediment cleanup in Bellingham Bay, even before 1996, so even before there was a pilot, I attended a couple of those Ecology meetings you know. And what's remarkable is that over that span of probably 20 years, I've not really seen a significant shift in the policy and the direction Ecology has taken in terms of cleanup strategies. It's always been capping. It's been, you know, not really support of strong, scientific, biological testing.

I'll have to reiterate what George said about the amount of scientific information we have on the biological resources and the health effects of bioaccumulation. I mean we have so very, very little data it's just remarkable. In fact, one of your documents in the responsive summary indicated, if I can find it, says in referring to the crab bioaccumulation work and it refers to the data collected there. I don't know if I can find it. I think it's on this page here. Oh yes, it says sediment and tissue data used for the BSL development included paired data, and I also disagree very much with the BSL levels that you have calculated. 2 3

It says it's based on paired data with the most important data set being the Dungeness crab tissue data collected from Bellingham Bay.

Well, I'll have to say I'm at least partially responsible for perhaps up to half of that data set because of some comments we made years ago suggesting we'd go out and actually evaluate the mercury levels in the Dungeness crab, and as a result of some of those comments, Ecology responded, and their research unit actually came up, and we took them out in a boat, and we set our crab pots in Whatcom waterway, and we wet them all across the bay all the way out to Chuckanut Bay. Gathered samples, lo and behold, we found that there were levels of mercury that had this increasing concentration the closer you got to Whatcom waterway, which really surprised me. They didn't really look at the juvenile Dungeness crab as I had suggested. Instead they looked at adult legal males and people that know crab, they move all over the bay. They're very, very mobile animals,

and for there to be a trend that was evident just in those very few samples was pretty remarkable.

All that aside. I'll have to say I'm a supporter of decisions based on good science with empirical data. And we just definitely need more empirical data to do a better job of our health assessments.

Also, you know I find it also difficult to accept that the sediments that we're going to be removing are those that are in the ASB pond, which is not really exposed to the marine organisms that we eat, and it's also an area that we're proposing for removal is that outer waterway that you described, Lucy. And from a biological point of view, from a fisheries point of view, it's all about exposure risk to the animal. So what you really want to do is remove those sediments that are the hottest that are in closest proximity to the critters that are going to be bioaccumulating those contaminants, phenyls, and mercury. 4

So, I mean to me it was just obvious that the Log Pond would be the first place because it's a shallow intertidal zone where you know we can set out our sane net and catch juvenile Chinook and many other salmon species. You know, 6 months out of the year in the Log Pond, I've seen them. But instead, we're proposing removing sediments that are deeper and maybe not as associated with those marine organisms as those along the shoreline. 5

So anyway, I guess I got to wrap it up. But I'm also very disappointed of the 162 letters of comment in your responsiveness document, most were in support of alternatives that were more protective of human health and the environment. Not surprising, the key environment agency shared your preferred alternative 6, indicating that efforts were taken to present a unified policy by those 3 governments: the Port, Ecology, and the City of Bellingham.

I've concluded that in this case these governments have let us down, that they're not really representing the voice of the community. We want more protective actions, you know.

I believe, instead considering the opportunities to readjust the plan, using some of the well-founded, thoughtful, technical data that was presented by the Baykeeper and People for Puget Sound, you know that technical information was largely ignored and that's really sad. I think saddest of all is that we recognize that there's really well-meaning people in these agencies that have good backgrounds and understand what good science is and are able to make responsible decisions, and, but you know when you read that responsiveness summary, you just look at that poor staff member that had to sit down and write these responses to all these things people said. You only had to conclude, you could only conclude that the reason that effort was mounted was prepare a legal defense against what the public might say against this plan. And I just thought to myself, what a waste of human effort, you know, when that same energy can be used to come up with creative, out-of-the-box solutions to some of these cleanup problems. It's just so sad. 6

I'm going to leave you with that. Thank you very much.

From: Mike MacKay [mailto:starsailor@fidalgo.net]
Sent: Sunday, August 12, 2007 9:19 PM
To: McInerney, Lucy (ECY)
Subject: Whatcom Waterway Cleanup Plan Comments

#30-B

Lucy,

Attached please find my comments on the draft Cleanup Plan for Whatcom Waterway.

Mike MacKay

August 8, 2007

#30-C

James Pendowski, Program Manager
Lucille T. McInerney, Whatcom Waterway Site Manager
Department of Ecology
3190 160th Ave.
Bellevue, WA 98008

RE: Response to Comments on the Whatcom Waterway Draft Consent Decree
Draft Cleanup Action Plan and Remedial Investigation / Feasibility Study

Dear Mr. Pendowski and Ms. McInerney,

I have reviewed the draft Consent Decree, draft Cleanup Action Plan, and other documents stating Ecology's decision on actions to reduce sediment contamination in the Whatcom Waterway.

I do not believe these actions chosen by Ecology will be protective for human health, nor will they result in a cost effective solution towards the long-term health of the Whatcom Waterway. 7

I believe the alternatives chosen were primarily politically motivated and the science they were founded on severely biased. This may have resulted, in part, from a close relationship between Ecology and consultants representing the Port of Bellingham and the previous owner, Georgia Pacific West. 8

Your table in the Responsiveness Summary listing the preferred alternatives for those providing comments clearly shows that Ecology, Port of Bellingham, and the City of Bellingham all unified in one category, seeking less protective cleanup approaches than most of the comments representing the community at large. Its regrettable, but understandable, that citizens do not trust our governmental stewards to protect our environment or our public health.

I believe the science used to develop the bioaccumulation screening level (BSL) is flawed. It projects a cleanup level that does not lessen exposure to the extent that will prevent harm to at-risk populations. Of particular concern are those who are pregnant, children, and Tribal members who consume higher levels of seafood than those calculated in the BSL. 9 Ecology should require removal and proper land disposal of sediment exceeding the Minimum Cleanup Level (0.59 ppm) for mercury. 10 A 6.0' thick sediment cap should be placed in all other areas above the sediment quality standard of 0.41 ppm Hg. 11

I also believe that, for the purpose of reducing bioaccumulation risk in the Whatcom Waterway, you should use assume a biological active zone of 15 cm which is well within biological standards for this area. 12

The disproportionate cost analysis that Ecology used to select cleanup actions is biased towards less costly alternatives at the expense of the long-term health of our community. It does not adequately factor in risks to human health and the unacceptable costs that come with someone being exposed to toxins from Whatcom Waterway. One reason for this failure is that no adequate exposure model has been developed to evaluate human exposure pathways. Had Ecology conducted or required more robust biological testing of marine food organisms within the waterway, there would be today a much better understanding of exposure pathways. I strongly suggest that additional testing be conducted, especially with sub-legal Dungenese Crab, to evaluate the body burden in these crab prior to entering the human food chain.

13

14

Ecology's response to the many thoughtful, science-based written comments submitted by individuals and well-informed groups like People for Puget Sound, RE-SOURCES, and the Lummi Nation, appears to serve only your own legal defense strategy. Specific technical recommendations were largely ignored, using a one-size-fits-all response which is demeaning and reflects poorly on the leadership within your organization. I would like you to revisit those technical recommendations and provide either the specific information requested or an objective science-based evaluation of technical material provided.

15

I can imagine that some of your staff believe that public acceptance of any cleanup plan cannot be achieved. While I do not think this is the case, unless Ecology does better at gaining the public trust, it is unlikely that support for your cleanup plan will be found. I urge you to make significant changes to these documents, considering some of the technical recommendations provided during this public process.

16

As always, I appreciate the efforts of your staff, often not acknowledged, for actions that protect our health and the health of the 'unseen' marine resources in the Whatcom Waterway.

Sincerely,

Mike MacKay

From: Matthew [mailto:donmatthew@yahoo.com]
Sent: Thursday, July 12, 2007 10:19 PM
To: McInerney, Lucy (ECY)
Subject: mercury is toxic

#31-A

Please protect us and enforce the removal of the mercury from Bellingham Bay... And by the way, why is GP not involved in cleaning up. Or at least a fine or some front page press releases. 1 2

Concerned about the environment in Bellingham

#32-A

From: Ted Mischaikov [mailto:ted@m-kov.com]
Sent: Wednesday, August 01, 2007 6:00 PM
To: McInerney, Lucy (ECY)
Subject: RE: Public Comment Encouraged on Ecology's Whatcom Waterway Cleanup Plan

Ms. McInerny, 1
Please accept as public testimony my support for the Draft Cleanup Action Plan outlined below by your department. I think it is the right decision and should be implemented without delay.
Regards, 2
Ted Mischaikov

Ted Mischaikov
909 Harris Avenue
Suite 201F
Bellingham WA 98225

Voice: 360.734.7755
Fax: 360.734.7766

Draft Consent Decree Public Comment Period:

7/12/07 – 8/13/07

Questions, written comments, or to be added to the site mailing list:

Lucille T. McInerney, P.E.
Site Manager
Department of Ecology
3190 160th Avenue
Bellevue, WA 98008-5452
Phone: (425) 649-7272
E-mail: lpeb461@ecy.wa.gov

Ecology's Proposed Cleanup Action

Ecology's proposed cleanup action for this Site is described in detail in Section 6 of the DCAP. The proposed cleanup is depicted in Figure 1 and includes the following:

- **Outer Waterway:** Buried contaminated sediments in the Outer Whatcom Waterway next to the Bellingham Shipping Terminal will be removed by dredging. These sediments will be removed because they are likely to be disturbed by future deep-draft uses of this area. Contaminated dredged materials will be disposed of at a permitted upland facility.
- **Inner Waterway:** Buried contaminated sediments in the Inner Whatcom Waterway will be partially removed by dredging. The dredging will remove those sediments that may be disturbed by planned multi-purpose use of this Site area. Removed sediments will be disposed of at a permitted upland facility. Remaining contaminated sediments (principally those that are buried deepest within the waterway) will be contained in-place (capping). The sides of the waterway will be capped, with waterway sideslopes engineered to enhance slope stability and preserve nearshore aquatic habitat. An area of nearshore habitat located at the head of the waterway will be preserved.
- **Other Cap Areas:** Capping of contaminated surface sediments will be performed in two locations outside of the Inner Waterway. These include the "Aerated Stabilization Basin (ASB) Shoulder" and the "Barge Dock" Site areas shown in Figure 1.
- **Log Pond:** As part of the final cleanup action, contingency actions will be performed to contain contaminated surface sediments and to prevent cap erosion in the previously remediated Log Pond area of the Site.
- **ASB:** Contaminated sludges and sediments will be removed from the ASB and disposed of in a permitted upland facility. These materials will be removed because they would be disturbed by planned aquatic use of this area of the Site. Following the removal action, the ASB will be opened to connect the interior of the ASB to the waters of Bellingham Bay. Clean sand and stone materials from reshaping the ASB berm will be reused as part of other Site cleanup activities.
- **Remaining Site Areas:** Other areas of the Site include clean surface sediments that have deposited naturally over other more deeply-buried contaminated sediments. These areas are to be monitored to ensure that these sediments continue to comply with Site cleanup levels. This combination of natural sediment capping and monitoring is known as "monitored natural recovery".
- **Institutional Controls, Monitoring and Contingencies:** The cleanup action includes institutional controls, monitoring and contingencies. These actions are described in Section 6 of the DCAP. Institutional controls are use controls that will be implemented in areas where contaminated sediments have been capped. Monitoring and contingencies apply to all Site areas and will be further developed as part of remedy design and permitting. Section 6 of the DCAP describes the framework for monitoring and contingencies to be applied at the Site. Long-term monitoring is anticipated to continue for 30 years following completion of the cleanup action.

From: Llyn Doremus [mailto:ldoremus@nooksack-tribe.org]
Sent: Monday, August 13, 2007 2:52 PM
To: McInerney, Lucy (ECY)
Subject: Consent Decree comments

#33-A

Dear Lucy-
Attached are the Nooksack Tribe's comments to the Draft Consent Decree for the Whatcom Waterway Cleanup. Please note that the 3 attachments represent a three page letter, with individual files for each page of the letter. We will send the original signed letter via post office mail. The comments are sent via email to ensure that they arrive by the August 13 deadline.

Regards,

Llyn Doremus
Hydrologist
Dept of Natural Resources
Nooksack Indian Tribe
PO Box 157
Deming, WA 98244
(360) 592-5176 X 3291
(360) 592-5753 FAX

NOOKSACK INDIAN TRIBE

5016 Deming Road • P.O. Box 157 • Deming, WA 98244
Administration: (360) 592-5176 • Fax: (360) 592-2125

August 13, 2007

#33-B

Lucille McInerney
Site Manager
Department of Ecology
3190-160th Avenue
Bellevue, WA 98008-5452

Dear Lucielle McInerney,

SUBJECT: DRAFT CONSENT DECREE FOR WHATCOM WATERWAY SITE CLEANUP

This letter expresses the Nooksack Tribe's concerns regarding the Draft Consent Decree and the associated Cleanup Action Plan proposed for the Whatcom Waterway, Aerated Stabilization Basin and the Log Pond. The Cleanup, as it is currently described in the Cleanup Action Plan, presents risks to the health of Nooksack Tribal members (and to local residents) who consume fish and shellfish harvested from the Whatcom Waterway and its environs. 1

The Nooksack Tribe's rights to harvest fish and shellfish in the Whatcom Waterway vicinity, and the surrounding shore lands are recognized by the United States government in the Point Elliot Treaty. , Before the construction and operation of the various pulping operations, industrial production, and shipping maintenance and commercial activities, the Whatcom Creek estuary was an important gathering site for the Nooksack people. Those rights have been abridged for almost 100 years with the operation of pulp mills and the associated discharges to the Bellingham waterfront. Access to those traditional use areas was limited by the physical operations of industrial facilities and the quality of the waters receiving discharges was degraded. As a consequence of the pulp mill and other industrial facilities discharge, and the associated uptake of the constituents in that discharge by fish and shellfish living in those waters, consumption of fish and shellfish harvested from there was significantly reduced. With the anticipated cleanup of the Georgia Pacific pulp mill contaminants and the discharge byproducts from industrial activities at nearby properties, the Nooksack Tribe expects that harvest of their treaty protected fish and shellfish resources will resume. The cleanup of the Whatcom Waterway should be structured to facilitate Tribal harvest and the consumption of fish and shellfish without risks to health. . 2 3

We understand that the threshold concentration above which sediment cleanup will be required in the Whatcom Waterway was calculated using a method that incorporated human consumption of fish and shellfish harvested from the water front area. And, that a factor for health risk was calculated for average consumption rates and average toxics concentration in fish and shellfish harvested from environments contaminated with similar concentrations and constituents to those measured at this site. This factor was used as the

basis for determining the acceptable contaminant concentrations in remaining sediment. That risk factor was calculated using an average consumption rate of contaminated fish that we believe is not representative of Nooksack Fish and shellfish consumption rates. EPA developed an average consumption rate of 97 g/day for the general population for use in the calculations for cleanup of the Lower Duwamish Waterway. 4

While the average daily consumption of fish and shellfish used in these calculations of 70 grams per day may be characteristic of general non-native populations, it is not representative of consumption rates of the Nooksack Tribal members. The rates of consumption of fish and shellfish for Tribal members are higher than the rates for non-natives that were used into determine the "average consumption rates" used in the calculation. Subsistence fish and shellfish harvest are a major component of the Tribal diet. A number of studies on tribal consumption rates for shellfish and shellfish have been conducted recently, including the most recent study of Swinomish Tribal members for whom an average daily consumption rate of 260 grams was derived[1]. The Boldt decision identifies an annual consumption rate of 500 lbs/year or 620 grams per day for Tribal members. This exceeds the consumption rates used in the risk calculations for this proposed cleanup by eight times. A higher consumption rate must be used to accurately assess the health risks to Nooksack Tribal members if they are to safely resume harvesting and consuming shellfish and fish from the Whatcom Waterway vicinity.

In addition, we have concerns about a cleanup that leaves high concentrations of contaminants in sediments below the seafloor. In a dynamic estuary and shoreline area, sediment reworking by a variety of geomorphic, geologic and biologic processes will likely expose higher contamination concentration sediments to surface. Once exposed the sediments present the opportunity for biologic consumption, uptake and accumulation by organisms inhabiting the sediment/water interface. The concentrations of contaminants in sediment, in particular the mercury and phenols that are known to be present in the Whatcom Waterway, proposed for capping in stockpiling in place, should not be left in the Whatcom Waterway. 5 6

Prior to the initiation of industrial activities in the Bellingham Waterfront, the shoreline and near shore areas provided productive habitat for salmonid species (that are currently listed as threatened or endangered under the Endangered Species Act) and shellfish. The restoration of the historical productivity in the Whatcom Waterway vicinity should be incorporated as one of the cleanup objectives. While the cleanup plan recognizes the presence of some of the native fish and shellfish species found in the Whatcom Creek estuary, neither the habitat nor food requirements of those species were considered in the criteria used to guide and prioritize the selection of the preferred cleanup option. 7

Together these considerations suggest that the toxic concentrations in sediment remaining in the Whatcom Waterway pose a risk to the health of Nooksack tribal members. The cleanup proposed in the Draft Consent decree is not protective of tribal health, nor the treaty rights to fish and shellfish in the Whatcom Waterway vicinity. Adequate protection of 8

[1] Bioaccumulative Toxics in Subsistence-Harvested Shellfish – Contaminant Results and Risk Assessment, prepared by the Swinomish Tribe, Office of Planning and Community Development, December 2006.

Nooksack tribal rights and the health of tribal members will entail removal of all sediment contaminated with discharge from the pulp mill and other industrial discharges. 9

We appreciate your recognition of the importance of shellfish and fish to the health and well being of the Nooksack Tribe and its members. We anticipate working with Ecology and the Port of Bellingham to develop a cleanup plan that is protective of the treaty protected rights of the Nooksack Tribe for the harvest and consumption of the fish and shellfish from the Whatcom Creek estuary.

