RESPONSE to COMMENTS

Interim Action
Central Waterfront Cleanup Site
Bellingham, Washington

May 2016

WASHINGTON STATE DEPARTMENT OF ECOLOGY
TOXICS CLEANUP PROGRAM

Introduction

In spring of 2016, the Washington Department of Ecology (Ecology) released an Interim Action proposal for the Central Waterfront cleanup site and issued a 30-day public comment period, from March 14 through April 12, 2016. Ecology's public involvement activities for this comment period included:

- Mailed a postcard about a public meeting to 3,904 addresses including residents and businesses within about a half-mile of the site.
- Mailed a fact sheet describing the proposed interim action and the agreed order amendment to 3,904 addresses, including residents and businesses within about a half-mile of the site.
- Emailed a fact sheet to 180 people, including local media, on Ecology distribution lists.
- Placed a paid display advertisement in The Bellingham Herald on March 4, 2016.
- Published notice in the Washington State Site Register on March 3, 2016.
- Posted a notice in Ecology's Public Events Calendar on March 3, 2016.
- Posted the interim action work plan and fact sheet on Ecology's website, and updated the website to explain the documents and advertise the comment period.
- Provided copies of documents to information repositories at Ecology's Bellingham and Bellevue offices, and at the Bellingham Public Library downtown branch.

Five comments were received by email. Copies of the comments and Ecology's responses are below.

Site background

The Central Waterfront cleanup site is about 55 acres on Bellingham's downtown waterfront, between I & J Waterway and Whatcom Waterway, and between Roeder Avenue and the former Georgia-Pacific industrial wastewater treatment lagoon.
Beginning in the early 1900s, the site and surrounding tidelands were filled for various industrial uses, including:

- Manufacturing concrete, boat repair and storage, and wood fabrication by Colony Warf. The property has been used for various other industrial activities since 1908.
- A bulk fuel and storage facility from 1904 through 1987 by Chevron.
- An olivine rock processing plant from 1963 to 1993 by the Olivine Corp. The company also operated an experimental incinerator on the property from 1981 to 1982.
- A landfill used by various nearby industrial properties owned or operated by the city, port, G-P, Puget Sound Energy and others from 1965 to 1974.

Property within the site is now owned primarily by the Port of Bellingham or city of Bellingham. Environmental assessments to date have found contaminants in soil and groundwater associated with these historical industrial uses. Contaminants include petroleum hydrocarbons, polycyclic aromatic hydrocarbons, and metals, including arsenic, cadmium, lead, nickel, mercury and copper, and methane gas.

Soil, sediment, and groundwater are contaminated at levels that must be addressed under the state's cleanup law, the Model Toxics Control Act.

The port and city are conducting cleanup work, with Ecology oversight, according to the terms of a 2006 agreed order.

Interim action

The interim action cleanup work will include isolation or removal of contaminated soil in certain areas of the 55-acre cleanup site, as a result of Port of Bellingham development activities to support marine trades. The Port plans to construct a new building with a landfill gas extraction system west of Roeder Ave. at Hilton Ave. The Port also plans to implement roadway, infrastructure, and storm-water improvements in the area of The Landings at Colony Wharf on C St. The construction will include moving a large pile of clean soil to the Cornwall Avenue Landfill site, for intended use as part of the future cleanup of that site.

Because the cleanup activities are only addressing a portion of the site, the work is called an Interim Action. Final cleanup of the entire site will come in the future, following completion of a remedial investigation/feasibility study (RI/FS) report and a cleanup action plan.

The RI/FS—which will be available for public review later this year—found landfill debris, landfill gases, metals and petroleum related compounds resulting from past industrial activities including: a municipal landfill, rock-crushing plant, boatyard, and a bulk fuel storage and distribution facility. The RI/FS also considers cleanup methods. The Interim Action is expected to be consistent with the future final cleanup action for the site.

Comments and Ecology responses

Comment #1 –Monte D. Hokanson (email)

Kenner, Krista (ECY)

From: Monte D Hokanson <monte.hokanson@hotmail.com>
Sent: Thursday, March 17, 2016 8:50 AM
To: Kenner, Krista (ECY)
Subject: Re: Public comment period on cleanup work at the Central Waterfront site

Krista,

The plan to move All American Marine and the proposed interim action make a lot of sense. My only concern is that considering all these various plans in isolation could keep leave us with unknown upland contamination still flowing into the bay when the waterfront clean-up is completed.

According to Wikipedia, "Portions of the waterfront are heavily contaminated due to the area's historical industrial uses. The environmental problems stem primarily from G-P's operation of the chlor-alkali plant to manufacture chlorine and other chemicals. The process released many tons of mercury into the Whatcom Creek waterway. Some areas of the upland portions of the site are also contaminated with significant concentrations of mercury. By contrast, the ASB is clean."

