Environmental Resources Section

Public Notice

Alaska District
U.S. Army Corps of Engineers

Date: 01 April 2015 Identification No.ER-15-06
Please refer to the identification number when replying.

The U.S. Army Corps of Engineers (Corps) has prepared a supplemental environmental assessment (EA) and finding of no significant impact (FONSI) for the following project:

Modification of Dredging Quantities
Annual Maintenance Dredging
Nome Harbor, Alaska

The Corps proposes to modify the annual maintenance dredging program at Nome Harbor. The Corps has identified a need to substantially increase dredged quantities in certain years from those described in the 2012 EA in order to maintain Federal project design depths. Currently, the Corps proposes to dredge a total of 272,500 cubic yards over a 2-year period, starting in 2015. The additional dredged material will be deposited for beach nourishment in the same placement area that has been used for maintenance dredging.

The proposed project and potential environmental impacts are described in the enclosed supplemental EA, which is available for public review and comment for 15 days (comment period ends 17 April 2015). It may be viewed on the Alaska District's website at: www.poa.usace.army.mil. Click on the Reports and Studies button, look under Documents Available for Public Review, and then click on the Operations and Maintenance link.

To obtain a printed copy, please send a request via email to: Christopher.B.Floyd@usace.army.mil or send a request to the address below. The FONSI will be signed upon review of comments received and resolution of significant concerns. Please submit comments regarding the proposed action to the above email or to the following address:

U.S. Army Corps of Engineers, Alaska District
ATTN: CEPOA-PM-C-ER
P.O. Box 6898
Joint Base Elmendorf-Richardson, Alaska 99506-0898

Notice is hereby given that the Corps will be applying for State Water Quality certification from the Alaska Department of Environmental Conservation (ADEC). ADEC may certify there is a reasonable assurance this proposed action and any discharge that might result will comply with the Clean Water Act, Alaska Water Quality Standards, and other applicable State laws. ADEC's certification may authorize a mixing zone and/or a short-term variance under 18 AAC 70. ADEC may also deny or waive certification.

Any person desiring to comment on this proposed action with respect to water quality certification may submit written comments to ADEC at the address below within 15 days from the date on this public notice.

Alaska Department of Environmental Conservation
WQM/401 Certification
555 Cordova Street
Anchorage, AK 99501-2617
Telephone: (907) 269-7564
FAX (907) 269-7508

For information on the proposed project, please contact Chris Floyd of the Environmental Resources Section at the above email or Corps postal address.

for

Michael D. Noah
Chief, Environmental Resources Section

US Army Corps of Engineers
Alaska District

SUPPLEMENTAL ENVIRONMENTAL ASSESSMENT AND FINDING OF NO SIGNIFICANT IMPACT

Modification of Dredging Quantities
Annual Maintenance Dredging
Nome Harbor, Alaska

March 2015

FINDING OF NO SIGNIFICANT IMPACT

Modification of Dredging Quantities
Annual Maintenance Dredging
Nome Harbor, Alaska

Due to greater than expected shoaling and increasing contractor costs, the annual maintenance dredging at Nome Harbor has not achieved the authorized project depths described in the 2012 environmental assessment (EA). As described in the attached supplemental EA, the Corps will need to substantially increase annual dredging quantities in certain years, where funding for increased dredging activity is available, in order to maintain Federal project depths. The Corps currently proposes to dredge a total of 272,500 cubic yards over a 2-year period, starting in 2015. An average of 136,250 cubic yards per year in 2015 and 2016 is about four times the 34,000 cubic yard annual dredging rate projected in the 2012 EA.

This action has been evaluated for its effects on several significant resources, including fish and wildlife, wetlands, threatened or endangered species, marine resources, and cultural resources. The action has also been coordinated with major resource agencies. No significant short-term or long-term adverse effects were identified.

This Federal action complies with the National Historic Preservation Act, the Endangered Species Act, the Clean Water Act, the Magnuson-Stevens Fishery Conservation and Management Act, and the National Environmental Policy Act. The completed supplemental EA supports the conclusion that the action does not constitute a major Federal action significantly affecting the quality of the human and natural environment. An environmental impact statement is therefore not necessary for the maintenance dredging.

