

5.5 Essential Fish Habitat Assessment.

The landlocked canal and levee alignment are not now habitat for commercial fish species managed under PL94-265, as they have been isolated from tide for more than 40 years. The waters of San Juan Bay are Essential Fish Habitat, according to the Caribbean Fisheries Management Council, for juvenile forms of many reef dwelling fish (especially members of the snapper and grouper families) as well as reproductive habitat for estuarine species including snook and tarpon. However, within the inner Bay, the Puerto Nuevo Navigation Channel (the water body that will receive the discharge from the box culvert) is not presently of significant value as habitat for adults or juvenile forms of these species, due to the lack of bottom cover, shelter, forage and anoxic character of its waters (dissolved oxygen values below 4 ppm). The Corps does not expect a significant change in the EFH characteristics of the Puerto Nuevo Navigation Channel as a result of building the recommended plan, although there may be a slight decrease in salinity and a slight water quality improvement overall as a result of the change. This determination (no effect on EFH or managed species) was concurred with by the National Marine Fisheries Service (NMFS) on March 24, 2001.

5.6 Endangered species.

The immediate project area does not contain endangered species habitat and no Federally designated species will be affected. The Corps coordinated this determination with U.S. Fish and Wildlife Service and the National Marine Fisheries Service. No endangered or threatened species were identified.

5.7 Wetlands

A total of (1.0 + 7.5) or 8.5 acres, and 2.75 functional units, of wetlands, will be converted to open water(channel extension) or upland (levee and accesses) by the recommended plan. The wetlands under the proposed levee footprint are not of very high quality, and they are already raised above the level of surrounding lands. Their functional value was assessed at only 0.3 FU per acre. It is not considered desirable to try to replicate this transitional habitat elsewhere. Because the new channel-culvert will be in contact with tide, mangroves may repopulate its open, trapezoidal upstream section, but drainage considerations will require periodic cleaning, and no credit is claimed for this re-vegetation. Mitigation by off-site creation of a mangrove stand is proposed. It is believed that 5 acres of created mangroves, either along the new Margarita Channel or along the old Puerto Nuevo River channel between BIA and the landfill, or at the north side of the mouth of Martín Peña channel, would provide full replacement for the affected wetlands. The exact option will be selected after full public and agency coordination of this Assessment and receipt of comments and recommendations.

5.8 Socioeconomic impacts.

No permanent adverse impacts are expected. Nuisance interruptions to traffic and port activities will be minimized by contract staging. Adverse effects will be more than offset by the benefits of reduced flooding, reduced days of lost commuter time, reduced inventory losses and greater public safety. There will be no adverse impacts to residential centers, and removal of most flooding problems along the Kennedy Avenue corridor may improve the quality of the commute, on the average.

5.9 Effects on Infrastructure and Public Facilities

The proposed project will require replacement of part of the road, electrical distribution and Port infrastructure (south Marginal Road bridge at Avenida Kennedy and Puerto Nuevo Canal; Margarita levee). Access to the existing power line will be assured by incorporation of a number of access ramps into the levee footprint. These ramps are illustrated on Plate 8. The canal extension has been designed to avoid adverse effects on the San Juan-Bayamón trunk sewer. Construction under the port facilities will be carefully staged to minimize disruption of road circulation patterns, and will avoid major structures such as unloading cranes or dispatch stations. As noted in Paragraphs 4.15 and 5.15, a diesel fuel dispensing station and associated aboveground tanks are located in the project footprint. These facilities will have to be removed.

5.10 Hydrologic effects

The recommended plan will re-connect the Puerto Nuevo Canal to San Juan Bay, re-establishing its natural condition as a tidal estuary and providing gravity drainage for floods, up to a flood with a recurrence frequency of 1% (the "100-year flood") originating in the lower basin.

5.11 Aesthetic Effects

No adverse effects on the visual resources of the project area are anticipated. The levee is relatively low and will run over an elevated power line right of way. Levee sides will be grassed and are not expected to be visually obtrusive. The lower drainage canal will run underground and will not be visible from the surface.

