

CHAPTER 7

SUMMARY OF PROPOSED MANAGEMENT ACTIONS AND MITIGATION MEASURES

This chapter summarizes the management actions and mitigation measures identified in Chapter 4 of this EIS. Mitigation and monitoring measures are expected to evolve and/or change as the NEPA process progresses and based on consultation with federal and state regulatory agencies (e.g., USACE, USEPA, USFWS, and NMFS), public comment, and government-to-government consultation with federally recognized American Indian Tribes. The intent of this chapter is to provide a concise summary of the management actions and mitigation measures once they become more defined.

For the purposes of this EIS, management actions are those measures that are implemented by the Navy on an ongoing basis as part of best management practices, standard operating procedures, etc. Such management actions are considered in the impact analysis because they would provide for ongoing environmental protection. Mitigation, however, refers to additional action that would be taken to avoid, minimize, rectify, reduce/eliminate, or provide compensation for an impact that would result from an alternative. In 40 CFR 1500, CEQ defines mitigation as:

- *Avoidance*: Avoid the impact by changing the action. Do not take certain actions that would cause the environmental effect.
- *Minimization*: Minimize impacts by changing the intensity, timing, magnitude, or duration of the action and its implementation.
- *Rectifying*: Rehabilitate, repair, or restore damage that may be caused by implementing the proposed action.
- *Reducing/Eliminating*: Reduce or eliminate the impact over time.
- *Replacement*: Compensation for the impact by replacing the damage by improving the environment elsewhere or by providing other substitute resources such as funds to pay for the environmental impact.

The mitigation measures for the selected alternative will be identified in the Record of Decision. These measures will be funded, and efforts to ensure their successful completion or implementation are treated as compliance requirements.

7.1 SUMMARY OF UNAVOIDABLE ADVERSE IMPACTS

The construction of facilities under all alternatives except for Alternatives 2, 3, and 9 and the No Action Alternative would generate localized impacts to soils at previously disturbed sites and generate noise and air emissions. The impacts would be short term and use of standard management measures would minimize potential impacts. For the Group 2 and Group 3 alternatives, there would be unavoidable impacts related to dredging and offshore disposal including localized water quality, air quality, biological resources, noise, and coastal zone resources. These impacts are summarized below.

7.1.1 Earth Resources

- Short-term localized impacts to soils that would occur during land-based construction.
- Generation of approximately 5.2 million cy of dredged material for Group 2 and 3 alternatives.
- Under Group 2 and 3 alternatives, there would be long-term physical impact to substrate and benthos at dredged areas and at dredged material disposal sites.
- Under Group 2 and 3 alternatives, disposal of sediments would have physical impacts to sediment and benthos at offshore disposal sites.
- Under Group 2 and 3 alternatives, disposal of approximately 2 million cy of material (of the total 5.2 million cy of the proposed project) in the Jacksonville ODMDS would allow approximately 8 to 10 years of remaining capacity at that site based on USEPA and USACE projections.

7.1.2 Land and Offshore Use

- Under the Group 2 and 3 alternatives, there would be localized, short-term impacts of dredging on commercial and sports fishing.
- Under the Group 2 and 3 alternatives, coastal zone resources would be impacted on a short-term basis.

7.1.3 Water Resources

- Under all alternatives involving construction (all alternatives except for Alternatives 2, 3, and 9 and the No Action Alternative), localized impacts to impervious surfaces and stormwater flow would occur at on-land construction sites.

- Under the Group 3 alternatives, the surficial aquifer could be encountered during the construction of the nuclear propulsion plant facilities.
- A minor amount of construction in the 100-year floodplain would occur under the Group 3 alternatives.
- Under the Group 2 and Group 3 alternatives, there would be short-term and localized impacts to water quality from suspended sediment during dredging and short term and localized impacts on water quality and biota from ODMDS disposal. During the active dredging and disposal actions, a portion of the chemical burdens of sediment would be released into the water column. Sediment sampling has found that most detected metals were below State Class III water quality standards. Although arsenic, mercury, and lead were found at relatively low levels, but in excess of Class III water quality standards in one elutriate sample collected for analysis in the DEIS. Follow-on more intensive, site specific MPRSA Section evaluations did not detect metals, PCBs, pesticides, or PAHs within the material to be dredged at levels exceeding Class III water quality standards
- There would be minor impacts to hydrodynamics (currents, salinity, sedimentation, etc.) of the St. Johns River and NAVSTA Mayport entrance channel and turning basin from the proposed dredging project.

7.1.4 Air Quality

- Under all alternatives that include construction (all alternatives except for Alternatives 2, 3, and 9 and the No Action Alternative), there would be construction-related air emission increases.
- Emissions from construction under Group 2 and 3 alternatives (which include construction dredging) would include an approximate maximum of 199 tons of NO_x emitted in 2011 and 138 tons of NO_x emitted in 2012 primarily from construction dredging. The 2011 emissions represent approximately 0.26 percent of 2001 baseline emissions for Duval County.
- Under the Group 3 alternatives, there would be long-term minimal increases in operational emissions associated with the boilers for new nuclear propulsion plant maintenance facilities and increased mobile source emissions from increased net daily population under Alternatives 10 and 12, in particular.

