

## MEMORANDUM FOR RECORD

**SUBJECT: RERANKING OF DELTA MARINE INDUSTRIES, DUWAMISH RIVER, SEATTLE, KING COUNTY, FROM HIGH TO LOW-MODERATE.**

1. This memorandum documents the consensus decision by the Dredged Material Management Program (DMMP) agencies (U.S. Army Corps of Engineers, Washington State Departments of Ecology and Natural Resources, and the Environmental Protection Agency) to rerank the Delta Marine Industries project from high to low-moderate.
2. Delta Marine Industries is located on the Duwamish River, approximately 1,500 feet downstream of the upper turning basin. With the exception of the upper turning basin, projects on the Duwamish River were ranked high in 1988 under the Puget Sound Dredged Disposal Analysis program (PSDDA, 1988). As of 2012, projects on the Duwamish River – with the exception of the upper portion of the federal navigation project – still retain a high rank (DMMP, 2008).
3. The DMMP guidelines allow down-ranking of a project after two testing cycles, based on the results from that testing and the use of best professional judgment (DMMP, 2008; PSDDA, 1988). The following chemical guidelines are used for results from partial characterizations, but are generally applicable to any reranking decision:
  - high = any chemical of concern (COC) > maximum level (ML)
  - moderate = one or more COC > (SL + ML)/2
  - low-moderate = one or more COC > screening level (SL)
  - low = all COCs < SL

In addition to this ranking algorithm, the definitions of the various ranks must be considered:

- high = many known chemical sources, high concentrations of COCs and/or significant acute toxicity
  - moderate = chemical and biological data are not available or are incomplete, and some sources of chemicals of concern exist nearby
  - low-moderate = available data indicate a low rank, but there are insufficient data to confirm the ranking
  - low = few or no sources of COCs, data are available to verify low chemical concentrations
4. Dredged material from Delta Marine was characterized under DMMP in 2001 and 2007 (DMMP, 2002; DMMP, 2007). There were no SL exceedances in either testing cycle for any of the standard DMMP COCs. Tributyltin, analyzed in porewater extracted from the dredged material in 2001, was undetected, with the reporting limit below SL. The dredged material also passed toxicity testing in 2001. Archived material from two of the 2007 dredged material management units (DMMUs) was

analyzed for dioxins in 2008, with resulting concentrations of 0.82 and 3.53 parts per trillion (ppt) toxicity equivalents (TEQs).

5. The DMMP agencies considered both the results from the two cycles of sediment characterization and the ranking definitions. The testing results support a down-rank to low, since: a) all COCs were below SL; b) toxicity was not expressed in the bioassays conducted in 2001; and c) dioxin was below the disposal site management objective of 4 ppt TEQ (DMMP, 2010). However, given the number of active sources of contamination that still exist on the Duwamish River, the agencies cannot state with certainty that there are few or no sources of COCs in the area. Therefore, the DMMP agencies used best professional judgment in applying a low-moderate rank to this project.
6. The length of the recency/frequency period is determined by the rank of the project. The recency/frequency period for a high-ranked project is only 2 years, while for a low-moderate rank it is 6 years (DMMP 2008). The Delta Marine project was last sampled in July 2007. Based on the down-rank to low-moderate, the expiration of the recency/frequency period for this project is extended to July 2013. Any dredging and disposal prior to that date will not require sampling and testing.
7. References:

DMMP, 2002. *Determination of the Suitability of Dredged Material Tested under DMMP Evaluation Procedures for Delta Marine Industries Project with Proposed Disposal at the Elliott Bay Open-Water Disposal Site*. Memorandum for Record prepared by the U.S. Army Corps of Engineers Seattle District for the DMMP Agencies. August 2002.

DMMP, 2007. *Determination Regarding the Suitability of Proposed Dredged Material from Delta Marine Industries, Duwamish River, Seattle, King County, for Beneficial Use or Unconfined Open-Water Disposal at the Elliott Bay Nondispersive Site*. Memorandum for Record prepared by the U.S. Army Corps of Engineers Seattle District for the DMMP Agencies. October 2007.

DMMP, 2008. *Dredged Material Evaluation and Disposal Procedures (Users Manual)*. Prepared by the Seattle District Dredged Material Management Office for the Dredged Material Management Program, July 2008.

DMMP, 2010. *Dredged Material Management Program – New Interim Guidelines for Dioxin*. DMMP agencies, December 2010.

PSDDA, 1988. *Evaluation Procedures Technical Appendix – Phase I – Central Puget Sound*. U.S. Army Corps of Engineers Seattle District, U.S. Environmental Protection Agency Region 10, Washington State Department of Ecology, Washington State of Natural Resources. June 1988.

Concur:

The signed document is on file in the Dredged Material Management Office.

\_\_\_\_\_  
Date

\_\_\_\_\_  
David Fox, P.E., Seattle District Corps of Engineers

\_\_\_\_\_  
Date

\_\_\_\_\_  
Erika Hoffman, Environmental Protection Agency

\_\_\_\_\_  
Date

\_\_\_\_\_  
Laura Inouye, Ph.D., Washington Department of Ecology

\_\_\_\_\_  
Date

\_\_\_\_\_  
Celia Barton, Washington Department of Natural Resources

**Copies Furnished:**

DMMP signatories

Jacalen Printz, USACE Regulatory PM

Doug Greason, Delta Marine Industries

DMMO File