5.12 Water Quality Effects

Excavation and clean-out of the Puerto Nuevo Canal may cause some temporary turbidity increases in its waters, but best construction practices will minimize these effects and limit them to the immediate construction area. Water

quality of the flood drainage from BIA is expected to be at least as good as that of the water at depth in the Puerto Nuevo Navigation Channel at the point of outfall, and it may introduce some oxygen into this rather anaerobic bay environment.

5.13 Air Quality Effects

Construction of the recommended plan does not involve use of any major emitters or generation of significant emissions of pollutants. Operation of the BIA segment will not affect air quality, as a gravity drainage plan will not require motorized pumps.

5.14 Noise

Some additional noise will be generated during construction by common earth-moving machinery, pile drivers (inside the Port lands), dump trucks and other construction vehicles. However, there are no residences to be affected, and no unusual noises are expected. Construction will comply with Environmental Quality Board Regulations for noise levels in industrial and non-residential areas. Once construction is complete the project will not generate any noise.

5.15 Hazardous, Toxic or Radioactive Waste

The diesel dispensing station and storage tanks found within the Port property are within the project boundaries and will be removed and properly disposed of by the Corps contractor. It is anticipated that a large amount of domestic refuse will be found during excavation, as in previous work in the area. The work will not impact the existing landfill in the area.

5.16 Cumulative Impacts

Building the recommended plan will convert 1 acre of mangrove wetlands into open water, and convert 7.5 acres of mixed emergent wetlands into uplands (levee). This is in addition to the 20 acres of mangroves already converted into open water by previously phases of the RPN project. The cumulative impact of the overall RPN project is therefore 21 acres of mangroves and 7.5 acres of freshwater wetlands lost, to be replaced under the currently negotiated overall mitigation plan for RPN. This plan calls for creation of 30 acres of replacement mangrove wetlands, at the mouth of Caño Martín Peña, along the lower riverbank, and along the Margarita Creek in the Rupert Armstrong parcel. When, as expected, the BIA flood control plan is built, some intensification of land use (on already developed sites, such as the Bechara Industrial Park), may occur. However, remaining wetlands in the area are all government owned. Their use is regulated under section 404 of the Federal Clean Water Act. No other cumulative environmental impacts are expected.

5.17 Relationship between short-term uses of the environment and Maintenance and Enhancement of Long-term Productivity

No short-term uses of the environment are proposed. The cleaned out channel and levee are permanent features of the RPN project. Excavated materials not used in levee building will be disposed of off project lands at an upland site to be located by the contractor.

6.00 COMMITMENTS AND SPECIAL CONDITIONS.

6.1 Wetlands mitigation

A revised wetland mitigation plan for the overall RPN project is under development. Although the Corps believes the current mitigation planned to be sufficient under NEPA, a contractor will be utilized to determine whether any enhanced mitigation options exist in the mitigation area. At this time the Corps plans to replace the functions of the estimated 1 acre of mangrove wetland and 7.5 acres of disturbed freshwater wetlands (power line right-of-way) by creation of 2.6 Functional Units (FU) of mangrove wetlands. This is estimated to be equivalent to about 5 acres of newly created mangroves, adjacent to a tidal water body. This will be added to the existing mitigation for the overall RPN project. Any mitigation area would be managed and maintained by the PR DNER.

6.2 Tank Removals.

The diesel fuel station and above ground storage tanks that fall under the project footprint will be removed and disposed of in accordance with Federal and Commonwealth of Puerto Rico law.

7.00 SUMMARY OF COMPLIANCE WITH ENVIRONMENTAL LAWS AND REGULATIONS

7.1 National Environmental Policy Act , as amended (NEPA)

Two Public Notices were published in the Federal Register regarding the BIA segment of the RPN project. A Notice of Intent (NOI) to prepare a Supplemental Environmental Impact Statement (SEIS) was published in the Federal Register of September 9, 1999. A scoping letter was circulated to interested parties on October 6, 1999. In response to scoping and the NOI, several agencies commented that minimizing the project footprint was desirable, and use of the mangrove wetlands of the PRIDCO parcel for disposal was not acceptable. The project was re-evaluated and it was determined that the recommended plan could be built without use of an on-site disposal area, by utilizing the excavated

material for levee top-dressing and access ramps, and stipulating an off-site (upland) disposal option in the construction contract. Based on this change, a second Notice (Cancellation of the Notice of Intent) was published in the Federal Register of March 15, 2000.