Sincerely,

Narcisco Cunan
Chairman
Nooksack Indian Tribe

#34-A

From: Ilwu07@aol.com [mailto:Ilwu07@aol.com]
Sent: Friday, August 10, 2007 7:35 AM
To: McInerney, Lucy (ECY)
Subject: (no subject)

Yes I am in favor of the draft consent decree. Michael A Owens ILWU # 7 1

EXCERPTS FROM PUBLIC HEARING TRANSCRIPT #35-A
August 8, 2007, Bellingham Cruise Terminal

Tom Winter
I'm Thomas C. Winter Jr. I'm speaking on behalf of People for Puget Sound. We're a non-profit, environmental organization whose mission is to protect and restore Puget Sound and the NW Straits.

Included is a specific goal to protect and restore the 2,000 miles of Puget Sound's shoreline by 2015.

Our objective for the Whatcom Waterway site is to remove the maximum possible amount of existing mercury safely and expeditiously. To minimize the methylation of any remaining residual and to protect the sound from future contaminants. We offer the following four comments for your consideration: 1

People for Puget Sound supports the removal of the greatest amount of contaminated sediment by dredging, at a level between alternatives 7 and 8 in the DCAP. We want to see dredging everywhere it makes sense. We're not sure that a complete analysis has been completed in all locations. 2

It is more expensive to dredge, but this cost difference is small when evaluated in the context of the long-term improvement to Puget Sound and the resulting benefits to future generations.

Second, despite the responsiveness summaries comment that methylation and deeper sediments is contained by geochemical properties, considerable uncertainty exists. 3

Capping the mercury laden sediment in place raises a concern that methyl mercury compounds will evolve and remain in these sediments for years. As illustrated by the experiences in LaVaca Bay, Texas, still there after 30 years. And San Pablo Bay, California, there over a century.

Third, the effects of rising sea levels are a major uncertainty. The shore elevation of the proposed developments is around 14 to 22 feet. The 100-year flood elevation is 12 to 13 feet. Estimates of sea-level rise by 2100 range from less than a foot to several meters, so the safety margin is small. 4

Fourth, the reported increased seismic risk in Whatcom County to include the recent discovery of active faults is unsettling. As illustrated by the June 1 memorandum by the Western Washington University Geology faculty. The one that is going to be placed into the record. 5

A major seismic event could dump considerable residue into the Sound. Overall, unacceptable uncertainty remains concerning this project. Hence People for Puget Sound recommends the following:

First, the removal of the mercury contaminated sediment to the maximum extent possible, while providing the utmost in habitat restoration and open space along the waterfront.

Second, the minimization along the waterfront of structures and other sources that could result in debris being dumped in the Sound in case of a major seismic event.

Thank you.

Moderator
Next we have George Dyson, followed by Mark Buehrer

#35-B

From: Heather Trim [mailto:htrim@pugetsound.org]
Sent: Monday, August 13, 2007 10:00 PM
To: McInerney, Lucy (ECY)
Cc: t2winterjr@yahoo.com
Subject: People For Puget Sound Comments Whatcom Waterway

Hi Lucy,

Attached is our comment letter on Whatcom Waterway.

Thanks so much,
Heather

Heather Trim
People For Puget Sound
911 Western Ave., Suite 580
Seattle, WA 98119
(206) 382-7007 X215
htrim@pugetsound.org
www.pugetsound.org

PEOPLE FOR PUGET SOUND
pugetsound.org

August 13, 2007

#35-C

Lucille T. McInerney, P.E.
Site Manager
Department of Ecology
3190 160th Avenue
Bellevue, WA 98008-5452
Via Email: lpeb461@ecy.wa.gov

RE: Whatcom Waterway Site Bellingham: Draft Consent Decree and Cleanup Action Plan

Dear Ms. McInerney,

Thank you for the opportunity to comment on the *draft Consent Decree and Cleanup Action Plan*: *Whatcom Waterway Site Bellingham* (public notice dated July 12, 2007).

People For Puget Sound is a nonprofit, citizens' organization whose mission is to protect and restore the health of Puget Sound and the Northwest Straits.

We view the Whatcom Waterway Site Cleanup project from the perspective of restoring the Sound's long-term characteristics. We believe that the Port of Bellingham as the main responsible party should remove the maximum possible amount of the existing mercury safely and expeditiously in order to minimize the methylation of any remaining residual and to protect the Sound from future contaminant releases from the site. 7

We are disappointed that the draft Action Plan does not improve the cleanup proposal beyond the draft Remedial Investigation/Feasibility Study (RI/FS). A large number of questions were raised during public comment on the RI/FS and yet these comments have not been wholly addressed and the cleanup plan is essentially unaltered. Some of these questions were issues of data gaps, thoroughness of the uncertainty analyses and issues about areas where mercury concentrations are continuing to rise, 8

We support the comments that you recently received from Wendy Steffensen of North Sound Baykeeper/RE Sources and we offer the following additional comments:

1. **Dredging.** People For Puget Sound supports the removal of the greatest possible amount of contaminated sediment by dredging - at a level between alternatives 7 and 8 in the draft Action Plan. We want to see dredging everywhere it makes sense and we are not sure that a complete analysis has been completed of all locations, including a full assessment of capping and dredging based on sediment toxicity in all locations. Areas prone to erosion should not be capped. 9

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It is more expensive to dredge, but this cost difference is small when evaluated in the context of the long-term improvement to Puget Sound and the resulting benefits to future generations.

2. **Capping.** Despite the statement in the draft document that methylation in deeper sediments is constrained by geochemical properties (pp. 16-17, RS), considerable uncertainty exists. Capping (without prior dredging) the mercury-laden sediment raises the concern that methylmercury compounds will evolve and remain in these sediments for years. As is well known, methylmercury can bioaccumulate in many edible saltwater fish and marine mammals to levels that are "many thousands of times greater than levels in the surrounding water" (e.g., UNEP Global Mercury Assessment report, Chap. 2; reproduced in Jul 7, 2006 GreenFacts). For example, concentrations in benthic food web organisms have been reported to remain elevated after 30+ years (David R. Sager, "Long-Term Variation in Mercury Concentrations in Estuarine Organisms with Changes in Releases into Lavaca Bay, TX," Marine Pollution Bulletin 44 (2002); source also from a chloralkalai facility). 10 11

   In addition, we oppose leaving mercury in place because of the risk of future breaches of the sediment area releasing contamination into the Sound. Where capping alone is allowed, and we believe this should be in a more limited geographic scope than is proposed in the draft Action Plan, the cap should be more protective (i.e., minimum of 6-feet thick). 12

3. **Mercury mass.** We would like to see a table that lists the amount of mercury (in pounds) that would be removed under each alternative and the amount, therefore, that would be left behind in each geographic area of the project 13

4. **Starr Rock.** Why is Starr Rock subsurface data not available to the public as part of this process? These data should have been included in this report, in response to previous comments. 14

5. **Seafood consumption.** We understand that the seafood consumption numbers are based on a "market basket" approach. We do not feel, however, that cumulative impacts of eating seafood from this area has been adequately explained and justified. Seafood consumption values should be treated with the most conservative approach. 15

6. **Climate Change.** The effects of rising sea level add a level of major uncertainty to this project. Sea level rise as well as other unknown effects due to Climate Change could result in considerable debris being dumped into the Sound. The Whatcom Waterway shore elevation at the location the Port is planning to build new structures is ~14 – 22 ft above Mean Lower Low Water (MLLW) level. The 100-year flood elevation is 12-13 ft. The highest high tide recorded to date (January 5, 1975) is 10.4 ft. The elevation safety margin, therefore, against rising sea levels is only a few feet. Estimates of the rise in sea level by 2100 range up to several meters (Jonathan T. Overpeck et al, "Paleoclimatic Evidence for Future Ice-Sheet Instability and Rapid Sea-Level Rise," Science, Vol. 311, 24 March 2006). More information is currently being developed including the forecast of new projections, but the reality is that we do not know yet all of the adverse impacts of Global Climate Change. 16

7. **Tsunamis.** Tsunamis can be characterized by surging whereby the water temporarily vacates seaward areas adjacent to shores. In addition to the rising waters sweeping shoreline facilities and other residue into the bay, these surges can "scour" the bottom, uncovering capped sediment contaminants. Statements in the draft document (pp. 32-33, RS) cite NOAA studies that indicate the site area is not identified as a high risk area for tsunami inundation. However, the risk does exist. We feel a conservative approach should be taken – the amount of mercury-laden sediment 17

and the number of structures and other debris that could be swept into the Sound should be minimized.

8. **Earthquakes.** The reported increased seismic risk in Whatcom County, to include the recent discovery of active faults, is unsettling (Western Washington University Geology Department faculty memo to Chairman, WWU Board of Trustees, re: Oversight for Assessment of Geological Hazards of the GP Waterfront Site, June 1, 2007). A major seismic event could dump considerable residue into the Sound. We feel the sources for this debris should be minimized, until a better estimate exists for the extent of this seismic risk. 18

9. **Open Space and Habitat.** Finally, we would like to see the maximum amount of habitat and open space included along the waterfront. This cleanup and the associated development plans are an once-in-a-lifetime opportunity to create a water's edge project that could significantly improve the health of the nearshore in Bellingham. 19

At this site, as we have noted at other cleanup sites in Puget Sound, we see that cleanup related decisions are being strongly driven by goals such as location of navigation and development desires. Given the governor's initiative - the Puget Sound Partnership - with the goal of restoring the health of Puget Sound by 2020, we would like to see a more proactive approach taken to cleanup in terms of long-term aquatic health. In the case of Bellingham Bay there is especially strong public support for a more comprehensive cleanup and we don't see the public agencies responding to this interest. There are multiple ways to fund the cleanup and all of these avenues do not appear to have been explored. 20 21

Thank you for your consideration. If you have any questions, please contact me at (206) 382-7007 or at htrim@pugetsound.org or Tom Winter at twinter@pugetsound.org.

Sincerely,

Heather Trim
Urban Bays Coordinator

PORT OF BELLINGHAM
Washington State

#36-A

August 8, 2007

Lucille McInerney
Site Manager
Washington Department of Ecology
3190 160th Avenue
Bellevue, WA 98008-5452

Re: Whatcom Waterway Site

Dear Ms. McInerney:

Congratulations on reaching this important milestone for the Whatcom Waterway site. Ecology's cleanup plan integrates over 10 years of scientific research in the Whatcom Waterway and offers a permanent and practical solution to the legacy of industrial contamination on Bellingham's waterfront. The Board of Commissioners for the Port of Bellingham strongly supports Ecology's proposed cleanup approach, referenced as Alternative 6 in Ecology's documents and Port Resolution #1241 (enclosed). 1

The cleanup of the Whatcom Waterway site is consistent with the local community's vision for a healthy, revitalized waterfront. Over the past several months the Port has been engaged in a series of public outreach events involving hundreds of people from Bellingham and Whatcom County. The response has been overwhelmingly supportive of Ecology's proposal.

Your agency's decision will be significant beyond Bellingham. The proposed plan for Whatcom Waterway includes the cleanup of over 200 acres of contaminated marine sediment and the restoration of almost three miles of nearshore salmon habitat. These types of actions are specifically prioritized in the Governor's 2020 Action Agenda for Puget Sound. The implementation of Ecology's plan will therefore set the stage for a very high-profile demonstration that the Governor's ambitious goal of a healthy Puget Sound is within our grasp. 2

On behalf of the Board of Commissioners, representing the 185,000 citizens of Whatcom County, we look forward to your continuing leadership in our partnership to clean up and restore Bellingham Bay. We stand at the ready to make your proposal a reality. 3

Sincerely,

For James S. Darling
Executive Director

Enclosure

1801 Roeder Avenue / P.O. Box 1677 / Bellingham, WA 98227-1677
(360) 676-2500 / FAX (360) 671-6411 / www.portofbellingham.com

#36-B

RESOLUTION NO. 1241

A RESOLUTION OF THE COMMISSION OF THE PORT OF BELLINGHAM, RECOMMENDING PREFERRED ALTERNATIVE NO. 6, AS DESCRIBED IN THE OCTOBER 10, 2006 DRAFT SUPPLEMENTAL REMEDIAL INVESTIGATION AND FEASIBILITY STUDY FOR THE WHATCOM WATERWAY SITE, TO THE WASHINGTON STATE DEPARTMENT OF ECOLOGY.

4

WHEREAS, the Port of Bellingham ("Port") and the Washington State Department of Ecology ("Ecology") have been working together since 1996 as co-managers of the Bellingham Bay Demonstration Pilot; and

WHEREAS, following closure of the local Georgia-Pacific pulp mill operations in 2001, the Port and the City of Bellingham have been working together to revitalize the waterfront by supporting a new mix of uses including light industry, business, academic, residential, moorage, public access, and habitat restoration; and

WHEREAS, in January 2005, following an extensive public involvement process, the Port acquired 137 acres of waterfront property from Georgia-Pacific, including significant areas of the Whatcom Waterway site such as shorelines, the Log Pond and the Aerated Stabilization Basin, in order to implement the community's vision for revitalizing the waterfront; and

WHEREAS, through interlocal agreement, the Port and City of Bellingham have determined that the most appropriate re-use of the Aerated Stabilization Basin is for a "Clean Ocean Marina", including public access, marine habitat and expanded moorage capacity; and

WHEREAS, in November 2005 the Port and the Washington Department of Natural Resources agreed in a Memorandum of Understanding that the current Whatcom Waterway federal channel, state waterway and harbor area designations should be updated to better reflect the current changes in the local economy, land uses, land use plans and navigation needs for the community waterfront; and

WHEREAS, the Port, as local sponsor for the Whatcom Waterway federal channel, has recommended that the channel be maintained adjacent to the Bellingham Shipping Terminal to support deep draft operations, but converted to a locally managed multi-purpose waterway in the inner portion of the channel; and

WHEREAS, the Port and Georgia-Pacific have entered into an Agreed Order with Ecology to update the Remedial Investigation/Feasibility Study ("RI/FS") and Environmental Impact Statement ("EIS") for the Whatcom Waterway site in order to reflect the results of recent sampling investigations, improving environmental conditions, changes in property ownership and the development of new waterfront land use plans; and

WHEREAS, the updated RI/FS and EIS for the Whatcom Waterway site have been issued for public comment by Ecology with Alternative 6 identified as one of the

"preferred" alternatives, because it ranks highest under the applicable regulatory criteria, and would provide a safe and effective cleanup, consistent with the current land use planning by the Port and City of Bellingham to revitalize the waterfront, according to the community's vision; and

WHEREAS, the estimated cost of Alternative 6 is $44 million, for which the Port has a viable funding plan, supported through multi-million dollar state grants which have been identified as a priority by both the Department of Ecology and the Governor of the State of Washington.

NOW, THEREFORE, BE IT RESOLVED by the Board of Commissioners of the Port of Bellingham, Washington, that Alternative 6 is recommended for selection by the Department of Ecology as the cleanup action plan for the Whatcom Waterway site under the Model Toxics Control Act.

ADOPTED in open session at a meeting of the Commission of the Port of Bellingham on the 5th day of December 2006, and duly authenticated by the signatures of the Commission and the seal of the Commission affixed hereto.

PORT OF BELLINGHAM COMMISSION

Jim Jorgensen, President

Scott L. Walker, Vice President

Douglas G. Smith, Secretary

From: David Post [mailto:musicpostjams@yahoo.com]
Sent: Thursday, July 12, 2007 5:03 PM
To: McInerney, Lucy (ECY)
Subject: bellingham--whatcom waterway cleanup

#37-A

Dear People,
As a citizen of Bellingham, WA, and someone who plans to raise a family here, I implore you to do everything possible to remove the mercury and cap this site properly. There is no decline in the toxicity of mercury. With targeted, high-tech dredging techniques, the reward of removing this mercury will outweigh any risks involved over the long term. Please, please do not just do the least expensive thing. We cannot afford to do a less than extraordinary job of cleaning this site and making it safe for our/your children for generations to come. Thank you,

1

David Post
301 S. Garden St.
Bellingham, WA 98225
360-306-1543

David Post, Artistic Director
Bellingham Arts Academy for Youth
www.baay.org
Bellingham Preschool of the Arts
www.artspreschool.com
david@baay.org
360-306-1543

Be the change you want to see in the world...

EXCERPTS FROM PUBLIC HEARING TRANSCRIPT #38-A
August 8, 2007, Bellingham Cruise Terminal

Wendy Steffensen
Hello my name is Wendy Steffensen. I'm the North Sound Baykeeper with RE Sources. RE Sources is a local non-profit environmental group here in town. We have well over 500 members most in Whatcom County and many in Bellingham.

So I submit these comments on their behalf. The North Sound Baykeeper has been involved in this process for a long time. Before I became the North Sound Baykeeper about 4 years ago, we were involved since '96. We've been involved since then, attending meetings, doing research on this process, submitting comments. This last round of RI/FS documents, we actually convened a public participation panel and spent many, many hours going through those documents and really digging in and researching the issues. We submitted extensive comments. And I appreciate some of the changes that Ecology made, but we were all very disappointed in the actual responsiveness summary. We didn't feel that Ecology answered our questions and maybe part of that is because Ecology decided to lump all of the questions into categories and answer them as kind of a pooled way. 1

We asked some specific technical questions and did not get specific technical answers back. So we're disappointed. One of the things that I would like to mention as part of that. We talked about the level of mercury in seafood, and while Pete is right, the level of mercury in seafood right now is above the regional norm and that may be OK for you and I who are occasional consumers. But the question we still have is whether it is OK for subsistence and tribal fishers. 2

We did extensive calculations and we asked very specific questions that called the calculation of the BSL, the bioaccumulation screening level, into question, and we did not receive answers back. So for me, the question on the table is still: is the seafood in Bellingham Bay safe enough to eat for people who eat it at high levels? And I think that is an important consideration that we need to address before we move on. 3

In addition, we also ask that there be a thorough evaluation of capping and dredging at different sites. We realize, you know, the best thing would be to not have done this in the place and then let's dredge it, let's remove it all and contain it all and not have any problems. 4

We realize that dredging everywhere isn't going to be a safe solution. So what we asked for was actual analysis of kind of the pros and cons associated with capping and dredging at each site unit, and we weren't given that. But what we were given in the RI/FS was kind of a glowing report of how capping works and dredging doesn't, very short treatment of dredging, much more extensive treatment of capping. It was not balanced, and I realize that this was written by the Port consultant and there's a method—there's a specific cleanup option that would make sense for the Port—but we're relying on Ecology to make sure that these things get equal weight and are evaluated fairly, and we

don't believe that happened RI/FS and we're hoping and it didn't happen in this cleanup action plan either. So I don't, I'm really asking that you all go back and do a better job of being fair in these documents.

