State of Oregon Department of Environmental Quality

Beneficial Use of Solid Waste Determination

Evaluation Form

Contact: Heather Kuoppamaki
700 NE Multnomah St., Suite 600
Portland, OR 97232-4100

Applicant: Linnton Water Credits, LLC	
BUD#: 20181107	
Solid Waste: Contaminated Soil	
Summary of proposed beneficial use: Reuse as non-residential construction fill, utility trench fill, and/or road base. Note: only non-residential construction fill, utility trench fill, and/or road base coarse uses should be approved.	
Reviewer: Heather Kuoppamaki	Date: 11/8/2018
Tier: ☐ One ☒ Two ☐ 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) 340-093-0280 - 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.

☐ No, the beneficial use of this solid waste does not meet all the case-specific performance criteria listed below and is not approved.

Notes: The proposed material is slightly contaminated soil that will be generated during habitat restoration activities. The request asked that the material be beneficially used for both residential and non-residential construction fill, utility trench fill, and/or road base. Based on the review of the materials included in the application, DEQ has determined that the material meets the requirements to be beneficially used as non-residential construction fill, utility trench fill, and/or road base course but does not meet the requirements for residential construction fill. No deficiencies were identified in the application.

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.

Beneficial Use of Solid Waste Determination Evaluation Form

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1. Characterization of the solid waste

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

Notes: Based on the information provided below, the applicant met this criterion.

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 soil is largely dredged material, will be generated during site redevelopment activities, and will be reused as construction fill, utility trench fill, and/or road base course. The estimated quantity of material to be produced is approximately 50,000 cubic yards.

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

  ☒ Yes ☐ No

  Notes: This is soil going to be used as soil.

- 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: No physical characteristics as this is soil going as soil. The applicant provided analytical data that showed the average concentrations of the soil are below the residential Risk Based Concentrations (RBCs) established by DEQ's Cleanup Program. DEQ agrees that the material is suitable for non-residential fill, utility trench fill, and road base coarse materials. The material should not be approved for residential fill.

- 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: This is soil going as soil.

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

  ☐ Yes ☐ No

  Notes: Not applicable. No additional information required.

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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: The applicant provided analytical data that showed concentrations of contaminants in the soil, on average, were below applicable screening levels. Based on the concentrations of PCBs in the soil, DEQ recommends the soil placement areas be limited to areas where the material will not come into contact with or adversely impact groundwater or surface water.

- 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: Not applicable.

- 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

  Notes: Residential screening levels are the most stringent. The average concentrations in the soil were below the residential screening levels.

- 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

  Notes: Not applicable. The applicant will need to provide a report documenting where the material was used and that the material was used for non-residential fill.

- 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 redevelopment activities at the site will occur under permits from the US Army Corps of Engineers and a DEQ Construction Stormwater Control Permit. Soil intended for off-site reuse will be excavated and directly loaded into trucks and not placed in temporary stockpiles.

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Tier 3: ☐ **Applicable** ☒ **Not applicable**

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:

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

  ☒ Yes ☐ No

- The applicant is a port district and has demonstrated the proposed use is upland placement of dredged material in accordance with Senate Bill 412.

  ☐ Yes ☒ No

  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

  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

  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

     Notes:

- 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:

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

  ☒ Yes ☐ No

  Notes:

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: Average concentrations are below residential RBCs.

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

  ☒ Yes ☐ No

  Notes:

- 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 material will be directly loaded onto trucks and shipped to sites for reuse.

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

  ☒ 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: N/A

- 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:

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

  ☒ Yes ☐ No

  Notes:

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

  ☒ Yes ☐ No

  Notes:

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 issued a public notice on January 17, 2019 requesting public comment on the draft DEQ beneficial use determination for reusing soil excavated from the Linnton Plywood Association Mill. DEQ provided public notice through email and placing the public notice document on DEQ's Public Notices website. The comment period closed at 5 p.m. on February 15, 2019.*

  DEQ received three written comments during the public notice period. DEQ prepared a response to comments document that is included in the approved beneficial use determination. DEQ added one additional condition to the beneficial use determination in response to the comments received. DEQ recommends issuing the beneficial use determination.