_____ _____

Christopher D. Lestochi DATE
Colonel, Corps of Engineers
District Commander

SUPPLEMENTAL ENVIRONMENTAL ASSESSMENT

Modification of Dredging Quantities
Annual Maintenance Dredging
Nome Harbor, Alaska

1. Introduction. In October 2012, the Alaska District, U.S. Army Corps of Engineers (Corps) published and submitted for public review an environmental assessment (EA) and finding of no significant impact (FONSI) describing a program of annual maintenance dredging within the harbor entrance channel and basin at Nome, Alaska. The Federal project at Nome Harbor includes 3,950 linear feet of channel that must be dredged to maintain authorized project depths ranging from -22 feet below mean lower low water (MLLW) to -10 feet MLLW. Littoral transport and storms deposit large quantities of marine sediment within the channel, and the Federal project must be dredged annually to maintain safe access to the harbor. The maintenance dredging quantities were described in the 2012 EA as 50,000 cubic yards of sediment to be removed in 2013, then approximately 34,000 cubic yards each subsequent year through 2022.

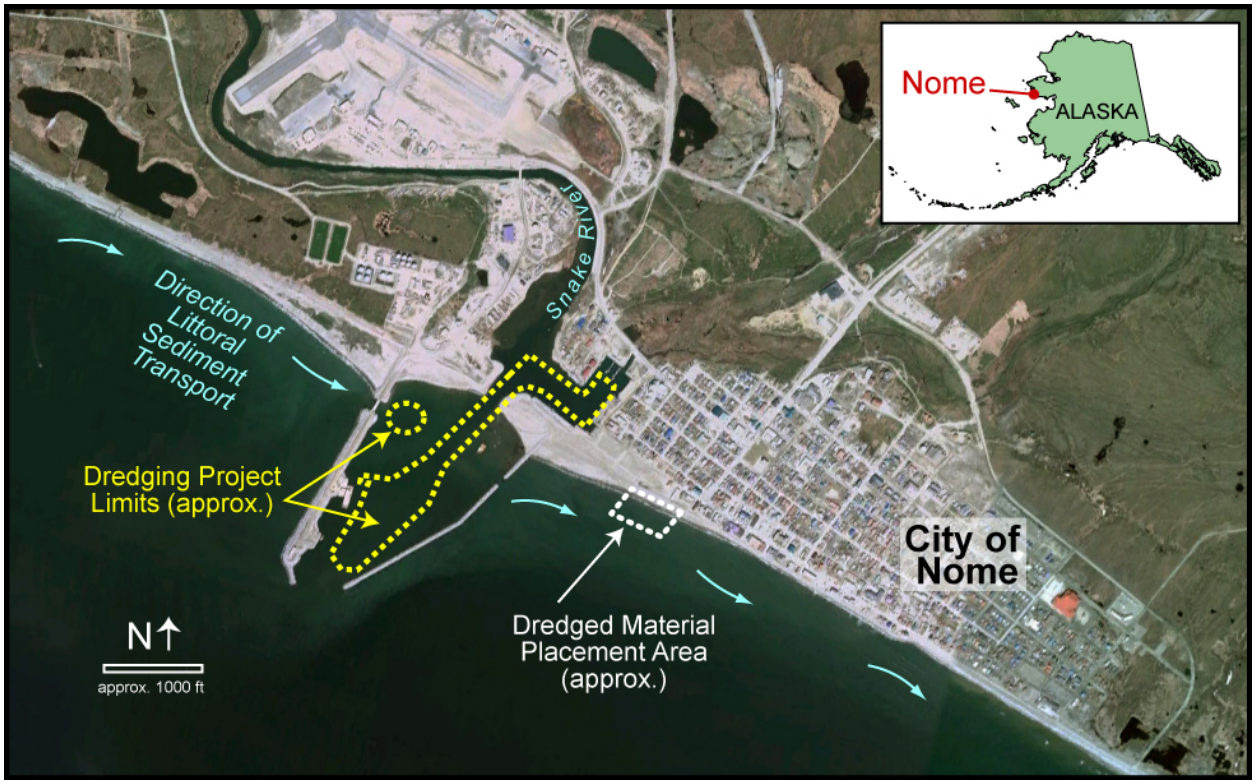

Figure 1. Location and vicinity of Nome Harbor dredging project features.

