

9. PUBLIC NOTICE, PUBLIC COMMENT, AND RESPONSIVE SUMMARY

Public comment on the recommended cleanup plan for the Willamette Cove Upland Site commenced Monday, March 2, 2020. Given community interest in the property, the Oregon Department of Environmental Quality committed to a sixty-day comment period. The comment period was extended on two occasions to conduct public outreach activities during the COVID-19 pandemic. The comment period in full was six months and ended on Aug. 31, 2020.

Community outreach began well ahead of the public comment period and continued in coordination with Metro, Port of Portland, Oregon Health Authority (OHA), and Portland Harbor Coalition Community (PHCC). Collectively our goal was to engage and educate the community on work occurring at the site, environmental risks at the property, and DEQ's proposed cleanup plan to restore site conditions protective for human health and the environment. As part of the *Train the Trainers* initiative that was funded by the Port of Portland, PHCC recruited volunteers from the community to be trained on Willamette Cove environmental risk concerns and plans for an upland cleanup, with the intent to share what was learned with the greater community and create a forum for further discussion and input. These workshops and related activities were supported by DEQ, Metro, OHA, and the Port of Portland.

DEQ attended and spoke at community centers and events, such as the Portland Harbor Superfund Site (PHSS) community forums and Sisters of the Roads Café, to share information about the Willamette Cove Upland Site. During the public comment period, DEQ presented at the Cathedral Park Neighborhood Association, provided a short announcement at the St. John's Neighborhood Association, and presented an update at the Portland Harbor Community Forum. DEQ also conducted a virtual public meeting with the Portland Harbor Community Advisory Group (CAG) on May 13, 2020. The presentation, including Q&A, was recorded and posted on DEQ's website for the Willamette Cove Upland: ordeq.org/willamettecove.

DEQ set up a webpage to provide information about the project and how to comment, including a copy of the proposed cleanup plan, factsheets and an executive summary (in four languages), and a story map for the project. The Staff Report published March 2020 presented DEQ's recommendation in greater detail based on previous work conducted at the site uplands, including remedial investigations, risk assessment, removal actions, feasibility study, and source control evaluation activities. These supporting documents were made available on the website and DEQ's Environmental Site Cleanup Information (ECSI) database for the Willamette Cove Site (Site ID No. 2066): ordeq.org/ecsi2066.

In addition to preparing information-sharing platforms and hands-on outreach efforts, the public comment period was announced in *The Oregonian* (as were the extensions), DEQ's public notifications page, DEQ and USEPA Portland Harbor e-mail "listservs", the Portland Harbor CAG, and a host of potential interested parties were contacted directly by DEQ, including tribal governments, USEPA, government agencies/offices, and community and environmental groups. Post cards were also prepared and mailed to residents of Cathedral Park and St. John's neighborhoods in June 2020 seeking public input and communicating the extended public comment period.

Responsive Summary

The following presents a response summary to public comments received during the March 2 to Aug. 31, 2020 public comment period on the recommended cleanup plan (Alternative 4c: Focused Alternative Excavation, Offsite Disposal, Onsite Consolidation, and Cap) presented in DEQ's Staff Report for the Willamette Cove Upland Site. DEQ received approximately 180 emails, a petition signed by nearly 300 individuals, several hand-written comments, two audio recordings and one video. Multiple emails contained comment letters and several letters and petitions were signed by multiple groups and/or individuals. Each email submission was given a sequential individual comment ID number, followed with the audio and video submissions. Several submissions were translated from Spanish and Russian into English (both languages are included). A master spreadsheet was developed by DEQ to track assigned identification numbers and the comments made in each submission and signature(s) to respective comments. Names of individuals who submitted comments are listed but additional contact information has been excluded to protect privacy. Names of businesses, organizations, and government entities submitting comments are listed and contact information for business and organizations have been retained. The comprehensive spreadsheet (minus individual contact information) is presented as Appendix B to this document (ROD).

A number of common themes were presented in the comment set. A large number of commenters requested more removal/offsite disposal of contaminated soil than DEQ's proposed cleanup remedy (Alternative 4c) while some commenters considered a less active cleanup is needed. Some comments were specific to concerns related to contaminant transport/disposal in their community. Multiple comments were related to future park uses and community accessibility, including access to the river. Many comments were intertwined and combined, and cover several topics. The most common comments are summarized and addressed below:

Comment No. 1: More Removal/Offsite Disposal. A large portion of comments call for a "full cleanup" of contamination or a "full removal" of contamination.