This Environmental Assessment (EA), including the Proposed Finding of No Significant Impact (P-FONSI) was circulated under NEPA and the Coastal Zone Management Act (CZMA) regulations for 45 days beginning on the date on the Letter of Transmittal.

7.2 Endangered Species Act of 1973, as amended

No Federally-listed endangered or threatened species were identified by the Corps in the immediate project area, and no adverse effects on the species known from the general San Juan Bay area are expected. The FWS and NMFS did not identify any endangered or threatened species, either.

7.3 Fish and Wildlife Coordination Act of 1958, as amended.

The FWS issued a draft Coordination Act Report on July 10, 2001. The indications of the FWS are that the information provided in that document is the final one and that they have not released the CAR as a final document waiting on a mitigation plan. The recommendations and comments of the FWS are considered as the final ones.

7.4 National Historic Preservation Act of 1966, as amended

Historic preservation coordination with the State Historic Preservation Officer (SHPO), was completed on September 24, 2001, in accordance with Section 106 of the National Historic Preservation Act of 1966, as amended, 36 CFR Part 800. No historic or cultural properties were identified in the work area.

7.5 Clean Water Act of 1972, as amended

The study is in compliance. A Water Quality Certificate had been issued previously for the overall RPN project. This Certificate had no expiration date. The Environmental Quality Board of Puerto Rico (EQB) issued a new WQC on April 6, 2001.

7.6 Clean Air Act of 1972, as amended

The study/project site is in a non-compliance zone for air quality, according to the Puerto Rico Environmental Quality Board, but no additional emissions are expected as a result of project construction or operations. The proposed work is

not industrial in nature, and other than negligible muffler emissions from the construction machinery, no aerial release of substances will take place. Circulation of this Report/EA will fulfill public coordination requirements of Section 9 of the Clean Air Act and NEPA.

7.7 Coastal Zone Management Act of 1972, as amended

The proposed work is within the Coastal Zone of Puerto Rico. A determination of consistency of the project with the Puerto Rico Coastal Management Program was provided along with the Project EIS in 1985, and again in 1993. On March 15, 2001, the PRPB stated that this work was consistent with the Puerto Rico Land Use Plan.

7.8 Farmland Protection Policy Act of 1981

No prime or unique farmland is located in the project area. Lands in the lowermost Puerto Nuevo are fill, urban land and former mangrove forest (tidal swamp). This law is not applicable.

7.9 Wild and Scenic River Act of 1968, as amended

There are no designated Wild and Scenic rivers in Puerto Rico. This act is not applicable.

7.10 Estuary Protection Act of 1968

San Juan Bay Estuary System is a designated site of the U.S. Environmental Protection Agency's National Estuary Program. The proposed project does not conflict with the Comprehensive Conservation and Management Plan (CCMP) for San Juan Bay Estuary. The proposed point of discharge is the Puerto Nuevo Navigation Channel, and the discharge will consist of localized rainwater run-off.

7.11 Resource Conservation and Recovery Act of 1976, as amended, and Toxic Substances Control Act of 1976, as amended

No items regulated under these laws or other laws related to hazardous, toxic or radioactive waste substances have been discovered or likely to exist in the study and project area, except for the fuels used in the cited diesel fuel dispensing area and above ground storage tanks. Removal or relocation of these tanks will be part of the contract, if not previously completed by the Puerto Rico Ports Authority..