If the ASB is really one of the cleanest sites on the waterfront a portion could be used to develop a staged aquaculture stormwater treatment system. This system would help to address Whatcom Creek waterway and known/unknown upland contamination currently entering the bay.

According to a 2007 stormwater technical report, "Outfall 1. This outfall consists of a box culvert that discharges at the West end of C Street. The extent of the stormwater basin that contributes to this structure is unknown. Portions of the Roeder Avenue stormwater conveyance system are known to connect to this culvert, as do areas east of Roeder Avenue."

According to the new Whatcom Redevelopment Project Draft EIS January 2008, "The C Street Combined Sewer Overflow (CSO) is a wastewater gravity pipe that conveys both sewage and stormwater in Area 1 and the surrounding vicinity to the City's treatment facility. However, in the event of a severe rainfall, the CSO can release wastewater directly to the Bay through the stormwater outfall at the west end of C Street. If the influent rate at the City's Oak Street Pump Station exceeds the station's hydraulic lift capacity of 58-60 MGD, the sanitary sewer can overflow to Bellingham Bay."

I don't fully understand the stormwater conveyance system or piping between the East end of Roeder Avenue, the West end of C Street, the old sewer plant/Perry Center and the ASB but the one piece of open land that might connect them all will soon be covered by the new All American Marine building and ramps.

Now might be the right time to consider connecting/upgrading these four systems and directing Whatcom Creek and the various contaminated overflows into staged aquaculture starting at the Perry Center. Something designed to clean the water and feed floating shell fish production in a portion of the ASB would support the Perry Center mission and be an interesting addition to the waterfront.

Regards,
Monte

Ecology Response

The release of mercury from G-Ps operations occurred on the opposite side of the Whatcom Waterway at the GP West cleanup site. The GP West site is in the regulatory cleanup process, with construction beginning this summer on a portion of the site. For more information see the GP West web page at: https://fortress.wa.gov/ecy/gsp/Sitepage.aspx?csid=2279

The in-water area affected by the mercury release is part of the Whatcom Waterway site. The first phase of construction for the Whatcom Waterway site cleanup was recently completed. This work addressed contaminated sediment in the area between the Central Waterfront and GP West sites. The second phase of construction will address remaining areas of the site, including the ASB.

Water currently in the ASB is mainly comprised of stormwater since GP closed their operations in 2001. However, historic industrial sludge within the ASB contains elevated levels of contamination. This material will be addressed as part of the second phase of the Whatcom Waterway site cleanup. For more information see the Whatcom Waterway web page at: https://fortress.wa.gov/ecy/gsp/Sitepage.aspx?csid=219

Regarding upland contamination continuing to flow to Bellingham Bay, understanding and addressing all pathways of potential exposure to contamination is a key component of the regulatory cleanup process. For the portion of the Central Waterfront site where the All American Marine building is to be located, groundwater has been studied and found to be below cleanup standards based on protection of surface water and sediment. This information will be provided in a draft remedial Investigation/Feasibility Study report which is expected to be issued for public review later this year.

Regarding redesign of the existing stormwater conveyance system and use of staged aquaculture for stormwater treatment, this is beyond the scope of Ecology's cleanup authority. However, we encourage you to provide these comments to the Port of Bellingham and the City of Bellingham for consideration..

Comment #2 – Dave (email)

From: Dave <dave@dunnsspecialty.com>
Sent: Thursday, March 31, 2016 2:04 PM
To: Sato, Brian (ECY)
Subject: port clean up

For one, why does the State pay for clean up of Port property?? It gets old knowing how the Port gets Federal, State, city and local funds for clean up but wants to own and operate the property for profit. For all the clean up at GP site being funded by fed and state how does the Port think they will consider another wood pulp fueling company to move on this property. Let the port do their own clean up out of their own pocket.

Ecology Response

Responsibility for the cleanup of the Central Waterfront site is not limited to the Port of Bellingham. The City of Bellingham is also involved as the past operator of a municipal landfill located in the middle of the site. Other responsible entities may also be identified by Ecology in the future.

All responsible entities must share the legal burden and cost of cleanup. The state Remedial Action Grant Program (Chapter 173-322 WAC) helps local governments study and clean up hazardous waste sites. The intention is to lessen the financial impact of the cleanup on ratepayers and taxpayers.

As local governments, and subject to other requirements, the Port of Bellingham and the City of Bellingham are eligible to receive up to 50% grant funding. The Legislature funds the grant program with revenues from a tax on hazardous substances.

