ENVIRONMENTAL ASSESSMENT

AND

FINDING OF NO SIGNIFICANT IMPACT

FOR

FACILITY UPGRADES AND DREDGING IN SUPPORT OF FAST RESPONSE CUTTER BASING

U.S. Coast Guard Sector
San Juan
Puerto Rico

PREPARED BY:

U. S. Coast Guard
Facilities Design & Construction Center
5505 Robin Hood Road, Suite K
Norfolk, Virginia 23513
Phone: 757-852-3400
Fax: 757-852-3495

USCG

ENVIRONMENTAL ASSESSMENT

FOR

FACILITY UPGRADES AND DREDGING

IN SUPPORT OF FAST RESPONSE CUTTER BASING

SAN JUAN, PUERTO RICO

This Environmental Assessment was prepared in accordance with Commandant Instruction M16475.1D and is in compliance with the National Environmental Policy Act of 1969 (P.L. 91-190) and the Council of Environmental Quality Regulations dated 28 November 1978 (40 CFR Parts 1500-1508).

This Environmental Assessment serves as a concise public document to briefly provide sufficient evidence and analysis for determining the need to prepare an environmental impact statement or a finding of no significant impact.

This Environmental Assessment concisely describes the proposed action, the need for the proposal, the alternatives, and the environmental impacts of the proposal and alternatives. This Environmental Assessment also contains a comparative analysis of the action and alternatives, a statement of the environmental significance of the preferred alternative, and a list of the agencies and persons consulted during its preparation.

20 SEP 2011	D.A. MCFARLAND	LCDR USCG Reserve
Date	Preparer/Environmental Project Manager	Title/Position
9/20/2011	M. James Lewis Jr.	Deputy Chief SILC/EMD USCG
Date	Environmental Reviewer M. JAMES LEWIS, JR.	Title/Position

In reaching my decision/recommendation on the USCG's proposed action, I have considered the information contained in this Environmental Assessment on the potential for environmental impacts.

10/17/2011	G.G. BONNER	COMMANDING OFFICER/FDCC
Date	Responsible Official	Title/Position

USCG

FINDING OF NO SIGNIFICANT IMPACT

FOR

FACILITY UPGRADES AND DREDGING
IN SUPPORT OF FAST RESPONSE CUTTER BASING
SAN JUAN, PUERTO RICO

This action has been thoroughly reviewed by the USCG and it has been determined, by the undersigned, that this project will have no significant effect on the human environment.

This finding of no significant impact is based on the attached USCG prepared environmental assessment which has been determined to adequately and accurately discuss the environmental issues and impacts of the proposed action and provides sufficient evidence and analysis for determining that an environmental impact statement is not required.

The list of consultations and investigations presented in Paragraph 3.5 must satisfactorily be completed for this finding of no significant impact to be valid.

10/6/2011	M. James Lemieux	Deputy Chief SILC/EMD
Date	Environmental Reviewer	Title/Position

I have considered the information contained in the EA, which is the basis for this FONSI. Based on the information in the EA and this FONSI document, I agree that the proposed action as described above, and in the EA, will have no significant impact on the environment.

10/17/2011		COMMANDING OFFICER / FDCC
Date	Responsible Official	Title/Position

TABLE OF CONTENTS

1.0 Introduction 1
1.1 U.S. Coast Guard Background and Mission 1
1.2 Sector San Juan Background and Mission 2
1.3 Purpose of and Need for the Proposed Action 3
2.0 Description of Alternatives Considered 3
2.1 Status Quo Alternative: Upgrade Existing Facilities as Configured 4
2.2 Alternative 1: Optimize Facilities including Dredging as Required (Preferred) 5
2.3 Permits, Approvals, and Consultations 5
3.0 Affected Environment and Environmental Consequences 6
3.1 Overview 6
3.2 Human Environment 7
3.3 Physical Environment 8
3.4 Biological Environment 10
3.5 Summary of Assumptions and Mitigation Measures 11
4.0 Compliance with Statutory Requirements 14
5.0 Agency Contacts Completed or Pending 16
6.0 Preparers 17
7.0 References 18

APPENDICES

Appendix A *Homeporting Feasibility Impact Assessment (FIA), Fast Response Cutter (FRC), Sector San Juan, PR*; Clark Nexsen Architecture & Engineering, Norfolk, VA; Aug 2009

Appendix B *Environmental Assessment for Proposed Upgrade of United States Coast Guard Base San Juan, Puerto Rico*; Woodward-Clyde Federal Services, Gaithersburg MD; July 1998

Appendix C *Categorical Exclusion Determination for Fast Response Cutter Support, Coast Guard Sector San Juan, San Juan, Puerto Rico*; U.S. Coast Guard Facilities Design & Construction Center, Norfolk VA; February 2011

Appendix D Agency Correspondence

1.0 INTRODUCTION

As part of a long term fleet modernization known as the Integrated Deepwater System Project, the United States (U.S.) Coast Guard (USCG) is proposing to base six 154' Sentinel Class Fast Response Cutters (FRCs) aboard USCG Sector San Juan located in San Juan, Puerto Rico. The FRCs will replace six 110' Island Class Patrol Boats currently home ported aboard the facility.