I noticed that in the cost-benefit analysis, you actually assigned weighting factors to protectiveness and permanence, and that made a lot of sense. What of course was interesting to me that we still came up with the same answer. And maybe that's exactly what it is, but what we did, Ecology assigned the values to each of those factors, and if my colleagues and I sat around the table, we would probably come up with different answers. So I'm wondering if there shouldn't be a neutral third party to look at that because I believe Ecology has already basically bought into the decision of alternative 6 and so I think that needs to be re-evaluated. 5 6

In addition, cost, protectiveness, implementability, and all of these seven factors, they're all weighed against cost, like cost is a major factor. And I'm curious and this may be kind of a MCTA sticking point, but I'm curious why cost isn't one factor and not like the be all and end all that everything gets weighted against. 7

So in closing, I'll just say what we'd like is a 6-foot cap everywhere, dredging in all erosional areas. Right now you're capping some erosional areas and that's a concern. And a re-evaluation of the bioaccumulation screening level, contamination mechanism at the Log Pond cap, and seisimicity. And I'll be turning in further comments. Thank you. 8 9 10 11

#38-B

From: NorthSound Baykeeper [mailto:northsound.baykeeper@gmail.com]
Sent: Thursday, August 09, 2007 3:14 PM
To: McInerney, Lucy (ECY); Pendowski, Jim (ECY)
Subject: comments on the WW DCAP

Please accept these comments as part of the recors on the Whatcom Waterway Draft Cleanup Action Plan. They are both attached and pasted in.

Wendy Steffensen
North Sound Baykeeper
RE Sources

North Sound Baykeeper

RE Sources

2309 Meridian Street

Bellingham, WA 98225

August 9, 2007

These comments are submitted on behalf of RE Sources' North Sound Baykeeper, Wendy Steffensen, and her Public Participation Panel, which includes, but is not limited to the following members:

Dr. Clint Duncan, Emeritus Chemistry Professor

Elizabeth Kilanowski, Citizen

Dr. Charlie Maliszewski, Microbiologist, retired

Stan Parker, Sierra Club; Vice Chair

Dr. Tom Pratum, North Cascades Audubon, Chemist

Bert Rubash, Citizen

Wendy Steffensen, North Sound Baykeeper, Toxicologist/ Water quality scientist

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1) We find that the response to comments issued July 12, 2007 on the Whatcom Waterway RI/FS were wholly inadequate and did not actually respond to the comments and questions posited by citizens of Washington State. This comment is relevant to the draft cleanup action plan because we believe that a re-evaluation of the response to comments for the Remedial Investigation and Feasibility Study may result in different cleanup decisions, than have previously been made. As citizens and taxpayers, we urgently request that the Department of Ecology re-evaluate their answers to these questions and their final decision in order to correctly perform their duties. 12

A few examples of the comments and questions that we believe have been inadequately answered are herein listed:

- Ecology did not respond to the assertion that capping in the log pond was designated an interim solution and was not evaluated as a final solution in this RI/FS. This final evaluation is important as interim actions do not embrace the full spectrum of public participation opportunities. 13
- Ecology did not address specific samples where mercury concentrations were actually increasing, and not decreasing as postulated by Ecology's assertion that the Whatcom Waterway is a depositional area. If, in fact, there are erosional areas in the Waterway, capping as a remediation method has severe limitations. 14
- Ecology did not adequately address alternative likely hypotheses for mercury re-contamination at the log pond. 15
- Ecology did not answer specific questions regarding the Biologic Screening Level (BSL); these included the exact source of the data used for the BSL regression, the reason for averaging individual samples, and the poor predictability of the regression. 16
- Ecology did not consider the entire amount of mercury ingested by seafood eaten by tribal and subsistence eaters, nor did they give the reason why the entire amount was not considered. 17
- Ecology did not provide subsurface levels of mercury at Starr Rock, although it was requested. Subsurface data were given for all other site units. Starr Rock is a former dump site for dredgings of the Inner Whatcom Waterway and as such it is very contaminated and disturbance of this site could be very dangerous. 18
- Ecology did not address nor remedy the fact that equal description to the pros and cons of capping and dredging were not given in the RI/FS. 19
- Ecology decided not to recommend a standard 6 foot cap for contamination, although it was publicly recommended by an Ecology sediment specialist. 20
- Ecology mischaracterized the effects of tsunamis as similar to sea level rise. In fact, a tsunami will both raise and lower sea level and in the lowering of sea level can create a great amount of scour and disturbance of the sea floor. 21

2) In regard to section 5, "Basis for Selection of the Proposed Cleanup Action," we find that some improvements have been made to the weighting of the matrix, but we disagree with the overall conclusions. Firstly, we acknowledge that the weighting system is qualitative, and therefore subjective. We appreciate that higher weights have been given to protectiveness, permanence and long-term effectiveness. We find it unusual, however, that there is no relative weight given to cost. We also do not agree with separating the public's concern for protectiveness, permanence and long-term effectiveness out of the overall consideration for public approval. 22 23

We believe that the values applied to each criterion for each cleanup alternative, as shown in Table 5-2, "Summary of MTCA Alternatives Evaluation and Ranking"are skewed. Permanence and Protectiveness (i.e. a combined 50% of all factored criteria) have identical values of 5, 6, 7, and 8 for alternatives 5, 6, 7, and 8, respectively. Long-Term Effectiveness has values of 7, 8, 9, and 9 for alternatives, 5, 6, 7, and 8. On the other hand, the gradation of values assigned to short term risk, implementability, and public concerns have wider gaps between the scores, and do not appear commensurate with the proposed plans. Short term risk is given a score of 8, 7, 6 and 4; implementability is given a score of 8, 8, 4 and 3; and public concerns are given scores of 7, 8, 5, and 4, for alternatives 5, 6, 7, and 8, respectively. Because it is difficult for anyone with a vested interest to assign scores to these proposed plans, we propose that an independent panel review these rankings in this and all future clean ups. We believe that Ecology's analysis is overly subjective in favor of Alternatives 5 and 6. 24

Moreover, all 4 alternatives include the ASB cleanup. Since 75 –80% of the work in alternatives 5 and 6 is attributable to the ASB, one must conclude that Ecology considers the ASB cleanup to be of paramount importance to the Bellingham Bay cleanup. This is interesting to note since the ASB is presently contained and does not represent a threat to the health of people or biota at this time. 25

We propose that the constant factor of ASB cleanup be removed from the overall review. If this were done, we believe that Alternatives 7 and 8 would receive dramatically higher proportional scores relative to Alternatives 5 and 6 in Permanence, Protectiveness and Long-term Effectiveness especially if one takes into account the overwhelming Public Concern for these three criteria. We believe that the constant ASB values appear to unfairly skew the scores for these three most important criteria.

Within the draft document, the following is stated, "At this site, quantitative data is available regarding the estimated amount of contamination that will be removed (dredged), the estimated areas that will be contained (capped) and the estimated areas of monitored natural recovery." What is not included, however, is the total amount of mercury and total area of contamination that would be removed via each cleanup alternative, apart from that removed from the ASB. This information should be used to determine whether the additional cleanup provided by alternatives 7 and 8 is significant or only incremental, as Ecology has stated. 26

3) The remedies for each site unit in the draft cleanup plan do not differ significantly from that presented in the RI/FS. We note the following and ask that Ecology reconsider their plans for the following site units:

- Unit 2. This is the Inner Waterway and as we have noted previously, contamination in this area is 20 times higher than the MCL. We believe that this area should be dredged where possible in order to minimize risk. We believe that parts of the Waterway may be erosional, as evidenced by a significant number of samples which have been increasing in mercury concentration. This comment was not addressed in the RI/FS. If parts of the Waterway are erosional, due perhaps to deflected wave patterns within the Waterway, capping would be contraindicated here. We also note that samples that were increasing in mercury concentration were not resampled (see Baykeeper comments on the RI/FS). Another significant argument for dredging in this area is that much of Unit 2 consists of unconsolidated material and woody material. In a seismic event this presents a significant liquefaction hazard. We believe that dangers of seismic hazards have been underestimated in this project. If this area is to be capped, we ask that a six foot cap be used throughout as recommended by Ecology sediment specialist Pete Adolphson at a public forum. 27 28 29 30
- Unit 3a. This is the head of the Whatcom Waterway. As we have noted previously, this area appears devoid of much life. Ecology's answer is that mercury and other contaminant levels are below the level of concern, and that dredging will not be used in this area in order to preserve the "emergent tide-flat." We ask, "What is there to preserve?" We request that Ecology perform a comparison of similar tide-flats and make an evaluation of the health of this tide-flat prior to deciding to take no action at this area. The head of the Whatcom Waterway is a valuable area as it is a part of the estuary, but it is a disservice to habitat if we do not restore it as near as possible to its original and proper function. We believe that dredging in this area may be the best option. Similar to Unit 2, Unit 3 consists of unconsolidated material and woody material. In a seismic event this presents a significant liquefaction hazard. We believe that dangers of seismic hazards have been underestimated in this project. 31 32
- Unit 4. This is the log pond, which has been previously capped. We find that Ecology did not respond adequately to our comments regarding the log pond. We ask that Ecology respond to the assertion that capping in the log pond was designated an interim solution and was not evaluated as a final solution in this RI/FS. This final evaluation is important as interim actions do not embrace the full spectrum of public participation opportunities. We also ask that Ecology address the alternative likely hypotheses for mercury re-contamination at the log pond, as presented in the Baykeeper's comments on the RI/FS. We note that an examination of these questions could lead to different cleanup plans, and thus their examination is of paramount importance. 33 34
- Units5b, 6b, and 6c. These units are steep-sloped and erosional and proposed to be covered with engineered caps. We find that caps are difficult to place in steep areas and should not be placed in erosional areas. We point to the log pond as an area where a cap eroded via wave action, although it was not anticipated. We ask 35

that you re-evaluate the use of an engineered cap with appropriate data shared with the public. We believe the most responsible solution in erosion-prone areas is to dredge the contaminants. If Ecology still decides that an engineered cap is appropriate, we believe that the monitoring of these areas must be especially rigorous given the climate under which they function. In the first two years, we suggest monitoring every 6 months and after large storm events; thereafter monitoring on a yearly basis should be the norm. 36 37

- Unit 7. This unit is Starr Rock, a former dredge disposal site for mercury-laden sediments. We requested subsurface data at Starr Rock in our RI/FS comments and it was not provided. We know that Starr Rock has been sampled previously and we are thus curious why the information has not been forthcoming. We believe that examination of the subsurface data at Starr Rock in conjunction with analysis of its unique topography could lead to a more permanent solution than monitored natural recovery. 38 39

4) We believe that the monitoring plan should be improved from that which appears in section 6.3. The following are our recommendations:

- Sample for methyl mercury as well as total mercury in the sediment and in the water, (both filtered and unfiltered) above the sediment. Analysis for methyl mercury will provide information, now lacking on the availability of monomethyl mercury). 40
- Sample crab at the same intervals as sediment, and
    -) Increase the number of crab sampling locations (This monitoring change would provide information re the coupling of crab tissue and sediment mercury concentrations as well as the 'recovery or lack of recovery'), 41
    -) Increase the number of crab sampled at each location (This monitoring change would provide data concerning the spatial variability in mercury tissue concentration of the mobile crab samples)
    -) Sample crab at different time intervals during the sampling year. (This monitoring change would provide information on the temporal variability of tissue mercury concentrations).
    -) Record crab weight and size for each catch.

- Ensure that a sufficient number of sediment samples are taken to provide sufficient statistical coverage. Rationale for the number of samples should be provided. Note that this number may be greater than the 20-30 sample locations estimated and that a robust dataset could be used to model other cleanups. 42

5) The cleanup levels upon which Ecology is still relying are the MCL of 0.59 mg mercury /kg sediment and the BSL of 1.2 mg mercury/ kg sediment. We offered an extensive criticism of the BSL calculation in our comment on the RI/ FS. This criticism was largely discounted, but the reasons given were not of any substance. We request that you revisit the comments on the BSL from the North Sound Baykeeper and give them proper attention. In the absence of a sound rationale, we again request that Ecology 43

default to the MCL cleanup standard of 0.59 mg mercury/ kg sediment, without the option for a bioassay override. 44

In addition, we find that the Toy study may underestimate consumption of seafood by tribal members. In the absence of site-specific data from the Lummi Nation and Nooksack Tribe, we ask that you re-evaluate consumption numbers in a conservative manner. For example, the Swinomish Tribe in their 2005 risk assessment suggest 260 gpd, the Columbia River Inter-tribal Fish Commission suggested a rate of 389 gpd at the 99^{th} percentile rate, and earlier studies used in the Boldt decision estimated fish consumption at 620 gpd. These consumption rate values are all significantly higher than that used in the Toy study. 45

6) Regarding language in the consent decree, we ask that records be retained in perpetuity, for as long as the mercury exists on the site. In the future, other persons may need this information into understand the site and to make sound decisions regarding cleanup and use. 46

North Sound Baykeeper
RE Sources
2309 Meridian Street
Bellingham, WA 98225

#38-C

August 9, 2007

These comments are submitted on behalf of RE Sources' North Sound Baykeeper, Wendy Steffensen, and her Public Participation Panel, which includes, but is not limited to the following members:

Dr. Clint Duncan, Emeritus Chemistry Professor
Elizabeth Kilanowski, Citizen
Dr. Charlie Maliszewski, Microbiologist, retired
Stan Parker, Sierra Club; Vice Chair
Dr. Tom Pratum, North Cascades Audubon, Chemist
Bert Rubash, Citizen
Wendy Steffensen, North Sound Baykeeper, Toxicologist/ Water quality scientist

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1) We find that the response to comments issued July 12, 2007 on the Whatcom Waterway RI/FS were wholly inadequate and did not actually respond to the comments and questions posited by citizens of Washington State. This comment is relevant to the draft cleanup action plan because we believe that a re-evaluation of the response to comments for the Remedial Investigation and Feasibility Study may result in different cleanup decisions, than have previously been made. As citizens and taxpayers, we urgently request that the Department of Ecology re-evaluate their answers to these questions and their final decision in order to correctly perform their duties.

47

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- Ecology did not address specific samples where mercury concentrations were actually increasing, and not decreasing as postulated by Ecology's assertion that the Whatcom Waterway is a depositional area. If, in fact, there are erosional areas in the Waterway, capping as a remediation method has severe limitations.
- Ecology did not adequately address alternative likely hypotheses for mercury re-contamination at the log pond.

- Ecology did not answer specific questions regarding the Biologic Screening Level (BSL); these included the exact source of the data used for the BSL regression, the reason for averaging individual samples, and the poor predictability of the regression.
- Ecology did not consider the entire amount of mercury ingested by seafood eaten by tribal and subsistence eaters, nor did they give the reason why the entire amount was not considered.
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- Ecology did not address nor remedy the fact that equal description to the pros and cons of capping and dredging were not given in the RI/FS.
- Ecology decided not to recommend a standard 6 foot cap for contamination, although it was publicly recommended by an Ecology sediment specialist.
- Ecology mischaracterized the effects of tsunamis as similar to sea level rise. In fact, a tsunami will both raise and lower sea level and in the lowering of sea level can create a great amount of scour and disturbance of the sea floor.

2) In regard to section 5, "Basis for Selection of the Proposed Cleanup Action," we find that some improvements have been made to the weighting of the matrix, but we disagree with the overall conclusions. Firstly, we acknowledge that the weighting system is qualitative, and therefore subjective. We appreciate that higher weights have been given to protectiveness, permanence and long-term effectiveness. We find it unusual, however, that there is no relative weight given to cost. We also do not agree with separating the public's concern for protectiveness, permanence and long-term effectiveness out of the overall consideration for public approval.

We believe that the values applied to each criterion for each cleanup alternative, as shown in Table 5-2, "Summary of MTCA Alternatives Evaluation and Ranking"are skewed. Permanence and Protectiveness (i.e. a combined 50% of all factored criteria) have identical values of 5, 6, 7, and 8 for alternatives 5, 6, 7, and 8, respectively. Long-Term Effectiveness has values of 7, 8, 9, and 9 for alternatives, 5, 6, 7, and 8. On the other hand, the gradation of values assigned to short term risk, implementability, and public concerns have wider gaps between the scores, and do not appear commensurate with the proposed plans. Short term risk is given a score of 8, 7, 6 and 4; implementability is given a score of 8, 8, 4 and 3; and public concerns are given scores of 7, 8, 5, and 4, for alternatives 5, 6, 7, and 8, respectively. Because it is difficult for anyone with a vested interest to assign scores to these proposed plans, we propose that an independent panel review these rankings in this and all future clean ups. We believe that Ecology's analysis is overly subjective in favor of Alternatives 5 and 6.

Moreover, all 4 alternatives include the ASB cleanup. Since 75 –80% of the work in alternatives 5 and 6 is attributable to the ASB, one must conclude that Ecology considers the ASB cleanup to be of paramount importance to the Bellingham Bay cleanup. This is interesting to note since the

ASB is presently contained and does not represent a threat to the health of people or biota at this time.