Comment #3 – Lee First, Eleanor Hines, RESources (mail)

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April 11, 2016

Brian Sato, Site Manager
WA Department of Ecology
3190 160th Avenue SE
Bellevue, WA 98008

RE: Comments on Interim Cleanup for Central Waterfront Site

Dear Mr. Sato,

Thank-you for the opportunity to comment on the interim action cleanup for the Central Waterfront cleanup site. I appreciate your willingness to answer our questions, and we appreciate all your efforts in the cleanup processes. As the North Sound Baykeeper Team RE Sources, we represent almost 20,000 supporters in Whatcom and Skagit Counties. Our comments on the Central Waterfront Interim Action are as follows:

1. We would prefer that the Remedial Investigation and Feasibility Study be completed **before** interim actions and economic development projects are undertaken. In our opinion, allowing a series of interim actions and economic development projects is not the intent of the Washington State Model Toxics Control Act (MTCA). Since the Remedial Investigation/Feasibility Study has not been produced, this project and previous interim actions allow a precedent, encouraging partial cleanups before the nature, extent, and magnitude of the pollution are fully known. By their nature, partial cleanups are less protective of our resources.
2. The previous interim action on this site installed temporary measures to prevent the flow of petroleum products into the Whatcom Waterway. In our opinion, an action to quickly fix a serious threat warrants interim action work before the nature and magnitude of the pollution is fully known. We question whether the work accomplished for the Chevron subarea beach was fully effective – is there on going monitoring to evaluate if the flow of free product was stopped, and is the HDPE membrane that was placed effective?
3. Although we appreciate that Ecology held a public meeting for these projects, we received the fact sheet by mail two days after the meeting occurred. Similarly, to our knowledge, the public meeting was not advertised or discussed in the Bellingham Herald until several weeks after the public meeting was held. The public was not well notified about the meeting or about the opportunity to comment on this project. We did appreciate that an informative article was available in the Bellingham Herald, but it was printed weeks after the meeting. We also appreciate that the Interim Action Plan was posted on the website a few days prior to the comment period opening.
4. The fact sheet does not adequately explain what is planned. The *Interim Action Work Plan for the Central Waterfront Site* has good information about what is planned, but it is also missing key information, including projected costs, information about where contaminated soil will be disposed, and information about how stormwater will be routed and treated. This information is valuable in the public comment process and should be provided.

5. Because stormwater is of special concern to us, we met with Port staff, and learned about how stormwater will be collected and treated. In the future, even though stormwater management is not considered part of this interim action or the cleanup – we suggest that information about stormwater management be provided to the public, either in the documents that are posted to public websites, or on the City or Port websites, so that the public can easily access all information pertinent and relevant to the proposed Interim Action.
6. A 50,000 square foot building is planned for part of the site that is underlain by a portion of the former Roeder Avenue Landfill, which stopped accepting refuse in 1974. Although we certainly support the safe management of landfill gas, we disagree with spending MTCA cleanup money to help build a structure on a landfill when the structure could be located elsewhere.
7. Lastly, if this 50,000 square foot building is installed, we urge that stormwater treatment for the roof and paved area be provided for this facility. Recent studies have found that roofs, storage areas, streets, and loading docks had the highest frequency of moderately toxic and highly toxic runoff samples (Clark, Steele, et al 2008). This area is close to the Burlington Northern tracks, where unit trains frequently idle and slow down at crossings, producing diesel particulates. Treating runoff from this large new roof will help mitigate stormwater pollution in this industrial setting.

Thank you very much for considering our comments.

Lee First, North Sound Baykeeper
RE Sources for Sustainable Communities

Eleanor Hines, Lead Scientist
RE Sources for Sustainable Communities

Reference:
Clark, S. E., Long, B. V., Siu, C., Spicher, J., & Steele, K. A. (2008). Runoff Quality from Roofing during Early Life. Proceedings of the Water Environment Federation, 2008(16), 1048-1062.

Ecology Response

1. Ecology shares your preference to complete public review of remedial investigation and feasibility study (RI/FS) work before undertaking interim actions. However, under WAC 173-340-430(4) interim actions may occur anytime during the cleanup process and shall be followed by additional remedial actions unless compliance with cleanup standards has been confirmed.

   In this situation, while the RI/FS report has not yet been publicly reviewed, the RI portion of the report has been developed and work continues on the FS. From this body of work, Ecology is confident that the Port's projects will be consistent with the final remedy for the site. If this turns out not to be true, additional remedial actions may be necessary.

   Regarding the statement that "By their nature, partial cleanups are less protective of our resources". Interim actions enable early actions to be taken to protect human health and the environment on a portion of a site. This is beneficial.

2. Since completion of the interim action the area has been periodically inspected and no sheen has been observed. In addition, a sealed sheet pile wall was recently installed along the shoreline as part of the Whatcom Waterway Phase 1 cleanup work. Ecology is reviewing a monitoring plan to assess post-construction groundwater characteristics in this area.

3. As a member of the Bellingham Bay Action Team, the fact sheet was emailed to Eleanor Hines at RE Sources on March 4, 2016. Please let us know if you did not receive the email.

   Regarding the hard copy version of the fact sheet, we apologize that you did not receive it until two days after the meeting. Our vendor has confirmed that the fact sheet was mailed on March 4 with an expected in-home date of March 7. We don't know why delivery of the fact sheet was delayed, but will take this timing into consideration as part of planning for future public comment periods.