The USCG published a *Final Programmatic Environmental Impact Statement (FPEIS) for the Integrated Deepwater System Project (Deepwater Project)* in 2002 [1]. The FPEIS identified technological and capability gaps in its system of assets used to execute its deepwater missions. The existing system was determined to have excessive operating and maintenance costs and to lack essential capabilities, thereby limiting USCG program capabilities. The decision made by the USCG was to acquire an integrated system of new surface and air assets and logistics, communication, and sensor systems. This environmental assessment (EA) tiers from that decision and FPEIS.

Information within this document that pertains to the suitability of current facilities and the need for upgrades related to the proposed action/alternative is compiled primarily from the planning document *Homeporting Feasibility Impact Assessment (FIA), Fast Response Cutter (FRC), Sector San Juan, PR*, which is presented as Appendix A. Information pertaining to the potential environmental effects of waterfront and shore side redevelopment draws heavily from the 1998 *Environmental Assessment for Proposed Upgrade of United States Coast Guard Base San Juan, Puerto Rico*, which is presented as Appendix B.

The USCG is considering various strategies to support the FRC fleet, from minor reconfiguration of existing waterfront and shore facilities to complete redevelopment of those portions of the Sector San Juan dedicated to providing cutter support infrastructure. In February, 2011, the USCG completed an evaluation of the environmental implications of the various proposed alternatives for waterfront and shore facility reconfiguration and redevelopment in support of FRC basing aboard Sector San Juan. This evaluation, which assumed that only minimal incidental sediment removal would be required in the berthing and pier areas and is presented as Appendix C, determined that these actions were categorically excluded from the requirement for further environmental analysis under the revised list of USCG categorical exclusions published in the *Federal Register, Vol. 67, No. 141*, Tuesday July 23, 2002, page 4824.

Although a final wharf and pier arrangement has not yet been determined, the USCG now contemplates that implementation of the most efficient or mission capable berthing configuration may require removal of harbor sediments beyond that which could be characterized as incidental to the redevelopment of the waterfront support facilities, an action that would not qualify for a categorical exclusion. This environmental assessment is therefore intended to document the potential environmental effects associated with reconfiguring or redeveloping the Sector San Juan waterfront berthing and mooring facilities in a way that is optimized to accommodate the FRC, to include harbor dredging if required, as well as the cumulative effects of basing the FRC in Puerto Rico, including shore side redevelopment and changes in operational and staffing levels.

1.1 U.S. Coast Guard Background and Mission

The USCG, one of the country's five armed services, is this nation's first and oldest maritime agency and is a unique agency of the federal government. The USCG began as the Revenue Marine (also known as the Revenue Service) on 4 August 1790, and, beginning in 1863, the Revenue Cutter Service. The USCG received its present name in 1915 when the Revenue Cutter Service merged

with the Life-Saving Service. Today, the USCG operates in all maritime regions including the following:

- Approximately 95,000 miles of U.S. coastline, including inland waterways and harbors
- More than 3.36 million square miles of exclusive economic zone (EEZ) and U.S. territorial seas
- International waters and other maritime regions of importance to the United States.

On 1 March 2003, in response to growing national security demands, the newly formed U.S. Department of Homeland Security assumed control of the USCG from the U.S. Department of Transportation. The USCG is the lead federal agency for Maritime Homeland Security and has dramatically shifted its mission activity to reflect this role.

One of the USCG's primary missions is to protect the U.S. Maritime Domain and the U.S. Marine Transportation System (MTS) and deny their use and exploitation by terrorists as a means for attacks on U.S. territory, population, and critical infrastructure. The U.S. Maritime Domain includes all U.S. ports, inland waterways, harbors, navigable waters, territorial seas, contiguous waters, custom waters, coastal seas, littoral areas, and oceanic regions of national interest. It also includes the sea lanes to the United States, the U.S. EEZ, the Great Lakes, U.S. maritime approaches, and the high seas surrounding the nation. The MTS consists of waterways, ports, and their intermodal connections, vessels, vehicles, system users, and all federal maritime navigation systems.