DEQ Response No. 1.

The full removal options (Alternative 3a and 3b) and DEQ's proposed cleanup remedy (Alternative 4c) are generally equivalent in the terms of the quantity of contaminated soil excavated (e.g., spatial and vertical extent). However, Alternative 4c incorporates consolidation of excavated contamination below human health hot spot values to designated areas onsite and containment under a reinforced cap (comprised of a minimum three feet of rock and soil). The cap will be engineered to withstand seismic and storm/flooding events. The types of contamination found on the property can also be reliably contained given their *immobile* physical characteristics.

Both the full removal and the proposed consolidation area approaches to site cleanup will encounter the same challenges if contamination exists at greater depths than current data suggests. If there is contamination below three feet, additional areas may require capping material to achieve protective conditions, including the full removal alternative. **Under both alternatives, it will be safe to access all portions of the site after construction, on and off trails. Site conditions will also be safe for wildlife.**

The proposed cleanup accomplishes equivalent protection to the full removal option, in terms of preventing exposure to contamination for planned site uses. The consolidation area cap will be designed for long-term reliability. Full removal contains greater implementation risk because it requires transporting substantial quantities of contaminated material offsite, which increases the chance of accidents or spills. There is also

a substantial environmental cost (carbon footprint) associated with transporting all site contamination to an offsite landfill.

These variables, among others are considered in the balancing factors used for remedy selection: effectiveness in achieving protection, long-term reliability, implementability, implementation risk, and reasonableness of cost. Implementation of 3b or 4c alternatives will restore site conditions to be protective for human health and the environment. Under the regulatory structure memorialized in Oregon cleanup rules and statutes, Alternative 4c, is the preferred remedy.

Given recent interest from Metro to consider additional park features (in addition to a nature park with a regional trail), DEQ reviewed the proposed cleanup and has determined additional park uses are compatible with the recommended cleanup plan. Some park infrastructure may require additional measures (such as underlying barriers) to be effective long-term for certain uses (such as increased activity).

Acknowledging public input and to provide additional flexibility as Metro finalizes their vision for the site, DEQ has developed a contingency remedy. The contingency remedy allows for Metro, during remedial design and in consultation with DEQ, to perform additional measures including additional removal activities to align with final plans for Willamette Cove. Under this framework, Metro can eliminate or greatly reduce the volume of soil to be consolidated onsite and instead transport the soil offsite for disposal at a regulated waste facility.

Comment No. 2: Long-term Reliability & Cost for 4c. Comments in support for more removal/offsite disposal were frequently tied to concerns of potential future releases of remaining soil contamination despite containment under a robust engineered cap. Other concerns for onsite consolidation and containment questioned the adequacy of long-term monitoring and maintenance, as well as associated long-term costs.

DEQ Response No. 2. Onsite consolidation and capping has been successfully implemented in numerous instances along the Willamette River, state-wide, and nation-wide. DEQ notes that the Portland Harbor Superfund Site cleanup approved by USEPA incorporates capping of highly contaminated sediments including shallow and intermediate depth areas of the Willamette River. It is also anticipated the cleanup of contaminated riverbank areas will incorporate removal and capping methods.

The consolidation area cap will be designed in a manner to withstand seismic and storm or flooding events. Regarding a “Cascadia” Subduction Zone earthquake (of megathrust magnitude), the impacts to the greater Portland Basin area will be significant and devastating, destroying infrastructure along and over the Willamette River.¹⁷ Unlike the widespread damage to infrastructure and instant loss of life that is likely to result from this type of earthquake, damage to the consolidation area has low potential to cause immediate harm to human health. The cap will be inspected on a regular basis and immediately following a seismic or storm/flooding event of a significant nature. If damaged, DEQ would require the property owner to restore the engineered cap to ensure protectiveness.

A monitoring and maintenance plan will be prepared for DEQ approval. At completion of cleanup activities, long-term inspections and maintenance would be incorporated into Metro’s property management plans. Long-term costs for monitoring and maintenance (up to 30 years) have been accounted for in estimated project costs. Typically, as regular inspection and monitoring data accumulate, maintenance needs are better

¹⁷ <https://www.oregon.gov/oem/hazardsprep/Pages/Cascadia-Subduction-Zone.aspx>

anticipated and monitoring needs decline. Monitoring will, however, continue as long as contaminated material remains on the property. DEQ will continue to conduct periodic “protectiveness” reviews, annually and then periodic ROD reviews, to ensure the remedial action remains protective for human health and the environment.

