



Oregon

Tina Kotek, Governor

Department of Environmental Quality

Northwest Region

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September 6, 2024

Robert Fraley
Portland Water Bureau
1120 SW 5th Avenue Rm 405
Portland, OR 97204
Robert.Fraley@portlandoregon.gov

RE: Beneficial Use Determination (BUD-20240906), PWB – Bull Run Finished Water Pipeline Contaminated Soils

Dear Robert Fraley:

The Department of Environmental Quality (DEQ) has reviewed Portland Water Bureau's (PWB) application for a solid waste beneficial use determination (BUD) that was submitted on April 18, 2024, and updated on May 20, 2024. During the public comment period, DEQ and the PWB became aware of an additional reuse proposal from Ted Sester who requested that DEQ approve an approximately 29-acre property in Damascus identified as Clackamas County Parcel No. 00603617, Map and Tax Lot 2S3E03 03302 to receive 125,000 cubic yards of the PWB soil be deposited at the Sester Farm location to develop the land for farm use by T & K Sester Family, LLC. The soil from the PWB project would be blended with existing topsoil so that the land could be used to grow grasses and other agricultural crops. PWB submitted a request during the public comment period to add this proposed beneficial use as well as a request to take the soil to a DOGAMI reclamation site as additional options for beneficial use of the soil. The PWB also clarified that the quantities of soil are larger than originally noted in the application: the total from the pipeline is approximately 32,000 cubic yards. The application and request received during the public comment period ask DEQ to approve proposed beneficial uses of slightly contaminated soils generated by PWB that will be excavated from the surface of the pipeline trench excavation areas and from the intersection widening project at the intersection of SE Dodge Park Boulevard and SE Cottrell Road. The proposed beneficial uses for the slightly contaminated soil will consist of four reuse options: (1) use of the soil as nonstructural construction fill within the excavated pipeline trench, (2) use of the soil as nonstructural construction fill on the shoulder surfaces immediately adjacent to the roadway, (3) use as topsoil as part of trench restoration of a farm field as specified by landowner, (4) use of the soil as nonstructural construction fill at the water filtration facility according to proposed BUD-20240402, (5) use as reclamation fill at DOGAMI reclamation sites and (6) use as soil to be blended with topsoil at a farm in Clackamas County to grow grasses and other agricultural crops.

PWB has requested this beneficial use because the soils to be excavated and reused as

nonstructural fill have been sampled and the concentrations of pesticide contaminants do not meet the DEQ clean fill screening values. The contamination values exceed ecological risk screening values and are below occupational human health risk screening values. PWB proposes to beneficially reuse approximately 32,000 cubic yards (CY) of the slightly contaminated soils as construction fill until construction completion in 2027 that includes soil generated from intersection widening at the southwestern corner of the SE Dodge Park Boulevard and SE Cottrell Road. The pipeline excavation work began in early July 2024 following requirements of the stormwater permit for storage and management of the soil.

Soil material that exhibits staining or emits odors is not included in this BUD.

The proposed beneficial uses meet the requirements for a Tier 2 case-specific Beneficial Use Determination (BUD) under Oregon Administrative Rule (OAR) 340-093-260 through 340-093-0290. DEQ is issuing this BUD to PWB. The BUD is limited to the materials, approved uses, and conditions specified in the following Table.

DEQ's approval is based on a review of PWB's application and additional request during the public comment period for beneficial use of contaminated soils to be generated during the Bull Run Finished Water Pipeline construction project, which demonstrates the case-specific beneficial use performance criteria outlined in OAR 340-093-0280 are met for the approved uses. Details of DEQ's review are provided in the attached case-specific evaluation report.

Failing to use the contaminated soils in accordance with the BUD approval conditions on use will subject the material to solid waste regulations and fees. If the conditions of approval cannot be met, the waste must be disposed of at a DEQ permitted landfill or DEQ approved facility.

Per OAR 340-093-0290(9), DEQ may modify or revoke this case-specific BUD at any time based on new information showing the potential to cause adverse impact to public health, safety, welfare, or the environment.