The USCG has several additional roles including:

- Maintain maritime border security against illegal drugs, illegal aliens, firearms, and weapons of mass destruction.
- Ensure that U.S. military assets can be rapidly supplied and deployed by keeping USCG units at a high state of readiness, and by keeping marine transportation open for the transit of assets and personnel from other branches of the armed forces.
- Protect against illegal fishing and indiscriminate destruction of living marine resources.
- Prevent and respond to oil and hazardous material spills—both accidental and intentional.
- Coordinate efforts and intelligence with federal, state, and local agencies.

1.2 Sector San Juan Background and Mission

USCG Sector San Juan is responsible for all Coast Guard missions in the Eastern Caribbean area. This includes enforcement of laws and regulations of the United States relative to national defense, smuggling/counter narcotics operations, fisheries management, marine transportation, marine safety, maritime security, protection of natural resources, waterways management, and to carry out general Coast Guard duties in military readiness by the organization, including indoctrination, training and discipline of all assigned members. Sector San Juan includes the Captain of the Port and Officer in Charge, Marine Inspection zones for both the Commonwealth of Puerto Rico and the Territory of the U.S. Virgin Islands and is a designated Rescue Sub-Center responsible for Search and Rescue Operations throughout the eastern Caribbean Sea area including the Dominican Republic and the Lesser Antilles island chain. In addition to the Sector's Response; Prevention; Planning, Readiness & Incident Management; and Logistics Departments, Sector San Juan supports a range of tenants including a small boat station, an aids to navigation team, an

electronic systems support detachment, a recruiting office, an 87' coastal patrol boat, and six Island Class 110' patrol boats.

Sector San Juan is located on La Puntilla Point near the mouth of Bahia de San Juan. As illustrated in Figure 1 of Appendix B, Sector San Juan borders the southern perimeter of Old San Juan and is adjacent to established harbor facilities. La Puntilla was at one time mangrove habitat, but was filled in the early 1800s to provide an additional development district for the increasing population of San Juan. The U.S. Lighthouse Service (the USCG's predecessor agency) acquired and developed approximately four acres of the site in the early 1900s and the facility expanded to its current configuration through various acquisition and fill projects over the last century.

As illustrated in Figure 2.3 of Appendix A, the Sector San Juan facility is generally divided into two distinct land use areas. The western portion of the facility stretching from the base of the peninsula to its southern tip is dedicated to residential and troop support functions while the southeastern quadrant is predominantly industrial and fleet support oriented. The fleet support area includes five designated piers (Alpha through Echo) and a pair of travel-lift piers. Water depths ranged from six to 28.5 feet when surveyed in 2007.

1.3 Purpose of and Need for the Proposed Action

The purpose of the proposed action is to provide adequate infrastructure and support facilities to home port up to six 154' Sentinel Class FRCs as replacements for the current fleet of 110' Island Class WPBs. With an aging legacy 110' patrol boat fleet, the USCG has a critical need for additional patrol boats to close an operational hour gap that hinders the USCG's ability to most successfully and efficiently complete all potential missions. Planned as the smallest of three major classes of cutters, the FRC will be able to deploy independently to conduct a variety of missions including ports, waterways, and coastal security; fishery patrols; drug and immigration law enforcement, search and rescue; and national defense operations. This new patrol boat is one of the USCG's top priorities, and Sector San Juan is scheduled to home port six FRCs as replacements for the aging 110' patrol boats currently assigned there.

Appendix A reports that critical waterfront assets are available to support the FRCs; however, existing wharf berthing and mooring facilities are not capable of meeting current mission demands along with those of the FRC. To effectively and efficiently meet all mission requirements, the pier and wharf system must be reconfigured. In contrast, shore support facilities are for the most part capable of accepting the full complement of six FRCs with some reconfiguration and operational work-arounds to adapt mission requirements to the available facilities. Storage requirements for the FRCs are greater than the space available, so some additional storage space must be constructed to satisfy the minimum mission demands.

2.0 DESCRIPTION OF ALTERNATIVES CONSIDERED

Harbor depths at the La Puntilla facility are for the most part adequate to support the FRCs; however, dredging will likely be required to optimize the pier and wharf configuration to the FRC fleet. The "No Action" or "Status Quo" alternative is therefore defined to include reconfiguration of existing facilities in a manner that does not require significant construction or dredging. Alternative 1 (the preferred alternative) may require dredging as required to demolish and reconstruct new waterfront facilities that are optimized based on overall cost, efficient and safe support for the FRC fleet, or other such considerations.

