May 2025

DRAFT SUPPLEMENTAL ENVIRONMENTAL ASSESSMENT

Río Puerto Nuevo Flood Control Project

San Juan, Puerto Rico

APPENDIX A: Clean Water Act 404(b)(1) Evaluation

US. Army Corps of Engineers
Caribbean District

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Evaluation of 404(b)(1) Guidelines
Río Puerto Nuevo Flood Control Project
San Juan, Puerto Rico
May 2025

This evaluation assesses the proposed action for the Río Puerto Nuevo Flood Control (RPN) Project under the Section 404(b)(1) Guidelines (40 CFR Part 230) as required by the Clean Water Act (CWA). The goal of the 404(b)(1) Guidelines is "to restore and maintain, the chemical, physical, and biological integrity of waters of the United States through the control of discharges of dredged or fill material." 40 CFR 230.1(a). The regulations set forth in 40 CFR Part 230 are the substantive criteria issued by the US Environment Protection Agency, used in evaluating discharges of dredged or fill material into waters of the US. The Guidelines provide regulations outlining measures to avoid, minimize and compensate for impacts. Although the United States Army Corps of Engineers (Corps) does not issue permits to itself under Section 404 of the Clean Water Act, the Corps authorizes its own discharges of dredged or fill material by applying all applicable substantive legal requirements, including the Guidelines. This evaluation was conducted to ensure the proposed action complies with the Guidelines.

Project Description:

The RPN Project is a continuing effort to improve flood control and drainage within the Puerto Nuevo River watershed in San Juan, Puerto Rico. Outstanding project components have been dispensed into manageable contracts, which are in various stages of design. The Corps is currently considering engineering design updates for contracts 4, 6, and 7. In the future, if the Corps decides to propose substantial changes to the project that area relevant to environmental concerns, they will be evaluated as appropriate in accordance with NEPA.
The primary objective of the authorized RPN Project is to enhance human health and safety, while also providing additional economic benefits, such as recreation and redevelopment opportunities, by reducing flood risk and minimizing damage to structures, contents, and transportation infrastructure within the basin. In achieving this primary objective, the need was identified for an additional material management area, which is the purpose and need for this Supplemental Environmental Assessment (SEA).
Construction of the Preferred Alternative, Alternative 4, involves the discharge of dredged or fill material, falling under Section 404 of the CWA.

The Preferred Alternative includes the following proposed engineering refinements and design changes:

- Construction of an approximate 56-acre upland material management area for clean fill material with a placement capacity of 1.2 – 1.6 million cubic yards of material;

- Implementation of a wetland mitigation, associated monitoring and contingency plan in an in-kind and in-watershed mitigation area. The wetland mitigation will consist of 10 acres of wetland restoration and 9 acres of wetland enhancement to offset 11.4 acres of wetland impacts. Mitigation monitoring and implementation of contingency measures will continue until the required mitigation has been determined to be successful based on the identified criteria within the Wetland Mitigation and Contingency Plan included in Appendix C. Monitoring is expected

to last no more than 10 years.

See Section 2.1.4 of this RPN SEA for a detailed description.

On June 11, 1993, a Water Quality Certification (WQC), pursuant to 33 U.S.C Section 1341, Clean Water Act (CWA) Section 401, was issued by the Puerto Rico Environmental Quality Board (EQB) for the project as it was designed at the time. All appropriate conditions of the WQC shall be implemented in order to minimize adverse impacts to water quality.

Effects of the RPN Project construction are substantially similar to the 404(b)(1) Guideline's evaluation associated with authorizing documents and the previous Project's Final Environmental Impact Statement (EIS) from October 1984, the General Design Memorandum and Environmental Assessment (EA), RPN from May 1993 and the EA and Finding of No Significant Impact, Flood Control Features for Bechara Industrial Area, RPN Project from January 2002 (USACE 2025). Construction of the preferred alternative will require a new water quality certificate (WQC). A new WQC will be requested for the construction of the Bechara MMA. The construction will comply with the new WQC. To ensure compliance, turbidity and erosion control measures, turbidity monitoring, and best management practices would be implemented. This SEA's 404(b)(1) Guideline's evaluation has been completed based on the updated design.

1. Evaluation Factors

a. Physical and Chemical Characteristics of the Aquatic Ecosystem (230.20-230.25) (Subpart C)

	N/A	Not Significant	Significant
(1) Substrate impacts	☐	☒	☐
(2) Suspended particulates/turbidity impacts	☐	☒	☐
(3) Water Quality Control	☐	☒	☐
(4) Alteration of current patterns and water circulation	☐	☒	☐
(5) Alteration of normal water fluctuations/hydroperiod	☐	☒	☐
(6) Alteration of salinity gradients	☐	☒	☐

Impacts to the substrate and water quality are anticipated due to the filling of wetland area. Significant impacts to wetland substrate would be mitigated and therefore rendered insignificant as a result of implementing a proposed mitigation and contingency plan. (See Appendix C). An in-kind and in-watershed wetland restoration and an enhancement of existing wetlands is being proposed with the goal of minimizing damage to wetland resources and achieving no net loss of wetlands. Temporary impacts to the water column in the form of suspended particles, turbidity and water clarity are anticipated during construction of the preferred alternative. Monitoring

will be implemented to ensure compliance with the parameters established in the new WQC, including pausing activities should the water quality standard be exceeded due to project activities.