We propose that the constant factor of ASB cleanup be removed from the overall review. If this were done, we believe that Alternatives 7 and 8 would receive dramatically higher proportional scores relative to Alternatives 5 and 6 in Permanence, Protectiveness and Long-term Effectiveness especially if one takes into account the overwhelming Public Concern for these three criteria. We believe that the constant ASB values appear to unfairly skew the scores for these three most important criteria.

Within the draft document, the following is stated, "At this site, quantitative data is available regarding the estimated amount of contamination that will be removed (dredged), the estimated areas that will be contained (capped) and the estimated areas of monitored natural recovery." What is not included, however, is the total amount of mercury and total area of contamination that would be removed via each cleanup alternative, apart from that removed from the ASB. This information should be used to determine whether the additional cleanup provided by alternatives 7 and 8 is significant or only incremental, as Ecology has stated.

3) The remedies for each site unit in the draft cleanup plan do not differ significantly from that presented in the RI/FS. We note the following and ask that Ecology reconsider their plans for the following site units:

- Unit 2. This is the Inner Waterway and as we have noted previously, contamination in this area is 20 times higher than the MCL. We believe that this area should be dredged where possible in order to minimize risk. We believe that parts of the Waterway may be erosional, as evidenced by a significant number of samples which have been increasing in mercury concentration. This comment was not addressed in the RI/FS. If parts of the Waterway are erosional, due perhaps to deflected wave patterns within the Waterway, capping would be contraindicated here. We also note that samples that were increasing in mercury concentration were not resampled (see Baykeeper comments on the RI/FS). Another significant argument for dredging in this area is that much of Unit 2 consists of unconsolidated material and woody material. In a seismic event this presents a significant liquefaction hazard. We believe that dangers of seismic hazards have been underestimated in this project. If this area is to be capped, we ask that a six foot cap be used throughout as recommended by Ecology sediment specialist Pete Adolphson at a public forum.
- Unit 3a. This is the head of the Whatcom Waterway. As we have noted previously, this area appears devoid of much life. Ecology's answer is that mercury and other contaminant levels are below the level of concern, and that dredging will not be used in this area in order to preserve the "emergent tide-flat." We ask, "What is there to preserve?" We request that Ecology perform a comparison of similar tide-flats and make an evaluation of the health of this tide-flat prior to deciding to take no action at this area. The head of the Whatcom Waterway is a valuable area as it is a part of the estuary, but it is a disservice to habitat if we do not restore it as near as possible to its original and

proper function. We believe that dredging in this area may be the best option. Similar to Unit 2, Unit 3 consists of unconsolidated material and woody material. In a seismic event this presents a significant liquefaction hazard. We believe that dangers of seismic hazards have been underestimated in this project.

- Unit 4. This is the log pond, which has been previously capped. We find that Ecology did not respond adequately to our comments regarding the log pond. We ask that Ecology respond to the assertion that capping in the log pond was designated an interim solution and was not evaluated as a final solution in this RI/FS. This final evaluation is important as interim actions do not embrace the full spectrum of public participation opportunities. We also ask that Ecology address the alternative likely hypotheses for mercury re-contamination at the log pond, as presented in the Baykeeper's comments on the RI/FS. We note that an examination of these questions could lead to different cleanup plans, and thus their examination is of paramount importance.
- Units5b, 6b, and 6c. These units are steep-sloped and erosional and proposed to be covered with engineered caps. We find that caps are difficult to place in steep areas and should not be placed in erosional areas. We point to the log pond as an area where a cap eroded via wave action, although it was not anticipated. We ask that you re-evaluate the use of an engineered cap with appropriate data shared with the public. We believe the most responsible solution in erosion-prone areas is to dredge the contaminants. If Ecology still decides that an engineered cap is appropriate, we believe that the monitoring of these areas must be especially rigorous given the climate under which they function. In the first two years, we suggest monitoring every 6 months and after large storm events; thereafter monitoring on a yearly basis should be the norm.
- Unit 7. This unit is Starr Rock, a former dredge disposal site for mercury-laden sediments. We requested subsurface data at Starr Rock in our RI/FS comments and it was not provided. We know that Starr Rock has been sampled previously and we are thus curious why the information has not been forthcoming. We believe that examination of the subsurface data at Starr Rock in conjunction with analysis of its unique topography could lead to a more permanent solution than monitored natural recovery.

4) We believe that the monitoring plan should be improved from that which appears in section 6.3. The following are our recommendations:

- Sample for methyl mercury as well as total mercury in the sediment and in the water, (both filtered and unfiltered) above the sediment. Analysis for methyl mercury will provide information, now lacking on the availability of monomethyl mercury).
- Sample crab at the same intervals as sediment, and
    -) Increase the number of crab sampling locations (This monitoring change would provide information re the coupling of crab tissue and sediment mercury concentrations as well as the 'recovery or lack of recovery'),
    -) Increase the number of crab sampled at each location (This monitoring change would provide data concerning the spatial variability in mercury tissue concentration of the mobile crab samples)

    -) Sample crab at different time intervals during the sampling year. (This monitoring change would provide information on the temporal variability of tissue mercury concentrations).
    -) Record crab weight and size for each catch.
- Ensure that a sufficient number of sediment samples are taken to provide sufficient statistical coverage. Rationale for the number of samples should be provided. Note that this number may be greater than the 20-30 sample locations estimated and that a robust dataset could be used to model other cleanups.

5) The cleanup levels upon which Ecology is still relying are the MCL of 0.59 mg mercury /kg sediment and the BSL of 1.2 mg mercury/ kg sediment. We offered an extensive criticism of the BSL calculation in our comment on the RI/ FS. This criticism was largely discounted, but the reasons given were not of any substance. We request that you revisit the comments on the BSL from the North Sound Baykeeper and give them proper attention. In the absence of a sound rationale, we again request that Ecology default to the MCL cleanup standard of 0.59 mg mercury/ kg sediment, without the option for a bioassay override.

In addition, we find that the Toy study may underestimate consumption of seafood by tribal members. In the absence of site-specific data from the Lummi Nation and Nooksack Tribe, we ask that you re-evaluate consumption numbers in a conservative manner. For example, the Swinomish Tribe in their 2005 risk assessment suggest 260 gpd, the Columbia River Inter-tribal Fish Commission suggested a rate of 389 gpd at the 99th percentile rate, and earlier studies used in the Boldt decision estimated fish consumption at 620 gpd. These consumption rate values are all significantly higher than that used in the Toy study.

6) Regarding language in the consent decree, we ask that records be retained in perpetuity, for as long as the mercury exists on the site. In the future, other persons may need this information into understand the site and to make sound decisions regarding cleanup and use.

From: NorthSound Baykeeper [mailto:northsound.baykeeper@gmail.com]
Sent: Monday, August 13, 2007 3:33 PM
To: McInerney, Lucy (ECY)
Subject: Comments of the Dept. Of Ecology Cleanup Plan

#38-D

August 13, 2007

James Pendowski, Program Manager

Lucille T. McInerney, Whatcom Waterway Site Manager

Department of Ecology

3190 160th Ave.

Bellevue, WA 98008

Dear Mr. Pendowski and Mrs. McInerney,

Here are the comments made by Peter Homann on response made by the Department of Ecology for the Draft Cleanup Action Plan. Mr. Homann has been a well respected scientist and professor for many years at Western and had some concerns about the data mercury and its assessments. Please consider his comments in addition to those of the North Sound Baykeeper.

Sincerely,

Julie Shoun and Jessica Doyle, Interns for the North Sound Baykeeper

From: Peter Homann

Re: Screening-Level Assessment of Mercury Bioaccumulation

#38-E

Dear Mr. Pendowski and Ms. McInerney,

Thank you for the opportunity to review sections of Whatcom Waterways Final RI/FS, July 25, 2000, Anchor Environmental, L.L.C. and Hart Crowser. I focused on sections related to the mercury sediment-tissue regression analysis and its applications (6.3.3, 6.5, 6.6.2, 6.8).

The assessment uses available data to determine an empirical relation via linear regression between mercury concentration in sediments and mercury concentration in selected marine animal species. These types of assessments have many implicit and explicit assumptions.

Section 6.3.3. The averaging of tissue concentrations from animals within highly overlapping home ranges, or using composite samples from animals within highly overlapping home ranges, seems appropriate. Using values for individual animals within highly overlapping home ranges would be a form of pseudoreplication, i.e. making the incorrect assumption that the individuals are statistically independent when they are not. The current analysis makes the correct assumption that the individual animals are not independent and correctly averages the data. From a regression-use standpoint, this also seems appropriate because for the scenario that people will be ingesting animals from a specific area over some period of time, a person will ingest multiple animals and the average mercury concentration of those animals will be more reflective of mercury exposure than the mercury concentration of any one animal. 48

Sections 6.5 and 6.6.2. There are several assumptions in the development and use of the regression equations that can cause uncertainty but that have not been considered in the Section 6.8 Uncertainty Analysis.

The regression lines are the best, but imperfect, estimates of the actual relation between sediment mercury concentration and tissue composite mercury concentration. The actual relation may have a slope and/or intercept greater than or less than the regression lines; consequently, values derived from the regression line have uncertainty associated with them. The degree of uncertainty associated with values derived from the regression lines may be evaluated with confidence bands (J.H. Zar. 1999. Biostatistical Analysis, 4th ed., Prentice Hall, p. 339-344). The use of an upper confidence band, rather the regression line itself, would provide a more conservative value of the sediment cleanup screening level. Conversely, use of the lower confidence band would yield a less conservative value of the sediment cleanup screening level. 49

One of several assumptions in setting confidence intervals in regression analysis is that the "measurements of X are obtained without error" (J.H. Zar. 1999. Biostatistical Analysis, 4 th ed., Prentice Hall, p. 332), or that we assume "that the error in the X data are negligible, or at least small compared with the measurement errors in Y." This assumption seems to be violated in this study because there is uncertainty in the home-

range average sediment mercury concentrations. Several statisticians have proposed alternate analyses when there is uncertainty in X values, and those alternate analyses produce somewhat different results, but as far as I know there is not a consensus on the best approach.

The regression equations are used beyond the ranges of measured home-range average sediment mercury concentrations, i.e. the highest values for English sole are ~0.7 mg Hg/kg dry weight and for crab ~0.95 mg Hg/kg dry weight, while the calculated sediment cleanup screening level is 1.2 mg Hg/kg dry weight. This latter calculation implicitly assumes that the regression relations derived from the lower ranges can be extrapolated to higher ranges, i.e. that the straight-line relation observed at <0.7 mg Hg/kg dry weight or 0.95 mg Hg/kg dry weight extends to 1.2 mg Hg/kg dry weight or higher. Without additional evidence, there is no way to know if this extrapolation is correct, and it is not clear to me how to put an uncertainty value on it.

Sincerely,

Peter Homann, Ph.D., Dept of Environmental Science, WWU

From: Ilwu07@aol.com [mailto:Ilwu07@aol.com]
Sent: Friday, August 10, 2007 11:20 AM
To: McInerney, Lucy (ECY)
Subject: (no subject)

#39-A

I am a member of Longshore Local # 7 in Bellingham Wa since 1980 a third generation longshoreman. I am in favor of the proposed draft consent decree. Dean F. Ringenbach 1

#40-A

From: Leroy Rohde [mailto:ditchdigger@mybluelight.com]
Sent: Sunday, August 12, 2007 12:55 PM
To: McInerney, Lucy (ECY)
Subject: draft consent decree

I was unable to attend the meeting at the cruise terminal on the 8th of August, but would like to exress my concerns . I think it's well past time for studdies, and time to move on. I would like to see the draft consent decree approved, I hope that this would allow for future dredging at the port dock. My livelyhood depends on it. Thank you. 1 2 3

sincerly, Leroy Rohde

#41-A

From: Ann Russell [mailto:ann.russell1@gmail.com]
Sent: Tuesday, August 07, 2007 9:01 AM
To: McInerney, Lucy (ECY)
Subject: Whatcom Waterway Comment

Dear Ms. McInerney-

I am writing to comment on the Department of Ecology's plans for the Whatcom Waterway Cleanup.

First let me thank you for the Department's attention to the concerns of Whatcom County citizens like myself.

I am writing to express my wish that mercury be removed from the Whatcom Waterway and the nearshore areas. This includes the outside shoulder of the ASB lagoon, the area around the shipping terminal, the log pond and Starr Rock. 1

I believe we have a unique chance to show forward thinking in the cleanup of the Whatcom Waterway. A chance for the children and grandchildren of Bellingham to look back and say we did the right thing. It seems so common that we look back now and wonder what cretinous practices our parents and grandparents used. We can break that cycle with the full removal of mercury and the restoration of habitat on the Whatcom Waterway. 2

I agree with the Bellingham Bay Foundations position that we need to remove the most contamination as possible particularly in the areas with the highest levels. That is not the ASB lagoon but the areas I listed above. 3

I would prefer to see the Model Toxics Control Act grants go toward removing mercury from the loose aquatic environment, rather than continuing the monitor-and-repair cycle of capping. I would like to see the financial emphasis of the marina removed from consideration entirely, and the money prioritized for cleaning up the most contaminated areas, particularly the areas that contain the most mercury. 4

Thank you for your time.

Sincerely,
Ann Russell
1225 Grant St.
Bellingham, WA 98225
360-510-8008

From: Jodee [mailto:thequeenb68@msn.com]
Sent: Thursday, August 09, 2007 4:19 PM
To: McInerney, Lucy (ECY)
Subject:

#42-A

To Whom it may concern:

I attended the public hearing on August 8th and feel that everyone in attendance is in agreement that the mercury in Bellingham Bay must be dealt with. I personally feel that the Port of Bellingham made a mistake in their decision to let the responsible party, Georgia Pacific, off the hook and place the financial burden on the taxpayers. However, the past is the past and it is time to look ahead and get this problem solved. It would be best to remove all of the mercury from the water though that would create a tremendous tax burden on the residence of Whatcom county. The plan "Ecology Selected Remedy" is a good start on the clean up process and should be implemented as soon as possible. Further studies are important, I understand, but to procrastinate action any further would be a mistake. Please start this process so that we can get Bellingham Bay clean.

1
2
3
4

Sincerely,

Joe Schmidt

EXCERPTS FROM PUBLIC HEARING TRANSCRIPT
August 8, 2007, Bellingham Cruise Terminal

#43-A

John Servais
I'm John Servais. I live here in Bellingham. One clarification throughout this evening is you folks up here have talked about this you have referred to it as the Consent Decree. It's actually the draft Consent Decree and I think we need to keep that in mind and bring that up often.

And I do want to make a comment that it's too bad that we all have to be spending a beautiful August evening inside and there's a lot of sail boaters out there and the races and a lot of them have a deep love and concern for clean, healthy water in Bellingham Bay. They made the wiser decision to be sailing tonight.

You know, Lucy, you and I know each other from back in 1996 when I was coming to these Bellingham Bay pilot meetings. And back then I expressed an acute frustration, and I put forth on the record at that time that before you go planning what you're going to do to clean up the waterway, that you do a grid analysis of where the mercury is. That was never done. Instead, DOE selected different places to choose to test for mercury with test holes. That has allowed, in my opinion, looking at where they were taken, to avoid the worst mercury contamination in the upper waterway.

Only a grid when taking test samples from a dense grid can provide us with a true picture of what and how much and where the mercury is. We still don't know, as Tip Johnson's mentioned, a couple others, we have no idea, you folks don't know, Georgia Pacific knows, and they're not telling and nobody can force them to tell. And we've bought all their liability for a dollar. So here we are tonight. 1

But the point of that is that for 10 years, DOE and the Port of Bellingham have a zero track record of helping us clean up the waterway or stop the pollution. While DOE and the Port for 30 years watched GP dump hundreds of tons of mercury into our environment. And it is only now that GP is gone away that oh my gosh we'll clean it up. But now it's at our tax dollar, not at GP's cost.

You know the Port put me on the 20/15 waterfront or WIST – Whatcom International Waterway or shipping terminal committee back in 1992. We existed for about a year. We met, we discussed what the future would be for the shipping facilities in Bellingham Bay, and as we had engineers and others talk to us, we found out that if they dredged, the docks would fall over. If you dredge now those docks are going to fall over. If you dredge the outer waterway as you're planning to, it would bring it down to a depth that the docks are going to fall over. That cost is not in there anywhere. We want to bring NOAA in here and dredge a little bit the docks will fall over. 2

So we have accounted for the millions of dollars that it's going to take to put those docks back up. And that's something that needs to be taken into consideration somewhere

because we folks here, Whatcom County, Port of Bellingham District, or Bellingham, are going to be paying the taxes for all of this stuff. 3

You're making this plan here tonight based upon this draft decree, based upon the uses of the property. You said that that this was based upon it, and yet as George Dyson related, you're going about it backwards. The uses have not yet been approved and so the uses may not be the actual end uses. But if the cleanup plan or the cover up plan or whatever we're doing actually takes place, and then later those uses are not implemented, we have the wrong clean up for what the uses may be. 4

The ASB is very much up in the air. As I understand, the Lummi and the Nooksack have not signed off and might not sign off. They might require the Port to put that back into a mudflat. Truck all the rock off somewhere else. Maybe not that extreme, but a marina is not a given at all.

The criteria, a couple of other specific things for the record. I've said we have no knowledge of where the mercury is. We have no grid testing. Those are two very important things and I'm trying to check my notes here very quickly. I'm going to close with this. I'm a NW citizen—we're keeping a record of these things, and we're going to be putting these things up. Like the bridge in Minneapolis that's now turning out to be designed by some bad criteria, we're going to keep track online the records and the individuals of the departments that are approving of what many of us feel is a dead end, no pun intended, plan for our beautiful Bellingham Bay. And when in 5, and 10, and 15, and 20 years from now, it turns out to be a love canal, we do want to remember that it was purposely entered into and that many of us pointed out the problems that were going to arise, and that it was just steamrollered through anyways. 5

So thank you very much for the opportunity to comment.