   In addition to distributing the fact sheet to 3,904 addresses, Ecology provided the following public notifications:

   - Postcard about the public meeting, mailed February 26 to 3,904 addresses
   - Bellingham Herald advertisement, March 4
   - Notice in the Site Register, March 3
   - Posting on Ecology's public events calendar, March 3

   Note that Ecology does not send a news release for every comment period, but we are taking your feedback into consideration for future comment periods.

4. The Interim Action Work Plan for the Central Waterfront Site is necessarily focused on the cleanup aspects of the Ports planned projects. Information about overall project costs and stormwater management is provided in the project contract documents which can be obtained from the Port of Bellingham. Contact Anthony Ammirati, Contracts Administrator, at 360-676-2500 x306.

With regard to contaminated soil disposal, Section 3.1 of the Work Plan discusses soil management. Based on a comparison to draft cleanup levels, soil will either be reused on-Site or transported to an approved off-Site facility. The off-site facility will be determined by the contractor and must be permitted to accept the soil under state and federal regulations. .

5. Ecology understands that the Port is looking into placing pertinent and relevant documents on their website in the future. When this occurs, Ecology can then provide a link.

6. Under Ecology's cleanup authority we cannot direct land use decisions. Our regulatory mandate is to ensure protection of human health and the environment given the land use decisions.

   In this instance, the Port has elected to place a building on a portion of the Central Waterfront site. Given this decision, and with Ecology confidence that the building will be consistent with the final remedy, the cleanup related elements of the project are grant eligible, including the landfill gas control system.

7. Stormwater management requirements for the building are not regulated under Ecology's cleanup authority, but are subject to other regulations. We encourage you to contact the Port and City with your concerns.

Comment #4 – Robert Gibb (email)

From: Robert P Gibb <robertpgibb@comcast.net>
Sent: Tuesday, April 12, 2016 3:08 PM
To: Sato, Brian (ECY)
Cc: 'Larry H'
Subject: central Bellingham waterfront cleanup

Mr. Sato: I write as a former Whatcom County Medical Examiner concerning the proposed cleanup and development of the central Bellingham waterfront. All of the proposed property is within the "blast zone" of the railroad oil tankers currently being hauled through this site. Until that environmentally hazardous oil tanker issue is resolved, development should not be permitted. Clean up of the current toxic site, while possibly premature, should be qualified by noting the railroad oil tanker hazard to any development.

Robert P. Gibb, M.D.
360-733- 5775

Ecology Response

Under the Department of Ecology's cleanup authority we cannot direct land use decisions. We encourage you to contact the Port of Bellingham and the City of Bellingham with your concerns.

Comment #5 – Allan Bakalian P.S. (mail)

ZENO BAKALIAN P.S.

LEGAL AND ESCROW SERVICES

G. Michael Zeno, Jr.
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* admitted in OR & WA

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April 12, 2016

Via Email and US Mail

Brian Sato, P.E.
Toxics Cleanup Program
Department of Ecology
3190 160th Ave. SE
Bellevue, WA 98008-5452

RE: Olivine Comments and Objections to the Port of Bellingham's Proposed Interim Action Work Plan, Central Waterfront Site

Dear Mr. Sato:

On behalf of Olivine Corporation, we must respectfully object to the Port of Bellingham's proposed Interim Action Work Plan (Work Plan) for the Central Waterfront Site (CWF Site), which involves the removal of contaminated soil associated with the construction of the All American Marine Building and C Street Terminal. As explained below, Olivine is not opposed to the Port and City of Bellingham's efforts to redevelop their respective parcels of land that comprise the former Roeder Avenue Landfill and former lumber mills, bulk petroleum tank farms and industrial facilities that were built on fill placed over the historic pilings and railroad lines above the shallow waters of Bellingham Bay.

Olivine objects because it did not receive any notice of the proposed Work Plan which directly affects it interests in the ongoing CWF Site and I&J Waterway investigation and cleanup actions. As Ecology is aware, Olivine previously leased a portion of the CWF Site, from approximately 1980 to 1992, south of Hilton Avenue where the All American Marine building will be constructed. Over the past eight years or more, Olivine has been sued by the Port and named a Potentially Liable Person (PLP) by Ecology for the so-called "Olivine Uplands" within the CWF site, as well as for the sediment contamination in the I&J Waterway. Both matters have yet to be resolved.

As Ecology is also aware, over the past year Olivine and its legal and technical representatives engaged in mediation with the Port to seek resolve the Port's claims for the I&J Waterway and CWF Site, including the Olivine Uplands, as a result of Olivine's former ore crushing operations on the land it leased from the Port. In July 2015, Olivine submitted formal objections and technical comments to Ecology regarding its alleged liability resulting from the potential toxicity of nickel in the I&J Waterway sediments and potential migration from upland soils. You will also recall that we met with you and other representatives for Ecology and the Attorney General's

Office on November 20, 2015, to specifically discuss these issues as well as the ongoing CWF Site RI/FS, which had previously been finalized by Ecology in 2009 but never formally adopted or issued for reasons unknown.