The impacts to wetland substrate are discussed in Sections 4.1.1, 4.1.4 and 4.1.5 of the SEA. Suspended particulates/turbidity impacts and water quality control are analyzed in Section 4.1.8. Water quality control is discussed in Sections 5.1-Table 11, 5.7-Table 12, and Section 7.1-Table 13.
No significant effects to current patterns and water circulation, normal water fluctuations, and salinity gradients are expected. Construction of this material management area will not have adverse changes to water flows, directions or velocities. Neither will it result in prolonged inundations, exaggerated high, low or static water levels, or salinity gradients. It is anticipated to have beneficial effects in the form of reduction and mitigation on local flooding as the MMA design includes drainage measures around the site (Discussed in Section 3.2.4, 4.2.4 and 5.1-Table 11).

b. Biological Characteristics of the Aquatic Ecosystem (230.30-230.32) (Subpart D)

	N/A	Not Significant	Significant
(1) Effect on threatened/endangered species and their habitat	☐	☒	☐
(2) Effect on the aquatic food web	☐	☒	☐
(3) Effect on other wildlife (mammals, birds, reptiles, and amphibians)	☐	☒	☐

The Corps determined that the Preferred Alternative, Bechara B MMA, may affect, but not likely to adversely affect the Antillean manatee and Puerto Rican boa, and that it will have No Effect on the roseate tern, queen conch and palo de rosa. The project has been designed to minimize potential impacts, and conservation measures will be implemented to ensure compliance with the Endangered Species Act. While some temporary disturbance may occur, the overall effect on these species and their habitat is not anticipated to be adverse. Potential effects on T&E species and their habitats are discussed in Sections 4.1.3, and 5.1-Table 11 of the RPN SEA 2025.

The aquatic food web will be affected by the Preferred Alternative but is expected to recover. Motile species will avoid construction activity. Temporary reduction in sessile benthic habitat, estuarine submerged and emergent vegetation, tidal wetlands, and water column will occur. Small prey fish, crustaceans, invertebrates and sessile organisms unable to avoid the construction area would be affected. Infaunal and epifauna organisms are expected to colonize the restoration and enhancement areas insuring habitat recovery post construction.

Fish and other wildlife could be temporarily displaced during Preferred Alternative

construction activities. However, as the material placed in the area would be planted and vegetated, and wetlands would be restored and enhanced, they would return to the area. Similar effects would be expected on bird species, minor and temporary, since once the area in vegetated, restored and enhanced it would provide a suitable habitat for birds. Potential effects on other wildlife and their habitats are discussed in Sections 4.1.4 of the RPN SEA 2025.

c. Special Aquatic Site (230.40-230.45) (Subpart E)

	N/A	Not Significant	Significant
(1) Sanctuaries and refuges	☒	☐	☐
(2) Wetlands	☐	☒	☐
(3) Mud flats	☐	☒	☐
(4) Vegetated shallows	☐	☒	☐
(5) Coral reefs	☐	☒	☐
(6) Riffle and pool complexes	☒	☐	☐

No sanctuaries and refuges, or riffle and pool complexes are located in or around the Preferred Alternative construction area.

Significant impacts to wetlands would be mitigated and therefore rendered insignificant as a result of implementing a proposed mitigation and contingency plan. Compensatory mitigation is proposed for the impacts to wetlands caused by filling of wetlands in the material management area. The Corps estimates a total of 24 acres of compensatory wetland mitigation, 10 acres of restoration and 9 acres of enhancements, for 11.4 acres of jurisdictional wetland impacts produced by the construction of the Preferred Alternative of this project. Details on the Wetland Mitigation and Monitoring Plan can be found in Appendix C and a description of the effects on wetlands can be found in Section 4.1.1 of the RPN SEA 2025.