Comment No. 3: Bioremediation. Several comments support integrating bioremediation, specifically mycoremediation (fungi-based technology), into the cleanup plan. Expected potential benefits include “green” and less disruptive methods of cleanup and advancing technology development through research. The Port of Portland is currently funding bench (laboratory-scale) tests using mycoremediation and Willamette Cove contaminated soil. Some comments recognize these tests are in early stages of development and would only want bioremediation incorporated into the final remedy if it can be applied successfully at the site. To a much lesser extent, concerns were raised that using bioremediation or mycoremediation would be ineffective and therefore not useful in addressing soil contamination in the Willamette Cove Upland.

DEQ Response No. 3. DEQ has used bioremediation at multiple cleanup sites where the technology has proven effective, most notably in addressing petroleum and solvent contamination in soil and groundwater. Bioremediation was considered in several forms during remedy development and screening. DEQ determined that this technology is not able to effectively treat site-related contaminants of greatest concern that are present site-wide. While bioremediation has merit to treat contaminants such as petroleum and polycyclic aromatic hydrocarbons (PAHs) in soil, it has not been proven successful in treating persistent, low-volatility contaminants such as dioxins/furans distributed across the upland property. Dioxins pose the primary risk to human and ecological health, are highly persistent, bioaccumulative, and are highly resistant to bioremediation. If new information emerges during remedial design that bioremediation methods can be applied effectively at the scale of the Willamette Cove project, DEQ will consider incorporating these methods into the final remedy.

Comment No. 4: Disruption to the Community. Concerns of disruption as a result of cleanup activities fell into two categories: removal/disruption to the ecosystem and disruption to communities.

DEQ Response No. 4. Implementation of an adequate cleanup will cause temporary disruption to the ecosystem and the community. Contamination at the site is currently uncontrolled and poses a risk to human health and ecology (plants and animals) until an adequate cleanup is implemented.

Due to the presence of contamination across the site, the current ecosystem will be disrupted under all cleanup alternatives. While native trees will be preserved to the extent possible, all other vegetation will be removed and underlying soil/debris excavated up to three feet (with the final depth depending on the confirmed depth of contamination). As part of the cleanup, native plants will be planted across the entire site (minus areas of park infrastructure, such as a paved regional trail). Re-establishing vegetation commonly requires some period to develop healthy growth, which may require watering during dry periods and regular maintenance, such as removal of invasive species and in some cases replanting areas with low success rates.

The neighboring community will be disrupted primarily by onsite construction noise and equipment, as well as transportation activities hauling material on and off the site. Increased traffic impacts to communities near Willamette Cove, along the traffic route, and near the disposal site will cause increased air emissions. For example, preliminary “ballpark” estimates taking into account import and export of soil and/or cap materials to implement a cleanup, the preferred remedy (Alternative 4c) may require more than

3,000 truck trips compared to more than 5,000 truck trips for the full removal alternative. For a medium-sized barge, this translates to approximately 30 barge trips versus 50.

Evaluating cleanup alternatives requires an understanding of implementation risk, including the potential for truck accidents or spills during transportation. The preferred remedy requires fewer trips (compared to the full removal alternative) and therefore implementation risk is lower. Transport options, such as rail and barge, will be explored as alternatives to trucking. It is anticipated the rail option would require construction of a spur for loading/unloading. DEQ preference is barge and/or rail transport but presumably material to a certain extent will be hauled on and offsite via trucks.

A community outreach and communications plan will be developed and updated to inform the community on the timing and types of construction activities in advance and during remedial implementation.

Comment No. 5: Access/Future Use. The majority of comments also highlighted the importance of unlimited human access, including preferences for potential future uses of the site. Public input expressed a preference for a variety of uses, ranging from intensive park use to full preservation as a nature park with limited public access.

DEQ Response No. 5. DEQ's selected cleanup will allow for full access of the upland site, on and off trails, in accordance with Metro's proposed future use. Native trees will be preserved to the extent possible.

Access to the riverbank, beach, and river is outside the scope of DEQ's Staff Report and cleanup plan for the Willamette Cove Upland Site. The "Upland" extends from top of riverbank landward, east and away from the Willamette River. Cleanup riverward of the Upland is being conducted under USEPA oversight.