Although Sector San Juan shore facilities are for the most part adequate to support the FRC fleet, the USCG contemplates that some construction, reconfiguration, and/or demolition and reconstruction will be completed in support of their home porting at the La Puntilla facility. Alternatives under consideration range from reconfiguring the current support facilities and constructing the minimum amount of new storage required to satisfy the FRC mission to demolishing and completely rebuilding the shore infrastructure in a manner that optimizes support for the new cutters. To ensure that the full range of potential cumulative impact is considered, the two alternatives assume opposing extremes for shore side construction. The Status Quo alternative assumes that some new construction is required, but that the existing facilities are used to the maximum possible extent, while Alternative 1 assumes that the existing 110' patrol boat support facilities will be demolished and replaced with new facilities optimized to the FRC, including the construction of additional storage space.

The USCG has also examined alternative FRC basing sites, including Roosevelt Roads Naval Station, but found these alternatives to be prohibitively costly, operationally sub-optimal, or otherwise non-viable. These alternatives are not considered or evaluated in this Environmental Assessment.

2.1 Status Quo Alternative: Upgrade Existing Facilities as Configured

2.1.1 Status Quo Alternative Description

Under the status quo alternative, Sector San Juan's wharf and pier configurations would remain as they are and waterfront utilities and other infrastructure upgraded as required to accommodate the FRC. This alternative provides a relatively low cost option to sub-optimally meet the minimum FRC requirements; however, it severely impacts other Sector San Juan missions and underutilizes space on the smaller piers.

2.1.2 Cost/Economic Analysis of No Action Alternative

Existing facilities would be used to the extent practicable and new construction would be minimized. The estimated cost for the required upgrades of the waterfront facilities is $5.5 million, with approximately $3.5 million required for Pier Echo. Shore support facility improvement costs range from $1.2 to $3.7 million.

2.1.3 Benefits/Limitations of No Action Alternative

Benefits gained by maintaining the status quo include:

- Minimizes new construction and precludes dredging.

Limitations imposed by this alternative include:

- Marginally satisfies FRC mission requirements.
- Occupies space currently utilized to support visiting vessels; facility no longer able to support this mission at current levels.

- Likely to present significant operational limitations; mooring locations on Pier Echo are exposed to wave and wake action and require breasted [side-by-side] mooring of new cutters.

2.2 Alternative 1: Optimize Facilities including Dredging as Required (Preferred)

2.2.1 Alternative 1 Description

In this alternative, the berthing configuration would be optimized during the design process by balancing various criteria including construction cost, maintenance cost, operational efficiency, conformance with FRC standards, crew safety, and long term sustainability. This project is proposed to be accomplished utilizing the Design/Build process. Several possible configurations are evaluated in Appendix A, and all involve complete or near complete demolition and reconstruction of the existing pier facilities and dredging of the berth areas. This alternative presumes that the selected configuration satisfies the Commonwealth's coastal zone management requirements and construction activities shall be conducted using best management practices that minimize their impact on the surrounding environment.

2.2.2 Cost/Economic Analysis of Alternative 1

Demolition and reconstruction costs range from $9 to 12 million depending upon the wharf and pier configuration selected. Approximately $500 thousand required for dredging. Shore support facility improvement costs range from $1.2 to $3.7 million.

2.2.3 Benefits/Limitations of Alternative 1

Benefits gained through this alternative include:

- Satisfies FRC mission requirements without sacrificing other Sector missions including host port.
- Allows berthing configuration to be optimized based on design priorities.

Limitations imposed by this alternative include:

- Requires significant (if temporary) disturbance as new facilities are constructed.
- Significantly higher cost.
- Likely to require dredging.

2.3 Permits, Approvals, and Consultations

Both alternatives require some construction or modification of waterfront facilities and will require permitting, plan submittal, and/or consultation with local, territory, and/or federal agencies including:

- Land Disturbance (Sedimentation and Erosion Control)

- Potable Water Distribution System Construction/Upgrade
- Wastewater System Construction/Upgrade
- Asbestos Containing Material Abatement/Removal
- Storm Water Management System Construction/Maintenance
- Shoreline/Jetty/Pier Construction
- Dredging and Spoil Disposal
- Demolition of Structures/Disposal of Debris

At a minimum, the following organizations or agencies have been or will be engaged regarding permitting/consultation requirements:

- Government of Puerto Rico Department of Natural and Environmental Resources
  - Coastal Zone Management
  - Endangered Species
  - Wetlands
  - In-water Construction
- Government of Puerto Rico Environmental Quality Board
  - Storm Water
  - Lead/Asbestos Containing Materials
  - Air Permitting (if significant sources installed)
  - Solid/Hazardous Waste
  - Storage Tanks
- Institute of Puerto Rican Culture
- Commonwealth Historic Preservation Office
- National Oceanic and Atmospheric Administration, Southeast Regional Office
- U.S. Fish and Wildlife Service, Caribbean Field Office
- U.S. Army Corps of Engineers, Antilles Office

3.0 AFFECTED ENVIRONMENT AND ENVIRONMENTAL CONSEQUENCES

3.1 Overview

The affected environment considered in this analysis is La Puntilla in San Juan, Puerto Rico, and surrounding waters including Bahia de San Juan and the entrance to Cano de San Antonio. This section describes the current condition of resources that would potentially be affected by the proposed action and alternatives and summarizes the potential effects on those resources, including the cumulative effects associated with home porting six FRCs aboard Sector San Juan. A comparison of the potential impacts from each of the alternatives is provided in Table 3-1 on page 13.