Maintenance dredging at Nome has been typically performed using a hydraulic cutter-head dredge with a pipeline to transport the dredged material to the placement site. Since 2009, the Corps has successfully placed dredged material from the channel on the shoreline east of the breakwater for beach nourishment. This helps replace sediment partially blocked from the area by the causeway and breakwater, and substantially increases the width of protective beach along the foot of the rock seawall that extends east along the Nome waterfront. The Corps plans to continue using this dredged material placement strategy during the period 2013 through 2022.

2. Modifications to 2012 EA Activities. Due to greater than expected shoaling and increasing contractor costs, the annual maintenance dredging at Nome Harbor has not achieved the authorized project depths described in the 2012 EA. The Corps will need to substantially increase annual dredging quantities in certain years, where funding for increased dredging activity is available, in order to maintain Federal project depths. The Corps currently proposes to dredge a total of 272,500 cubic yards over a 2-year period, starting in 2015. An average of 136,250 cubic yards per year in 2015 and 2016 is about four times the 34,000 cubic yard annual dredging rate projected in the 2012 EA.

3. Existing Conditions. Existing environmental conditions in the Nome harbor maintenance dredging area are not known to have changed substantially since preparation of the 2012 EA, and the evaluations of existing conditions in that document (USACE 2012) are adopted here by reference.

Since the 2012 EA was prepared, additional information on marine and harbor sediment chemistry at Nome has been obtained (USACE 2014). The Corps collected sediment samples from 23 locations within Nome Harbor, the Snake River, and along the Norton Sound shore west and east of Nome Harbor in 2013. The results showed that arsenic concentrations (a long-time concern for Nome inner harbor sediment) in sediment from the dredged material placement site and farther east along the shore were not significantly different than concentrations in shoreline samples taken west of the harbor. This finding showed that the annual maintenance dredging and beach placement has not been influencing marine sediment arsenic concentrations to any measureable degree.

4. Environmental Consequences. Given the success of the dredged material beach placement program to-date, the persistent west-to-east littoral flow, and relatively simple hydrogeography of the shoreline at Nome, the Corps projects that the proposed temporary four-fold increase of dredged material deposited in a year will behave in much the same manner as past annual dredging quantities. The material is expected to disperse rapidly along the shoreline to the east, further widening the beach at the toe of the seawall, and perhaps extending the widened beach farther to the east. The widening of the beach would likely be temporary, shrinking back to its current extent within a year or two when the annual maintenance dredging returns to its regular quantities.

The Corps determines that the proposed modification to the dredging activities will not change the effects on any physical, biological, or cultural resources evaluated in the 2012 EA.

5. Monitoring. The Corps directs its contractor to conduct bathymetric surveys of Nome Harbor before and after each season of annual maintenance dredging. These surveys include beach profiles running perpendicular to shore. Previously, the beach profiles have extended from west of the harbor to the placement area east of the harbor. In order to better monitor the spread of dredged material from the placement site and down the shoreline, the Corps intends to add six additional beach profiles to the east of the placement area, spaced 1,000 feet apart and extending 5,500 feet east from the dredged material placement area. These eastward beach profiles may be adjusted in the future as the behavior of the dredged material is assessed further.

6. Cumulative Impacts: The proposed port expansion at Nome intends to use the same beach placement area as is used for annual maintenance dredging, depositing about 441,000 cubic yards of material dredged to create deeper draft access to an expanded outer channel (USACE 2015). The information gained from the proposed increased rate of maintenance dredging will be useful in managing the larger volume of dredged material from the proposed port expansion project.

7. Regulatory Coordination. The Corps notified the major resource agencies of the planned increase in dredging quantities, and solicited their input prior to the preparation of this supplemental EA.

Alaska Department of Fish & Game (ADFG): The ADFG responded by issuing a new amendment to the project's existing Fish Habitat Permit (FHP), FH13-III-0027, Amendment #3; this amendment was issued 11 March 2015 and expires 31 December 2022. The amended FHP primarily addresses the Corps' request for changes to existing operational windows protective of migrating fish in order to allow more time to conduct the additional dredging. The amendment states, "Within the harbor and entrance channel, dredging will commence annually from as soon as practicable after the ice goes out through June 30. Within the breakwater [i.e., the outer channel between the breakwater and causeway – ed.] there is no closed period for dredging. Also, when necessary to increase the rate of dredging within the harbor and entrance channel numerous dredges may operate consecutively subject to the following stipulation: Dredging within and at the mouth of the entrance channel shall be conducted in a manner that will either allow for continuous free passage of fish or dredging for only a 12-hour period per 24 hours."