Decisions related to how the site is developed and managed are outside of DEQ's authority and will be decided by the property owner, Metro. DEQ's cleanup plan has been developed around Metro's stated intended use. DEQ can implement deed restrictions where certain activities would lead to unacceptable exposure. It is DEQ's understanding that Metro plans to initiate a community engagement process specifically for the Willamette Cove. The in-water group, in consultation with USEPA, have been conducting community outreach sessions (presently in the remedial design process in accordance with the PHSS Record of Decision).

Comment No. 6: Houseless Community. Comments mainly raised two points related to the houseless community: i) displacement, and ii) risk assessment calculations. Concerns included the displacement of the houseless community during the cleanup, and long-term implications related to future development and management plans. Others questioned how the risk levels were calculated and the rationale in determining soil cleanup levels for a recreational user are lower than those for the houseless using the site.

DEQ Response No. 6. At present the site poses an unacceptable risk to all human uses (and to plants and animals) as a result of soil contamination encompassing the entire property. During implementation of the cleanup, particularly during construction activities for health and safety reasons, only qualified and trained workers will be allowed to enter the site. After cleanup is complete, the Upland will be safe for camping and related activities. Decisions related to how the site is managed will be decided by the property owner.

DEQ toxicologists have been instrumental in completing a representative comprehensive risk assessment and development of protective risk-based cleanup levels for the site. Soil cleanup levels are lower (i.e., more conservative) for a recreational user compared to a person that may camp temporarily at the site. This

is explained by each users' duration of exposure at the site. Specifically, the risk-based cleanup levels for a recreational user includes exposure starting as a child into adult years, for a total of 26 years. While houseless community members may be present longer on a daily basis and a portion of the year, the exposure is not considered to span more than two years. The longer total time that recreational users are assumed to visit Willamette Cove compared with campers is the primary reason for the difference in cleanup levels. Cleanup levels, also called acceptable risk levels, direct the extent of remedial action necessary to restore the site to achieve protective levels. DEQ uses the lower, more protective cleanup levels for all site uses identified, currently and in the foreseeable future. In this case, selecting a remedy to achieve cleanup levels for a recreational (park) user also protects the houseless.

Comment No. 7: Pace to Cleanup. Several comments requested in one way or another, a rapid cleanup. Others comments were in general support of the proposed cleanup, which is viewed as a benefit for the community.

DEQ Response No. 7. An adequate investigation and risk assessment is necessary for a successful cleanup. Site discovery to cleanup is an interactive and comprehensive process, and is particularly complex on sites such as Willamette Cove. Investigation began at Willamette Cove in 2000 after the discovery of environmental contamination. At that time, little was known about the site in terms of contamination attributed to legacy industrial operations. Additional contaminants of concern (i.e., dioxin-furans) were found in the early 2010s. Several phases of investigation to determine the nature and extent of contamination helped to inform human health and ecological assessments, as well as screening and evaluating potential cleanup options. Early removal actions, focusing on the most mobile and/or highly contaminated soil occurred in 2004 (inner cove), 2008 (metal hot spots), and 2015 to 2016 (hot spots). Note, the 2015 to 2016 removal action included large-scale excavation and offsite disposal, during which most contamination representing "hot spot" level risk to human health was removed. After several revisions of the feasibility study evaluating potential cleanup options and supplemental data gap investigations, sufficient information is now available to select the comprehensive site-wide cleanup plan.

In terms of schedule, following DEQ's Record of Decision for the Willamette Cove Upland Site (early 2021), DEQ will enter into a legal agreement with Metro and the Port of Portland to conduct the cleanup. Next steps in preparation for cleanup action include a final, large-scale soil sample collection effort to refine the extent of excavation, particularly depth, necessary to achieve cleanup goals. This information will also be used to develop final plans for soil containment and offsite disposal.

Timing of the cleanup is also tied to the Portland Harbor in-water and riverbank work in terms of sequencing and construction logistics. DEQ anticipates that substantial portions of the riverbank will be subject to remedial action (under USEPA oversight), including laying back areas of the riverbank, which will impact the upland remedy. This will require close coordination between DEQ and USEPA for their respective cleanup actions before and during remedy implementation. DEQ has begun these coordination efforts with USEPA and the in-water cleanup group. In the interim, DEQ may pursue removal of hot spot areas of soil contamination in the uplands slated for offsite disposal under the selected remedy.