Material	Beneficial Use	Conditions on all Uses
<p>Approximately 32,000 cubic yards of contaminated soils generated from construction activities at the Bull Run Finished Water Pipeline Project. As well as 250 cubic yards of soil generated from intersection widening at the southwestern corner of the SE Dodge Park Boulevard and SE Cottrell Road.</p>	<p>Contaminated soils will be used in one of the following reuses:</p> <p>(1) use of the soil as nonstructural construction fill within the excavated pipeline trench, or</p> <p>(2) use of the soil as nonstructural construction fill on the shoulder surfaces immediately adjacent to the roadway, or</p> <p>(3) use as topsoil as part of trench restoration of a farm field as specified by landowner, or</p> <p>(4) Use of the soil as nonstructural construction fill at the water filtration facility according to proposed BUD-20240402.</p>	<p>To comply with this BUD, PWB must ensure:</p> <ol style="list-style-type: none"> 1. The contaminated soils be managed to prevent, at all times, windblown dust, runoff and erosion, releases to the environment or nuisance conditions. 2. The contaminated soils will not be placed where they could come into contact with or adversely impact surface water or groundwater. 3. The contaminated soils which will be used as non-structural construction fill and will be stockpiled during the water filtration facility construction according to the requirements of the Stormwater General Permit NPDES 1200-CA Permit. 4. The contaminated soils will be placed away from environmentally sensitive areas such as wetlands, wildlife refuges and parks to protect waters of the State. 5. PWB will maintain records documenting the amounts of contaminated soils used and where, keep the records for five years from the date created and make these records available for DEQ review and inspection and submit annual reports to DEQ by January 31 of each year identifying how much soil was used during the previous year. Placement of contaminated soils will be recorded in daily construction reports created by PWB’s construction quality assurance team. The excavated soil will be placed in accordance with one the four reuse options. If the contaminated soil is not reused, the soil will be disposed of at a DEQ approved landfill or site. 6. PWB must follow all requirements as specified by BUD-20240402 when reusing all materials at the proposed water filtration facility. 7. PWB will comply with all applicable federal, state, and local regulations when using the material. 8. PWB will inspect the cover at the reuse location after final placement by October 1 of each year until fully stabilized and will submit a status update to DEQ with the annual report (Condition 5).

	<p>(5) Use of the contaminated soil as mine reclamation fill</p>	<ol style="list-style-type: none"> 1. Material use must be in accordance with an approved DOGAMI operating permit with an approved imported fill plan or reclamation plan allowing the importation of fill for permanent reclamation backfill. 2. Each disposal or use site for permanent reclamation backfill must receive written DOGAMI and DEQ approval prior to placement. 3. The material must not be used in any DSL wetland mitigation site associated with a DOGAMI permitted mining facility. 4. Material must not be stored or used near water or wetland areas in such a way that would allow discharge to groundwater or surface water. 5. Material must be stored and managed to prevent nuisance conditions or releases to the environment such as dust, runoff, objectionable odors and unsightliness. 6. Material use must comply with all applicable federal, state, and local regulations.
	<p>(6) Use of the contaminated soil to be blended with topsoil at the T&K Sester Farm, LLC located in Clackamas County on Parcel No. 00603617, Map and Tax Lot 2S3E03 03302</p>	<ol style="list-style-type: none"> 1. Upon completion of an ecological risk assessment at the proposed property, Material from the pipeline and water filtration plant shall be used to amend existing virgin topsoil for the cultivation of rotation crops of grass seed and nursery stock. Soil from the pipeline and water filtration site will be placed according to a Topsoil Placement Plan in such a way that they are above the highest ground water level and will be disced or tilled in with the virgin topsoil. 2. Any change in the cultivation practices or use of the property will require reassessment of the ecological risks. 3. Material must not be stored or used near water or wetland areas in such a way that would allow discharge to groundwater or surface water. 4. Material must be stored and managed to prevent nuisance conditions or releases to the environment such as dust, runoff, objectionable odors and unsightliness. 5. Material use must comply with all applicable federal, state, and local regulations.