U.S. Fish and Wildlife Service (USFWS): In an email dated 27 March 2015, Jewel Bennett of the USFWS Fairbanks Office stated that the USFWS did not have concerns that the proposed additional dredging would affect Endangered Species Act listed species during the typical dredging season, or concerns for fishery issues that have not already been addressed by ADFG.

National Marine Fisheries Service (NMFS): In a 30 March 2015 telephone conversation, John Olson of the NFMS Habitat Division stated that the NMFS did not have specific concerns about

the proposed increased maintenance dredging at this time, but was keeping an eye on future developments at Nome Harbor as a whole, and welcomed additional coordination and research efforts between the NMFS and the Corps.

Alaska Department of Environmental Conservation (ADEC). The ADEC Division of Water was informed of the proposed increase in discharge rates. In an email dated 24 March 2015, James Rypkema stated that his office could issue a revised Certificate of Reasonable Assurance under Section 401 of the Clean Water Act (CWA). The Corps has prepared a revised CWA Section 404(b)(i) evaluation (attached).

The Corps determines that the proposed modification in dredging quantities is in compliance with all applicable laws and regulations.

8. References

Alaska Department of Fish and Game (ADFG). 2015.

U.S. Army Corps of Engineers. 2012. Environmental Assessment and Finding of No Significant Impact, Maintenance Dredging, Nome Harbor Entrance Channel, Nome, Alaska. October 2012.

USACE. 2014. Memorandum CEPOA-EN-EE dated 10 April 2014, subject: Trip Report with Chemical Findings and Metals Background Analysis, Nome Small Boat Harbor, Nome, Alaska (13-084).

USACE. 2015. Draft Integrated Feasibility Report, Draft Environmental Assessment (EA), and Draft Finding of No Significant Impact (FONSI), Alaska Deep-Draft Arctic Port System Study. February 2015.

U.S. Fish and Wildlife Service (USFWS). Email message from Jewel Bennett dated 27 March 2015, subject: RE: Nome Harbor maintenance dredging – increased volumes in 2015, 2016.

ATTACHMENT 1

404 (b)(1) Evaluation

EVALUATION UNDER SECTION 404(b)(1)
of the CLEAN WATER ACT

Modification of Dredging Quantities
Annual Maintenance Dredging
Nome Harbor, Alaska

This is the factual documentation of evaluations conducted under the auspices of Section 404 of the Clean Water Act of 1977. This report covers the annual maintenance dredging of the harbor entrance channel, sediment traps, and inner north harbor at Nome, Alaska, and the placement of materials dredged from those areas. The harbor at Nome was originally authorized by the Rivers and Harbors Act of 1917 as adopted by Public Law No. 37. The current configuration, completed in 2006, was authorized under the Water Resources Development Act of 1999.

I. PROJECT DESCRIPTION

A. Location: The project is located in and adjacent to the harbor at Nome, Alaska.

B. General Description: The current harbor consists of an approximately 3,000-foot-long entrance channel protected by a causeway on the west side and a breakwater to the east, leading to an inner harbor basin. The causeway and breakwater are breached to allow fish passage; the breach in the causeway is flanked by sediment traps to slow the shoaling of the entrance channel. Littoral (long-shore) transport and storms bring in large quantities of sediment moving generally from west to east, and the Federal project must be dredged annually. From 2006 to 2011, 20,000 to 49,595 cubic yards were dredged each year to maintain the Federal project depths. Sediment build-up is heaviest in the outer portions of the entrance channel, and relatively light to moderate in the inner harbor basin. The Snake River, which empties into the inner harbor, is thought to carry relatively little sediment into the harbor and entrance channel each year compared with the volume of marine sediment deposited.

In October 2012, the Alaska District U.S. Army Corps of Engineers (Corps) published and submitted for public review an environmental assessment (EA) and finding of no significant impact (FONSI) describing a program of annual maintenance dredging within the harbor entrance channel and basin at Nome, Alaska. The maintenance dredging quantities were described in the 2012 EA as 50,000 cubic yards of sediment to be removed in 2013, then approximately 34,000 cubic yards each subsequent year through 2022.