7.1.5 Noise

- Noise would result from the construction activities and potentially affect sensitive noise receptors under all alternatives except for Alternatives 2, 3, and 9 and the No Action Alternative.

7.1.6 Biological Resources

- Under all alternatives that would involve construction (all alternatives except for Alternatives 2, 3, and 9 and the No Action Alternative), there would be localized impacts to non-sensitive terrestrial communities from construction activities.
- Under the Group 2 and 3 alternatives, there would be short-term impacts to EFH and marine communities (marine flora and invertebrates) resources from dredging activities.
- Under the Group 2 and 3 alternatives, the Navy has determined that, with implementation of protective measures, implementation of the dredge project may affect, but is not likely to adversely affect NRW, humpback whales, or Florida manatee and would not destroy or adversely modify North Atlantic right whale or Florida manatee designated critical habitat. The Navy has found that, with implementation of protective measures, the use of a mechanical and/or cutterhead dredge may affect, but is not likely to adversely affect listed sea turtles; the use of a hopper dredge may adversely affect listed sea turtles; and bed-leveling activities in association with dredging operations may affect, but are not likely to adversely affect sea turtles.
- Potential impacts to marine mammals resulting from dredge activities under the Group 2 and 3 alternatives would be similar to those for special status species.

7.1.7 Cultural Resources

- There are no historic properties located within the project areas of potential effects.

7.1.8 Traffic

- Under all alternatives that would involve construction (all alternatives except for Alternatives 2, 3, and 9 and the No Action Alternative) there would be localized, short-term on-Station impacts to traffic from construction of new facilities.
- Under the Group 3 alternatives, there would be localized, short-term on-Station impacts to traffic from implementation of traffic improvements.

- Under Alternative 12, there would be minor off-Station impacts to traffic from increased personnel.
- Under the Group 2 and Group 3 alternatives there would be an increase in marine vessel movements from dredging and dredged material disposal.

7.1.9 Socioeconomics

- Impacts to socioeconomics under any of the alternatives would not be considered adverse. Economic gains/losses are subjective and dependant on social factors. What is considered an adverse impact by some (loss in Navy jobs in the local area) may be viewed as a benefit by others (opportunity for other job sectors in the local area). Therefore, there is no action to offset these impacts under any of the alternatives.

7.1.10 General Services

- There would be impacts to Duval County School District from changes in enrollment levels for federally connected students associated with NAVSTA Mayport commensurate with the changes in school age children populations under all alternatives. Under all alternatives except for Group 3 Alternatives 10 and 12, there would be a decline in dependents and school age children associated with NAVSTA Mayport personnel losses. The Duval County School District addresses changes in demographics in long-range facilities and districting planning. The estimated 890 increase in school age children under Alternative 12 could result in overcrowding of schools.
- With the estimated gains of approximately 300 in dependent population under Alternative 10 and approximately 2,900 in dependent population under Alternative 12, there would be minor long-term increase in demand on fire and emergency services, recreational facilities and fields, family services, and childcare services.

7.1.11 Utilities

- Under Group 3 Alternatives, the area of potential development would require electrical, steam, compressed air, potable water, and stormwater upgrades to accommodate the demand for nuclear propulsion plant maintenance facility.

7.1.12 Environmental Health and Safety

- Potential risks to environmental health and safety introduced with construction activities under all alternatives except for Alternatives 2, 3, and 9 and the No Action Alternative.

7.2 MITIGATION MEASURES

7.2.1 Earth Resources

- Under Group 1 and Group 2 alternatives involving construction (all alternatives except for Alternatives 2, 3, and 9), mitigation of construction activities that would disturb less than one acre would include BMPs to control soil erosion and adherence to an Environmental Resource Permit for Stormwater Management Systems, if required (i.e., if combined impervious surface is greater than 9,000 sf) and associated erosion and sediment controls implemented.
- Under all Group 3 alternatives, mitigation for disturbance of 30 to 32 acres would be prescribed by the required Construction Generic Permit and Environmental Resource Permit for Stormwater Management Systems.
- Under all Group 2 and 3 alternatives, additional mitigation would potentially be identified with the modification of the NAVSTA Mayport SWPPP and MS4 management plans and goals.
- All alternatives would be subject to the December 2007 TMDL regulations, which require new impervious discharge to be evaluated and mitigation implemented to prevent additional nutrients from entering receiving waters.
- The Navy conducted chemical and biological testing in support of the dredging project that is part of the Group 2 and 3 alternatives per the MPRSA Section 103 permitting process as required by USACE and USEPA, who will verify the suitability for ocean disposal at a USEPA-managed ODMDS.
- Under all Group 2 and 3 alternatives, the Navy (as a member of the Jacksonville ODMDS SMMP Team), would continue to support the USACE Jacksonville District and USEPA Region 4 in determining appropriate disposal practices and potential management options at the Jacksonville ODMDS, including possible expansion of the Jacksonville ODMDS under MPRSA Section 102 if deemed necessary by USEPA Region 4.

