

CHAPTER 11

SUBMITTAL OF SAMPLING AND TESTING DATA

11.1 OVERVIEW

Data obtained from a qualified sampling and testing effort will be submitted to the DMMO/DMMT covering the following categories of information:

- < A sediment characterization report, which includes the items described below.
- < Biological and chemical data in the format required for inclusion in the Dredged Analysis Information System.

The Dredged Analysis Information System (DAIS) was developed by Seattle District to manage data generated through the implementation of PSDDA. Within DAIS, an environmental information module manages physical, chemical and biological testing data associated with both dredged material characterization and post-disposal monitoring. An administrative module tracks permit data, suitability determinations, disposal volumes, and cost data.

- < Sampling and testing costs. This information is optional, but it allows the agencies to track program costs and assess the economic impacts of the program. This data is vital in tracking trends in costs and will provide dredging proponents with information useful in planning future dredging. The Corps will include cost information in reports summarizing the annual dredging done in the LCR study area.

11.2 SEDIMENT CHARACTERIZATION REPORT

The sediment characterization report should include the following items:

- < Quality assurance report documenting deviations from the sampling and analysis plan and the effects of quality assurance deviations on the testing results.
- < A plan view showing the actual sampling locations.
- < The sampling coordinates in latitude and longitude.
- < Methods used to locate the sampling positions within an accuracy of \forall 2m.

- < The compositing scheme.
- < The type of sampling equipment used, the protocols used during sampling and compositing
- < The type of sampling equipment used, the protocols used during sampling and compositing and an explanation of any deviations from the sampling plan.
- < Sampling logs with sediment descriptions.
- < Chain-of-custody procedures used, and explanation of any deviations from the sampling plan.
- < Chemical and biological testing results, including quality assurance data
Chemical testing results shall be presented in the same order as the list of chemicals of concern presented in Table 8-1.
- < Explanation of any deviations from the analysis plan.

11.3 QUALITY ASSURANCE/QUALITY CONTROL DATA

In order to facilitate timely decision-making, the QA1 data must be submitted with the sediment evaluation report. The QA2 data may be submitted later, and should be sent directly to the Washington Department of Ecology. Data entered into DAIS will be converted to SEDQUAL format and provided to Ecology for direct import into SEDQUAL. Additional quality assurance data is needed to fully validate the chemical and biological testing data. This includes information such as chromatograms, calibration curves, etc., and is referred to as QA2. The QA2 data may be sent directly to Ecology with a copy of the transmittal letter provided to the DMMO. Requirements for QA2 data have also been compiled and will be furnished to the dredging proponent.

11.4 QA1 Data Checklist

The following checklist can be used to ensure that the data to be submitted is complete.

DATA CHECKLIST

| Sample Locations and Compositing | | | | |
|---|---------------|--------------------|------------------|------------------|
| | Test Sediment | Reference Sediment | Control Sediment | Seawater Control |
| Latitude and Longitude (to nearest 0.1 second) | | | | |
| NAD 1927 or 1983 | | | | |
| Station name (e.g. Carr Inlet) | | | | |
| Water depth (corrected to MLLW) | | | | |
| Drawing showing sampling locations and ID numbers | | | | |
| Compositing scheme (sampling locations/depths for composites) | | | | |
| Sampling method | | | | |
| Sampling dates | | | | |
| Estimated volume of dredged material represented by each DMMU | | | | |
| Positioning method | | | | |
| Sediment Conventionals | | | | |
| Preparation and analysis methods | | | | |
| Sediment conventional data and QA/QC qualifiers | | | | |
| QA qualifier code definitions | | | | |
| Triplicate data for each sediment conventional for each batch | | | | |
| Units (dry weight except total solids) | | | | |
| Method blank data (sulfides, ammonia, TOC) | | | | |
| Method blank units (dry weight) | | | | |
| Analysis dates (sediment conventionals, blanks, TOC CRM) | | | | |
| TOC CRM ID | | | | |
| TOC CRM analysis data | | | | |
| TOC CRM target values | | | | |
| Grain Size Analysis | | | | |
| Fine grain analysis method | | | | |
| Analysis dates | | | | |
| Triplicate for each batch | | | | |
| Grain size data (complete sieve and phi size distribution) | | | | |

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 Evaluation Framework

| Chemicals of Concern Analysis Data | | | | |
|--|--------|----------|------------|-----------|
| | Metals | Semivol. | Pest./PCBs | Volatiles |
| Extraction/digestion method | | | | |
| Extraction/digestion dates (test sediment, blanks, matrix spike, reference material) | | | | |
| Analysis method | | | | |
| data and QA qualifier included for: | | | | |
| test sediments | | | | |
| reference materials including 95% confidence interval (each batch) | | | | |
| method blanks (each batch) | | | | |
| matrix spikes (each batch) | | | | |
| matrix spike added (dry weight basis) | | | | |
| replicates (each batch) | | | | |
| Units (dry weight) | | | | |
| Method blank units (dry weight) | | | | |
| QA/QC qualifier definitions | | | | |
| Surrogate recovery for test sediment, blank, matrix spike, ref. material | | | | |
| Analysis dates (test sediment, blanks, matrix spike, reference material) | | | | |



Shaded areas indicate required data