



EAST BAY REDEVELOPMENT CLEANUP SITE RESPONSIVENESS SUMMARY

**July 6 – August 9, 2010
Public Comment Period for a new Agreed Order,
Interim Action Work Plan
and State Environmental Policy Act Determination**

**Prepared by
Washington State Department of Ecology
Southwest Regional Office
Toxics Cleanup Program
Lacey, Washington**

August 2010

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Site Information

Address: 315 Jefferson Street NE

Site Manager: Steve Teel

Public Involvement Coordinator: Meg Bommarito

The Department of Ecology is entering into an Agreed Order (legal agreement) with the Port of Olympia (port), the city of Olympia (city), and the LOTT Clean Water Alliance (LOTT) to continue the investigation and cleanup of the East Bay Redevelopment site.

In May 2010, the city and LOTT purchased two parcels on the East Bay site. As property owners, they are now potentially liable persons (PLPs) and responsible for cleanup. The port, the city, and LOTT are all parties to the new cleanup agreement. This Agreed Order will replace an older agreement between the port and Ecology.

The new Agreed Order will require:

- Completion of Interim Action (partial cleanup) work on parcels 4 and 5. This action includes soil excavation and installation of a cap over areas of contaminated soil.
- A memo proposing the site boundary.
- A Remedial Investigation and Feasibility Study report. This report will outline the nature and extent of contamination and examine cleanup remedies.
- A draft Cleanup Action Plan describing the proposed final cleanup actions.

The city and LOTT completed a State Environmental Policy Act (SEPA) checklist for the proposed Interim Action. The SEPA looks at the potential impacts of the project on the surrounding environment. Ecology reviewed the checklist and determined that the action was not likely to have significant negative impacts (a Determination of Non-Significance).

The comment period for the Agreed Order, Interim Action Work Plan and SEPA Determination ran from July 6 – August 9, 2010. Public comments and Ecology's responses are summarized in this document.

Site Background

The East Bay Redevelopment site is generally located at 315 Jefferson Street NE in Olympia. Portions of the site were used for timber-related industries from the late 1880s until 1968. Previous property operations included sawmill, planing mill, shingle mill, and plywood manufacturers. From 1968 to present, portions of the site have been used for commercial and light industrial activities and storage.

Historic activities on the property caused soil and groundwater contamination. Total petroleum hydrocarbons (TPHs), carcinogenic polycyclic aromatic hydrocarbons, dioxins and furans, and metals were detected above Model Toxics Control Act (MTCA) levels in soil. Investigations also revealed TPHs and metals in groundwater above MTCA cleanup levels or screening levels.

The port entered the Voluntary Cleanup Program in January 2007. To expedite the cleanup for future developments and to ensure Ecology oversight, the site was transferred into the formal cleanup program in February 2008.

Ecology and the port entered into an Agreed Order to begin cleanup of contamination at the East Bay Redevelopment site in October 2008. This Agreed Order required the port to:

- Complete the Remedial Investigation (RI) for the site to examine nature and extent of contamination.
- Prepare a work plan for and conduct an Interim Action. The purpose of the Interim Action was to remove contaminated soil encountered during the construction of roads and utilities from the development area and immediately reduce risk to human health and the environment.

The port drafted work plans for the Remedial Investigation and Interim Action. A 30-day public comment period was held in March 2009. At the end of the comment period, the port began work on the site infrastructure. The Interim Action was completed by December 2010.

Comment #1: Harry Branch

The East Bay Plan is adequate in some respects but we could do better.

All of the dioxin in Budd Inlet benthic soils originated on land and dioxin in Budd Inlet is ubiquitous. Dioxin in this case has mixed with hydrocarbons and will continue to be mobilized. The highest concentrations of dioxin in benthic soil, over 60 parts per trillion (pptr), are found immediately offshore from the East Bay development site and before we prove otherwise we should assume that's where they originated.

The threshold for open water disposal of dioxin in South Sound, set by the U.S. Army Corps of Engineers, is 3.5 pptr. and there is talk of cutting this number in half. Contaminated dredge spoils are basically the same as contaminated nearshore. The concern in both cases is the discharge of material into the water column and increased bioavailability. A case could be made that the nearshore of Budd Inlet should adhere to the same threshold being set for open water disposal, 3.5 pptr.

But the East Bay location, being on land and the original source, probably poses an even greater threat than dredge spoils. Dredge spoils would be buried at sea. The East Bay nearshore is more active hydro-geologically, both from tidal influences and at least five improperly decommissioned artesian wells.