7.12 Magnuson-Stevens Fishery Conservation and Management Act, as amended

In accordance with the regulations adopted by the Caribbean Fisheries Management Council, all of San Juan Bay is designated Essential Fish Habitat (EFH) for juvenile forms of reef dwelling and open water species, and as adult habitat for estuarine species. An EFH assessment was made. In spite of their "EFH" designation the inner bay ship channels, especially Army Terminal Channel and Puerto Nuevo Channel, are not of significant value to commercially important marine fish species. Water quality in these deep channels is poor, as discussed in Paragraph 5.5 of this EA. Furthermore, neither the existing Puerto Nuevo Canal nor the levee area can currently provide EFH, as they are within an isolated wetland system not connected to salt water. Re-connecting Puerto Nuevo Canal so that it discharges to the inner harbor may at some point create additional juvenile and estuarine fish habitat, and will not degrade any existing habitat. The Corps made a preliminary determination that the recommended plan will not result in any adverse effects on EFH. The National Marine Fisheries Service (NMFS) concurred under the provisions of the Act and declined to give any recommendations, by letter dated March 24, 2001.

7.13 E.O. 11990 Protection of Wetlands

This order requires that Federal Agencies avoid impacts to wetlands unless there are no practicable alternatives. It further requires that Federal Agencies minimize losses to the beneficial values of wetlands and preserve and enhance the beneficial values of wetlands. The recommended plan is the alternative that minimizes wetland impacts. Full replacement of lost Functional Units in accordance with the WRAP evaluation is proposed. Other than non-construction of a flood control alternative for the Bechara reach of Río Puerto Nuevo, there is no footprint for the levee/canal that would further reduce adverse wetland impacts.

7.14 E.O. 11988 Floodplain Management

This E.O. requires that Federal agencies: (a) avoid development in the floodplain unless it is the only practicable alternative; (b) reduce the hazard and risk associated with floods; (c) minimize the impact of floods on human safety, health and welfare; and (d) restore and preserve the natural and beneficial values of the floodplain. The proposed work intends to reduce flooding risks in a coastal floodplain that is nearly totally developed. It would not increase the current risk of floods in the area, nor will it induce development of the floodplain outside the footprint of existing developed areas.

7.15 E.O. 12898 Environmental Justice

This Order prohibits disproportionately adverse Federal project effects on minority and low-income populations, and requires that such populations be included in the plan formulation and coordination process. The proposed work is in compliance. BIA is a non-residential area, and no resident populations, minority or otherwise, would be impacted by any considered alternative.

8.00 COORDINATION AND PUBLIC INVOLVEMENT.

Public coordination of the BIA segment of the RPN project began in early 1999 in interagency meetings held in Puerto Rico. A Notice of Intent to publish and coordinate a Supplement to the Final EIS for the RPN-BIA project was published in the Federal Register of September 9, 1999. After the public scoping period raised no additional new issues, and the project was modified to avoid disposal of excavated material over mangrove wetlands, the Notice was cancelled by a Notice of Cancellation on March 15, 2000. This EA was coordinated with agencies and interested parties for a period of 45 days, beginning on February 22, 2001. Comments are enclosed as attachment D.

9.00 LIST OF PREPARERS.

This Environmental Assessment was originally written by Barbara B. Cintrón, Biologist, with additional input and final revision provided by Esteban Jiménez, Biologist. Other preparers were: Ivan Acosta, Civil Engineer, and David J. McCullough, Archeologist, all of the Planning Division, Jacksonville District, Corps of Engineers. Project descriptions were provided by Ed Morente, Civil Engineer, Jana Tanner, Civil Engineer, Jack Fross, Civil Engineer, and Robert J. Newman, Project Manager.

10.00 REFERENCES

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LIST OF PLATES, BECHARA INDUSTRIAL AREA ENVIRONMENTAL ASSESSMENT

Plate 1. Overall Rio Puerto Nuevo Project, showing contract reaches and the Bechara segment in context.

Plate 2. "No Action" or GDM plan, with connector canal and pump station added.

Plate 3. New Option 1: Long open gravity drainage channel, parallel to Kennedy Ave.

Plate 4. New Option 2: Box culvert, north trending under Port facilities.

Plate 5. New Option 3: Pump station with "new" Margarita levee alignment

Plate 6. Recommended plan (New Option 2), Overall view.

Plate 7. Detail of Recommended plan showing channel impacts on mangroves (solid thick line)

Plate 8. Detail of Recommended plan showing levee impacts (thick line)

Plate 1. Overall Rio Puerto Nuevo Project, showing contract reaches and the Bechara segment in context.