If you have any questions or concerns, please contact Ryan Lewis (DEQ project manager) by phone at (503) 915-4764, or email at Ryan.Lewis@deq.oregon.gov. DEQ appreciates your cooperation in protecting Oregon's environment.

September 6, 2024

The existing land use approval for the Bull Run Filtration Facility is still under appeal at the Land Use Board of Appeals. DEQ will rescind this BUD if LUBA reverses the county land use approval.

Sincerely,

Audrey O'Brien

Audrey O'Brien, Manager
Northwest Region, Environmental Partnerships

Enclosure: Beneficial Use of Solid Waste Determination Evaluation Report, screening table, response to comments

Cc: Ryan Lewis, PE, DEQ NWR, Ryan.Lewis@deq.oregon.gov
David Peters, PE, PWB, David.Peters@portlandoregon.gov
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Beneficial Use of Solid Waste Determination Evaluation Form

Applicant: Portland Water Bureau
BUD#: 20240418
Solid waste: Contaminated Soils
Date: May 7, 2024 and updated September 6, 2024



State of Oregon
Department of
Environmental
Quality

State of Oregon Department of Environmental Quality

DRAFT Beneficial Use of Solid Waste Determination Evaluation Form

Contact: Ryan Lewis
700 NE Multnomah St., Suite 600
Portland, OR 97232-4100

Applicant: Portland Water Bureau (PWB)	
BUD#: 20240906	
Solid Waste: Contaminated Soils	
Summary of proposed beneficial use: PWB proposes to reuse contaminated soils removed from the surface of the trench excavation for the Bull Run Water Pipeline and soils to be removed from the road widening at the intersection of SE Dodge Park Rd and SE Cottrell. Surface soils from the pipeline construction project do not meet clean fill screening criteria. Soils from the pipeline construction at depths deeper than 1.5 feet do meet clean fill criteria. Soils down to five feet deep from the intersection widening project do not meet clean fill screening values. The contaminated soils are impacted by historical chlorinated pesticide use including dieldrin from past agricultural practices. PWB proposes to reuse the soils in the (1) pipeline trenches as construction fill, (2) reconstructing shoulder surfaces adjacent to roadways, (3) replacing as topsoil as part of trench restoration of farm field per property owner request, and (4) placement at the water filtration plant property as construction fill per BUD 20240402. If the contaminated soil is not reused, the soil will be disposed of at a DEQ approved landfill or site.	
Reviewer: Ryan Lewis	Date: May 7, 2024 and updated September 6, 2024
Tier: <input type="checkbox"/> One <input checked="" type="checkbox"/> Two <input type="checkbox"/> Three	

Beneficial use of solid waste

Beneficial use of solid waste is a sustainability practice that may involve using an industrial waste in a manufacturing process to make another product or using a waste as a substitute for construction materials.

The environmental benefits of substituting industrial waste materials for virgin materials includes conserving energy, reducing the need to extract natural resources and reducing demand for disposal facilities.

Oregon Administrative Rules (OAR) 340-093-0260 - 0290 establish standing beneficial uses and a process for DEQ review of case-specific beneficial use proposals. Under these rules, DEQ may issue a beneficial use determination as an alternative to a disposal permit for proposals that meet the rule criteria. If approved, once a beneficial use determination is issued, DEQ no longer regulates the waste as a solid waste as long as the waste is used in accordance with the approved beneficial use determination.

Beneficial use determination evaluation summary

Yes, the beneficial use of this solid waste meets all the case-specific performance criteria listed below and is approved.

Beneficial Use of Solid Waste Determination Evaluation Form

Applicant: Portland Water Bureau
BUD#: 20240418
Solid waste: Contaminated Soils
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- No, the beneficial use of this solid waste does not meet all the case-specific performance criteria listed below and is not approved.
- The beneficial use of this solid waste is approved for a 1-year demonstration project.