Needless to say, given the amount of effort and ongoing interaction with Ecology and the Port, as well as the City of Bellingham, which discharges stormwater at several locations in Bellingham Bay and owned and operated the Roeder Avenue landfill, the lack of notice is troubling. The lack of formal notice for work which the Port and Ecology believe Olivine may be liable for is procedurally defective. It also appears that Ecology and the Port have not taken Olivine's previous submittals and technical concerns seriously, and plan proceed with the Work Plan and forthcoming RI/FS regardless of specific legal and technical concerns. For these reasons, we believe Ecology must either re-issue the Work Plan for additional public comment or provide Olivine an additional 20 days to further evaluate and address this interim action.

Fortunately, Olivine did get secondhand notice of the Work Plan shortly before the public comment period expired. In that time, Olivine's consultants, Philip Spadaro and Audrey Hackett of The Intelligence Group, have prepared the attached technical comments which address certain of our concerns. As you will note from these comments, what is as troubling as the lack of notice is that the Work Plan was obviously prepared after the Port and City designed the construction of the All American Marine building and C Street Terminals and associated infrastructure. While that is certainly permissible as an interim action under MTCA, the Work Plan then purports to justify the construction as a cleanup of contaminated soils using background soil levels without any technical justification or final Ecology decision-making documents.

Unlike the 2012 Chevron Subarea Interim Action Work Plan for the CWF Site, the Port's proposed interim action did not first assess, evaluate and select the appropriate cleanup method. In this case the proposed development project footprint defines the extent of the excavation or 'cleanup,' rather than the existing soil or groundwater concentrations or the levels or extent of any contaminants of concern. Other than the landfill gas collection system, vapor barrier and 'capping' achieved through the building, parking and road construction, the proposed Work Plan is simply a construction project involving the excavation of potentially contaminated soils. There is no pre-construction sampling, evaluation of the available existing soil and groundwater data, or analysis of hot spots requiring additional excavation, cleanup or removal. The 6,800 cubic yards of excavated soil for the All American Marine building has not been determined to be contaminated above any MTCA based cleanup level. It will simply be stockpiled and then characterized for re-use on site or for disposal off-site pursuant to WAC 173-303. In that case, the only costs that could be considered as recoverable under MTCA are the potential additional costs to transport and dispose of the stockpiled soil as a dangerous waste.

Olivine supports the redevelopment of these properties, but objects to the characterization of the soil removal work as an interim action designed to achieve site specific cleanup levels. As described in the attached comment letter, Ecology has not yet selected or even publicly disclosed the soil or groundwater cleanup levels for the CWF Site. We find it both odd and inappropriate that the Work Plan, which was prepared by the Port, references draft soil cleanup levels for certain metals, including nickel, based on natural background concentrations. First, any metals,

petroleum, PAHs or other contaminants in the soils are not the basis for the excavation of the 6,800 cubic yards of soil for the All American Marine building as described in the Work Plan. Second, any reliance on draft cleanup levels that have not been formally proposed or been issued and undergone public comment is legally incorrect and must be removed from the Work Plan.

We trust that Ecology will agree that it is not necessary to select or reference any soil or groundwater cleanup levels in the Work Plan, since the only media that is being addressed is the soil that will be excavated for the building footprints, utilities, and roads. The focus of the Work Plan should be on the impacts to the public and building employees, due to the landfill vapors, direct contact with soils or other exposures to the landfill contamination beneath and upgradient of the All American Marine building. Indeed, aside from performance of the actual work under Ecology's interim action regulations, Ecology only need determine that the interim action itself will not foreclose reasonable alternatives for the final cleanup after completion of the RI/FS (WAC 173-340-430(3)(b)), which will be met in this case regardless of the selection of specific cleanup levels for excavated soils.

Very truly yours,

Allan Bakalian
Counsel for Olivine Corporation
Attachment
cc: Olivine Corporation
Lucy McInerney
John Level, AAG

Comment # 5 (continued) - Attachment

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April 12, 2016

Mr. Corky Smith
Olivine Corporation
928 Thomas Road
Bellingham, WA 98226

Re: Port of Bellingham's Interim Action Work Plan, Central Waterfront Site, Bellingham Bay, WA

Dear Mr. Smith,

Per your request, The Intelligence Group, LLC (TIG) has reviewed and is providing comments on the *Interim Action Work Plan, Central Waterfront Site, All American Marine Building and C Street Terminal* (Work Plan), prepared by Anchor QEA, LLC (Anchor). The Work Plan was submitted for public review, as required under the Model Toxics Control Act (MTCA) for sites undergoing a remedial action under an Agreed Order. The All American Marine Building and C Street Terminal projects are located within the Central Waterfront Site (CWF Site) in Bellingham Bay. As you are aware, the proposed All American Marine Building Site (AAMB Site) encompasses a portion of the property that Olivine Corporation (Olivine) previously leased from the Port of Bellingham (Port) from 1963 to 1992. TIG focused its review on the proposed All American Marine Building component of the interim action (herein referred to as Interim Action), and has identified several issues, discussed below.

