

Beneficial Use of Solid Waste Determination Evaluation Form

 <p style="margin: 0;">State of Oregon Department of Environmental Quality</p>	Applicant:		Bud Shoemake, Port of Toledo		
	BUD#:		BUD20111104		
	Solid Waste:		Dredged sediments		
	Summary of Proposed Beneficial Use: Use as fill in upland areas to raise the elevation of the property.				
	Reviewer:		Gene Wong	Date:	November 4, 2011
	Tier:		<input checked="" type="checkbox"/> One <input 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 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:

Bud Shoemake of the Port of Toledo applied for a Tier 1 beneficial use determination. The applicant intends to haul dredged sediments from the Port of Toledo Depot Slough Transit Dock project to an upland location for use as fill material to raise the elevation of the upland property. An estimated 1,800 cubic yards of sediment would be dredged. A composite sample of the sediments indicated that the material had 3 contaminants at concentrations that exceeded clean fill screening standards; therefore, the sediments could not be considered clean fill for unrestricted use based on this analyses. The sediments could be used as fill material with appropriate conditions placed on use/disposal. One of these conditions was to resample the materials after it had been dredged and dewatered to determine if the materials met clean fill standards.

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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:

Information about the dredged sediments was provided to DEQ in documents prepared by Pavitt Land Use Consulting (Port of Toledo’s consultant) to support their Corps of Engineers dredging permit and DEQ’s WQ 401 certification. In brief, the 1,800 cubic yards of dredged sediments will be used as fill material in an upland area to raise the elevation of that property. The sediments have low levels of contaminants; therefore, conditions will be required for beneficial use to prevent environmental impacts.

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:

Information about the dredged sediments was provided to DEQ in documents prepared by Pavitt Land Use Consulting (Port of Toledo’s consultant) to support their Corps of Engineers dredging permit and DEQ’s WQ 401 certification. The material is an estimated 1,800 cubic yards of dredged sediments from the Port of Toledo Depot Slough project. Dredging of this area is expected to be a one-time event.

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

Notes:

The applicant intends to use the dredged sediments as fill material at an upland location to raise the elevation of the property to make the property more usable for development.

- 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:

Dredged dewatered sediment has similar physical properties as clean fill that would be needed to raise elevation of the property. While there are chemical contaminants above clean fill screening criteria, specific conditions for beneficial use (i.e., retesting, cover, institutional controls) have been required to ensure that the materials would not cause detrimental environmental impacts.

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- 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:

N/A

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

Notes:

Not needed

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:

Project plans and submittals for the Port of Toledo Depot Slough dredging project has identified the need for clean fill in the upland area and has also identified the approximate timeframes for sediment dredging, placement, and dewatering. The dredged sediments will be used as fill material for property that requires fill to raise the elevation of the area, thereby making the property more usable for development. If the sediments were not used, the Port of Toledo would have to obtain/purchase clean fill. Dewatered sediments have physical characteristics similar to that of soil, which would have been used as fill.

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

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Notes:

Project plans and submittals for the Port of Toledo Depot Slough dredging project has identified the need for clean fill in the upland area and has also identified the approximate timeframes for sediment dredging, placement, and dewatering.

- 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 dredged sediments will be used as fill material for property that requires fill to raise the elevation of the area, thereby making the property more usable for development. If the sediments were not used, the Port of Toledo would have to obtain/purchase clean fill.

- Is the use in accordance with applicable engineering standards, commercial standards, and agricultural or horticultural practices? Yes No

Notes:

Dewatered sediments have physical characteristics similar to that of soil, which would have been used as fill.

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:

Documents submitted by the Port of Toledo to support the Corps of Engineers dredging permit and DEQ's WQ 401 certification identified plans and procedures that had been prepared for the proper management, hauling, storage, and dewatering of the dredged materials to minimize environmental impact. Additionally, the Port of Toledo submitted analytical results from one composite sample that showed that while the material did not meet clean fill screening criteria, the material was not hazardous waste under ORS 466.00.

- Has the applicant demonstrated that the material is not a hazardous waste under ORS 466.00? Yes No

Notes:

The Port of Toledo submitted analytical results from one composite sample that showed that while the material did not meet clean fill screening criteria, the material was not hazardous waste under ORS 466.00.

- 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:

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Documents submitted by the Port of Toledo to support the Corps of Engineers dredging permit and DEQ's WQ 401 certification identified plans and procedures that had been prepared for the proper management, hauling, storage, and dewatering of the dredged materials to minimize environmental impact.

- Has the applicant demonstrated that the proposed beneficial use will not create objectionable odors, dust, unsightliness, fire, or other nuisance conditions? Yes No

Notes:

Documents submitted by the Port of Toledo to support the Corps of Engineers dredging permit and DEQ's WQ 401 certification identified plans and procedures that had been prepared for the proper management, hauling, storage, and dewatering of the dredged materials to minimize environmental impact.

- Has the applicant indicated that the proposed beneficial use will comply with any other applicable federal, state, and local regulations? Yes No

Notes:

The Port of Toledo continues to work with applicable federal, state, and local agencies to ensure that each agencies' respective regulations and concerns are addressed.