Case-specific beneficial use performance criteria:

DEQ may approve an application for a case-specific beneficial use of solid waste only if all the following performance criteria are addressed:

1. Characterization of the Solid Waste;
2. Productive Beneficial Use of the Solid Waste; and,
3. The effect of the Proposed Beneficial Use on Public Health, Safety, Welfare and/or the Environment.

Did the applicant characterize the solid waste and proposed beneficial use sufficiently to demonstrate compliance with the rules for case-specific beneficial use determinations (OAR 340-093-0280) by submitting required information for the appropriate tier? (See tier sections below for detailed characterization information.)

Yes No

Was the following information submitted for DEQ review and how adequate was it?

Tier 1: **Applicable** **Not applicable**

- Did the applicant provide an adequate description of the material proposed for beneficial use, the manner of generation and the estimated quantity to be used beneficially each year?

Yes No

Notes:

The total estimated volume of contaminated soil for the proposed beneficial use is approximately 32,000 cubic yards (cy), which will be generated over the course of the project for several years during pipeline construction. Approximately 250 cy will be generated during an intersection widening project. PWB proposes to reuse the excavated contaminated soils in the pipeline trenches as construction fill, used to reconstruct shoulder surfaces adjacent to roadways, replaced as topsoil as part of trench restoration of farm field per property owner request, and additionally placed at the water filtration plant property as construction fill per BUD 20240402. During construction, the material will be handled to prevent environmental impacts and comply with the PWB's 1200CA permit requirements until reused. The 1200-CA covers both the filtration facility and the pipeline area. The contaminated soils are the surface soils (0-1.5 feet deep). Deeper soils within the pipeline excavation areas have been identified as meeting clean fill limits. The pipeline excavation also includes an intersection widening construction area where contaminated soil in this intersection do not meet clean fill limits to depths of 5 feet below the surface. The soil quantity of 250 cy is expected to be generated due the intersection widening construction.

The contaminated soil will be managed in one of six methods (1) Placement of excavated soil as nonstructural construction fill within filtration facility according to BUD-20240402, (2) placement within the resulting pipeline trench excavation, (3) placement on the shoulder surfaces immediately adjacent to the roadway as specified by landowner (4) use as topsoil as part of trench restoration of a farm field as specified by landowner, (5) Use of the soil as mine reclamation fill and (6) Use of the soil to be blended with topsoil at the T&K Sester Farm, LLC located in Clackamas County on Parcel No. 00603617, Map and Tax Lot 2S3E03 03302.

Beneficial Use of Solid Waste Determination Evaluation Form

Applicant: Portland Water Bureau
BUD#: 20240418
Solid waste: Contaminated Soils
Date: May 7, 2024 and updated September 6, 2024

PBS Environmental submitted the January 2024 Clean Fill Determination Report (CFDR) prior to the PWB's BUD application. The application presents the data from CFDR of samples using incremental sampling methodology of 4 decision units (DUs), (1) Finished Water North, (2) Finished Water Center, (3) Finished Water South, and (4) SE Dodge Park Boulevard and SE Cottrell Road Intersection. Two samples each were collected for Finished Water North, Finished Water Center, and Finished Water South, one comprising 0-1.5 ft depth and the other from 1.5 ft to 5 ft depth. The Finished Water North had a triplicate sample collected for the shallow 0-1.5 ft depth. The SE Dodge Park Boulevard and SE Cottrell Road Intersection DU sample was collected at a depth of 0 to 5 feet.