The historical site conditions should be clarified

Olivine operated a rock crushing plant at the CWF Site from 1963 to 1992. Olivine's facility originally encompassed a parcel located north of Hilton Avenue, adjacent to the I&J Waterway. By the 1980s, Olivine expanded its operations to the parcel south of Hilton Avenue, where the AAMB Site is located. Olivine did not operate any rock crushing equipment on this parcel. Olivine rock flour was crushed using mechanical processes on the northern parcel, loaded by truck, and brought to the AAMB Site, where it was processed indoors. Finished refractory products were stored outside.

Prior to Olivine's tenancy, Coast-Lee and Eastes, Inc. (later ONC Freight) operated on the AAMB Site from the early 1960s to late 1980s. In 1998, a 1,000-gallon heating oil underground storage tank (UST) was removed from the AAMB Site. Soil samples collected from the excavation exhibited concentrations of petroleum hydrocarbons above the applicable MTCA Method A cleanup levels. There is no documentation that indicates any further remedial actions were conducted to address the UST release. While the Work Plan mentions trucking operations and bulk fuel operations as historical sources of contamination, the heating oil UST is not mentioned and may be an additional source of petroleum impacts that may potentially be encountered during excavation activities.

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Stockpiled Material is not addressed in Work Plan

Although not specifically mentioned in the Work Plan, TIG and Olivine are aware that soil originating from a project located on the Bellwether Peninsula has been stockpiled in a portion of the AAMB Site. This stockpiled soil is visible in the July 2013 aerial photograph on Figure 3 of the Work Plan. The Work Plan does not mention this stockpiled material as either a historical or current feature of the AAMB Site. It is unclear whether this soil remains onsite, and if so, if it has been sufficiently characterized or incorporated into the Interim Action.

The Work Plan does not include components required under MTCA

Under the Washington Administrative Code (WAC) 173-340-430(7), prior to conducting an interim action under an agreed order, such as the one proposed in the Work Plan, a report shall be prepared and submitted for Washington State Department of Ecology (Ecology) approval. The report must include, as applicable:

- A summary of all available data related to the interim action (WAC 173-340-430[7][b][i])
- A compliance monitoring plan that meets the applicable requirements of WAC-340-410 (WAC 173-340-430[7][d])
- A sampling and analysis plan meeting the requirements of WAC 17-340-820

The Work Plan did not contain any analytical data related to the Interim Action, which in this case should include soil and groundwater sampling data and landfill or soil vapor/gas data, based on the description provided in Section 2.2.2 and 2.2.3 of the Work Plan. As you are aware, the CWF site (including the City of Bellingham's Roeder Avenue Landfill, where the All American Marine Building will be constructed) has been sampled by Ecology and the Port for over two decades. This data should be included in the Work Plan to the extent the Interim Action is intended to reduce a potential threat to human health or the environment. Without such data analysis, there is no basis for the conclusion on page 7 of the Work Plan that there will be an estimated 6,800 cubic yards of soil to be excavated due to the soil, groundwater, or vapor contamination. Rather, the Work Plan is based on the volume of soil to be excavated for construction of the All American Marine Building, as it does not provide any environmental data or specify percentage of volume of impacted soil or groundwater.

No compliance monitoring plan was submitted in the document. Since performance monitoring is proposed in the Work Plan, it is appropriate for a compliance monitoring plan to be submitted that contains the content required under WAC 173-340-410, including a sampling and analysis plan, data analysis and evaluation procedures to demonstrate and confirm compliance, and a description of any proposed statistical method(s) to be used to demonstrate and confirm compliance (WAC-173-340-410[3]). On page 8 of the Work Plan, there is a brief description of the sampling and its frequency with regard to profiling the soil stockpiles for offsite disposal or reuse onsite, which is related to the construction project, not an interim cleanup action. No further details regarding methods for field sampling and laboratory analyses, procedures for evaluating data, or statistical methods to be employed during the interim cleanup action are provided in the Work Plan.

Additionally, the proposed performance monitoring does not meet the definition of performance monitoring under MTCA. On page 11, the Work Plan states "performance monitoring will consist of construction monitoring and inspection to ensure the caps and landfill gas collection system are constructed in accordance with design specifications." Under MTCA, performance monitoring may confirm "construction quality control measurements or monitoring" has been attained, but most importantly should "confirm that the interim action or cleanup action has attained cleanup standards." Their proposed performance monitoring does not achieve the latter. Collecting soil samples from stockpiled soil at a frequency of 1

sample per 200 cubic yards (as stated on page 8), does not confirm that cleanup standards have been achieved; it only assists the contractor in characterizing soil for disposal.