From: Alex Shapiro [mailto:akira@niftywerks.com]
Sent: Tuesday, August 07, 2007 7:45 AM
To: McInerney, Lucy (ECY)
Subject:

#44-A

1

hey lucy, I want to voice my vote for TOTAL CLEANUP of the mercury in whatcom waterway. Don't just cap it!!!

2

Alex Shapiro
5930 Bell Creek rd/ box 86
Maple Falls, WA 98266
360-592-1387

#45-A

From: Ilwu07@aol.com [mailto:Ilwu07@aol.com]
Sent: Saturday, August 11, 2007 9:31 AM
To: McInerney, Lucy (ECY)
Subject: Whatcom Waterway Draft Consent Decree

Dear Lucille T. McInerney,

I am writing to express my support for the draft Consent Decree of the Whatcom Waterway. Do to work I was not able to attend the meeting last week. 1

This draft has had a substantial amount of time to be developed and I beilieve it is a good solution to clean up the water way and settle liability so that the Port, the City, and the People of Whatcom County can move on with our future plans for our waterfront. To delay this plan with more studies and a continued discussion over clean up options is wrong. 2

Please approve this draft Consent Decree so we can clean up our waterway and get on with creating a better waterfront.

Thank you,
William Timmer

State of Washington
DEPARTMENT OF FISH AND WILDLIFE
Region 4 Office: 16018 Mill Creek Boulevard - Mill Creek, Washington 98012 - (425) 775-1311

August 7, 2007

#46-A

Washington Department of Ecology
Attention: Lucille McInerney
3190 160th Avenue
Bellevue, Washington 98008-5452

SUBJECT: WDFW Comments – Draft Consent Decree and Draft Cleanup Action Plan – Whatcom Waterway Site, Bellingham, Whatcom County, WRIA 01

Dear Mrs. McInerney,

The Washington Department of Fish and Wildlife (WDFW) has reviewed the Draft Consent Decree and the Draft Cleanup Action Plan for the Whatcom Waterway Site. WDFW concurs with Ecology's selection of Remedial Alternative 6 as the preferred cleanup strategy for the Whatcom Waterway Site. Remedial Alternative 6 not only satisfies the state's rigorous sediment cleanup standards but is consistent with the goals and objectives of the Bellingham Bay Demonstration Pilot, is consistent with the Bellingham Bay Comprehensive Strategy, effectively mitigates natural resource impacts through a broad range of habitat enhancement and creation actions, and can be implemented in a realistic time frame. WDFW commends Ecology's staff for their tireless work and unbending commitment to ensuring that the cleanup of the Whatcom Waterway Site is permanent to the maximum extent practicable under MTCA. 1 2 3 4 5

WDFW appreciates the opportunity to provide these comments and looks forward to working with Ecology as the cleanup progresses. If you have any questions, please call me at (360) 466-4345, extension 250.

Sincerely,

Brian Williams

Brian Williams
Area Habitat Biologist
Region 4

#47-A

STATE OF WASHINGTON
DEPARTMENT OF HEALTH
Division of Environmental Health
Office of Environmental Health Assessments
234 Israel Road S.E. Town Center 3 PO Box 47846 Olympia, Washington 98504-7846
Tel: 360.236.3184 Toll Free: 1.877.485.7316 FAX: 360.236.2251
TDD Relay Service: 1.800.833.6388

August 13, 2007

Lucille T. McInerney, P.E.
Site Manager
Department of Ecology
3190 160th Avenue
Bellevue, Washington 98008-5424

Dear Ms. McInerney:

Subject: Whatcom Waterway Draft Consent Decree Public Comment

Thank you for the opportunity to review the Whatcom Waterway Draft Consent Decree. The Whatcom County Health Department requested that the Washington State Department of Health (DOH) review the site-specific mercury bioaccumulation screening level (BSL) and provide judgment about whether it provides a reasonable estimate of a health-based sediment screening level. DOH's response to Whatcom County is enclosed for incorporation into the public record. 1

Please contact me at (360) 236-3377 or 1-877-485-7316 if you have any questions.

Sincerely,

Gary Palcisko
Toxicologist

Enclosure

WASHINGTON STATE DEPARTMENT OF HEALTH
Office of Environmental Health Assessments

August 13, 2007 #47-B

TO: Regina Delahunt
Whatcom County Health Department

FROM: Gary Palcisko
Toxicologist
Office of Environmental Health Assessments
Washington State Department of Health

SUBJECT: REVIEW OF WHATCOM WATERWAY SITE-SPECIFIC BIOACCUMULATION SCREENING LEVEL (BSL)

Background:

The Whatcom Waterway, located in Bellingham, WA, is in the midst of a remedial investigation/feasibility study (RI/FS). As part of this process, cleanup alternatives are chosen to protect human health and the environment. A sediment bioaccumulation screening level (BSL) of 1.2 milligrams of mercury per kilogram of sediment (mg/kg) dry weight (dw) was derived to be protective of humans that consume seafood from the site. The Whatcom County Health Department requested that the Washington State Department of Health (DOH) review the site-specific mercury BSL and provide judgment about whether it provides a reasonable estimate of a health-based sediment screening level. 2

The site-specific BSL was based primarily on a linear regression of mercury concentrations in adult male Dungeness crabs from numerous areas of Bellingham Bay versus mean total mercury in sediment from the same areas (assuming a crab home range of 10 km^2). Relationships between sediment mercury and mercury in clams and flatfish were also examined. In short, a BSL of 1.2 mg/kg (dw) in sediment was determined to approximate a tissue concentration of 186 micrograms per kilogram (ug/kg) (ww) in crabs and flatfish. This level was assumed to be protective of a tribal fish consumer that eats 31.2 grams of crab and bottomfish per day from the site. This also assumes a consumption rate of 38.5 grams of shellfish per day with average concentration of 40 ug/kg.

Mercury dose

The following equation and Table 1 show assumptions that were used to estimate a mercury dose from crab, bottomfish, and shellfish from the site.

$$\text{Non-cancer dose} = \frac{(C_{crab}(IR_{crab}) + C_{clam}(IR_{clam})) \times CF1 \times CF2}{BW}$$

Table 1. Non-cancer dose equation parameters and assumptions.

Parameter	Name	Value	Units	Notes
C crab	Concentration in Crab	186	ug/kg	Estimated level in crab where sediment concentration = 1.2 mg/kg
C clam	Concentration in clams	40	ug/kg	Estimated level in clams where sediment concentration = 1.2 mg/kg
CF_1	Conversion Factor	0.001	mg/ug	Number of milligrams per microgram
IR crab	Crab Ingestion Rate	31.2	g/day	Tulalip 90th percentile crab consumption rate (23.4 g/day) + Tulalip 90th percentile flatfish consumption rate (7.8 g/day)
IR clams	Clam/mussel Ingestion Rate	38.5	g/day	Tulalip 90th percentile clams and mussels consumption rate
CF_2	Conversion Factor	0.001	kg/g	Number of kilograms per gram
BW	Body Weight	70	kg	Average adult bodyweight

3

The values in Table 1 applied to the equation above results in a dose of 0.000105 mg/kg/day. This dose is almost equivalent to EPA's mercury reference dose. A reference dose (RfD) is defined as a dose below which non-cancer adverse health effects are not expected to occur (so called "safe" doses). The mercury reference dose was derived from epidemiological studies of children born to women from fish-eating populations. A maternal dose of 0.001 mg/kg/day is expected to result in neurodevelopmental deficits in 5% of exposed fetuses. An "uncertainty factor" of 10 was applied to that dose to account for inter-human variability to yield the lower, more protective RfD. A dose that exceeds the RfD indicates only the potential for adverse health effects.

4

A simple metric called a hazard quotient is commonly used to describe the relative health hazard associated with a dose. A hazard quotient is numerically defined as:

hazard quotient = estimated dose/ reference dose

A hazard quotient less than one is not considered to represent a health hazard, but the more it exceeds one and approaches an actual toxic effect level, the more a concern for potential human health impacts.

Under the Model Toxics Control Act (MTCA), cleanup levels based on human health endpoints are typically established based on a target hazard quotient of one for exposures that occur at the site. Exposures that occur outside the site boundary are not typically factored into the derivation of cleanup levels. In cases where fish consumption is an exposure pathway to site-related contaminants, an assumption is that 50% of a consumer's seafood consumption comes from the site. To be more health protective, the BSL at Whatcom Waterway was derived assuming that 100 percent of crab, bottomfish, clams and mussels come from the site. Salmon consumption and other fish consumption such as tuna were not included in estimating doses from site-related contaminants because they accumulate mercury outside the site boundary.

5

To determine whether or not the BSL represents a reasonable estimate of health-based sediment screening level, two questions should be answered:

1) Are the assumed consumption rates of site-related seafood appropriate?

Consumption rates used to derive the BSL were taken from a fish consumption survey of the Tulalip Tribe. Ninetieth percentile consumption rates for crab, bottomfish, and clams and mussels were used as estimates of high-end consumption of seafood caught at the site. Much of a high-end consumer's fish diet is anadromous fish (e.g. salmon), but mercury in salmon is not likely to originate from Whatcom Waterway. Since cleanup of the site will have little effect on mercury levels in salmon, consumption of salmon (and other fish not expected to be present at Whatcom Waterway) were not included in estimating a site related dose. 6

Consumption rates for the Nooksack and Lummi Tribes are not available; therefore the Tulalip consumption rates were used instead. The site-related seafood consumption (1 gram per kilogram of bodyweight per day) is lower but comparable to that used by EPA Region 10 for the Lower Duwamish Waterway cleanup effort (1.2 g/kg/day). We believe that the consumption rates chosen represent a reasonable estimate of high-end fish consumption at Whatcom Waterway.

2) How were observed relationships between mercury in tissue versus sediment used to predict a cleanup level?

7

Equations based on linear regressions of observed mercury in crab and clam versus mercury in sediment were used to generate the following equations:

Concentration in tissue (ug/kg) = y-intercept + slope * sediment concentration (mg/kg)

Crab concentration (ug/kg) = 0.047 + (0.116 * (1.2))

= 0.186 ug/kg

Clam concentration (ug/kg) = 0.032 + 0.007 * (1.2))

= 0.040 ug/kg

As mentioned previously, concentrations generated by the equations above combined with exposure assumptions presented in Table 1 yield a dose of 0.000105 mg/kg/day. To obtain a dose equal to the reference dose, the sediment concentration would need to be altered from 1.2 to 1.11 ppm (i.e., a crab mercury concentration of 0.175 ppm and a clam mercury level of 0.0397 ppm).

The approach above represents a reasonable attempt to determine a health-based sediment cleanup level. A possible short-coming of the above regressions is that tissue results were grouped based on location to produce an average concentration instead of using each individual observation in the regression. Additionally, composite samples were treated identically to individual samples thereby giving equal weight to each sample. When accounting for these factors, DOH found there to be only minor differences in the resulting numbers.

Mercury levels measured in Whatcom Waterway seafood

It is clear that mercury levels in crabs from Whatcom Waterway are higher than those from unimpacted areas (e.g., Chuckanut Bay, Dungeness Bay, and Freshwater Bay). Sampling of crabs from Whatcom Waterway in the 1990's revealed average mercury levels of about 150 ppb. Based on recent crab sampling conducted by RE-Sources for Sustainable Communities and the North Sound Bay Keeper, mercury levels have decreased by roughly 50%. Active remediation at the site would be expected to further reduce these levels over time.

No flatfish were sampled at the site, but a robust data set from the Puget Sound Assessment and Monitoring Program (PSAMP) was used to determine the importance of sediment levels and bioaccumulation in English sole. Generally, age was the main factor with regard to mercury levels, but location was also an important factor (e.g., fish from urban areas had relatively higher mercury levels in tissue compared to non-urban areas). English sole from Bellingham Bay had low mercury levels, but these fish tended to be younger than others sampled from Puget Sound. Additionally, it is not clear if English sole are present in Whatcom Waterway or whether starry flounder are more likely to be present in that environment.

No clams were sampled from the site, so it is not known precisely what mercury levels are in clams there. Clams harvested near Post Point in Bellingham Bay contained about 20 ppb mercury.

8

Table 2. Mercury concentrations in tissue from Whatcom Waterway and other locations

Species	Location	Year Sampled	N	Average Hg (ppb)	Source
Dungeness Crab	Whatcom Waterway	1990	5	150	Ecology 1991
		1997	6	140	Ecology 1997
		2006	7	82.6	RE-Sources 2006
	Chuckanut Bay	1990	5	60	Ecology 1991
	Dungeness Bay [a]	2002	3	60	Malcolm Pirnie 2005
	Freshwater Bay [a]	2002	3	40	Malcolm Pirnie 2005
English Sole [b]	Bellingham Bay	1991, 1992, 1993	9	31	PSAMP 2001
Littleneck Clams	Post Point (Bellingham)	1992	3	20	DOH 1996

a- result reported is crab muscle only
b- average age was 2.6 years for Bellingham Bay E. Sole.

Conclusions

Based on our review of the derivation of the BSL, the approach represents a reasonable approach for incorporating human health concerns into sediment cleanup decisions at the site.

9

At this time, no fish or crab consumption advisory is warranted in Bellingham Bay. However, bivalves should not be consumed due to presence of pathogens associated with stormwater and sewage treatment outfalls. 10

Long-term monitoring will be required by Ecology to ensure that the remediation is effective. DOH will provide input to long-term monitoring plans and review tissue data that are generated to ensure that the public's health is protected. In addition to measuring mercury levels in crabs, flatfish and clams (if available) should also be sampled. 11

Mercury levels in Whatcom Waterway crabs, although elevated compared to crabs from reference locations, have declined since sampling began in the 1990's. Levels of mercury in Bellingham Bay crab, English sole, and clams are lower than many fish available at the market. With this in mind, DOH encourages Washingtonians to eat fish as part of a healthy diet but to avoid those fish that contain higher levels of contaminants. DOH prepared a fish guide to help consumers choose fish low in contaminants. See DOH fish guide at: 12

http://www.doh.wa.gov/ehp/oehas/fish/fishchart.htm

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cc: Lucy McInerney
Jim Pendowski
John Wolpers
Peter Adolphson

WASHINGTON STATE DEPARTMENT OF
Natural Resources

DOUG SUTHERLAND
Commissioner of Public Lands

August 13, 2007

#48-A

Lucille McInerney
Washington Department of Ecology
3190 160th Avenue
Bellevue, WA 98008-5452

Re: Whatcom Waterway site Cleanup

Dear Mrs. McInerney:

On behalf of the Washington State Department of Natural Resources (DNR), I want to express our support for the approval of the Draft Consent Decree and the Draft Cleanup Action Plan for the Whatcom Waterway Site. As you know, my staff has worked as part of the Pilot Project, with state, federal, tribal and local entities for over 10 years. We strongly support implementation of the actions of the Pilot Project, as the basis for a clean and healthy Puget Sound and the revitalization of Bellingham Bay. This Draft Consent Decree is a major step towards these goals. 1 2

DNR has reviewed both the Draft Consent Decree and the Draft Cleanup Action Plan for the Whatcom Waterway Site. DNR supports the Department of Ecology's selection of Remedial Alternative 6 as the preferred cleanup strategy for the Whatcom Waterway site. 3

It is time to move ahead and begin the clean up process. We have an incredible opportunity to make a difference in the future of Bellingham Bay and restore Puget Sound as a healthy ecosystem. 4

We look forward to the finalization of these documents and the beginning of their implementation.

Sincerely,

Doug Sutherland
Commissioner of Public Lands

1111 WASHINGTON ST SE ▮ PO BOX 47000 ▮ OLYMPIA, WA 98504-7000
TEL: (360) 902-1000 ▮ FAX: (360) 902-1775 ▮ TTY: (360) 902-1125
Equal Opportunity/Affirmative Action Employer

From: Kathleen Olson [mailto:kolson@washingtonports.org]
Sent: Monday, August 13, 2007 10:00 AM
To: McInerney, Lucy (ECY)
Cc: Jim Darling; MCNAIR, FRAN (DNR); mayorsoffice@cob.org
Subject: Whatcom Waterway Comment Letter

#49-A

August 13, 2007

Lucille T. McInerney, P.E.
Site Manager
Department of Ecology
3190 160th Avenue
Bellevue, WA 98008-5452

Dear Ms. McInerney:

This is a comment letter on the proposed consent decree regarding the cleanup of the Whatcom Waterway site in Bellingham Bay. On behalf of the 75 port districts in the state, the Washington Public Ports Association encourages the Department of Ecology to approve the draft consent decree as final, including the attached cleanup action plan. This decision will enable all of the parties to the agreement to begin this important phase of the Bellingham Bay cleanup. 1

The discussion of how best to clean up and revitalize Bellingham Bay has been a very long and thorough process. The port, state and city have worked tirelessly to study the site and to develop a workable cleanup plan that now has the support of a significant majority within the Whatcom County community. The best simple summary of the process so far: *The Model Toxics Control Act process worked.* 2

But this process must still lead to an outcome. This consent decree has identified a solution that protects human health and the environment by legally binding the parties involved and establishing a framework from which to proceed with cleanup. Rejecting or significantly amending this decree would delay the cleanup process and jeopardize the partnerships that have been forged with over ten years of cooperation, and would risk lengthy litigation. 3

Port districts in other waterfront communities are watching this process carefully as a gauge of the Department of Ecology's role as a partner in remediation efforts. This decree is a clear signal of the best way to promote remediation efforts with other ports and local governments. 4

WPPA and its member port districts consider environmental stewardship a top priority. In the case of the Whatcom Waterway site, the decree under review is the best solution at hand. Moreover, it will help establish a precedent in similar negotiations elsewhere in the state. 5

Thank you very much for this opportunity to comment.