Regarding the broader East Bay development site... four soil samples taken at East Bay prior to development were:

TP01, 2 to 2.5 feet deep, 430.3 ng/kg.

TP02, 2 to 2.5 feet deep, 645.7 ng/kg

TP03, 3.5 to 4 feet deep, 57.9 ng/kg

TP04, 1.5 to 2 feet deep, 108.4 ng/kg.

During infrastructure work, 9.8 pptr was considered clean and 510 pptr was considered clean enough for under pavement. Most dioxin concentrations found were significantly lower than the lowest concentrations found initially. It seems improbable that samples taken prior to the commencement of work would significantly exceed concentrations detected after work began. There must be other variables; the cleaner samples were all from a specific area, depth or something.

The 9.8 pptr. target for mixed use is within MTCA standards but too high for a place where children are enticed to come and play. The target of 510 pptr. for areas under pavement is far too high given the likelihood that pavement will fail over time and that material will continue to migrate within the area and outward into the sound.

Regarding parcels 4 and 5, the subject of the current remedial investigation, four samples, TP-1, TP-2, DP-26 and DP-42 were "hot". All these samples are near the eastern boarder of the site. What about soil outside the eastern boundary of the site? One sample, DP-33 appears to have been taken outside the line to the east but this sample appears to have not been assessed for

dioxin. This is unfortunately the way things have gone throughout the peninsula. The extent of investigation is always an artificial boundary, a historic property line or an area of planned improvement. We should sample outward in all directions until we find clean soil.

The biggest immediate risk to human health is the proximity of beaches and tide flats. Last month a group of young people were observed wading knee deep in East Bay benthic mud, where the highest concentrations of dioxin in Budd Inlet are found, attempting to launch a canoe. Bringing children to this location to visit a Hands on Children's Museum poses risks that have not been adequately considered..

Estuaries are great for studying the history of earthquakes because they drop in an earthquake. Western Washington has been struck by strong earthquakes in the past from both surface faults lying in the Puget Sound basin and subduction faults lying offshore. Tsunamis have left debris far inland. It is only a matter of time until local historic tide flats drop in elevation and are swamped by tsunamis. If there is any geological feature that's unstable, it's sea level.

The good news about dioxin is that it photodegrades. Soil at the site could be removed to a location where it could be exposed to sunlight and over the period of a few years we could be done with it. Burying it in place negates the opportunity for any actual remediation.

East Bay is historic intertidal tide flats and esturine salt marsh. There are no types of marine or nearshore structure with greater importance to ecological function. Ironically, if we went looking, we could find federal and grant funds to restore the tide flats and salt marsh. The view from the new city hall would be impressive.

Harry Branch

Ecology Response

Thank you for taking the time to comment. We have provided responses to individual and/or smaller groups of comments below.

Comment 1.1

The East Bay Plan is adequate in some respects but we could do better.

Ecology Response

Comment noted.

Comment 1.2

All of the dioxin in Budd Inlet benthic soils originated on land and dioxin in Budd Inlet is ubiquitous.

Ecology Response

The scope of the Parcels 4 and 5 Interim Action work plan does not include Budd Inlet sediments. The extent of contamination for the site will be determined by the Remedial Investigation.

Comment 1.3

Dioxin in this case has mixed with hydrocarbons and will continue to be mobilized.

Ecology Response

Based on Ecology's review of the dioxin groundwater data for the site, there is no evidence that dioxin soil contamination has affected groundwater. With respect to the potential for total petroleum hydrocarbons (TPH) to enhance the mobility of chlorinated dibenzo-*p*-dioxins and chlorinated dibenzofurans (dioxins/furans), we have reviewed research about this topic cited in the Agency for Toxic Substances and Disease Registry (ATSDR) toxicological profile for chlorinated dibenzo-*p*-dioxins (see below references). In particular, the type of site that the research focused on was wood treatment facilities or other sites that were heavily contaminated with pentachlorophenol and mixtures such as petroleum oils and creosote. The East Bay Redevelopment site is not a wood treatment site nor is it heavily contaminated with TPH. Also, there does not appear to be significant TPH present at the locations that have the highest soil concentrations of dioxins/furans. Therefore, it is very unlikely that TPH would have the potential to mobilize dioxins at the East Bay Redevelopment site.