3.2 Human Environment

The actions evaluated within this environmental assessment are not expected to have a significant or long-term effect on the human environment; nor would there be significant cumulative effects from the full range of actions proposed in support of basing the FRC aboard Sector San Juan.

Modestly increased demand for utilities and crew/family support services are expected to be readily accommodated by the current service providers.

Significant temporary but negligible long-term effects on transportation and emergency services are expected with both alternatives. Alternative 1 may have slight positive effects on visual aesthetics.

Historical and cultural resources are not known to exist in the project area; however, the potential does exist for their discovery. To ensure that these resources are preserved to the extent practicable, the USCG will consult with Institute of Puerto Rican Culture and Commonwealth Historic Preservation Office as detailed plans are developed. Cultural artifacts may be uncovered during construction. Should this occur, construction will be halted until the find is evaluated by an archaeologist.

The potential effects on the human environment are discussed in greater detail below.

3.2.1 Land Use

No land use changes are proposed. The La Puntilla project area is fully developed and the existing land use is consistent with the character of the surrounding area as well as commonwealth and local land use plans and zoning. Figure 2 in Appendix B illustrates the surrounding land use.

To verify consistency with Puerto Rico's coastal zone management program, the USCG is drafting and will submit a federal consistency package to the commonwealth Department of Natural and Environmental Resources.

3.2.2 Growth, Community Impacts, Utility Services

Both alternatives require upgrade of the utility services available in the wharf and berth areas but will have negligible impact on the utilities providers' capacity or ability to provide those services.

Replacing the 110' Island Class patrol boat with the FRC would increase the required crew from 18 to 22 personnel per vessel, a 22 percent increase. However, the overall 24 crew member increase represents less than a five percent increase in the number of USCG personnel already assigned to Sector San Juan. Sector San Juan is located in a large metropolitan area that can easily absorb the additional crew and their dependents.

3.2.3 Parks and Recreation

No changes to on base recreational facilities are proposed as part of FRC home-porting at Sector San Juan. Increasing the number of assigned crew will create additional demand on available recreation resources both on base and off; however, the additional demand is negligible given the modest increase in assigned personnel and the large size and diversity of available recreational resources within the San Juan metropolitan area.

3.2.4 Emergency Services, Traffic and Transportation/Pedestrian and Bicycle Facilities

While a temporary increase in traffic and workforce size is expected during construction under either alternative, these activities would not create any long-term impacts on emergency services (including hospitals) or traffic facilities. The small increase in permanently assigned personnel would have a negligible impact on off-base services or facilities. Employee parking aboard Sector San Juan is at a premium; however, parking requirements would be mitigated by cutter deployments. Overflow parking is available in other parts of the base.

No significant increase in waterway traffic is contemplated as a result of construction or operation; however, intermittent movement and staging of support barges and dredging equipment is expected during construction of the waterfront facilities proposed under Alternative 1.

3.2.5 Visual/Aesthetics

FRC basing at Sector San Juan is not expected to have an impact on visually significant resources. Alternative 1 would improve the overall aesthetics of the facility site by removing, replacing, or repairing worn or damaged waterfront structures. All new construction will be in character with the surrounding structures.

3.2.6 Cultural/Paleontological Resources and Farmlands/Timberlands

The Sector San Juan project area is fully developed and contains no farmlands or timberlands.

As detailed in Appendix B, portions of La Puntilla are known to have significant cultural or archeological resources, primarily related to Spanish era development through the middle to late 1800s. Prior to this time, La Puntilla was swampy lowland that saw little human habitation. Over time, La Puntilla's buildable land increased as dumping of trash and spoil raised the land elevation.

All of the project's waterfront areas and much of the operational support portion of Sector San Juan lie on land reclaimed in the last century. Archeological resources have been identified as far south as the Coast Guard Exchange building located on the northwest corner of the proposed project area.

Several structures aboard Sector San Juan are considered to be of historical significance; however, these structures are not located within the FRC project area.