However, due to greater than expected shoaling and increasing contractor costs, the annual maintenance dredging at Nome harbor has been falling behind the dredging goals described in the 2012 EA. The Corps will need to substantially increase annual dredging quantities in certain years, where funding for increased dredging activity is available, in order to maintain Federal project depths. The Corps currently proposes to dredge a total of 272,500 cubic yards over a 2-year period, starting in 2015. An average of 136,250 cubic yards per

year in 2015 and 2016 is about four times the 34,000 annual dredging rate projected in the 2012 EA.

Since 2009, the Corps has been placing dredged material from the harbor along the shoreline east of the breakwater for beach nourishment, helping replace sediment partially blocked from the area by the causeway and breakwater. This placement of dredged material has substantially increased the width of beach along the foot of the rock seawall protecting the city shoreline. Previously, two in-water disposal sites authorized by the U.S. Environmental Protection Agency (EPA) under Section 102 of the Marine Protection, Research, and Sanctuaries Act (MPRSA) have been used for disposal. These two disposal areas flanked the former entrance channel and extended several thousand feet seaward. The EPA prepared an environmental impact statement to assess the impacts of using these disposal sites, and a Record of Decision was signed in 1992 authorizing the use of these sites for the disposal of dredged material for a 10-year period.

C. Authority: The authority and purpose of the project are discussed above.

D. General Description of Dredged or Fill Material: The material to be dredged from the Federal project is mostly marine material carried into the project area by the littoral transport process and storm surge; the Snake River is believed to discharge relatively little sediment (estimated at less than 400 cubic yards) into the harbor basin on an annual basis. The marine sediments are primarily sand and gravel; material from the basin may include sandy silt.

Previous sampling and chemical analysis of harbor sediments at Nome has shown little indication of significant human generated chemical contamination. However, notably high concentrations (up to 200 mg/kg) of arsenic have been reported regularly in sediment samples from the area. The State of Alaska has not established marine sediment standards, but the Alaska District has historically used a sediment screening level of 57 mg/kg (adopted from the Puget Sound Dredged Disposal Analysis guidelines). The National Oceanic and Atmospheric Administration (NOAA) has published marine sediment threshold effects levels (TELs) for arsenic as low as 7 mg/kg. Previous concern over high concentrations of arsenic in the Nome Harbor dredged material led to some material being buried within the harbor basin under a 1-meter-thick cap in 1995 and 1996. The elevated concentrations of arsenic in some Seward Peninsula mineral formations and in the sediments of area streams (including Snake River) are well established. The presence of natural sources of arsenic and the lack of identifiable human generated sources of arsenic at Nome Harbor suggest that the high concentrations of arsenic detected in some samples of the harbor sediment are due primarily to local mineralogy. Soil samples taken from borings along Nome Spit in 2000 also showed consistently high levels of arsenic (up to 93 mg/kg) even at depths of greater than 20 feet below the surface, suggesting that the marine sediments that formed the spit were also rich in arsenic.

E. Description of the Proposed Discharge Sites: The onshore placement area is at the shoreline at the western end of the rock seawall. This roughly 600-foot by 300-foot (less than 5 acres) area would primarily receive sediment dredged from the harbor basin and

inner channel. The dredged material would be placed at the waterline within this area and periodically spread with a grader or bulldozer to match the surrounding beach profile. The dredged material discharged in this area would serve as beach nourishment as it is naturally redistributed eastward along the foot of the seawall. The coordinates of the corners of the onshore placement area are presented in Table 1.

Table 1. Coordinates of Onshore Placement Area

Point	Latitude	Longitude
1	64° 29 52.76′ N	165° 25 00.00′ W
2	64° 29 51.46′ N	165° 24 47.15′ W
3	64° 29 48.73′ N	165° 24 50.13′ W
4	64° 29 50.03′ N	165° 25 03.00′ W

This area has been used for onshore placement and beach nourishment every year since 2009, so the existing surface sediment within the area is predominantly previously dredged material from the harbor project.

F. Description of Disposal Method: The most probable disposal method would be via pipeline from a cutter-head hydraulic dredge. This technique has been used successfully at this site, and, since it allows nearly all dredging operations to be conducted within the protected entrance channel and basin, it is less subject to unfavorable weather or sea conditions.