The samples were sent for lab analysis for the following contaminants:

- Seventeen Agricultural Metals (antimony, arsenic, barium, beryllium, cadmium, chromium, cobalt, copper, lead, nickel, mercury, molybdenum, selenium, silver, thallium, vanadium, and zinc) by EPA Methods 6000/7000 series
- Organochlorine Pesticides by EPA 8081B
- Organophosphate Pesticides by EPA 8141A
- Chlorinated Acid Herbicides by EPA 8151
- Diesel and Heavy Oil-Range Hydrocarbons by NWTPH-Dx

Pesticides were detected in surface soil samples (0-1.5 feet depths) at concentrations above the Clean Fill Criteria and DEQ Eco Risk for ground feeding birds and mammals. These pesticides include 4,4-DDE, 4,4-DDT, and Dieldrin. Another pesticide, 4,4-DDD was detected in the samples at FWC-DU-1 below clean fill criteria. Samples collected along the pipeline at depths greater than 1.5 feet did not indicate pesticide detections exceeding Clean Fill Criteria. A sample collected at the SE Dodge Park Boulevard and SE Cottrell Road Intersection detected concentrations of pesticides above the clean fill criteria.

Metals were detected below Clean Fill Criteria concentrations in the surface soils (0-1.5 feet depth) and soils at depths from 1.5 feet – 5 feet except for one of the samples collected at 0-1.5 feet depth at Finished Water South which was 28.3 mg/kg. This detection exceeded the Clean Fill Value of 28.0 mg/kg, however is consistent with naturally occurring background levels of lead for the region. Many metals occur naturally in soil and due to soil's heterogeneous nature, can fluctuate in concentration.

DEQ is requiring that all of the soils stored at the water treatment facility property be managed under the 1200-CA requirements until used and be placed under 3 feet of clean fill. If the soils are used at the water filtration plant as construction fill, the soils will be subject to the beneficial use determination requirements of the filtration facility soils set forth in BUD-20240402.

Did the applicant provide an adequate description of the proposed beneficial use and justify how the proposed use is beneficial?

Yes No

Notes:

The proposed beneficial use of the contaminated soil is to reuse excavated soil as non-structural construction fill. Reuse of this soil provides many benefits including limiting trucking emissions and impacts to landfill capacity.

- Did the applicant provide a sufficient comparison of the chemical and physical characteristics of the material proposed for beneficial use with the material it will replace?

Yes No

Notes:

PWB's BUD application includes sampling results for pesticides, herbicides, detected metals from the 17 agricultural

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metals list. Tables 2, 3, 4, and 6 of the application shows the summary of the analytical results from the pipeline and intersection ISM samples (one DU sample at Finished Water North in triplicate). The shallow DUs included depths from 0-1.5 ft and the deeper DUs included depths from 1.5-5 ft. DEQ evaluated and agrees that the samples and analysis for the selected contaminants sufficiently characterize the soil being moved during the PWB Finished Water Pipeline construction process. Clean Fill Criteria and DEQ eco risk exceedances for ISM samples are described above. These values are also compared in the tables to the following risk screening levels:

- DEQ's human health risk-based concentrations (RBCs) for occupational soil ingestion, dermal contact, and inhalation
- DEQ's ecological risk for top consumers birds and mammals (Threatened and Endangered (T&E) and non T&E))
- DEQ's ecological risk for direct toxicity to plants and invertebrates

The metals concentrations are consistent with naturally occurring background levels.

The proposed use of the contaminated soil from the Bull Run Finished Water Pipeline project as either non-structural fill within the filtration facility construction area per the requirements in BUD-20240402, use as trench backfill along the pipeline, shoulder soil grading, as mine reclamation fill or blended with topsoil to grow grass seed and nursery stock as specified meets the beneficial use criteria of being productive and is suitable for use in construction as non-structural fill and trench backfill or as a blended topsoil. The slightly contaminated soil can be used as described in the application and the conditions of this BUD.

As shown in the application, the concentrations for pesticides in the surface soils and within the intersection widening are below human health risk levels. They exceed the T&E and non-T&E eco RBC. The eco RBC pertains to ground feeding birds and mammals and top consumers bird and mammals. The presence of threatened or endangered species that utilize the site is not confirmed or discussed in the application. The exceedances of the non T&E eco risk-based concentrations are addressed by the protective cover outlined in BUD-20240402. The trench pipeline corridor right-of-way and the shoulder soils and the restored trench in the active farm field do not provide a suitable habitat or resources for mammals and birds. The proposed placement and reuse of contaminated soils for non-structural construction fill is not anticipated to adversely affect any plant or wildlife species. If used in a topsoil blend, an ecological risk assessment must be completed that demonstrates that plant or wildlife species will not be adversely impacted.

