Section 404(b)(1) Guidelines for the Evaluation
of the Disposal of Dredged or Fill Material
40 CFR Part 230
Aquatic Ecosystem Restoration, Chester Creek, Anchorage, Alaska
Alternative 2

SUBPART A - GENERAL

Dredged or fill material should not be discharged into the aquatic ecosystem unless it can be demonstrated that such a discharge will not have an unacceptable adverse impact, either individually or in combination with known and/or probable impacts of other activities affecting the ecosystems of concern.

The Guidelines were developed by the Administrator for the Environmental Protection Agency (EPA) in conjunction with the Secretary of the Army acting through the Chief of Engineers under Section 404(b)(1) of the Clean Water Act (33 U.S.C. 1344). The Guidelines are applicable to the specification of disposal sites for discharges of dredged or fill material into waters of the United States (U.S.).

In evaluating whether a particular discharge site may be specified, the following steps should generally be followed: (a) review the restriction on discharge, the measures to minimize adverse impacts, and the required factual determinations; (b) examine practicable alternatives to the proposed discharge; (c) delineate the candidate disposal site; (d) evaluate the various physical and chemical components; (e) identify and evaluate any special or critical characteristics of the candidate disposal site and surrounding areas; (f) review factual determinations to determine whether the information is sufficient to provide the required documentation or to perform pre-testing evaluation; (g) evaluate the material to be discharged to determine the possibility of chemical contamination or physical incompatibility; (h) conduct the appropriate tests if there is a reasonable probability of chemical contamination; (i) identify appropriate and practicable changes in the project plan to minimize the impact; and (j) make and document factual determinations and findings of compliance.

SUBPART B - COMPLIANCE WITH THE GUIDELINES

The proposed Chester Creek Aquatic Ecosystem Restoration project will involve discharges of fill material into coastal salt marsh and tidal mud flats and open water emergent marsh wetlands, in order to dredge a fish passage channel from Cook Inlet to Westchester Lagoon and secondarily create, with the dredged material, bird islands in Westchester Lagoon. A description of the proposed action and alternatives considered can be found in sections 3.7 and 4 of *the Chester Creek Aquatic Ecosystem Restoration Report and Environmental Assessment, Anchorage, Alaska*. There are no practicable alternatives to the proposed discharge (Alternative 2) that would accomplish the project's purpose and need and not result in a discharge into a water of the U.S. or have a less

adverse impact on the aquatic ecosystem. Therefore, the proposed action is the least damaging practicable alternative.

As determined in Subparts C through G of this evaluation and as discussed in section 3.8 of the above restoration report, the proposed project will not contribute to significant degradation of the waters of the U.S. including adverse effects on human health or welfare, life stages of aquatic life and other wildlife dependent on aquatic ecosystems, aquatic ecosystem diversity, productivity and stability, and recreational, aesthetic, and economic values. In addition, the discharge of fill materials associated with the proposed action as part of the restoration project, will benefit the environment as discussed in section 3.9 of the report. The action will comply with the requirements of the guidelines with the inclusion of appropriate and practicable discharge conditions (see Subpart H below) to minimize pollution and adverse effects to the affected aquatic ecosystems.

SUBPART C - POTENTIAL IMPACTS ON PHYSICAL AND CHEMICAL CHARACTERISTICS OF THE AQUATIC ECOSYSTEM

Applicable information about direct, indirect and cumulative environmental impacts of the proposed action and alternatives related to substrate, suspended particulates/turbidity, water, current patterns and water circulation, and normal water fluctuations is contained in sections 3.8 of the report. Adverse impacts to these characteristics are expected to minimal. The action will benefit fish and bird habitat by returning the wetlands area to a more natural condition. There will be minimal water column effects caused by the excavations and creation of bird islands. Much of the area will be constructed during low tides or when the lagoon is de-watered. Conditions would return to normal after project completion.

SUBPART D - POTENTIAL IMPACTS ON BIOLOGICAL CHARACTERISTICS OF THE AQUATIC ECOSYSTEM

Pertinent information about direct, indirect, and cumulative impacts of the proposed action and alternatives related to threatened and endangered species, fish, aquatic organisms, and other wildlife are contained in sections 3.8 and 3.9 of the report. The affects resulting from the discharge of dredged and/or fill materials are expected to be beneficial to fish and wildlife by returning the area to a more natural condition. Aquatic invertebrates will be disturbed by the dredging but would be expected to re-colonize.

SUBPART E - POTENTIAL IMPACTS ON SPECIAL AQUATIC SITES

Special aquatic sites that will be affected by the proposed project are coastal marsh and tidal mud flats, and fresh water wetlands. Discussions about impacts on functions and values associated with wetlands are found in section s 3.8 of the report. Anticipated ecosystem benefits are discussed in section 3.9. Wetlands and water quality would benefit by returning the area to a more natural condition.

SUBPART F - POTENTIAL EFFECTS ON HUMAN USE CHARACTERISTICS

Human use characteristics affected by the proposed project include fisheries, water quality, aesthetics, and recreation areas. Pertinent information about potential impacts of the proposed work on human use characteristics can be found in sections 3.8 and 3.9 of the report. Anticipated impacts are expected to be temporary construction noise and disturbances to nearby residents. Once the construction is completed residents and other Anchorage residents will have increased recreational enjoyment of the restored habitats and accessibility to the area.

SUBPART G - EVALUATION AND TESTING

The potential for encountering hazardous wastes is not expected.

Based on these discussions, the likelihood of materials to be discharged containing contaminants is remote. Therefore, the discharge materials meet testing exclusion criteria.

SUBPART H - ACTIONS TO MINIMIZE ADVERSE EFFECTS

Construction methods and timing windows would follow Alaska Department of Fish and Game recommendations to minimize disturbances to birds, fish and water column effects.