Historical and cultural resources are not known to exist in the project area; however, the potential does exist for their discovery. To ensure that these resources are preserved to the extent practicable, the USCG will consult with Institute of Puerto Rican Culture and Commonwealth Historic Preservation Office as detailed plans are developed. Cultural artifacts may be uncovered during construction. Should this occur, construction will be halted until the find is evaluated by an archaeologist

3.3 Physical Environment

The actions evaluated within this environmental assessment are not expected to have a significant or long-term effect on the physical environment; nor would there be significant cumulative effects from the range of actions proposed as part of basing the FRC aboard Sector San Juan.

Waterfront construction activities and dredging associated with Alternative 1 would alter the bottom contours in waters immediately surrounding the base; however, these effects will not be of a significant or regional scope. The USCG intends that dredge spoil be deposited at an established and properly designated spoil area. Anticipated dredge material shall consist of silts and sands as deposited over the years in the basin. Sampling of bottom sediments shall be performed to determine their upland disposal requirements.

Construction and utilities upgrade activities associated with both proposed actions may produce minor short-term effects on water quality.

The proposed demolition and construction activities associated with Alternative 1 would have potentially significant but transitory effect on waste generation, air quality, and noise; however, these effects will be short-term and regionally insignificant.

The potential effects on the physical environment are discussed in greater detail below.

3.3.1 Geology/Soils/Seismic/Topography, Hydrology and Floodplain

The geological and hydro-geological conditions at Sector San Juan are discussed in Appendix B. No new development or changes in land use or topography are proposed as part of the full range of actions associated with FRC basing aboard Sector San Juan. Construction of waterfront piers and dredging associated with Alternative 1 would alter the bottom contours in the waters immediately adjacent to the facility; however, these alterations will not have a significant or regional impact. Appropriate agencies will be consulted and permits obtained prior to initiation of any shoreline construction or dredging activities. The USCG intends that dredge spoil be deposited at an established and properly designated spoil area.

3.3.2 Water Quality and Storm Water Runoff

The Status Quo alternative will have no impact on water quality or storm water runoff.

Some short term potential for minor increases in sedimentation related to Alternative 1 construction activities is present, but this will be mitigated through the use of best management practices. Although changes to the storm water management infrastructure is not intended, those features that are affected by Alternative 1 construction will be redesigned using modern low impact design principles, potentially creating a slight long-term improvement in water quality.

3.3.3 Hazardous Waste/Materials

Existing activities aboard Sector San Juan utilize hazardous materials and generate hazardous waste. None of the proposed actions are expected to significantly alter these activities or increase the hazardous material used and hazardous waste generated. All current hazardous material and hazardous waste use, record keeping, transportation, and disposal requirements/procedures will remain in effect.

Construction activities are likely to create an increase in both regulated and non-regulated waste including solid waste (potentially contaminated with asbestos and lead based paint) and dredging spoil. Wastes would be disposed of in a manner which conforms to all applicable laws and regulations.

Historical records indicate the possible presence of localized subsurface contamination related to past releases of petroleum or hazardous chemicals. If an area of contamination is encountered during construction, appropriate worker protection measures will be taken and any contaminated media that is generated will be managed in accordance with applicable local, commonwealth, and federal law.

3.3.4 Air Quality

The proposed FRC basing aboard Sector San Juan would have no significant impact on air quality. Other than construction, no new activities that might generate an air quality impact are contemplated. Construction activities will be of short duration and of no regional significance. All activities will conform to the requirements of the Clean Air Act as implemented by the commonwealth.

3.3.5 Noise and Vibration

The proposed FRC basing aboard Sector San Juan would have no significant impact on noise or vibration. Other than construction, no new activities that might generate noise or vibration impacts are contemplated. Waterfront construction activities may produce a temporary and localized effect on noise sensitive marine animals, but the effect would be short in duration and of no regional significance.

3.3.6 Energy Consumption

No significant alteration of operational activities are contemplated as part of the FRC basing aboard Sector San Juan, therefore a significant increase in energy consumption is not expected. Although the replacement vessels are larger and have larger crews, modern systems and structures are in general significantly more energy efficient than those they replace.

3.4 Biological Environment

The actions evaluated within this environmental assessment are not expected to have a significant or long-term effect on the biological environment; nor would there be significant cumulative effects from the range of actions proposed as part of basing the FRC aboard Sector San Juan.

Dredging in the man-made harbor area as proposed with Alternative 1 may produce minor shifts in habitat availability and transitory shifts in turbidity levels; however, no significant or long term effects are expected.

The potential effects on the biological environment are discussed in greater detail below.

3.4.1 Wetlands and Other Waters

The project area is entirely developed and its shoreline hardened; there are no wetlands located with the project area and no impacts are therefore expected.