The rationale for the proposed cleanup levels for the Interim Action is not provided

The Work Plan provides proposed cleanup levels for the Interim Action in Table 1 of the Work Plan; however, it is clear that the only soil addressed by the Work Plan is for the construction of the All American Marine Building and C Street Terminals, and the associated roadways, utilities, and stormwater conveyance piping. It is inappropriate to assert that the Work Plan is based on any promulgated or otherwise applicable cleanup level for the CWF Site, which Ecology has yet to determine, since the CWF Remedial Investigation and Feasibility Study (RI/FS) has not been completed. It is therefore also inappropriate for the Work Plan to include Table 1 or otherwise conclude that the cleanup of soil is based on the "most stringent screening levels" being evaluated by the RI/FS. Table 1 also references that the soil cleanup levels are based on Table 4-2a of the 2015 RI and are "the most stringent value, protective of all exposure pathways, adjusted upward for background or Method A criteria." As noted, the 2015 RI has not been completed or made available for public review. However, Ecology may approve an interim action at any time during the cleanup process. There must be sufficient technical information to ensure that the cleanup is appropriate or otherwise consistent with the likely cleanup action (WAC 173-340-430[3][b]).. In the case of this Work Plan, the technical information derived from the 2015 RI is not provided to the public, and, as such, the public cannot provide substantive comments on key components of the Interim Action, specifically the cleanup levels proposed.

The cleanup levels proposed may be inappropriate

Table 1 indicates that the metals chromium, cooper, nickel, and zinc have proposed cleanup levels of natural background concentrations. Since the rationale for using natural background concentrations has not been provided (as discussed above), we cannot specifically comment on the Port's underlying decision-making process. However, the use of natural background concentrations as cleanup levels in what appears to be a plan to mitigate construction workers exposure to soil during redevelopment activities is not appropriate. Natural background concentrations are not based on protecting human health and the environment. They are used to establish concentrations of chemicals in media (soil and groundwater) that have not been influenced by site release(s). Using natural background concentrations as a cleanup level is considered appropriate when a more stringent cleanup level is not achievable because it is lower than the natural background concentration. Although the technical basis for selecting the natural background concentrations was not provided, the Work Plan states that one of the goals of the Interim Action is to "prevent potential exposure via direct contact to contaminated soils located in the footprint of the project by capping." This indicates that a less stringent cleanup level would be required. Calculated MTCA Method B cleanup levels for unrestricted land use, which are protective of the direct contact pathway, may be more appropriate cleanup levels than natural background concentrations.

The consequences of proposing natural background concentrations as cleanup levels for soils that are being excavated for construction is not appropriate and not consistent with Ecology's interim action regulations, especially given the Site's location in an urban industrial environment and its historical infilling with wood and municipal waste. Proposing to excavate soil exhibiting contaminants above natural background concentrations at the site, while still undergoing the RI/FS process, may set an unnecessary, technically infeasible and cost-prohibitive precedent for future cleanup actions at the site.

Thank you for your consideration of these comments. Please feel free to contact us at (206) 681-9844 if there are questions.

Sincerely,

TheIntelligenceGroup®
RESEARCH • INVESTIGATIONS • FORENSICS

Philip Spadaro
Managing Director, Principal Scientist

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Ecology Response

Ecology did not specifically notify the Olivine Corporation because it has not been named a PLP for the Central Waterfront Site. We issued Olivine a Notice of Potential Liability on June 19, 2006, but never made the determination that Olivine was a PLP. *See* WAC 173-340-500(4).

The public comment process for the proposed interim action was conducted pursuant to the requirements of WAC 173-340-600. Ecology will make minor revisions to the Interim Action Work Plan based on the comments it has received, but the Work Plan will not be re-issued for an additional comment period.

Note that Ecology maintains a mailing list of those who are interested in receiving Site information as part of our public outreach efforts. We will add you to our mailing list to ensure notification of future comment periods.

Regarding the statement that "the Port's proposed interim action did not first assess, evaluate and select the appropriate cleanup method." In this situation, cleanup is a consequence of the Port's development work rather than cleanup being the driver. Therefore, the important future concern is whether the cleanup resulting from the development is consistent with the final remedy for the Site.

While the Site RI/FS report has not yet been through public review and finalized, the draft RI has been developed and work continues on the FS. Based on this information, Ecology is confident that the interim action will be consistent with the final remedy for the Site. If it is not, additional remedial actions may be necessary.