Sincerely,

Eric D. Johnson, Deputy Director
Washington Public Ports Association

c: Jim Darling, Port of Bellingham
Tim Douglas, City of Bellingham
Fran McNair, Department of Natural Resources

#50-A

To: Lucille T. McInerney, P.E.
From: Board of Directors, Whatcom Recreational Boaters Association
Date: August 12, 2007
Subject: Support for Whatcom Waterway Site Draft Cleanup Action Plan

Please enter the following comments into public record in <u>support</u> of the Department of Ecology's Draft Cleanup Action Plan for the Whatcom Waterway Site located within Bellingham Bay: 1

The Board of Directors of the non-profit Whatcom Recreational Boaters Association has reviewed the proposals detailed in Section 6 of the DCAP. We would like to thank the Department of Ecology for the thorough process used to develop the plan and we urge you to proceed with this action as soon as the public comment period is over. 2

The Whatcom Recreational Boaters Association (WRBA) Board of Directors represents approximately 500 households who are members of four local boating clubs: the Corinthian and Bellingham Yacht Clubs, the Bellingham Sail and Power Squadron, and the Wheel and Keel Boat Club, together with some individuals and boating related businesses. The mission statement for WRBA is as follows:

The Whatcom Recreational Boaters Association is a non-profit group formed by local boating clubs and individual boaters, to represent, promote and protect boating and related recreational activities, and the interests of recreational boaters in the Whatcom County area.

From: Teresa and John Van Haalen [mailto:vhaalen@comcast.net]
Sent: Sunday, August 12, 2007 7:08 PM
To: McInerney, Lucy (ECY)
Subject: Public Comment, Whatcom Waterway Site Draft Cleanup Action Plan

#50-B

From: Teresa and John Van Haalen <vhaalen@comcast.net>
Date: Sun, 12 Aug 2007 10:24:36 -0700
To: <lpeg461@ecy.wa.gov>
Conversation: Public Comment, Whatcom Waterway Site Draft Cleanup Action Plan
Subject: Public Comment, Whatcom Waterway Site Draft Cleanup Action Plan

To: Lucille T. McInerney, P.E.
From: Board of Directors, Whatcom Recreational Boaters Association
Date: August 12, 2007
Subject: Support for Whatcom Waterway Site Draft Cleanup Action Plan

Please enter the following comments into public record in support of the Department of Ecology's Draft Cleanup Action Plan for the Whatcom Waterway Site located within Bellingham Bay: 3

The Board of Directors of the non-profit Whatcom Recreational Boaters Association has reviewed the proposals detailed in Section 6 of the DCAP. We would like to thank the Department of Ecology for the thorough process used to develop the plan and we urge you to proceed with this action as soon as the public comment period is over. 4

The Whatcom Recreational Boaters Association (WRBA) Board of Directors represents approximately 500 households who are members of four local boating clubs: the Corinthian and Bellingham Yacht Clubs, the Bellingham Sail and Power Squadron, and the Wheel and Keel Boat Club, together with some individuals and boating related businesses. The mission statement for WRBA is as follows:

The Whatcom Recreational Boaters Association is a non-profit group formed by local boating clubs and individual boaters, to represent, promote and protect boating and related recreational activities, and the interests of recreational boaters in the Whatcom County area.

#51-A

From: swild7@juno.com [mailto:swild7@juno.com]
Sent: Saturday, July 14, 2007 8:51 PM
To: McInerney, Lucy (ECY)
Subject: B'ham Waterfront

This citizen is absolutely in favor of cleaniing up the old GP site to the fullest extent possible before permitting any development on Bellingham's waterfront. 1
Capping is not a long term solution. 2

Scott Wild
Wild Card Adventures
1242 St. Paul St.
Bellingham, WA 98229 USA
360-756-2180; swild7@juno.com

From: swild7@juno.com [mailto:swild7@juno.com]
Sent: Thursday, August 09, 2007 3:45 PM
To: McInerney, Lucy (ECY)
Subject: B'ham Bay

#51-B

Dear Ms. McInerney;

It does not seem that citizen comment is taken very seriously, if considered at all, when it comes to planning the clean-up of the old GP site on Bellingham's waterfront. 3

Again and again a vast majority of our population, myself included, has made it perfectly clear that a more thorough clean-up than the Port or City officials propose is called for. We do not want to cap and cross our fingers. We want as many toxics as remotely feasible removed first. We are willing to pay for it. We do not want to leave a legacy of harmful pollution for our grandchildren to deal with. 4 5 6

Please, let's really clean this mess up now.

Scott Wild
Wild Card Adventures
1242 St. Paul St.
Bellingham, WA 98229 USA
360-756-2180; swild7@juno.com

EXCERPTS FROM PUBLIC HEARING TRANSCRIPT
August 8, 2007, Bellingham Cruise Terminal

#52-A

Darren Williams
Yeah, I'm Darren Williams. I'm a Whatcom County resident. I also represent the Longshoreman Union here in Bellingham Bay. I'm going to speak from a couple different points today because I'm a Whatcom County resident, a taxpayer—I have great concern about how much money this is costing; I'm also a person who enjoys the recreation. So I want to speak to what this plan will do for enhancing some recreation. According to our community vision, we've all seen here in a slide earlier tonight. I'm also going to talk from the standpoint of being a labor officer. I represent about 60 people who work on the waterfront of Bellingham Bay. And have been doing such since the teens—1917. We've been an organized labor union since 1934. So we have an interest in making sure that we move forward. That's what I think is important.

There's no perfect plan. There's not a single concern that is going to be addressed 100%. 1
What we've seen tonight is a plan that addresses most issues to the best of its ability.
And that's the direction that I believe we need to go. We need to implement this plan and 2
get something going. We've been working on the docks down there watching the waterway fill in with mercury and sediment and everything else since the last time it was dredged back in the 60's. Nothing has happened.

There have been many results of that as well. We've lost jobs because we can't get ships 3
in there anymore. Now the community is moving into a new phase on the waterfront. We want to implement a different kind of waterfront. Well, we're going to have do things a little bit different. One of them is we have to do it cost-effectively. I cannot see 4
spending over $100,000,000 down there and anyone being able to afford it. So as a tax-payer, I want to get the most for my money.

So as you put up the graphs and whether they're 100% accurate or not, I don't know. But 5
I do know that there's some compromise that has to be made. And there has to be compromise made or nothing will happen. So I'll keep it short by saying I support this plan. I think we should move forward with it, and we should get started. It's another 6 6
years even if we started today before anything's going to get completed. That's another 6 years I don't want to wait. I don't want to wait and study this thing for another 10 years to try and satisfy 100% of everyone's concerns because it won't happen. And take note, 7
sometimes that is the agenda. We bring up concern after concern after concern to stop anything from happening.

Well, I think today we've got a plan that will work, and we should move forward on it. Thank you.

Moderator
Next we have Tom Winter who will be followed by George Dyson.

#52-B

From: Darren C. Williams [mailto:williamsdarrenc@msn.com]
Sent: Sunday, August 12, 2007 9:46 AM
To: McInerney, Lucy (ECY)
Subject: Whatcom Waterway Cleanup Draft Consent Decree

Washington State Department of Ecology,

I would like to express my support for the Draft Consent Decree for Whatcom Waterway Cleanup as written. In my opinion the Dept. of Ecology has done a complete study and analyses of the project. Although alternative 6 may not completely satisfy all of the special interest groups, it does present a solution to the cleanup that will enable the community to move forward in a safe and affordable manner. 8 9

Regardless of the short comings of alternative 6, I believe no matter what plan is developed there will be a special interest group that opposes the plan in favor of their own view point. It is also my opinion there will need to be corrections made to what ever method of cleanup is used, either during construction or after completion. There for the worst mistake we could make is to do nothing for another 20 years while science does what science does best, attempt to prove the prior opinion incorrect. In closing I would urge the Department of Ecology moving forward now with the long over do cleanup of the Whatcom Waterway. 10 11

Thank you for your time,

Darren C. Williams
4089 Y Rd
Bellingham, WA 98226

From: Frank Winslow [fwinslow@nas.com]
Sent: Thursday, August 09, 2007 11:46 AM
To: McInerney, Lucy (ECY)
Subject: Whatcom Waterway Cleanup

#53-A

Ms McInerney

As long time residents of Bellingham who deplore the lack of government ability to adequately prevent contamination by industry of public areas, please be more responsive in your reply to questions put to you on the Whatcom Waterway RI/FS by the North Sound Baykeeper organization/ RE Sources. I share Tip Johnson's concern quoted in the 9 Aug 07 Bellingham Herald that privatization of the area will give short shrift to mercury's threat to public health. 1 2

Frank and Josselyn Winslow

From: Wayne Youngquist [mailto:w.youngquist@comcast.net]
Sent: Thursday, August 09, 2007 7:59 AM
To: McInerney, Lucy (ECY)
Subject:

#54-A

Dear Reader of Emails,

re: Bellingham Bay Mercury Cleanup

I live near Bellingham Bay and would like to comment on the proposals concerning the cleanup.

1. The Hg waste was created by the people of Bellingham and we should live with it rather than shipping our problems to become somebody else's problem (as long as it can be controlled and is not causing illnesses to our kids) 2. Hg is common in this area and floats down the Nooktsack River, so we can't totally cleanse ourselves of it anyways 3. Let's spend our money on improving the lives of our citizens and not excessively spend it on one less important (though visually impressive issue). Much more can be done with $30,000,000+ in regards to community healthcare, education programs, public transportation, and most importantly 'insuring our drinking water is free from Mercury'.

1

2

3

Please let logic rule the day and not emotional headline grabbers. Keep our costs low and try and do a great job.

4

Thanks,

Wayne Youngquist
Bellingham, WA
360-305-4887

PUBLIC HEARING TRANSCRIPT
WHATCOM WATERWAY DRAFT CONSENT DECREE
AND EXHIBITS

August 8, 2007

Bellingham Cruise Terminal
355 Harris Ave, Bellingham, Washington

Moderator
I'm Bari Schriner. I'm your hearings officer for this evening's public hearing on the Whatcom Waterway Consent Decree or proposed legal agreement. The Consent Decree includes the cleanup plan, the public participation plan, and other exhibits.

Let the record show that it is now 7:46 p.m. on August 8, 2007. This hearing is being held in Bellingham at the Bellingham Cruise Terminal at 355 Harris Avenue.

The notice of this hearing was published in the *Bellingham Herald* on July 8, 2007. In addition, notices of the hearing were mailed to about 650 interested people. Email notices were sent to 136 interested people, and a news release was issued on July 13, 2007.

I will be calling people up to provide oral testimony tonight based on the order that people signed in. Once everyone who has indicated that they would like to testify has had the opportunity, I will then open the floor again for anyone who has changed their mind.

Due to the number of people who have indicated all ready that they want to testify, we're going to keep everybody's comments to 7 minutes. At about a minute from the end I will indicate, I will hold up my fingers so you know you have a minute left. Then at 7 minutes, I will ask you to please summarize your comments so that the next person can come up.

When I call your name, please step up to the microphone in the center of the room there and state your name for the record. Please speak clearly, so we can get a good recording on that recorder there.

First person is Tip Johnson. I apologize in advance if I mess up anybody's names. He will be followed by Elizabeth Kilanowski.

Tip Johnson
Thank you for the opportunity to comment on the Whatcom Waterway Cover-up. I remain unconvinced that it adequately protects the public's health, safety, and welfare. There are a number of reasons. Chief amongst them is that regulators refuse to account for hundreds of tons mercury that they know exists.

It's called a cleanup, but tossing mud over mercury is really a cover-up I don't think it's a long-term solution. I'm very concerned about leaving it loose in the environment.

Why is mercury a concern? I think we've all seen that, but I would really encourage people to Google University of Calgary Mercury and see a video micrograph of how mercury actively degenerates brain neurons.

You want to Google mercury cycling, you can see why it's irresponsible to leave it in the sediments, even the sub-sediments.

Based upon the mercury, the estimated mercury replacement in the chlor-alkali system which happens to correspond very closely with the industry estimates for mercury used per ton of pulp produced here, GP probably used around 600 tons of mercury in their operation.

We're talking about 15 to 20 tons in the bay; we know they buried another, oh, 15 tons on-site; we know they dumped it along Whatcom creek at the Haskell business site, a stream reserved for juvenile fishing.

That's about, so, OK, we've accounted for about 40 tons. My question is where is the rest of it? And how can we have a plan without knowing. How can you assert that your plan will protect the public's health, safety, and welfare when we've got all that other mercury around?

Regulators have refused to install mercury vapor monitors at ground zero, where the Port's proposed land uses will invite people to live there permanently and to come and visit and enjoy the waterfront. I don't know how we can assess the risk without having the information.

Regulators refuse to conduct a public health survey to see why Whatcom County has higher than ordinary instances of cognitive disorders and diseases often associated with mercury exposure.

Guess what regulators refused to test for when they did a 3-year air-quality study of downtown Bellingham? Mercury.

Seems to me the plan is tailored basically to prop up the Port's interest in privatizing the waterfront and building a marina for mega-yachts that few can locally afford. We're very careful to get the highest cost-benefit ratio for the project, but shouldn't that concern to

other public interests that are directly affected by the project? Or if not, why not? Seems to me that there are some very important costs to consider.

What costs? Potentially poisoning the community for generations to come should be enough. Those are huge potential health costs, but there is more. The public, after paying for the remediation and infrastructure, will likely lose our only chance at assembling a broad public waterfront. But there is more. The public now owns an industrial water supply and a wastewater treatment facility that GP left behind. We should feel lucky to be able to recruit businesses with the prospect of water supply and water treatment but the Port's plan squanders this resource. The public will bear the cost of their foreclosing on the opportunity to attract family wage jobs. But then Port officials already have them. We cover those costs.

But there's more. Bellingham is going to need additional treatment capacity—it's not a question of if, it's a question of when. The very regulators pushing this plan are going to require us to treat stormwater; if we ever want jobs we'll need industrial treatment.

Bellingham is growing; eventually, we'll need additional sanitary treatment. Where will we do this? What will it cost? Who's going to pay? And with what jobs will we afford it?

I'm just amazed that regulators, the proponents, and virtually every elected official refused to address these vital public interests. Whose interests are they supposed to be addressing? I think this plan essentially steals from the public and benefits few. I don't believe it protects the public's health, safety, and welfare. I believe this project needs a much more comprehensive consideration of all the public costs involved. I understand it's not directly a MCTA concern, but if DOE is going to be requiring us to treat stormwater, that cost should be included in this analysis I believe. Thanks.

Moderator
Thank you. Elizabeth Kilanowski, followed by Darren Williams.

Elizabeth Kilanowski
I'm Elizabeth Kilanowski. Can you hear me? Is that OK? Thank for the opportunity to address the public hearing tonight. I wish to enter into the record a memo sent from the faculty of Western Washington University's geology department to officials at Western Washington University, the City of Bellingham, and the Port of Bellingham. It's a public document; it addresses the seismic risks to the upland GP site. This site is adjacent to the Whatcom Waterway site which we're discussing tonight and the same seismic issues that are addressed in this memo apply to the Whatcom Waterway.

I have additional copies for folks here who want to get one.

Last fall in both the public hearing and written comments, I submitted testimony on seismic hazards including liquefaction. And Pete I'd like suggest that you not tell people that liquefaction doesn't affect or breech caps. They do; sand boils developed as a result of liquefactions. Liquefaction can and do breech caps so I'd suggest you don't say that anymore.

I am concerned that the seismic issues that I addressed last fall were not adequately addressed in the responsiveness summary. In addition, the person who did respond to my comments did not understand the nature of tsunamis and their effects on bottomlands. There was no reference listed that the writer had any knowledge of what they were talking about. They confused sea-level rise with two phenomena that include both sea-level rise and sea-level fall in equal measure.

I don't think that this process is ready to go forward to a Consent Decree. Thank you.

Moderator
Next is Darren Williams followed by Tom Winter.

Darren Williams
Yeah, I'm Darren Williams. I'm a Whatcom County resident. I also represent the Longshoreman Union here in Bellingham Bay. I'm going to speak from a couple different points today because I'm a Whatcom County resident, a taxpayer—I have great concern about how much money this is costing; I'm also a person who enjoys the recreation. So I want to speak to what this plan will do for enhancing some recreation. According to our community vision, we've all seen here in a slide earlier tonight. I'm also going to talk from the standpoint of being a labor officer. I represent about 60 people who work on the waterfront of Bellingham Bay. And have been doing such since the teens—1917. We've been an organized labor union since 1934. So we have an interest in making sure that we move forward. That's what I think is important.

There's no perfect plan. There's not a single concern that is going to be addressed 100%. What we've seen tonight is a plan that addresses most issues to the best of its ability. And that's the direction that I believe we need to go. We need to implement this plan and get something going. We've been working on the docks down there watching the waterway fill in with mercury and sediment and everything else since the last time it was dredged back in the 60's. Nothing has happened.

There have been many results of that as well. We've lost jobs because we can't get ships in there anymore. Now the community is moving into a new phase on the waterfront. We want to implement a different kind of waterfront. Well, we're going to have do things a little bit different. One of them is we have to do it cost-effectively. I cannot see spending over $100,000,000 down there and anyone being able to afford it. So as a tax-payer, I want to get the most for my money.

So as you put up the graphs and whether they're 100% accurate or not, I don't know. But I do know that there's some compromise that has to be made. And there has to be compromise made or nothing will happen. So I'll keep it short by saying I support this plan. I think we should move forward with it, and we should get started. It's another 6 years even if we started today before anything's going to get completed. That's another 6 years I don't want to wait. I don't want to wait and study this thing for another 10 years to try and satisfy 100% of everyone's concerns because it won't happen. And take note, sometimes that is the agenda. We bring up concern after concern after concern to stop anything from happening.