Construction of waterfront piers and dredging associated with Alternative 1 would alter the bottom contours in the waters immediately adjacent to the facility and will likely result in short term turbidity changes; however, the USCG does not expect significant, regional, or long term effects.

Appropriate agencies will be consulted and permits obtained prior to initiation of any shoreline construction or dredging activities.

3.4.2 Natural Communities, Plant & Animal Species, Threatened & Endangered Species

The project area is fully developed, so, except for dredging associated with Alternative 1, no potential effects on natural communities or plant and animal species are expected.

Bahia de San Juan is considered to be Essential Fish Habitat and part of the range of the West Indian manatee and diverse sea turtle populations. Alternative 1 dredging and waterfront facility construction would alter the bottom contours in the Sector San Juan mooring area and may produce minor shifts in habitat availability among local species as well as temporary increases in turbidity. However, the dredging area consists of man-made channel bottom that is actively transited by commercial vessels and contains no known grass beds, mud flats, reef, or deep-water fishery habitat.

To ensure that species of concern are not affected by dredging, the USCG will survey the project bottom areas prior to conducting the work even though no known species has been observed in the basin. Standard conditions for the protection of marine mammals and sea turtles will be enforced through the work period, including stopping work if species of concern enter the work area.

Appropriate U.S. Army Corps of Engineers, commonwealth coastal consistency program, and National Oceanic and Atmospheric Administration coordination and consultation have been initiated and will be completed prior to commencement of dredging activities.

3.4.3 Invasive Species

None of the alternatives considered, nor any other action associated with basing the FRC fleet aboard Sector San Juan, is expected to create habitat for or increase the facility's susceptibility to invasive plant or animal species.

3.5 Summary of Assumptions and Mitigation Measures

This analysis assumes that the following measures would be taken to mitigate the potential impacts discussed above:

- Coordination with appropriate agencies would occur to minimize the impact on cultural and historic resources; construction will be temporarily halted if artifacts are discovered.
- Coordination with appropriate agencies would occur to ensure consistency with Puerto Rico's Coastal Zone Management Program.
- Best management practices regarding noise/vibration control, dust control, sedimentation/erosion control, and handling/disposal of wastes would be applied.
- Appropriate action would be taken if contamination from past petroleum or hazardous substance releases is discovered during construction.
- No new significant air pollutant discharge sources are installed or constructed; if new sources are installed or constructed, appropriate permits would be obtained.

- A bottom survey would be conducted to verify that no endangered species are present in the work area prior to dredging or waterfront construction activities.
- Best management practices regarding protection of marine mammals and sea turtles would be applied during dredging and waterfront construction activities.
- Dredge spoil would be disposed in an appropriate designated spoil disposal area.

Table 3-1: Comparison of Alternatives

Human Environment	**Status Quo**	**Alternative 1**	**Cumulative**
Land Use	No effect		
Growth Community Impacts Utility Services	No effect		Negligible effect
Parks and Recreation	No effect		Negligible effect
Emergency Services Traffic Transportation Pedestrian Facilities Bicycle Facilities	Significant short term effect likely; Negligible long term effect		
Visual Aesthetics	No effect	Minor improvement possible	
Cultural Resources Paleontological Resources Farmlands Timberlands	Minor effects possible but unlikely		
Physical Environment	**Status Quo**	**Alternative 1**	**Cumulative**
Geology Soils Seismic Topography Hydrology Floodplain	No effect	Minor effect	
Water Quality Storm Water	Short term effect possible; Minor long term improvement possible		
Hazardous Waste Hazardous Materials	Short term effect likely; Negligible long term effect		
Air Quality	Short term effect possible; Negligible long term effect		
Noise Vibration	Short term effect possible; No long term effect	Short term effect likely; No long term effect	
Energy Consumption	Negligible effect		
Biological Environment	**Status Quo**	**Alternative 1**	**Cumulative**
Wetlands Other Waters	No effect	Short term effect possible; Negligible long term effect	
Natural Communities Plant & Animal Species Threatened/Endangered Species	Negligible effect	Short term effect possible; Negligible long term effect	
Invasive Species	No effect		

4.0 COMPLIANCE WITH STATUTORY REQUIREMENTS

Anadromous Fish Conservation Act: Anadromous fish will not be affected by this project; coordination with U.S. Fish and Wildlife Serve and Puerto Rico Department of Natural and Environmental Resources are ongoing.

Coast Zone Management Act: This project is consistent with the Puerto Rico Coastal Zone Management Program; coordination is ongoing.

Coastal Barrier Resources Act and Coastal Barrier Improvement Act: This project does not affect coastal barrier resources.