Pertaining to the statement that "reliance on draft cleanup levels that have not been formally proposed or been issued and undergone public comment is legally incorrect and must be removed from the Work Plan." Site specific final cleanup levels have not been developed for the contaminants of concern at the Site. The references to soil cleanup levels in the Interim Action Work Plan are not meant to reflect "final cleanup levels", they are intended to be used as screening levels for soil management purposes. MTCA regulations allow for interim actions that may provide a partial cleanup, that is, clean up hazardous substances from all or part of the site, but not achieve cleanup standards. *See* WAC 173-340-430(2)(b).

Ecology Response to the attachment/letter

The historic site conditions should be clarified

Section 2.2.1 of the Work Plan has been revised to include both above ground and underground storage tanks and the creosote-treated timber pile bulkhead as potential sources of contamination.

Section 2.2.2 of the Work Plan has been revised to only identify the contaminants of concern. Sources are identified in the previous section.

Stockpiled Material is not addressed in Work Plan

The stockpiled soil will be removed to facilitate construction of the All American Marine Building. This soil was originally intertidal sediment that was dredged from the Bellingham waterfront to create the Port's Squalicum small boat basin (Inner Squalicum Harbor) in the early 1980s. This soil was used to create new land where the Hotel Bellwether and restaurant are currently located. The soil was moved a second time to its current location in the late 1990s during construction of the Hotel Bellwether subgrade parking garage, Bellwether office buildings, and U.S. Coast Guard station relocation. This soil will be moved a third time this year to the Cornwall Avenue Landfill Site to establish design grades for the final landfill cover system. The soils were initially evaluated in 1976 by the U.S. Army Corps of Engineers prior to being dredged, then by Tetra Tech in 1996 for the U.S. Coast Guard station relocation, again in 1998 by GeoEngineer for the Bellwether development project, and finally in 2015 by Landau Associates for the Cornwall Avenue Landfill Site. The stockpiled soils have been analyzed for petroleum hydrocarbons, volatile organic compounds, semivolatile organic compounds, polycyclic aromatic hydrocarbons, polychlorinated biphenyls, pesticides, metals, total organic carbon, and dioxins/furans. Based on the laboratory results, the soil is suitable for reuse as fill material at the Cornwall Avenue Landfill Site.

The Work Plan does not include components required under MTCA

The MTCA regulation for interim action submittal requirements states a report shall be submitted unless otherwise directed by the department. *See* WAC 173-340-430(7). It also states reports shall be of a scope and detail commensurate with the work performed, as appropriate. *Id.* The All American Marine Building is a Port of Bellingham development project to support marine trades. The construction of this building will result in the excavation of contaminated soils and refuse that need to be properly managed. A landfill gas control system will be incorporated into the building's design because a portion of the building is located over a historic municipal landfill. The building footprint and associated asphalt parking will prevent direct contact with contaminated soil and refuse. These are the elements considered to be interim actions and the Work Plan contains adequate scope and appropriate detail commensurate with the work to be performed. This determination has been informed by data from the draft RI/FS, previously provided to TheIntelligenceGroup. The basis for the estimated 6,800 cubic yards is provided in Section 3.1 of the Work Plan and states this volume is the estimated quantity of soil excavated to construct the building grade beams, subgrade, and trenches for utilities (electrical, plumbing, landfill gas vent lines). This soil will be analyzed and evaluated for reuse or disposal as outlined in Section 3.1. This interim action is not intended to excavate and dispose of all contaminated soils. Rather, this interim action manages the excavated soils generated for and during the construction of the building.

The rationale for the proposed cleanup levels for the Interim Action is not provided

As stated in Section 2.3 of the Work Plan, the RI/FS has not been completed and Ecology has not yet established final cleanup levels for the Site. The soil cleanup levels presented in the Work Plan are screening levels to be used for soil management purposes. The most stringent cleanup level for metals in soils is the concentration protective of leachability to groundwater (soil to groundwater to surface water pathway). When this cleanup level is lower than natural background concentrations, the cleanup level is adjusted upward for natural background. For

example, the most stringent soil cleanup level for nickel is 0.54 mg/kg (MTCA Method-B calculated from 3-phase model MTCA Equation 747-1), but the soil cleanup level for nickel presented in Table 1 of the Work Plan has been adjusted upward to use the natural background value of 48 mg/kg for the soil cleanup level.

The cleanup levels proposed may be inappropriate

Natural background concentrations are not used to mitigate construction worker exposures. Section 3.4.1 of the Work Plan states construction workers are required to have the appropriate training in hazardous waste operations and must follow the site-specific health and safety plan. The cleanup levels in Table 1 of the Work Plan are used to evaluate the excavated soils for reuse or disposal. Ecology recognizes the MTCA Method-B soil cleanup levels for metals are protective of the direct contact pathway, but they are also higher and less stringent than natural background and may pose a risk for leaching into groundwater. Since work continues on the RI/FS and Ecology has not yet established final cleanup levels, this interim action uses the more conservative natural background value.