Well, I think today we've got a plan that will work, and we should move forward on it. Thank you.

Moderator
Next we have Tom Winter who will be followed by George Dyson.

Tom Winter
I'm Thomas C. Winter Jr. I'm speaking on behalf of People for Puget Sound. We're a non-profit, environmental organization whose mission is to protect and restore Puget Sound and the NW Straits.

Included is a specific goal to protect and restore the 2,000 miles of Puget Sound's shoreline by 2015.

Our objective for the Whatcom Waterway site is to remove the maximum possible amount of existing mercury safely and expeditiously. To minimize the methylation of any remaining residual and to protect the sound from future contaminants. We offer the following four comments for your consideration:

People for Puget Sound supports the removal of the greatest amount of contaminated sediment by dredging, at a level between alternatives 7 and 8 in the DCAP. We want to see dredging everywhere it makes sense. We're not sure that a complete analysis has been completed in all locations.

It is more expensive to dredge, but this cost difference is small when evaluated in the context of the long-term improvement to Puget Sound and the resulting benefits to future generations.

Second, despite the responsiveness summaries comment that methylation and deeper sediments is contained by geochemical properties, considerable uncertainty exists.

Capping the mercury laden sediment in place raises a concern that methyl mercury compounds will evolve and remain in these sediments for years. As illustrated by the experiences in LaVaca Bay, Texas, still there after 30 years. And San Pablo Bay, California, there over a century.

Third, the effects of rising sea levels are a major uncertainty. The shore elevation of the proposed developments is around 14 to 22 feet. The 100-year flood elevation is 12 to 13 feet. Estimates of sea-level rise by 2100 range from less than a foot to several meters, so the safety margin is small.

Fourth, the reported increased seismic risk in Whatcom County to include the recent discovery of active faults is unsettling. As illustrated by the June 1 memorandum by the Western Washington University Geology faculty. The one that is going to be placed into the record.

A major seismic event could dump considerable residue into the Sound. Overall, unacceptable uncertainty remains concerning this project. Hence People for Puget Sound recommends the following:

First, the removal of the mercury contaminated sediment to the maximum extent possible, while providing the utmost in habitat restoration and open space along the waterfront.

Second, the minimization along the waterfront of structures and other sources that could result in debris being dumped in the Sound in case of a major seismic event.

Thank you.

Moderator
Next we have George Dyson, followed by Mark Buehrer

George Dyson
Thank you. It's actually George Dyson. 435 W Polly Street, right on the downtown waterfront. So I'm speaking really as an adjacent property owner. With a very selfish agenda. I own property right next to the head of the waterway. I'm shocked. I'm repeating the comments exactly what I said 8 months ago. Which is really not been addressed. The head of the waterway is not being cleaned up in this, the chosen alternative. To me, that's not good and I think you know that.

There is a real problem with this cost benefit. You have to fairly account for the costs. I don't think we've looked at—the real costs long term of not cleaning up are going to add up and mount. All of this monitoring forever is very expensive compared to doing it. Now is the time. It's going to be a lot harder to cleanup once we dump more material on top and have even sort of greater risk.

It's also, I keep reiterating, it's driven by land use. It shouldn't only be driven by land use. It should be driven by water use. The question here is cleaning up the waterway. We should look at how that water is used. Bellingham is here because that was the navigation channel that put Bellingham on the map where it is. There's been no real public discussion of us relinquishing that forever. We forever will be giving up the right to that channel being navigable.

Maybe that's what we should be doing; maybe we shouldn't. I urge everyone to give that, as of now, that is a federal navigable waterway and it has to be cleaned up. Now you may say the owners are changing that—it's not changed yet. I think we're a little premature to say we're leaving that area not cleaned. Maybe we want to fill it again later, maybe we want to clean it and then fill it with sand, but we ought to clean it.

Now I'll just go through the points in my 7 minutes that I made before.

I question whether the head of the waterway is naturally recovered and also whether it's limited to 12 cm. If you wade out there in 12 cm gumboots you'll have mud in your feet right away. You need about 30 cm gumboots to walk around in there, let along dig clams or anything.

Sample data. I'm partly a scientist. I speak at scientific conferences. There's not good science behind this. The data is remarkably sparse. It's very questionable to make these $100,000,000 decisions based on the data we have. You need a real time series of change over time. We've had very, very spotty sampling. Certainly not enough to make these decisions. Likewise we have very poor data on actual sedimentation, which is changing. The inner waterway most of the sedimentation was wood debris. That source of sedimentation has stopped. We have no real evidence that Nooksack is sedimenting in the waterway or that Whatcom creek is. We don't know what is happening. Sediment may be eroding.

Likewise would be that layer of woody debris from the mill has a completely different biological activity from what will happen now. That as far as I know has not been looked at, at all, by any biologists or microbiologists.

The other important fact is that the standards for mercury contamination are not fixed; they've changed over the years. Look at what was acceptable here from in 1960 to 70 versus what is acceptable now. In 10 or 20 years from now, those standards again may change and that has not been put into the cost accounting of how much this is going to cost if regulations change and we have something that was acceptable now but is not acceptable once we've supposedly cleaned up.

I think the other ultimate cost is that by not cleaning up, we impact the property values of people like me who own property near this waterway. If it forever carries this taint of well we left all this stuff there and didn't do a thorough job, it makes that property less desirable. We have a clean ocean marina but not a clean waterway, and that's just simply not fair.

There was a lot of attention 8 months ago that we needed more monitoring, but when you read the fine print, or at least the fine print I read, all I saw was that we're going catch male Dungeness crabs from at least 3 sites at year 3, year 5, and year 10, and that's our biological tissue monitoring. I think that's just grossly insufficient in terms of make these big decisions on so little data.

So I guess I'll say what I said before: the problem with the preferred alternative for the cleanup of Whatcom waterway is that it doesn't. I think we can do way better as a community and we deserve better, and we've got the technical skills here to do a far better job of this at a reasonable cost and move ahead quickly. Thank you.

Moderator
Thank you. Mark Buehrer followed by Wendy Steffensen

Mark Buehrer
I've got a PowerPoint slide, is it possible to put that up? I do have handouts so I could submit that, right?

My name is Mark Buehrer. I'm the director of 2020 Engineering. Professional, licensed, civil engineer, 25 years plus experience.

I've lived in Bellingham for 20 years. The concern I have is the method of dredging. I'm concerned that during the proposed dredging, the sediments are going to get stirred up and drift and disburse out into areas, perhaps contaminating areas that are capped and cleaned now.

So, what I've got here is a method of dredging that could be performed that would actually, by using directional drilling technologies that are out there, actually take and remove the sediments that are underneath the contaminated layers. Take the clean sediments that are underneath there and as we move those clean sediments, it actually, the ground surface of the dredged area would settle, and you would obtain the depth of settlement that you would need for shipping. So, with that method you would only be dredging or removing clean materials. That clean material then could be used for capping other areas that are needed. There would be lots of cost savings because you're not dealing with a lot of contaminated materials, and in particular, the dredging technologies that are out there are pretty aggressive, and a lot of disbursement of soils and contaminations that are in there would be really hard to control it all. We shouldn't be making more of a mess with things that are already in a fairly stable state.

If anybody else is interested, I have a handout here that you could basically look at. It's pretty simple. Methods of doing this and I think it should be something that's looked into, and I think it could be a really good environmental solution; it would also be something that would save a lot of money and be really cost-effective.

Thank you.

Wendy Steffensen
Hello my name is Wendy Steffensen. I'm the North Sound Baykeeper with RE Sources. RE Sources is a local non-profit environmental group here in town. We have well over 500 members most in Whatcom County and many in Bellingham.

So I submit these comments on their behalf. The North Sound Baykeeper has been involved in this process for a long time. Before I became the North Sound Baykeeper about 4 years ago, we were involved since '96. We've been involved since then, attending meetings, doing research on this process, submitting comments. This last round of RI/FS documents, we actually convened a public participation panel and spent many, many hours going through those documents and really digging in and researching the issues. We submitted extensive comments. And I appreciate some of the changes that Ecology made, but we were all very disappointed in the actual responsiveness summary. We didn't feel that Ecology answered our questions and maybe part of that is because Ecology decided to lump all of the questions into categories and answer them as kind of a pooled way.

We asked some specific technical questions and did not get specific technical answers back. So we're disappointed. One of the things that I would like to mention as part of that. We talked about the level of mercury in seafood, and while Pete is right, the level of mercury in seafood right now is above the regional norm and that may be OK for you and I who are occasional consumers. But the question we still have is whether it is OK for subsistence and tribal fishers.

We did extensive calculations and we asked very specific questions that called the calculation of the BSL, the bioaccumulation screening level, into question, and we did not receive answers back. So for me, the question on the table is still: is the seafood in Bellingham Bay safe enough to eat for people who eat it at high levels? And I think that is an important consideration that we need to address before we move on.

In addition, we also ask that there be a thorough evaluation of capping and dredging at different sites. We realize, you know, the best thing would be to not have done this in the place and then let's dredge it, let's remove it all and contain it all and not have any problems.

We realize that dredging everywhere isn't going to be a safe solution. So what we asked for was actual analysis of kind of the pros and cons associated with capping and dredging at each site unit, and we weren't given that. But what we were given in the RI/FS was kind of a glowing report of how capping works and dredging doesn't, very short treatment of dredging, much more extensive treatment of capping. It was not balanced, and I realize that this was written by the Port consultant and there's a method—there's a specific cleanup option that would make sense for the Port—but we're relying on Ecology to make sure that these things get equal weight and are evaluated fairly, and we don't believe that happened RI/FS and we're hoping and it didn't happen in this cleanup action plan either. So I don't, I'm really asking that you all go back and do a better job of being fair in these documents.

I noticed that in the cost-benefit analysis, you actually assigned weighting factors to protectiveness and permanence, and that made a lot of sense. What of course was interesting to me that we still came up with the same answer. And maybe that's exactly what it is, but what we did, Ecology assigned the values to each of those factors, and if my colleagues and I sat around the table, we would probably come up with different answers. So I'm wondering if there shouldn't be a neutral third party to look at that because I believe Ecology has already basically bought into the decision of alternative 6 and so I think that needs to be re-evaluated.

In addition, cost, protectiveness, implementability, and all of these seven factors, they're all weighed against cost, like cost is a major factor. And I'm curious and this may be kind of a MCTA sticking point, but I'm curious why cost isn't one factor and not like the be all and end all that everything gets weighted against.

So in closing, I'll just say what we'd like is a 6-foot cap everywhere, dredging in all erosional areas. Right now you're capping some erosional areas and that's a concern. And a re-evaluation of the bioaccumulation screening level, contamination mechanism at the Log Pond cap, and seisimicity. And I'll be turning in further comments. Thank you.

John Servais
I'm John Servais. I live here in Bellingham. One clarification throughout this evening is you folks up here have talked about this you have referred to it as the Consent Decree. It's actually the draft Consent Decree and I think we need to keep that in mind and bring that up often.

And I do want to make a comment that it's too bad that we all have to be spending a beautiful August evening inside and there's a lot of sail boaters out there and the races and a lot of them have a deep love and concern for clean, healthy water in Bellingham Bay. They made the wiser decision to be sailing tonight.

You know, Lucy, you and I know each other from back in 1996 when I was coming to these Bellingham Bay pilot meetings. And back then I expressed an acute frustration, and I put forth on the record at that time that before you go planning what you're going to do to clean up the waterway, that you do a grid analysis of where the mercury is. That was never done. Instead, DOE selected different places to choose to test for mercury with test holes. That has allowed, in my opinion, looking at where they were taken, to avoid the worst mercury contamination in the upper waterway.

Only a grid when taking test samples from a dense grid can provide us with a true picture of what and how much and where the mercury is. We still don't know, as Tip Johnson's mentioned, a couple others, we have no idea, you folks don't know, Georgia Pacific knows, and they're not telling and nobody can force them to tell. And we've bought all their liability for a dollar. So here we are tonight.

But the point of that is that for 10 years, DOE and the Port of Bellingham have a zero track record of helping us clean up the waterway or stop the pollution. While DOE and the Port for 30 years watched GP dump hundreds of tons of mercury into our environment. And it is only now that GP is gone away that oh my gosh we'll clean it up. But now it's at our tax dollar, not at GP's cost.

You know the Port put me on the 20/15 waterfront or WIST – Whatcom International Waterway or shipping terminal committee back in 1992. We existed for about a year. We met, we discussed what the future would be for the shipping facilities in Bellingham Bay, and as we had engineers and others talk to us, we found out that if they dredged, the docks would fall over. If you dredge now those docks are going to fall over. If you dredge the outer waterway as you're planning to, it would bring it down to a depth that the docks are going to fall over. That cost is not in there anywhere. We want to bring NOAA in here and dredge a little bit the docks will fall over.

So we have accounted for the millions of dollars that it's going to take to put those docks back up. And that's something that needs to be taken into consideration somewhere because we folks here, Whatcom County, Port of Bellingham District, or Bellingham, are going to be paying the taxes for all of this stuff.

You're making this plan here tonight based upon this draft decree, based upon the uses of the property. You said that that this was based upon it, and yet as George Dyson related, you're going about it backwards. The uses have not yet been approved and so the uses may not be the actual end uses. But if the cleanup plan or the cover up plan or whatever we're doing actually takes place, and then later those uses are not implemented, we have the wrong clean up for what the uses may be.

The ASB is very much up in the air. As I understand, the Lummi and the Nooksack have not signed off and might not sign off. They might require the Port to put that back into a mudflat. Truck all the rock off somewhere else. Maybe not that extreme, but a marina is not a given at all.

The criteria, a couple of other specific things for the record. I've said we have no knowledge of where the mercury is. We have no grid testing. Those are two very important things and I'm trying to check my notes here very quickly. I'm going to close with this. I'm a NW citizen—we're keeping a record of these things, and we're going to be putting these things up. Like the bridge in Minneapolis that's now turning out to be designed by some bad criteria, we're going to keep track online the records and the individuals of the departments that are approving of what many of us feel is a dead end, no pun intended, plan for our beautiful Bellingham Bay. And when in 5, and 10, and 15, and 20 years from now, it turns out to be a love canal, we do want to remember that it was purposely entered into and that many of us pointed out the problems that were going to arise, and that it was just steamrollered through anyways.

So thank you very much for the opportunity to comment.

Mike MacKay
Ok, thank you. My name is Mike MacKay. I live at 3107 Valet Street here in Bellingham. I'm speaking as a citizen of Bellingham, and I also work with the Lummi tribe. I have some background in fisheries and some knowledge, some firsthand knowledge of some of the salmon, juvenile salmon that do utilize this waterway and the log pond area.

But tonight I am speaking as a citizen. I've reviewed many of your documents although not thoroughly, and I hope to be able to provide some technical comments by the deadline date. I was also at the public hearing back in December and heard many of the comments by folks that I'm hearing again today. And I'll have to say too that I'm very disappointed in the outcome of the reports of the documents and the conclusions and the choice of the alternative that you selected.

I also go back quite a ways in terms of observing the process of sediment cleanup in Bellingham Bay, even before 1996, so even before there was a pilot, I attended a couple of those Ecology meetings you know. And what's remarkable is that over that span of probably 20 years, I've not really seen a significant shift in the policy and the direction Ecology has taken in terms of cleanup strategies. It's always been capping. It's been, you know, not really support of strong, scientific, biological testing.

I'll have to reiterate what George said about the amount of scientific information we have on the biological resources and the health effects of bioaccumulation. I mean we have so very, very little data it's just remarkable. In fact, one of your documents in the responsive summary indicated, if I can find it, says in referring to the crab bioaccumulation work and it refers to the data collected there. I don't know if I can find it. I think it's on this page here. Oh yes, it says sediment and tissue data used for the BSL development included paired data, and I also disagree very much with the BSL levels that you have calculated.

It says it's based on paired data with the most important data set being the Dungeness crab tissue data collected from Bellingham Bay.

Well, I'll have to say I'm at least partially responsible for perhaps up to half of that data set because of some comments we made years ago suggesting we'd go out and actually evaluate the mercury levels in the Dungeness crab, and as a result of some of those comments, Ecology responded, and their research unit actually came up, and we took them out in a boat, and we set our crab pots in Whatcom waterway, and we wet them all across the bay all the way out to Chuckanut Bay. Gathered samples, lo and behold, we found that there were levels of mercury that had this increasing concentration the closer you got to Whatcom waterway, which really surprised me. They didn't really look at the juvenile Dungeness crab as I had suggested. Instead they looked at adult legal males and people that know crab, they move all over the bay. They're very, very mobile animals, and for there to be a trend that was evident just in those very few samples was pretty remarkable.

All that aside. I'll have to say I'm a supporter of decisions based on good science with empirical data. And we just definitely need more empirical data to do a better job of our health assessments.

Also, you know I find it also difficult to accept that the sediments that we're going to be removing are those that are in the ASB pond, which is not really exposed to the marine organisms that we eat, and it's also an area that we're proposing for removal is that outer waterway that you described, Lucy. And from a biological point of view, from a fisheries point of view, it's all about exposure risk to the animal. So what you really want to do is remove those sediments that are the hottest that are in closest proximity to the critters that are going to be bioaccumulating those contaminants, phenyls, and mercury.

So, I mean to me it was just obvious that the Log Pond would be the first place because it's a shallow intertidal zone where you know we can set out our sane net and catch juvenile Chinook and many other salmon species. You know, 6 months out of the year in the Log Pond, I've seen them. But instead, we're proposing removing sediments that are deeper and maybe not as associated with those marine organisms as those along the shoreline.

So anyway, I guess I got to wrap it up. But I'm also very disappointed of the 162 letters of comment in your responsiveness document, most were in support of alternatives that were more protective of human health and the environment. Not surprising, the key environment agency shared your preferred alternative 6, indicating that efforts were taken to present a unified policy by those 3 governments: the Port, Ecology, and the City of Bellingham.