References:

U.S. Department of Health and Human Services, Public Health Service, ATSDR, 1998. Toxicological Profile for Chlorinated Dibenzo-*p*-Dioxins.
<http://www.atsdr.cdc.gov/ToxProfiles/tp.asp?id=366&tid=63>

Orazio, C.E., S. Kapila, R.K. Puri, and A.F. Yanders, 1992. *Persistence of Chlorinated Dioxins and Furans in the Soil Environment*. Chemosphere, Vol. 25, Nos. 7-10, pp. 1469-1474.

Puri, R.K., T.E. Clevenger, S. Kapila, A.F. Yanders, and R.K. Malhotra, 1989. *Studies of Parameters Affecting Translocation of Tetrachlorodibenzo-*P*-Dioxin in Soil*. Chemosphere, Vol. 18, Nos. 1-6, pp. 1291-1296.

Kapila, S., A.F. Yanders, C.E. Orazio, J.E. Meadows, S. Cerlesi, and T.E. Clevenger, 1989, *Field and Laboratory Studies on the Movement and Fate of Tetrachlorodibenzo-*P*-Dioxin in Soil*, Chemosphere, Vol. 18, Nos. 1-6, pp. 1297-1304.

Puri, R.K., S. Kapila, Yun-Hsieh Lo, C. Orazio, T.E. Clevenger, and A.F. Yanders, 1990, *Effect of Co-Contaminants on the Disposition of Polychlorinated Dibenzo-*p*-Dioxins and Polychlorinated Dibenzofurans in Saturated Soils*, Chemosphere, Vol. 20, Nos. 10-12, pp. 1589-1596.

Comment 1.4

The highest concentrations of dioxin in benthic soil, over 60 parts per trillion (pptr), are found immediately offshore from the East Bay development site and before we prove otherwise we should assume that's where they originated.

Ecology Response

The extent of contamination for the site will be determined by RI. Completion of the RI is required by the Agreed Order.

Comment 1.5

The threshold for open water disposal of dioxin in South Sound, set by the U.S. Army Corps of Engineers, is 3.5 pptr. and there is talk of cutting this number in half. Contaminated dredge spoils are basically the same as contaminated nearshore. The concern in both cases is the discharge of material into the water column and increased bioavailability. A case could be made that the nearshore of Budd Inlet should adhere to the same threshold being set for open water disposal, 3.5 pptr. But the East Bay location, being on land and the original source, probably poses an even greater threat than dredge spoils. Dredge spoils would be buried at sea.

Ecology Response

Comment noted.

Comment 1.6

The East Bay nearshore is more active hydro-geologically, both from tidal influences and at least five improperly decommissioned artesian wells.

Ecology Response

All known artesian wells on the East Bay Redevelopment site have been properly decommissioned. If you have information about improperly decommissioned wells at the Site, please provide this information to Ecology.

Comment 1.7

Regarding the broader East Bay development site... four soil samples taken at East Bay prior to development were:

TP01, 2 to 2.5 feet deep, 430.3 ng/kg.

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TP03, 3.5 to 4 feet deep, 57.9 ng/kg

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During infrastructure work, 9.8 pptr was considered clean and 510 pptr was considered clean enough for under pavement. Most dioxin concentrations found were significantly lower than the lowest concentrations found initially. It seems improbable that samples taken prior to the commencement of work would significantly exceed concentrations detected after work began. There must be other variables; the cleaner samples were all from a specific area, depth or something. The 9.8 pptr. target for mixed use is within MTCA standards but too high for a place where children are enticed to come and play.

Ecology Response

Comment noted.

Comment 1.8

The target of 510 pptr. for areas under pavement is far too high given the likelihood that pavement will fail over time and that material will continue to migrate within the area and outward into the sound.

Ecology Response

The Parcels 4 and 5 Interim Action has been designed to prevent any further migration of contamination and will be protective of Budd Inlet. Maintenance of the pavement will be required as part of the ongoing institutional controls following the Interim Action. Ecology will also conduct periodic reviews following the Interim Action as required by WAC 173-340-420 to assure that human health and the environment are being protected.

Comment 1.9

Regarding parcels 4 and 5, the subject of the current remedial investigation, four samples, TP-1, TP-2, DP-26 and DP-42 were "hot". All these samples are near the eastern boarder of the site. What about soil outside the eastern boundary of the site?