State of Oregon Department of Environmental Quality

Response to Comments

Northwest Region
700 NE Multnomah Street, Suite 600
Portland, OR 97232

Summary and Response to Comments to Public Notice for the Proposed Beneficial Use Determination for soil excavated from the Linnton Plywood Association Mill

DEQ issued a public notice on January 17, 2019 requesting public comment on the draft DEQ beneficial use determination for reusing soil excavated from the Linnton Plywood Association Mill. DEQ provided public notice through email and placing the public notice document on DEQ's Public Notices website. The comment period closed at 5 p.m. on February 15, 2019.

DEQ received three written comments during the public notice period. The comments received are provided below, followed by DEQ's response. DEQ has added one additional condition to the beneficial use determination based on these comments.

Comment 1, From: Carol Lane, Engineering Technician II, Portland Water Bureau

> "Hello, I think the beneficial use of the soil is a good idea.
>
> Per the notice, it sounds like the soil is well below levels of concern, however, if it is used for utility trenching it would probably be best to avoid using around potable water pipeline."

DEQ response to comment 1:

DEQ agrees with the comment and has added the following condition to the beneficial use approval: New condition for the beneficial use determination:

> "7. The material may not be placed where it will be in contact with or adversely impact groundwater or surface water or be placed in utility trenches for potable water supply lines."

Comment 2, From: Dorothy Shoemaker

> "I am commenting on the Proposed Beneficial Use Determination for Soil Excavated from the Linnton Plywood Association Mill permit. The permit is for beneficial use of soil dug up at the old Linnton Plywood Mill. I think this was a PRP in the Portland Harbor Superfund cleanup. I am not sure that this is a good way to get rid of the soil, but it might be OK.
>
> The public notice is at this link:
> https://www.oregon.gov/deq/get-involved/documents/021519linnton.pdf
>
> The former LPA site is at 10504 NW St. Helens Rd., Portland, Oregon 97231.

The DEQ is proposing to issue a permit to let the soil be used as non-residential construction fill, utility trench fill, and/or road base course. It is too contaminated with PAHs, arsenic, and lead to use in residential construction. It will be important to reuse the fill carefully, as planned. I notice that the permit allows storing the fill for up to 6 months; it would be better to use it immediately.

The Linnton Plywood Association mill in Portland was quite contaminated. I'm glad to see the cleanup worked on. I see that you think neighbors of the place where the soil is reused may be affected, and I hope that this is not the case."

DEQ response to comment 2:

DEQ does not anticipate reuse of the soil in accordance with the beneficial use determination will impact neighboring properties.

Comment 3, From: Mark Pugh, Project Manager, DEQ

I am managing a project on the Columbia Slough. They want to use the Linnton material to build up their site. The Slough has an issue with PCBs. The accepted "background" level for source control purposes is 10 ug/kg. It looks like the Linnton material averages about 24 ug/kg, which I calculated using ½ detection limits for non-detect. The Clean fill criterion is 200 ug/kg. The potential users of this material are negotiating a settlement agreement for the Slough, which requires they demonstrate source control. The site is not a source of PCBs, but potentially could be if this material was used. A similar scenario would be using this material on (another) Portland Harbor site.

I am not suggesting that this BUD not be issued, but wanted to alert you that clean fill criteria may not always be the relevant criteria for certain types of projects. I will advise the owners of my concern using this material, and they can decide whether they want to proceed with using it.

DEQ response to comment 3:

DEQ has added the following condition to the beneficial use determination in response to this comment:

"7. The material may not be placed where it will be in contact with or adversely impact groundwater or surface water or be placed in utility trenches for potable water supply lines."

Alternative formats

DEQ can provide documents in an alternate format or in a language other than English upon request. Call DEQ at 800-452-4011 or email deqinfo@deq.state.or.us.