I've concluded that in this case these governments have let us down, that they're not really representing the voice of the community. We want more protective actions, you know.

I believe, instead considering the opportunities to readjust the plan, using some of the well-founded, thoughtful, technical data that was presented by the Baykeeper and People for Puget Sound, you know that technical information was largely ignored and that's really sad. I think saddest of all is that we recognize that there's really well-meaning people in these agencies that have good backgrounds and understand what good science is and are able to make responsible decisions, and, but you know when you read that responsiveness summary, you just look at that poor staff member that had to sit down and write these responses to all these things people said. You only had to conclude, you could only conclude that the reason that effort was mounted was prepare a legal defense against what the public might say against this plan. And I just thought to myself, what a waste of human effort, you know, when that same energy can be used to come up with creative, out-of-the-box solutions to some of these cleanup problems. It's just so sad.

I'm going to leave you with that. Thank you very much.

Frances Badgett
Ok thanks. I'm Frances Badgett and I'm representing the Bellingham Bay Foundation this evening. We are a non-profit and we have three goals: cleanup of the waterfront, public ownership, and a great redevelopment.

Now that we are shifting from the Port's cleanup to your joint cleanup with the Port, the Bellingham Bay Foundation would like to reiterate that we do not feel alternative 6 is protective for the community of Bellingham.

It's really important that the community have confidence in the cleanup and we feel that alternative 6 does not do that. It is, we would like a cleanup that is genuinely protective for generations to come or else the Whatcom waterway will not function as the community, habitat, and cultural resource that it should be.

I also add my comments to those who say that the responsiveness summary did not address the technical detail of those individual comments and that the comments were lumped together, and the same response was sort of attached to batches of comments and the end result. I realize that is to prevent repetitive, having to repeat yourselves over and over again. But the end result is that the responses do not seem considered or careful, especially given the level of detail and technical expertise that was reflected in those comments.

We are extremely lucky in this community to have geologists, to have Wendy Steffensen, to have Mike MacKay weigh in. Bellingham Bay Foundation was lucky to have Greg Glass speak on our behalf. And to not have any of that expertise reflected in the responsiveness summary or in the cleanup action plan seems absolutely a waste.

Despite some added dredging in the inner waterway, there's very little change between the document that so many of us in this room and in this community dispute. While the Foundation appreciates the addition of the 30-year monitoring period, we feel the monitoring period should be even longer, and it should be more frequent. Frequency being as big of problem as length.

With the Log Pond, we're almost at the 10-year mark, and then it doesn't get evaluated again until year 20, and then year 30, and what will the mercury levels be then? Since the surface mercury levels are going up.

What's interesting to me is you're partially removing the sediments in the inter waterway for remediation purposes as you state, yet you refuse to remove the most contaminated sediments, the Log Pond, ASB shoulder, Starr Rock, and the area around the shipping terminal because the Port insists on a luxury yacht marina at the ASB. The Bellingham Bay Foundation stands by its assertion that the ASB should be used for hydraulic dredging and then either cleaned out and made into a park, development, habitat, whatever that should be the community's decision made by all of us.

In this document, Ecology states that the land use decision does not rest with you, you have no part in that decision. Yet you bend the protectiveness and efficacy of cleanup around that land use decision; that seems unbalanced.

In closing, I would like to say that ignoring the citizens' consistent, loud pleas for a higher level of cleanup than proposed by the Port is in direct conflict with the Governor's goals of a Puget Sound clean enough to swim, dig, and fish in by 2020.

In Section 5 of the draft cleanup plan, you state Ecology reserves the right to consider other information including issues raised during public comment and/or conduct its own evaluation of alternatives to assist in making its cleanup decision. It's my hope that you will assume this power that you have been given and not to capitulate to pressure from the Port.

Thank you.

Moderator
At this time, is there anybody else who would like to provide testimony that didn't indicate earlier?

If you would like to send Ecology written comments, please remember they must be received no later than August 13, 2007. You can send them to Lucille McInerney, Department of Ecology, 3190 160th Ave, Bellevue, Washington 98008, or by email to lpeb461@ecy.wa.gov.

This information is also available on the fact sheet in the back of the room. All testimony received at this public hearing, along with any written comments received, will be part of the official hearing record for the proposed consent decree of the Whatcom Waterway site.

Following the close of the public comment period on August 13, 2007, Ecology will prepare a responsiveness summary, which summarizes and responds to all comments received. The responsiveness summary will be placed on Ecology's web site and in various public parties. All persons who submit comments during the comment period will be notified when the responsiveness summary is available.

The next step in the process:

If significant changes are made as a result of public comment, the consent decree will be issued again for public review. If no significant changes are made, Ecology will issue a final cleanup action plan and other final documents and enter the consent decree in Whatcom County Superior Court. The cleanup will then move forward into design and permitting. The draft engineering design report is expected to be completed for public review in late 2009 or early 2010. If we can get further help to you, please don't hesitate to ask.

On behalf of the Department of Ecology, thank you for coming this evening. We appreciate cooperation and courtesy. Let the records show this public hearing has adjourned at 8:38 p.m. Thank you.

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August 3, 2007

The Honorable Evelyn Jefferson
Lummi Indian Business Council
2616 Kwina Road
Bellingham, Washington 98226-9298

Re: Bellingham Bay Cleanup and Redevelopment

Dear Chairwoman Jefferson:

Thank you for your letter of July 10, 2007, describing the Lummi Nation's position regarding the cleanup and redevelopment of Bellingham Bay. As we discussed at the Centennial Accord Meeting in June, the cleanup of Puget Sound is a major goal of this administration. I appreciate the effort and contributions that the Lummi Nation has made in shaping our approach to restoring Puget Sound under the Puget Sound Partnership.

I understand and respect the Lummi Nation's overarching concern for the protection and restoration of treaty and cultural resources. Within the scope of Ecology's cleanup authority, habitat restoration and improvements will be required on this cleanup site. Below, we have attempted to respond to the specific issues summarized on pages 2 and 3 of your letter:

1. The Model Toxics Control Act (chapter 70.105D RCW; MTCA) mandates protecting human health and the environment. To implement this, cleanup actions must remove hazardous substances from the environment or cut off potential contaminant exposure pathways. Exposure pathways at a cleanup site depend on the uses of the site. As the Port of Bellingham (Port), the City of Bellingham (City) and other parties liable for cleanup move through the MTCA cleanup, an understanding of potential future land use is a key part of developing cleanup actions that are protective. We understand that the Lummi Nation objects to the proposed future use of the site as a marina. We have very little ability, however, to preclude future land uses under the MTCA.

   We encourage you to review and comment on Ecology's cleanup plans as they develop for the various cleanup sites in Bellingham Bay, but if your objective is to prevent marina development and require removal of the ASB, the environmental review and permit process is the appropriate venue.

Analyzing potential impacts to cultural and aquatic resources, as well as mitigation measures, are part of State Environmental Policy Act compliance requirements. These documents are subject to public review. Further, as you may be aware, cultural resource and Endangered Species Act evaluations are conducted by the Corps of Engineers (Corps) during the federal permit process for the cleanup actions ultimately selected by Ecology and related development projects selected by the Port. Ecology understands the Corps will consult with the Lummi Nation as part of the federal permit process for projects in Bellingham Bay.

2. MTCA also mandates the use of permanent solutions, such as removal and disposal, to the maximum extent practicable. To decide whether a cleanup action uses permanent solutions to the maximum extent practicable, a cost/benefit analysis is performed. Occasionally, it is determined, after a careful, site-specific analysis, that full removal of all contaminants is not practicable. We have made this determination at the Whatcom Waterway site, i.e., that the cost of removing all mercury-contaminated sediment is substantial and disproportionate to the benefits provided.

   We encourage your review and comment on the cost/benefit analysis performed by Ecology in the draft Cleanup Action Plan (DCAP) for the Whatcom Waterway site. The DCAP is one of several exhibits to a legal agreement called a draft Consent Decree, which is available for public review. Both electronic and hard copy versions of the draft Consent Decree were provided to Alan Chapman and Jeremy Freimund of the Lummi Nation on July 12, 2007.

3. As stated in your letter, the Bellingham Bay Comprehensive Strategy (Comprehensive Strategy) developed by the Pilot Team, identifies removal of the ASB berms as a habitat restoration opportunity. The specific sub-area strategy from the Comprehensive Strategy states:

   "Habitat restoration and protection opportunities present in the sub-area include but are not limited to:

   - Protect and restore Whatcom Creek estuary habitat functions and area through implementation of a Near-Term Remedial Action Alternative.
   - Combine sediment cleanup with habitat creation and improvement through implementation of a Near-Term Remedial Action Alternative.
   - Restore habitat functions by removing or adapting existing structures or fills through redevelopment and voluntary projects.
   - Improve habitat connectivity along Whatcom Creek and Whatcom Waterway.
   - Protect and restore eelgrass habitat between I&J Waterway and the G-P ASB."

Note: The Comprehensive Strategy is a guidance document and has no legal stature. The participants in the pilot have agreed to consider this guidance as we each exercise our individual organizational authorities and rights. Where actions cannot be compelled, we rely on voluntary actions.

Within the scope of Ecology's cleanup authority, habitat restoration and improvements consistent with this sub-area strategy will be a required part of the cleanup of the Whatcom Waterway site. However, we do not use our MTCA authority to compel habitat restoration or improvement actions unrelated to cleanup.

With regard to the ASB area, we have selected a remedy that removes the contaminated material within the ASB, and disposes of it in a permitted, upland landfill. As the owner of the ASB, the Port could voluntarily elect to remove the berm under the habitat restoration recommendations of the Comprehensive Strategy. If so, the Port and other parties liable for the cleanup of the Whatcom Waterway site would be required to cleanup the contaminated sediments exposed by removal of the berm. So far, the Port has told Ecology that they intend to keep the berm as part of their redevelopment of the ASB into a marina. Thus, Ecology's proposed cleanup action for the ASB, given this planned use, is full removal of the contaminated material within the ASB berm.

Ecology understands that while the Port does not intend to remove the ASB berm, they are planning significant habitat improvements consistent with the Comprehensive Strategy as part of their redevelopment of the New Whatcom area, including:

- Adding 28 acres of marine aquatic habitat to Bellingham Bay through remediation of the ASB and reconnection to Bellingham Bay.
- Converting 2200 feet of industrial creosote bulkheads into soft banks to create and improve large stretches of continuous shallow-water habitat within the Whatcom Creek waterway and estuary.
- Creating 4-6 acres of near-shore habitat with a valuable combination of elevation, wave energy, substrate, and location.
- The removal of 3800 feet of derelict bulkheads, 104,000 square feet of industrial over-water structures, and about 1,150 mostly creosote-treated pilings.
- Creating 4500 lineal feet of near-shore migration corridors for juvenile salmonids.

4. Ecology understands the Lummi Nation's opposition to converting the ASB to a marina. As the owner of the ASB, the Port has made a land use decision to redevelop it into a marina. Under our cleanup authority, we must develop a remedy for this area of the site that is protective, given this planned use. The impacts and potential mitigation measures associated with the various cleanup alternatives for the Whatcom Waterway site were evaluated by Ecology in the October 10, 2006 draft Supplemental Environmental Impact Statement. This statement was issued for public review with the draft Supplemental Remedial Investigation/Feasibility Study. Ecology understands the impacts and potential mitigation measures associated with the proposed Master Plan for the New Whatcom Special Development Area, including the marina development, will be evaluated by the Port in a future Environmental Impact Statement. We have supplied a copy of your letter to the Port so they can continue to be aware of the Lummi Nation's interests.

5. Ecology agrees that the Port should thoroughly assess the environmental impacts associated with development of the ASB into a marina. Ecology provided comments to this effect during the Port's recent SEPA scoping public comment period (see attached letter). Our understanding is that the Port does intend to assess the environmental impacts of converting the ASB into a marina.

Ecology highly values the strong government-to-government relationship the Lummi Nation and the state have forged and our successful engagement in such challenging areas as spills, water quality, and water rights. In that spirit, I sincerely urge both the Nation and the Port of Bellingham to re-engage in negotiations on a settlement of these issues.

Sincerely,

Jay J. Manning
Director

Enclosure

cc: The Honorable Kelli Linville - State House of Representatives
The Honorable Tim Douglas - Mayor of Bellingham
Jim Darling - Executive Director, Port of Bellingham
Ted Sturdevant - Director of Governmental Relations - ECY
Tom Laurie - Governmental Relations - ECY

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Northwest Regional Office • 3190 160th Avenue SE • Bellevue, Washington 98008-5452 • (425) 649-7000

June 4, 2007

Mr. Andrew Maron
SEPA Official
Port of Bellingham
P.O. Box 1677
1801 Roeder Avenue
Bellingham, WA 98227-1677

Dear Mr. Maron:

RE: New Whatcom Redevelopment Project EIS Scoping Document Comments

Thank you for the opportunity to provide comments on the April 19, 2007 Draft Scoping Document for the New Whatcom Redevelopment Project. This letter will supersede our comment letter originally dated May 11, 2007. These comments are based on further discussion with the Port and additional internal review by Ecology.

Total Proposal and No Action Alternative:

The scoping notice indicates that the "no action" alternative includes a marina and other features that do not currently exist, but would be allowed under existing zoning. These other features include the Laurel Street Bridge, related sewer and utilities, over-water pedestrian bridge, parks, trail linkages, and Whatcom Waterway transient moorage floats and infrastructure.

Under SEPA rules, the proposal should be defined to include all interdependent parts of a proposal, including all phases. (see SEPA Handbook sections 2.3.3.5 and 3.3.1) As such, the marina and other features* are part of the total proposal. As they are included as part of the "no action" alternative and the other alternatives, we are assuming they will be evaluated in terms of their benefits and impacts, possible design alternatives, and inter-relationship to the surrounding development scenarios. Other related SEPA citations are attached.

It may be useful for the EIS to discuss any previous SEPA review of the marina, or other analysis of the marina that has taken place. From the material provided in the scoping notice, any previous review of the marina is not made apparent.

Planned Action and Level of Review:

Our understanding is that the project is being considered as a "planned action" under WAC 197-11-172 and related provisions. As discussed during our meeting, planned actions relate to on-the-ground projects and thus require project-level review** during the SEPA process (WAC 197-11-164). The proposal components should be evaluated in sufficient detail regarding design and potential impacts in the SEPA document so that the public is adequately informed, has the opportunity to comment, and for that input to be formally taken into consideration during the SEPA process. Though the public will have additional opportunities to provide comment under the federal permitting process for the Corps permit (404) and in the MTCA consent degree process, they should still have the opportunity to comment on a planned action as defined in the SEPA requirements. We were encouraged to hear in our meeting that the port will indeed be providing analysis of the marina and other "no action" alternative features in the SEPA EIS document and fully expect to receive and evaluate public input.

Specific Recommendations for Environmental Analysis for the EIS:

Ecology would like to provide the following recommendations for environmental topics to be analyzed in the EIS:

Stormwater Management and Potential Wetland Impacts: Ecology recommends that the EIS include an analysis of the impacts of the management of stormwater originating from the many hillside springs located to the southeast to the aquatic system. The large forested wetland complex adjacent to the railroad is sustained by these hillside springs (and stormwater drainages) and flows to the beach at the end of Cornwall Avenue.

Shoreline Management and Public Access: The various scenarios for building location, height, and other elements should be considered with both public enjoyment of the waterfront space as well as use by wildlife (primarily shore birds) as an integrated component. This is expected under the SMA and the local shoreline master program.

Marina Considerations: Issues for evaluation that relate to water quality and public access include pollution-loading from boating activities, spill prevention and contingencies, basin flushing characteristics, relationship to adjacent nearshore habitat and anadromous fish populations, boat wake effects on nearby features (e.g. the log pond), and design alternatives regarding upland habitat relative to public access.

Again, thank you for the opportunity to comment on the scoping notice and for taking into consideration our recommendations for issues to analyze in the EIS. We look forward to continuing our work with the Port of Bellingham. If you have further questions, feel free to contact me at (425) 649-7010.

Sincerely,

Jeannie Summerhays

Jeannie Summerhays
Regional Director

JS:ll

cc: Dick Grout
Barry Wenger
Lucy McInerney
Gordon White
Jim Pendowski

* The features include the proposed marina and related improvements, the Laurel Street Bridge, related sewer and utilities, over-water pedestrian bridge, parks, trail linkages, Whatcom Waterway transient moorage floats and infrastructure.

** Project-level review provides an appropriate level of detail that relates, for example, to footprint, heights, number of units, etc. It does not include minuet detail.

Attachment – Select Relevant SEPA Citations:

As defined in the SEPA rules (WAC 197-11-060), the "total proposal" means all interdependent parts of a proposal, including all phases. More information can be found in the SEPA Handbook in sections 2.3.3.5 and 3.3.1

Relevant sections of WAC 197-11-060 are cited below.

WAC 197-11-060: The content of environmental review is specified in this section and requires the "range of proposed activities, alternatives, and impacts."

(2) The timing of environmental review is also addressed under this subsection and states that the review "Depends on each particular proposal, on an agency's existing planning and decision-making processes, and on the time when alternatives and impacts can be most meaningfully evaluated." .

(3a) "Agencies shall make certain that the proposal that is the subject of environmental review is properly defined."

(3aiii) "proposals should be described in ways that encourage considering and comparing alternatives."

(3b) "Proposals or parts of proposals that are related to each other closely enough to be, in effect, a single course of action shall be evaluated in the same environmental document. Phased review is allowed under subsection (5).

Proposals or parts of proposals are closely related, and they shall be discussed in the same environmental document if they:

(i) cannot or will not proceed unless the other proposals (or parts of proposals) are implemented simultaneously with them; or

(ii) are interdependent parts of a larger proposal and depend on the larger proposal as their justification or for their implementation."