II. FACTUAL DETERMINATIONS

A. Physical Substrate Determinations: Deposition of dredged material at the onshore placement area is intended to replace sediment at a location starved of material by the causeway and breakwater's tendency to interfere with littoral transport. Several years of this beach nourishment activity was found to beneficially widen the beach along the foot of the city seawall; cessation of the beach nourishment would presumably cause a return to the previous sediment-starved condition.

B. Water Circulation, Fluctuation, and Salinity Determinations: Placement of dredged material in the onshore area is intended to have a localized beneficial effect on water movement patterns by increasing the width of the beach along the city seawall and diverting wave energies farther off shore. However, the beach nourishment activity should not have a significant effect on broader water circulation patterns or salinity in the area. The material discharged onshore will be spread and smoothed to conform to the natural shore contours, which should minimize disruption to water circulation that could be caused by allowing a large mass of discharged sediment to accumulate along the shoreline.

C. Suspended Particulate/Turbidity Determinations: The discharge of the dredged material would temporarily increase the suspended solids/turbidity in the water column at the disposal site. The dredged material is expected to be primarily sand and gravel, which would settle out of the water column quickly. The waters of Norton Sound are typically turbid with silt discharged from major river systems and stirred up from its shallow bottom

by storms. The discharge of fines in the dredged material would cause a temporary incremental increase in suspended solids at the discharge site, which may have little effect on primary producers and aquatic filter feeders already adapted to a turbid environment.

D. Contaminant Determinations: The principle chemical of concern in the sediment is arsenic. While arsenic concentrations of sediment dredged from the harbor basin and entrance channel may exceed some published sediment quality standards, there is ample reason to believe that this arsenic is naturally occurring, and that sediment with high mineral concentrations of arsenic has been moving through the Nome near-shore environment for a long time. The material to be dredged annually from the Nome Federal project would be primarily marine sediments deposited in the preceding year, which would have little opportunity to accumulate any human-generated contamination that might be present in the harbor. Marine sediment samples collected and analyzed by the Corps in 2013 showed that arsenic concentrations in sediment from the dredged material placement site and farther east along the shore were not significantly different from concentrations in shoreline samples taken west of the harbor. This finding demonstrated that the annual maintenance dredging and beach placement has not been influencing marine sediment arsenic concentrations to any measureable degree.

E. Aquatic Ecosystem and Organism Determinations: Studies of the general biological setting offshore of Nome describe species typical of a high-energy, sandy-gravelly coastal environment dominated by epifaunal and infaunal species such as sea stars, polychaetes, bivalves, and amphipods. The natural environment includes the continuous migration and redistribution of benthic sediments, as well as frequent disruption from ice scouring and violent storms. The dredged material to be discharged is similar to the existing benthic sediments in the discharge area. Existing populations of organisms, adapted to maneuvering and burrowing through loose sediment, would most likely not suffer significant adverse effects from the addition of several inches of new material to their environment.

F. Proposed Disposal Site Determinations: A small percentage of the total dredged material would be dispersed into the water column and settle some distance laterally from the point of discharge. The bulk of the material would settle more rapidly to the sea floor in the immediate discharge area. Currents and storms should cause the material to spread fairly evenly on the sea floor.

The disposal action would comply with the applicable water quality standards and would have no detrimental effects on any of the following:
1. Municipal and private water supplies
2. Recreational and commercial fisheries
3. Water-related recreation
4. Esthetics
5. Parks, national and historic monuments, national seashores, wilderness areas, research sites, and similar preserves.

G. Determination of Cumulative/Secondary Effects: The proposed dredging and disposal operation should have no cumulative or secondary effects to any ongoing activity. The placement of dredged material in the onshore area is to some extent replacing sediments blocked by the causeway and breakwater from being carried along the shoreline by littoral transport.

The proposed port expansion at Nome may use the same beach placement area as is used for annual maintenance dredging, depositing about 441,000 cubic yards of material dredged to create deeper draft access to an expanded outer channel.

III. FINDINGS OF COMPLIANCE

A. Adaptation of the Section (404)(b)(1) Guidelines to this Evaluation: The proposed project complies with the requirements set forth in the Environmental Protection Agency's Guidelines for Specification of Disposal Sites for Dredged or Fill Material.