Ecology Response

The soil beyond the eastern boundary of Parcels 4 and 5 will be addressed as part of the overall East Bay Redevelopment site investigation. As defined in the state cleanup regulations, the boundary of the site extends as far as the hazardous materials from the facility have come to be located (*see*: WAC 173-340-200) and therefore are not limited by property lines. The Interim Action is intended to only clean up a portion of the site. The boundary of the Parcels 4 and 5 Interim Action is generally defined by the boundaries of these two parcels. However, as stated on page 2-3 of Section 2.3 of the Sampling and Analysis Plan (Appendix H), excavations will extend beyond the parcel boundaries at locations DP-21 and TP-2 until confirmation sample results are below Interim Action Remediation Levels. If confirmation sample results from the

area outside of Parcels 4 and 5 are above the Interim Action Cleanup Levels shown in Table 3-2, additional actions will be taken to prevent public access to any uncapped areas until further cleanup work is done.

Comment 1.10

One sample, DP-33 appears to have been taken outside the line to the east but this sample appears to have not been assessed for dioxin. This is unfortunately the way things have gone throughout the peninsula. The extent of investigation is always an artificial boundary, a historic property line or an area of planned improvement. We should sample outward in all directions until we find clean soil.

Ecology Response

Please see the above response to comment 1.9.

Comment 1.11

The biggest immediate risk to human health is the proximity of beaches and tide flats. Last month a group of young people were observed wading knee deep in East Bay benthic mud, where the highest concentrations of dioxin in Budd Inlet are found, attempting to launch a canoe. Bringing children to this location to visit a Hands on Children's Museum poses risks that have not been adequately considered.

Ecology Response

The Washington State Department of Health conducted a health consultation in September 2008 for Budd Inlet. This document is available at

http://www.ecy.wa.gov/programs/tcp/sites/budd_inlet/Budd%20Inlet%20health%20consultation%20sept%202008.pdf

The health consultation concluded that incidental, short-term exposures posed no apparent health hazard to the public. If you have further questions about the health consultation, please contact Lenford O'Garro at (360) 236-3376.

Comment 1.12

Estuaries are great for studying the history of earthquakes because they drop in an earthquake. Western Washington has been struck by strong earthquakes in the past from both surface faults lying in the Puget Sound basin and subduction faults lying offshore. Tsunamis have left debris far inland. It is only a matter of time until local historic tide flats drop in elevation and are swamped by tsunamis. If there is any geological feature that's unstable, it's sea level.

The good news about dioxin is that it photodegrades. Soil at the site could be removed to a location where it could be exposed to sunlight and over the period of a few years we could be done with it. Burying it in place negates the opportunity for any actual remediation.

East Bay is historic intertidal tide flats and estuarine salt marsh. There are no types of marine or nearshore structure with greater importance to ecological function. Ironically, if we went looking, we could find federal and grant funds to restore the tide flats and salt marsh. The view from the new city hall would be impressive.

Ecology Response

Comment noted.

Comment #2: Arthur West

August 9, 2010

**WASHINGTON STATE DEPARTMENT OF
ECOLOGY, SWRO TOXICS CLEANUP
PROGRAM, STEVE TEEL**

COMMENT ON, AND REQUEST FOR
WITHDRAWAL OF, JULY, 2010 SEPA
DNS FOR EAST BAY INTERIM ACTION,
AGREED ORDER

TO: Steve Teel, Site manager
Washington Department of Ecology
SWRO Toxics Cleanup Program
Olympia, WA 98504-7775

FROM: Arthur West
120 State Ave. NE #1497
Olympia, Washington, 98501

RE: COMMENT AND REQUEST FOR
WITHDRAWAL OF JULY 2010
EAST BAY SEPA-MTCA DETERMINATION

Please regard this as a formal comment upon, and a request for withdrawal of, the July 2010 SEPA-MTCA determination issued for the East bay redevelopment Cleanup/infrastructure construction project.

The SEPA DNS is inadequate and should be withdrawn for the following reasons:

1. The Project has already resulted in significant adverse impacts to the environment, in the form of an illegal discharge of pollution into Budd inlet. This significant impact alone requires reversal of the DNS, since it is clearly mistaken.

2. The DNS is based upon impermissible piecemealing, made possible by a consistent pattern of misrepresentation and a lack of material disclosure (See WAC 197-11-340 (3)(a)(iii)), and the Environmental Checklist is woefully defective, and contains numerous misrepresentations and internal inconsistencies.

3. The checklist and other supporting documentation is inadequate and fails to account for actual site conditions

8. The checklist and SEPA determination are impermissible ex post facto justifications for prior agency action, including a prior Shoreline permit unlawfully issued without a final SEPA, and including the demolition of structures that has already occurred, yet which is both admitted and denied by the Checklist on page 11, sections c-d.

