

Beneficial Use of Solid Waste Determination Evaluation Form



State of Oregon
Department of
Environmental
Quality

Applicant: Christopher Bozzini, Portland General Electric

BUD#: 20170602

Solid Waste: slightly contaminated dredge material

Summary of Proposed Beneficial Use: On-site use to create upland habitat

Reviewer: Heather Kuoppamaki

Date: 06/19/2017

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: Historic onsite dredge material is being excavating and reused onsite as fill for upland habitat. The historic dredge material will be covered with native clean fill soils. The project has been reviewed by the Portland Sediment Evaluation Team. The site is a restoration project under the Portland Harbor Natural Resource Damage Assessment process.

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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 affect of the Proposed Beneficial Use on Public Health, Safety, Welfare and/or the Environment.

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: The material consists of historic onsite dredge material that is being excavated from onsite and reused as fill to create upland habitat. The dredge material will be covered with native clean fill material.

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: This will be a one-time use of less than 165,000 cubic yards of material.

- Did the applicant provide an adequate description of the proposed beneficial use and justify how the proposed use is beneficial? Yes No

Notes: Yes, the use will be at a restoration site to create upland habitat.

- 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: Dredge material going as 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

- If required, did the applicant provide any other DEQ required information to evaluate the proposal? Yes No NA

Tier 2 Applicable Not applicable

- Did the applicant submit all the information required for a Tier 1 application? Yes No

Notes:

- 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

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the material proposed for beneficial use and identify potential contaminants in the material or the end product, as applicable.) Yes No

Notes: PGE went through the Sediment Evaluation Framework and evaluated re-use of the fill soils.

- 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: Human receptor pathways were deemed potentially complete but insignificant. Some ecological receptor pathways were complete. Plants and invertebrates are not at risk to soil contamination after remediation. Terrestrial and semi-aquatic birds and mammals are at negligible risk of exposure to PAHs and not at risk of exposure to other contaminants of concern after restoration.

- 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: Upland habitat

- 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, e-mail, site address and site coordinates (latitude and longitude)? Yes No NA

Notes: Applicant is the property owner.

- 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 material (historic dredge material generated onsite) will be covered. Risk assessment was performed.

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

Applicant provided plans with grades for creating the upland habitat.

- 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:

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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: The dredge material will be used to create upland habitat as part of a restoration project.

- 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: The material replaces clean fill that would need to be imported.

- 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:

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

Yes No

Notes: Applicant performed testing of the soil for known contaminants of concern.

- 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 immediately placed into the stockpile. Management of the material will be done in accordance with the site's Contaminated Media Management Plan.

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- 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:

- 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 project will excavate material that will be reused as upland fill and capped with native clean fill.

- 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: The SEF team has reviewed the proposal. DEQ will also determine if any additional agencies need to be made aware of this proposed project.

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 & Participation**.

- Is public notice and participation being recommended for this application? Yes No

Notes: The BUD put out for a public comment from November 29, 2017 until January 12, 2018. No comments were received.