B. Evaluation of Availability of Practical Alternatives: No economically feasible upland disposal alternative exists for the dredged material, considering the quantities that would be generated on an annual basis. The coastal plain on which Nome was developed is mostly wetlands, and the dredged material would have to be trucked inland a considerable distance to find an area of unoccupied uplands large enough to receive it. Placement onshore as beach nourishment is the most practical, economical, and environmentally benign alternative for managing the dredged material.

C. Compliance with Applicable State Water Quality Standards: The disposal of the dredged material would not violate applicable State water quality standards.

D. Compliance with Applicable Toxic Effluent Standards or Prohibition Under Section 307 of the Clean Water Act: No toxic effluents that would affect water quality parameters are associated with the proposed project. Therefore, the project complies with toxic effluent standards of Section 307 of the Clean Water Act.

E. Compliance with Endangered Species Act of 1973: The proposed action would not harm any endangered species or their critical habitat.

F. Compliance with Specified Protection Measures for Marine Sanctuaries Designated by the Marine Protection. Research, and Sanctuaries Act of 1972: Not applicable; no marine sanctuaries are present near the project site.

G. Evaluation of Extent of Degradation of the Waters of the United States: There would be no significant adverse impacts to municipal and private water supplies, recreation and commercial fisheries, plankton, fish, shellfish, wildlife and/or aquatic sites caused by the proposed action. There would be no significant adverse effects on regional aquatic ecosystem diversity, productivity, and/or stability caused by the placement of the fill material nor any significant adverse effects on recreation, aesthetic, and/or economic values caused by these project aspects. The dredging and disposal activities would be

coordinated with the City of Nome to avoid conflicts with subsistence and recreational activities.

H. Appropriate and Practicable Steps Taken to Minimize Potential Adverse Impacts of the Discharge on Aquatic Ecosystems: All appropriate and practicable steps would be taken to minimize potential adverse impacts of the discharge on the aquatic ecosystem. Specific steps would include:

> The dredging schedule will be coordinated with the Alaska Department of Fish & Game (ADFG). Based on direction from the ADFG through its amendments to Fish Habitat Permit FH13-III-0027, dredging would start as soon as the ice goes out, but be completed in the inner harbor and entrance channel area by 30 June. This work-window is intended to protect juvenile salmon, which are believed to start out-migration from Snake River in mid-June. The remainder of the dredging will be performed in such a manner as does not impair fish passage.
>
> The placement of dredged material would be at a site already impacted by similar activities.

I. On the basis of the Guidelines for Specification of Disposal Sites for Dredged or Fill Material (40 CFR part 230), the proposed project has been specified as complying with the requirements of the guidelines for Section 404 of the Clean Water Act.

FINDING OF COMPLIANCE
FOR

Modification of Dredging Quantities
Annual Maintenance Dredging
Nome Harbor, Alaska

1. No significant adaptations of the guidelines were made relative to this evaluation.

2. The discharge to waters of the U.S. proposed in this project would be the placement of dredged material for beach nourishment. No economically feasible upland disposal alternative exists for the dredged material considering the quantities that are generated on an annual basis. The coastal plain on which Nome was developed is mostly wetlands, and the dredged material would have to be trucked inland a considerable distance to find an area of unoccupied uplands large enough to receive it. Placement onshore as beach nourishment is the most practical, economical, and environmentally benign alternative for managing the dredged material.

3. The planned discharge would not violate any applicable State water quality standards, nor violate the Toxic Effluent Standards of Section 307 of the Clean Water Act.

4. Use of the selected disposal site will not harm any endangered species or their critical habitat.

5. The proposed discharge will not result in significant adverse effects on human health and welfare, including municipal and private water supplies, recreation and commercial fishing, plankton, fish, shellfish, wildlife, and special aquatic sites. The life stages of aquatic life and other wildlife will not be adversely affected. Significant adverse effects on aquatic ecosystem diversity, productivity and stability, and recreational, aesthetic and economic values will not occur.

6. Appropriate steps to minimize potential adverse impacts of the discharge on aquatic systems include fish windows and other steps stipulated by the Alaska Department of Fish and Game to minimize effects on migrating juvenile fish.

7. On the basis of the guidelines the proposed site of construction and discharge is specified as complying with the inclusion of appropriate and practical conditions to minimize pollution or adverse effects to the aquatic ecosystem.