- Did the applicant successfully demonstrate compliance of the proposed beneficial use with the performance criteria in OAR 340-093-0280 based on knowledge of the process that generated the material, properties of the finished product, or testing?

Yes No

Notes:

The soil is slightly contaminated as discussed above. The contaminated soils have been identified to contain concentrations of pesticides that are above clean fill criteria but below occupational RBCs for soil materials. The reuse of the Finished Water Pipeline soil on the filtration facility construction or offsite at a DOGAMI reclamation site or blended as topsoil for a farm in Clackamas County must follow the requirements as specified in BUD-20240402.

- If required, did the applicant provide any other DEQ required information to evaluate the proposal?

Yes No

Notes:

Not applicable. DEQ did not require additional information.

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Tier 2: **Applicable** **Not applicable**

- Did the applicant submit all the information required for a Tier 1 application?
 Yes No
- Did the applicant submit adequate sampling and analysis to make a determination of suitability for beneficial use? (Note: The analysis must provide chemical, physical, and biological characterization of the material proposed for beneficial use and identify potential contaminants in the material or the end product, as applicable.)
 Yes No

Notes:

DEQ considers the material testing conducted to be adequate. Sample results are discussed above.

- When applicable, did the applicant provide a risk screening comparing the concentration of hazardous substances in the material to existing, DEQ approved, risk-based screening level values, and demonstrate compliance with acceptable risk levels?
 Yes No

Notes:

A comparison to risk screening levels is discussed above. Contaminant concentrations were compared to human health risk screening levels and were found to be sufficiently low for the proposed beneficial uses. The applicant compared contaminant concentrations to ecological risk-based concentrations and is shown in Tables 2, 3, 4 and 6 of the application.

- When applicable, did the applicant supply the location or type of land use where the material will be applied, consistent with the risk scenarios used to evaluate risk?
 Yes No NA

Notes The contaminated soil is proposed for use as non-structural fill at the PWB filtration facility property, as well as within the pipeline trenches as construction fill, reconstructing shoulder surfaces adjacent to roadways, replacing as topsoil as part of trench restoration of farm field per property owner request, use as mine reclamation fill or blended topsoil for a farm in Clackamas County.

- When applicable, did the applicant supply contact information of property owner(s) if this is a site-specific land application proposal, including name, address, phone number, email, site address and site coordinates (latitude and longitude)?
 Yes No NA

Notes: The soil reuse location is identified as tax lots, 1S4E22D -00400, 1S4E22D -00100 for the proposed filtration facility. For the proposed pipeline, primarily within public street right -of-ways and across the following tax lots: 1400 (1S4E23C) 1500 (1S4E23C) 2200 (1S4E23C) 7300 (1S4E22DB) 900 (1S4E21A) 100 (1S4E22BA) 200 (1S4E22BA) 801 (1S4E15C) 800 (1S4E23C). The contact information is:

Robert Fraley
Portland Water Bureau
1120 SW 5th Avenue Rm 405
Portland, OR 97204

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503-319-9207

Robert.Fraley@portlandoregon.gov

- Did the applicant supply an adequate description of how the material will be managed to minimize potential adverse impacts to public health, safety, welfare, or the environment?

Yes No

Notes:

The contaminated soils will be managed so that they will not create an adverse impact on groundwater, surface water, or public health or safety. Contaminated soil material will be stockpiled on site during construction and reused at the project area as non-structural fill. PWB will follow their 1200CA stormwater permit during the entire project until final grade is established and vegetated.

Tier 3: Applicable Not applicable

- Did the applicant submit all the information required for a Tier 1 and Tier 2 application?

Yes No

- Did the applicant provide an adequate discussion of the justification for the proposal?

