

## **DMMP CLARIFICATION PAPER**

### **REGENCY GUIDELINES: PROGRAM CONSIDERATIONS**

Prepared by Lauran Cole Warner, U.S. Army Corps of Engineers, for the DMMP agencies.

#### **INTRODUCTION**

*When did sediment sampling occur? Do the testing results still represent the conditions at the dredge site when dredging takes place?*

These two questions are fundamental to establishing the adequacy of sediment characterization data. "Data recency" guidelines refer to a time threshold for which chemical and biological characterization data remains adequate and valid for determining the suitability of proposed dredged material for open water disposal without further testing. Once the recency threshold is exceeded, the characterization data must be re-examined to determine whether the testing results likely still represent sediment conditions at the project site.

Under current DMMP principles, recency guidelines are tied to area and/or project specific rankings. Rankings are in turn tied to the potential risk (as evaluated by the DMMP agencies) for elevated concentrations of chemicals of concern or adverse biological effects. For high-ranked projects, the recency guidelines allow characterization data to be valid for a period of 2 years. The recency guideline for moderate, low-moderate and low-ranked projects is a period of 5 to 7 years (PSDDA Users Manual, 2000).

There have been several recent examples where project proponents have followed DMMP and regulatory guidelines, but were unable to complete the permit process and dredging within the recency period. This typically has occurred in high ranked areas that are also within areas inhabited by fish protected under the Endangered Species Act. In Puget Sound, protected species include Chinook salmon (*Oncorhynchus tshawytscha*) and bull trout (*Salvelinus confluentus*) that are both listed as "threatened." Additional permit processing time required for consultation under ESA, combined with conservation measures that have limited dredging work windows, have

contributed to instances where it has not been possible to complete dredging within two years after sediment characterization.

## **PROBLEM IDENTIFICATION**

According to original PSDDA documentation (EPTA, PSDDA 1988), the two-year recency period for high-ranked areas was based on the average (and reasonable) time required after initial sampling to complete a dredging project, including permitting and contracting time. Other factors considered included the shoaling and sedimentation rate in Puget Sound waterways, and the degree of change in sediment chemical concentrations that had been observed historically in high-ranked areas. Further, EPTA says:

The recency guidelines do not apply when a known "changed" condition has occurred (e.g., accidental spills or new discharges have occurred since the most recent samples were obtained). The guidelines are also not considered firm rules that cannot be exceeded, but instead are references to assist the regulatory process. In many cases, missing information will require sampling and testing regardless of available data, and exceeding the time guidelines does not invalidate all past data. Instead, follow-up sampling may be sized to the degree of concern presented by past data, as long as these past data were adequately complete relative to chemical and biological analysis.

## **PROPOSED CLARIFICATION**

The DMMP agencies propose no alteration of recency guidelines, as described in EPTA (PSDDA 1988). We do, however, wish to emphasize that the purpose and intent of recency guidelines is to provide a reasonable time frame for which sediment characterization can be considered valid, **without further consideration**. We also wish to clarify that recency guidelines do not apply when a "changed condition" occurs. Recency periods will continue to be evaluated on a project specific basis when permitting requirements do not allow a project to be dredged during the guideline period. When considering whether existing data continue to adequately characterize sediment from a specific project, the agencies will review the following:

**1. Previous characterization data**

- a. To what degree were chemical contamination, toxicity and/or benthic community impacts previously observed?
- b. Do grain size and/or other sediment parameters indicate more or less concern?

**2. New data from dredge site or vicinity**

- a. Does new data yield any information? Are there indications of a stable situation, or of increases or decreases in contamination?
- b. Are there new chemicals of concern in the area?
- c. Is there evidence of changes in source control in the area?

**3. Site use and character**

- a. What are site-specific sedimentation rates?
- b. Have there been any naturally occurring events that could have affected site character? (e.g. floods, earthquakes, droughts etc.)
- c. Have there been remediation or clean-up projects in the area?
- d. Have shipping, dredging, or other projects potentially contributed to a redistribution of contaminants?

Based on this review, the agencies may extend the recency determination for up to double the initial recency period (a maximum of four years total in high concern areas). This extension may be allowed with no additional testing, or may require some level of additional testing, from confirmatory to full characterization. General guidelines the agencies will use to identify appropriate level of resampling include:

- 1. Changed condition** (spill or other unanticipated source) - No recency extension will be allowed without some level of resampling required.
- 2. No new data** - A reason-to-believe analysis will be conducted. In most cases, at least a minimal recharacterization effort will be required. This could be a grain size analysis, a confirmatory grab sampling, or a more thorough characterization, depending on the perceived risk from the previous data and site use and character considerations.
- 3. New data are available** - An attempt will be made to look for trends. If new data indicate improved conditions, then a recency extension without further sampling may be allowed. If new data show worsening conditions (e.g. additional COCs found at levels over SL) then a resampling that targets potential areas of concern will be required.

Project proponents should contact the DMMO if recency guidelines are likely to be exceeded at their project site. Depending on the project area and site complexity, a written proposal to extend the recency period will likely be requested. The proposal should thoroughly evaluate the above variables and suggest a course of action. The DMMP will respond in writing to the request, and provide a recency determination addendum to the original Suitability Determination when results from the analysis and characterization events have been evaluated.

## **REFERENCES**

- DMMP. 2000. Dredged Material Evaluation and Disposal Procedures: A Users Manual for the Puget Sound Dredged Disposal Analysis (PSDDA) Program. February 2000
- PSDDA. 1988. Evaluation Procedures Technical Appendix (EPTA) - Phase I, U.S. Army Corps of Engineers - Seattle District; U.S. Environmental Protection Agency - Region X; Washington State Department of Natural Resources; Washington State Department of Ecology.