9. The SEPA and Shoreline Management Act process has been impermissibly segmented and piecemealed, to the extent that three (3) separate and contradictory SEPA determinations have issued for various improperly segmented portions of this same project, based upon widely divergent descriptions of the project and project site, and the project was advanced prior to the required adoption of a Comprehensive Scheme of Harbor Improvement mandated by RCW 53.20.020.

11. The Checklist and DNS falsely provides justification for a course of action that is dictated by commercial and economic pressures. In the process the potential for environmental harm has been deliberately minimized and obscured, and the requirements of lawful and integrated Shoreline Management Act, SEPA, and Harbor Improvement Act compliance¹ have been ignored or evaded. In the process of the project proponent's rush to build their project on a previously declared schedule, at any cost to the environment, safe and prudent practices have been subordinated to the political inertia of the project in exactly the manner that SEPA was intended to prevent.

12. The SEPA determination, through officious doubletalk, falsely obscures the fact that the project involves construction on the 100 year flood plain. This again demonstrates the impermissible misrepresentation and obstruction of access to information which taints and corrupts this entire SEPA process and which resembles a cover up far more than an impartial environmental process.

¹ See *Merkel v. Port of Brownsville*, 8 Wn. App. 844, 509 P.2d 390, (1973) To permit the piecemeal development urged upon us by the port would lower the environmental mandates of these acts to the status of mere admonitions. The result would be frustration rather than fulfillment of the legislative intent inherent in these acts. This product will have a significant effect upon the environment. It is to the public's benefit that any project significantly affecting the environment and shorelines of this state comply with the procedures established by SEPA and SMA to insure that the environmental aspects have been fully considered. Irreparable damage would flow from allowing any portion of this project to proceed without full compliance with the permit requirements of the SMA...

13. The document fails to assess the impact of the project on threatened and protected species known to exist on the site² (see Page 9, Section 5 (a-c) and on Indian Moxlie Creek, or the wetlands present on the site (the existence of which are again, as part of a persistent pattern of conduct, misrepresented, despite the fact that the existence of wetlands on the site is evident from maps and is an open and notorious fact, evident to anyone who has ever seen the site or given it even the most cursory examination).

14. The Traffic impact section of both the Checklist and the DNS is completely inadequate and misleading, in that it fails to adequately address any of the transportation related impacts of the project, the east bay redevelopment, or even the cleanup itself. The Checklist also impermissibly relied upon a prior defective SEPA determination which was designed under a voluntary cleanup program which has since been transferred to Ecology for a mandatory and supervised cleanup, due to repeated attempts by the project proponents to evade the law.

15. In the face of such deliberate misrepresentation and minimization of undeniable impacts of the project, mere words are inadequate to convey the supreme and transcendental inadequacy of the Department's SEPA DNS, which cannot, under any stretch of the imagination, be considered a valid exercise of any degree of agency expertise whatsoever. The DNS also fails to consider the impacts of other projects and activities in the area and their cumulative impact on transportation and water quality, such as the expanded log yard operations, other proposed "cleanup" projects, and the PSP action agenda, which should all have been subject to one larger and all encompassing EIS.

14. The SEPA process has been corrupted and rendered meaningless by the improper issuance of a Shoreline permit for the project, prior to a final SEPA determination, and in the absence of a comprehensive scheme for the cleanup of the entire inlet. In the absence of such a comprehensive plan with a cumulative impact analysis, in coordination with an actual plan to reduce contamination and actually clean up the Sound, the present pattern of financial and political manipulation of the development of the shoreline will be perpetuated, and cover ups and piecemeal approvals of development projects that contaminate and adversely impact the Sound will continue, for the benefit of a few politicians and developers, while the public interest in enforcement of environmental procedures that require reasonable evaluation of the danger of release of contaminated material prior to the commencement of construction activities on the shorelines will be completely ignored and obstructed.

For the following reasons, the July 2010 SEPA determination for the modification of the agreed order and another "interim action" plan for the East Bay HOCUM project is fatally defective, and should be withdrawn pending a full EIS that considers all of the cumulative impacts of the proposed action, in association with all known related actions and projects, and as a prerequisite to the issuance of any related permits or authorizations for the construction of any part of the East Bay Redevelopment Project.

Done August 9, 2010.

s/Arthur West
ARTHUR WEST

² The existence of the species identified in the present checklist is also inconsistent with those identified in the previous SEPA checklists, and with the sworn testimony of City Planner Laura Keehan, further demonstrating a pattern of obstruction based upon false information

Ecology Response

Thank you for taking the time to comment. Your comments have been noted.