Yes No

- Is there an estimated length of time that would be required to complete the project, if it is a demonstration?

Yes No

- If it is a demonstration project, are their methods proposed to ensure safe and proper management of the material?

Yes No

2. Productive beneficial use of the solid waste

- Has the applicant demonstrated that the proposed beneficial use is a productive use of the material by providing information substantiating the criteria listed below?

Yes No

Notes: PWB proposes the contaminated soil is reused as non-structural fill at the PWB filtration facility property, as well as within the pipeline trenches as construction fill, reconstructing shoulder surfaces adjacent to roadways, replacing as topsoil as part of trench restoration of farm field per property owner request, as mine reclamation fill or as a blended topsoil on a farm in Clackamas County. The soil meets specifications to be used productively in these situations as non-structural construction fill, reclamation fill or blended topsoil.

- Did the applicant successfully identify or demonstrate a reasonably likely proposed beneficial use for the material that is not speculative?

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Yes No

Notes: See discussion above.

This criterion consists of three parts.

1. Identified use:

Has the applicant clearly stated what the waste is going to be used for, that the waste is compatible with that use and the proposed quantity is necessary?

Yes No

Notes:

PWB estimates that the Bull Run Filtration Project generated 32,000 cubic yards of contaminated soil along the finished water pipeline. 250 cy will be generated during the intersection widening excavation.

2. Reasonably likely use:

Has the applicant identified, with supporting documentation, the timeframe within which this use is likely to occur (e.g., zoning info, master plan for development, letters from local jurisdictions, etc.)?

Yes No

Notes:

The application states that excavation of approximately 32,000 cubic yards of contaminated soil is planned to begin in summer 2024. The applicant expects the excavation to be completed in 2027.

3. Not speculative:

For land application - has this material been used at other sites for the same purpose, is the material feasible for use at this site for this purpose, or has the applicant identified a known potential for this use at this site?

Yes No N/A

For uses other than land application - has the material been used in a product before, is the material feasible for use in a product, or has the applicant identified a known potential for use in this product?

Yes No N/A

- Is the use a valuable part of a manufacturing process, an effective substitute for a valuable raw material or commercial product, or otherwise authorized by the Department and does not constitute disposal?

Yes No

Notes:

This is a substitute for use of clean soil and is proposed to be used for regrading the soil reuse area, backfilling the pipeline trench, and regrading the shoulder areas, use as mine reclamation fill or to be blended with topsoil to grow

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grasses and nursery stock. The reuse of the slightly contaminated soil will also prevent the material from filling valuable space in local landfills and reduce transportation costs.

- Is the use in accordance with applicable engineering standards, commercial standards, and agricultural or horticultural practices?

Yes No

Notes:

The proposed uses of the excavated soils conform and follow standard engineering practices and limit risks posed by the contamination found in the soil.

3. Effect of proposed beneficial use on public health, safety, welfare and/or the environment

Has the applicant demonstrated the proposed beneficial use will not create an adverse impact to public health, safety, welfare, or the environment, by providing information substantiating compliance with the criteria listed in the bullet list below?

Yes No

Notes:

As discussed above, chemical testing of the contaminated soils indicates that the soil reuse area would not pose a risk to people or animals, if reused as described in the application.

- Has the applicant demonstrated that the material is not a hazardous waste under ORS 466.00?

Yes No

Notes:

Contaminant concentrations are below applicable human health and ecological screening levels with the exceptions noted above.

- Has the applicant demonstrated that until the time this material is used according to a beneficial use determination, the material will be managed, including any storage, transportation, or processing, to prevent releases to the environment or nuisance conditions?

Yes No

Notes:

The application states that contaminated soil will be managed at all times to meet the proposed BUD conditions and stormwater permit 1200CA requirements. The reused soil will be managed to prevent, at all times, windblown dust, runoff and soil erosion, releases to the environment or nuisance conditions. The reused soil will be placed away from environmentally sensitive areas to protect waters of the State (such as wetlands, wildlife refuges and parks). PWB will maintain records documenting the amounts of contaminated soil transported to the soil reuse location by year.