7.2.2 Land and Offshore Use

There would be no significant impacts to land and natural resource management and use under any of the alternatives; therefore, no mitigation would be required for any alternative.

7.2.3 Water Resources

- Under all alternatives that would involve construction (all alternatives except for Alternatives 2, 3, and 9 and the No Action Alternative), the Navy would obtain required permits prior to construction, including an Environmental Resources Permit from FDEP, and implement appropriate BMPs to protect water resources from increased stormwater runoff associated with an increase in impervious surfaces.
- Under all Group 2 and 3 alternatives, the Navy would obtain required permits prior to dredging, including a CWA Section 401 State Water Certificate and an Environmental Resources Permit from FDEP, and a Rivers and Harbors Act Section 10 permit and a CWA Section 404 permit from USACE. The Navy would ensure that water quality standards would not be violated during dredging operations. In accordance with MPRSA Section 103 requirements, the Navy completed appropriate chemical and biological testing of dredged material during the permitting process as required by USACE and USEPA to verify the suitability for ocean disposal at an USEPA-managed ODMDS.
- Under all Group 3 alternatives, Massey Avenue road improvements would be designed to avoid wetlands. If the design cannot avoid impact to these wetlands, the impact would be mitigated in accordance with all applicable regulations.
- Under all Group 3 alternatives, nuclear propulsion facilities would be designed and constructed above the 100-year floodplain.

7.2.4 Air Quality

- Under all Group 2 and 3 alternatives, the use of modern dredging equipment with USEPA rated tier 1, tier 2 or tier 3 diesel engines to the greatest extent practicable would help minimize NO_x emissions.
- Under Group 3 Alternative 12, proactive practices to minimize the impact of increased mobile source emissions will be considered. In addition to encouraging car pooling, the use of hybrid

vehicles, providing of mass transit for employees, and other alternative forms of transportation already in place (e.g., use of golf carts by ship repair contractors and several larger commands for routine transportation around the Station), NAVSTA Mayport will consider the conversion of the current base shuttle service to Low Emission Vehicles during re-competition of that contract scheduled for 2010 and replacement of NAVSTA Mayport's vehicle fleet with vehicles producing significantly fewer emissions than the current models, wherever practicable.

7.2.5 Noise

No mitigation measures are required because there are no significant or adverse impacts due to noise.

7.2.6 Biological Resources

- For all Group 2 and 3 alternatives, in accordance with section 7 of the ESA, the Navy and USACE, as co-consulter, have consulted with USFWS and NMFS regarding potential impacts to federally listed species and designated critical habitat. To support ESA consultation, BAs have been prepared to assess the potential impacts of Group 2 and 3 alternatives on ESA-listed species and designated critical habitat (Appendix B.3). The Navy and USACE anticipate similar terms and conditions to those identified in existing relevant BOs for similar dredging activities to be identified in the NMFS BO for the proposed action. Navy and USACE dredging activities currently comply with such terms and conditions. The Letter of Concurrence will be obtained from the USFWS and the BO from NMFS prior to the issuance of the Record of Decision for this FEIS. The conditions of the USFWS Letter of Concurrence and terms and conditions of the NMFS BO will be identified in the Record of Decision. The Navy will comply with federal and state regulations and permit requirements.

7.2.7 Cultural Resources

- No historic properties have been identified within the areas of potential effects for any alternatives. The Navy has consulted with the Florida SHPO to confirm that appropriate actions will be taken under each of the alternatives to ensure that historic properties will not be adversely affected in the course of this project undertaking.
- Under all alternatives that include construction, the Navy will attach a post-review discovery clause to the construction contract pursuant to 36 CFR 800.13 to ensure that cultural resources are taken into account in the unlikely event of their discovery. In addition, under the Group 3

alternatives, an archaeological monitor will be present during the Massey Avenue/Maine Street intersection improvement construction to ensure that NRHP-eligible prehistoric archaeological site (8DU7458) is avoided.

7.2.8 Traffic

No mitigation would be required for vehicle traffic or marine vessel movement under any of the alternatives.

7.2.9 Socioeconomics

No mitigation would be required for socioeconomics under any of the alternatives.

7.2.10 General Services

Under Alternative 12, the Navy would provide assistance to the Duval County School District, to the extent practicable, in their pursuit of FEIA to mitigate potential impacts to schools.

7.2.11 Utilities

No mitigation would be required for utilities under any of the alternatives.

7.2.12 Environmental Health and Safety

No mitigation would be required for environmental health and safety under any of the alternatives.

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