State of Alaska

DEPARTMENT OF ENVIRONMENTAL CONSERVATION

DIVISION OF SPILL PREVENTION AND RESPONSE

CONTAMINATED SITES PROGRAM

DREDGE MATERIAL GUIDANCE

JUNE 2013

PURPOSE

This guidance informs the U.S. Army Corps of Engineers (USACE), municipalities, contractors and other stakeholders of ADEC regulations that are pertinent to dredging projects within the State of Alaska. The guidance also explains how the Storm Water and Wetlands Section (Division of Water), Solid Waste Program (Division of Environmental Health), and Contaminated Sites Program (Division of Spill Prevention and Response) coordinate during dredging or harbor expansion projects.

ISSUE SUMMARY

Sediment dredging projects adjacent to docks and in harbors, channels, and other locations require coordination with ADEC to: 1) ensure the requirements of 18 AAC 60 (Solid Waste Regulations), 18 AAC 70 (Water Quality Standards), and 18 AAC 75 (Oil and Hazardous Substance Regulations) are met; and 2) move the project forward in an efficient and cost-effective manner.

Dredge material is often disposed of at designated in-water disposal locations. The USACE evaluates sediment sampling results to determine whether in-water disposal is appropriate under the Clean Water Act (CWA). In these instances a Certificate of Reasonable Assurance is required under Section 401 of the CWA and in accordance with 18 AAC 15 when the disposal is within the territorial waters of the U.S. A 401 Certification is also required for the dredging activity itself. If in-water disposal is approved under Section 401 of the CWA, approval from the Solid Waste and Contaminated Sites (CS) programs is not necessary.

Uplands disposal is potentially regulated under both 18 AAC 60 and 18 AAC 75. If pre-dredge sampling indicates concentrations of chemicals or metals are present above the most stringent cleanup levels found in Tables B1 and B2 of 18 AAC 75.345, the material is considered "polluted soil" under 18 AAC 60 and a solid waste disposal permit or plan approval will be necessary if the dredge material is permanently placed into a landfill (new or existing). If the only constituents that exceed cleanup levels are metals, USACE, the municipality conducting the dredging operation, and/or the property owner of the upland disposal location must work with CS to collect representative soil samples at the proposed disposal location to evaluate background concentrations of metals relative to the levels in the material being disposed. If the background concentrations are equal to or greater than those within the dredge material, no solid waste authorization will be required.

If the dredge material is proposed to be incorporated into a beneficial re-use project (i.e., roadbed fill), or the disposal is associated with an approved cleanup plan at an existing contaminated site, a Letter of Non Objection should be obtained from the Solid Waste and CS programs. Solid Waste program authorization other than a disposal permit may be required for beneficial re-use projects utilizing non-exempt dredge material.

ADEC INTERNAL COORDINATION

1. The Water Division will serve as the department's initial point of contact for all dredging project proposals and will coordinate with other state and federal agencies as necessary. Water staff will forward all dredging proposals to the Solid Waste and CS programs for review. If the project is within the boundaries of an existing contaminated site, Water and CS will work together to determine which Division will retain the lead and which standards to apply. If the project is deemed a de-facto remedy under 18 AAC 75, CS will assume the lead and Water staff will be retained in a technical advisory capacity. For example, although a 401 Certification is not required for a contaminated site remedy, Water may assist with identifying best management practices to minimize sediment disturbance during the dredging operation.

   Water or CS (depending on whether the project is within the boundaries of an existing contaminated site) will work with the project applicant to determine the preferred disposal or re-use option early in the planning phase. If in-water disposal is the preferred option, the USACE Tier 1 criteria (total volatile solids and grain size), or other ecological risk criteria, may be applicable. For projects within the boundaries of an existing contaminated site, CS will not require additional chemical testing if in-water disposal is proposed unless the applicable criteria are exceeded or there is a compelling reason to require additional sampling.

2. For projects not affiliated with an existing contaminated site, Water will contact Solid Waste and CS if either uplands disposal or beneficial re-use is planned. Solid Waste will make a determination at this point as to whether 18 AAC 60 regulations apply. If so, Solid Waste and CS will work together to determine analytical chemistry needs. Solid Waste may also require a toxicity characteristic leaching procedure (TCLP) analysis to determine if the material is considered hazardous. If the dredge material meets 18 AAC 60 exemption criteria, Solid Waste may terminate its involvement and defer to Water and CS to determine analytical requirements.

3. Metals concentrations in sediment proposed for upland disposal under Solid Waste regulations will be compared to naturally occurring background metals concentrations at the proposed disposal site and to 18 AAC 75 Table B1 cleanup levels. Dredge material will be considered polluted under 18 AAC 60 if metals concentrations exceed cleanup levels but will be exempt from permitting requirements if the metals concentrations are below background concentrations at the proposed upland disposal site. However, CS may require site controls if the risk from potential exposure is increased. For instance, dredge material placed at the surface may cause risk through the inhalation of fugitive dust from the disposal area. In this case, CS may require re-vegetation, dust abatement, or other measures to control potential exposure.

4. Metals concentrations in sediment proposed for beneficial re-use and not regulated by Solid Waste will be compared to naturally occurring background metals concentrations at the proposed re-use location and to 18 AAC 75 Table B1 cleanup levels. Site-specific (Method 3) cleanup levels may also be considered. Depending on the contaminant concentrations in the dredge material, a new beneficial re-use location, alternate plan, or remedial action may be required. This may occur if dredge metals concentrations exceed applicable cleanup levels and

no adequate, long-term measures can be implemented to ensure that contaminants will not migrate and that human and ecological receptors will not be exposed.

5. If the disposal site is regulated under 18 AAC 60, a human health cumulative risk determination will not be required. Water and CS will evaluate whether a cumulative risk determination is necessary for beneficial re-use sites.
6. Beneficial re-use sites with sediment concentrations exceeding 18 AAC 75 Table B1 cleanup levels may require listing on the CS database and tracked to ensure that controls remain protective over time. CS will make this determination on a project-specific basis.
7. Dredge maintenance projects may occasionally lead to the listing of the dredge area as a new contaminated site. For example, analytical chemistry results may show high potential risk to ecological receptors when screened against ecological benchmark values. Depending on contaminant type, site location, the estimated volume of contaminated sediment remaining, etc. a new site listing may be necessary. CS staff will draft a listing recommendation for management review in these instances.
8. DEC staff time is considered cost-recoverable under Alaska statute for projects within the boundaries of a contaminated site. Affected programs will work together to pursue funding options for non-cost recoverable technical assistance on a project-specific basis if it appears significant staff time (more than a few hours) will be required.

AUTHORITY

18 AAC 15 (Administrative Procedures), 18 AAC 60 (Solid Waste Regulations), 18 AAC 70 (Water Quality Standards), 18 AAC 75 (Oil and Hazardous Substance Regulations)