PWB will comply with all applicable federal, state, and local regulations when using the material. PWB identifies in the application and will manage the contaminated soil in accordance with the 1200 CA NPDES permit.

- Has the applicant demonstrated that hazardous substances in the material, if any, meet one of the criteria in the bulleted list below?

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Yes No

- Hazardous substances do not significantly exceed the concentration in a comparable raw material or commercial product;
- Hazardous substances do not exceed naturally occurring background concentrations; or
- Hazardous substances will not exceed acceptable risk levels, including persistence and potential bioaccumulation, when the material is managed according to a beneficial use determination.

Notes:

Testing results indicate that the hazardous substances in the contaminated soils do not significantly exceed the concentration in a comparable raw material (soil).

- Has the applicant demonstrated that the proposed beneficial use will not result in the increase of a hazardous substance in a sensitive environment, such as a park, wildlife refuge or wetland?

Yes No

Notes:

The material will not be placed in a sensitive environment. In addition, contaminant concentrations meet clean fill screening levels for most contaminants and exceedances are minor for those above clean fill values.

- Has the applicant demonstrated that the proposed beneficial use will not create objectionable odors, dust, unsightliness, fire, or other nuisance conditions?

Yes No

Notes:

The application states that the reused contaminated soil will be managed in accordance with the procedures and best management practices outlined in the PWB 1200 CA permit.

- Has the applicant indicated that the proposed beneficial use will comply with any other applicable federal, state, and local regulations?

Yes No

4. Public Involvement Evaluation (Note: this is not a beneficial use evaluation criterion)

Determine a public involvement recommendation using the current Guidance to DEQ Solid Waste Program Staff and Managers on Public Notice and Participation.

- Is public notice and participation being recommended for this application?

Yes No

Notes:

DEQ is aware of public interest in the proposed use of the material, posted a Public Notice that included a community public meeting and extended the public comment period until August 8, 2024 to accommodate requests from the community.



Filtration Facility Property and Finished Water Pipeline

Filtration Water Facility Property And Raw Water Connection							
Constituent Name	Concentration Detected in Soil		Screening Level Values				
	Low	High	Oregon Clean Fill	Residential	Occupational	Construction/Excavation Worker	Leaching to Groundwater
Sum DDT ¹	0.01034	0.114	0.0063	1.8	8.2	9.7/270	2.6
Dieldrin	0.00228	0.0366	0.0045	0.034	0.14	1.2/33	0.03
Arsenic ²	<2.63	3.25	8.8	0.43/8.8	1.9/8.8	15	-
Lead	9.96	12.8	28	400	800	800	30

Finished Water Pipeline Alignment							
Constituent Name	Concentration Detected in Soil		Screening Level Values				
	Low	High	Oregon Clean Fill	Residential	Occupational	Construction/Excavation Worker	Leaching to Groundwater
Heavy Oil	<36.6	195	1,100	1,100	14,000	4,600	9,500
Sum DDT ¹	0.00595	0.1533	0.0063	1.8	8.2	9.7/270	2.6
Dieldrin	<0.00197	0.0207	0.0045	0.034	0.14	1.2/33	0.03
Arsenic ²	2.94	4.85	8.8	0.43/8.8	1.9/8.8	15	-
Lead	10	28.3	28	400	800	800	30

Notes:

Analytical data from "Clean Fill Determination Report" for the Bull run Filtration Facility, Gresham Oregon, January 2024.

All concentrations in mg/kg

1 "Sum DDT" represents the sum of detected pesticide chemicals which include DDD, DDE, and DDT. For human health screening levels, the lowest value for the individual chemicals is shown.

2 Human Health clean-up values for arsenic default to background value, since risk-based value is less than background.

Concentrations represent Oregon Background Metals Concentrations in Soil for Portland Basin.

 Highlight indicates high value of concentration detected in Soil exceeds applicable screening level value.

Translation or other formats

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