Clean Air Act: This project as reviewed will not create or increase pollutant discharges or require permitting under the Clean Air Act. Although not planned at this time, the installation of large fixed sources such as boilers or paint booths may require permitting under the Clean Air Act.

Clean Water Act: This project will not create or increase pollutant discharges or require permitting under the Clean Water Act. Some turbidity changes may occur during construction and dredging; however, these will be minimized through best management practices. Spoil disposal will be at an authorized site.

Endangered Species Act (ESA): This project will be coordinated with appropriate agencies to ensure compliance with the ESA, including the Puerto Rico Department of Department of Natural and Environmental Resources, U.S. Fish and Wildlife Service, and National Marine Fisheries Service.

Estuary Protection Act: No designated estuary will be affected by this project.

Farmland Protection Policy Act: No prime or unique farmland will be impacted by this project.

Federal Water Project Recreation Act: This act does not apply to this project.

Fish and Wildlife Coordination Act: This project is being coordinated with the U.S. Fish and Wildlife Serve and Puerto Rico Department of Natural and Environmental Resources.

Fishery Conservation and Management Act: The project area is currently not dedicated to commercial maritime navigation and does not include fishery areas or commercial fishing activities.

Magnuson Stevens Fishery Conservation and Management Act: Coordination with the National Marine Fisheries Service is ongoing.

Marine Protection, Research and Sanctuaries Act: Spoil disposal will be at an authorized site; protected resources will not be affected.

Marine Mammal Protection Act: Best management protocols will be implemented to protect any potential marine mammals that enter the site during dredging and waterfront construction activities.

Migratory Bird Treaty Act and Migratory Bird Conservation Act: This project will not affect migratory birds.

National Environmental Policy Act (NEPA): This environmental assessment completes the environmental review process and satisfies the requirements under NEPA.

National Historic Preservation Act/Archeological and Historic Preservation Act: The structures aboard Sector San Juan have been assessed for historic significance; no historic structures are located in the project area. Some potential for discovery of archeological artifacts during construction exists; the project will be coordinated with appropriate agencies including the Institute of Puerto Rican Culture.

Rivers and Harbors Act: This project will be coordinated with appropriate agencies including the U.S. Army Corps of Engineers and Puerto Rico Coastal Management Program.

Submerged Lands Act: This project involves submerged lands within the Commonwealth of Puerto Rico; coordination is ongoing.

Wild and Scenic River Act: No designated river reaches will be impacted by this project.

5.0 AGENCY CONTACTS COMPLETED OR PENDING

Contact/consultation with the following agencies/persons has been initiated:

- Puerto Rico Department of Natural and Environmental Resources
- Institute of Puerto Rican Culture
- Commonwealth of Puerto Rico Environmental Quality Board
- Commonwealth of Puerto Rico Historic Preservation Office
- U.S. Fish and Wildlife Service
- National Oceanic and Atmospheric Administration, National Marine Fisheries Service
- U.S. Army Corps of Engineers, Antilles Office

6.0 PREPARERS

This Supplemental EA was prepared by Dale A. McFarland, Lieutenant Commander, USCG Reserve. LCDR McFarland is a registered professional engineer (North Carolina License #025438) with approximately 17 years environmental engineering experience in the areas of environmental management, compliance, and restoration. LCDR McFarland has been engaged in environmental management of federal facilities since 1997. Additional input and revisions were conducted by Jim Lewis, Deputy Chief, USCG Shore Infrastructure Logistics Center, Environmental Management Division. Mr. Lewis is a registered professional Engineer (Commonwealth of Virginia License # 17639) with approximately 20 years environmental engineering experience in the areas of compliance, NEPA and restoration.

7.0 REFERENCES

[1] *Final Programmatic Environmental Impact Statement for the Integrated Deepwater System Project*, USCG, March 22, 2002.

[2] *Environmental Assessment for Proposed Upgrade of United States Coast Guard Base San Juan, Puerto Rico*; Woodward-Clyde Federal Services, Gaithersburg MD; July 1998

[3] *Categorical Exclusion Determination for Fast Response Cutter Support, Coast Guard Sector San Juan, San Juan, Puerto Rico*; U.S. Coast Guard Facilities Design & Construction Center, Norfolk VA; February 2011.

APPENDIX A

Homeporting Feasibility Impact Assessment
Fast Response Cutter
Sector San Juan

APPENDIX B

Environmental Assessment
for Proposed Upgrade of
United States Coast Guard Base
San Juan, Puerto Rico

APPENDIX C

Categorical Exclusion Determination
For Fast Response Cutter Support
Coast Guard Sector San Juan
San Juan, Puerto Rico

Appendix D

Agency Correspondence