Mud flats, vegetated shallows and coral reefs are located outside of the proposed work footprint. No direct effects are expected. In addition, water quality monitoring will be conducted in accordance with the WQC and water quality standards to insure avoidance and minimization of effects.

d. Human Use Characteristics (230.50-230.54) (Subpart F)

	N/A	Not Significant	Significant
(1) Effects on municipal and private water supplies	☐	☒	☐
(2) Recreational and Commercial fisheries impacts	☐	☒	☐
(3) Effects on water-related recreation	☐	☒	☐

(4) Aesthetic impacts	☐	☒	☐
(5) Effects on parks, national and historical monuments, national seashores, wilderness areas, research sites, and similar preserves	☐	☒	☐

No potable water intakes exist in or around the area, which is surrounded by brackish waters. The area is a confining unit of a continuous soil layer with low permeability. Fisheries and water-related recreation are lacking in the Bechara MMA area. It is not explicitly off-limits to the public, but it is not designed or maintained for recreational use. The vegetation at the site limits accessibility and usability, making it unsuitable for recreational activities.
The potential effects on recreational activities can be found in Sections 4.2.3 and 5.1-Table 11 of the RPN SEA 2025.

The aesthetic effects would be moderate and long-term. The material management site would be completely cleared of all vegetation. The construction equipment and activities would also have temporary adverse aesthetic impacts. However, material placement activities will be long-term with the area being vegetated afterwards, mitigating adverse effects. The fill material is expected to be at least 20 feet high, increasing the surface area. This will create a more visible landscape within this commercial and industrial area, compared to the existing conditions. Effects on aesthetics can be found in Section 4.2.2 and 5.1-Table 11 of the RPN SEA 2025.

No effects on parks, national and historical monuments, national seashores, wilderness areas, research sites, or similar preserves are expected. There are none within or in close proximity to the proposed Bechara MMA area to be affected by.

2. Evaluation of Dredged or Fill Material (230.60-230.61) (Subpart G)

The following information has been considered in evaluating the biological availability of possible contaminants in dredged or fill material. (**Check only those appropriate**)

- ☒ (1) Physical characteristics
- ☐ (2) Hydrography in relation to known or anticipated sources of contaminants
- ☒ (3) Results from previous testing of the material in the vicinity of the project
- ☐ (4) Known, significant, sources of persistent pesticides from land runoff or percolation
- ☒ (5) Spill records for petroleum products or designated (Section 311 of CWA) hazardous substances
- ☒ (6) Other public records of significant introduction of contaminants from industries, municipalities or other sources
- ☐ (7) Known existence of substantial material deposits of substances which could be released in harmful quantities to the aquatic environment by man-induced discharge/fill

(8) Other sources (specify)

Dredged and/or fill material has been evaluated in prior NEPA documents' 404(b)(1) Guidelines Evaluations and MPRSA Section 103 Reports (USACE 2025), the RPN SEA 2025 Appendix D MPRSA Section 103 Report, USCG National Response Center records (USCG 2024) and EPA EnviroAtlas Interactive Map (EPA 2024).

An evaluation of the information mentioned above indicated that there is there is reasonable assurance that the proposed material is not carrier of contaminants. The material meets the testing exclusion criteria.

3. Actions to Minimize Adverse Effects (Section 230.70-230.77) (Subpart H)

All appropriate and practicable steps have been taken to ensure minimal adverse effects of the proposed discharge/fill. Impacts to wetlands are being minimize in the Preferred Alternative, Alternative 4, by approximately 4.2 acres, compared to Alternative 3. This and other measures being implemented to minimize adverse effects are discussed in further detail in the RPN SEA 2025 Sections 4.1, 5.1, 5.2 and 7.1.

4. Compensatory Mitigation for Losses of Aquatic Resources (Section 230.91-230.98) (Subpart J)

Compensatory mitigation for losses of wetlands is discussed in the RPN SEA 2025 Sections 4.1.1, 5.1-5.7, 7.1. The compensatory mitigation involves in-kind and in-watershed wetland restoration and enhancement, and subsequent monitoring of both actions for the 11.4 acres of jurisdictional wetlands to be impacted. A Wetland Mitigation and Contingency Plan is available in RPN SEA 2025 Appendix C with more detailed information pertaining to the compensatory mitigation.

5. Factual Determination (Section 230.11) (Subpart B)

A review of appropriate information as identified in items 1a-1d and 2 above indicates no significant long-term adverse environmental effects of the proposed discharge/fill as related to:

a) Physical substrate at the disposal site
b) Water circulation, fluctuation & salinity
c) Suspended particulates/turbidity
d) Contaminants
e) Aquatic ecosystem and organism
f) Proposed disposal site
g) Cumulative effects on the aquatic ecosystem
h) Secondary effects on the aquatic ecosystem

6. Review of Compliance (230.10(a)-(d)) (Subpart B)

A review of the proposed action indicates that:

a) The proposed discharge of dredged and/or fill material will not have unacceptable adverse effects on the aquatic ecosystem, considering physical, chemical, and biological components as outlined in sections 1a-1d. Furthermore, all appropriate and practicable steps have been taken to avoid and minimize potential impacts to waters of the United States and the Corps proposes to implement compensatory mitigation for any unavoidable impacts as described in its Wetland Mitigation and Contingency Plan. A finding of compliance has been determined and documented.

b) A comprehensive evaluation, consistent with sections 1a-1d of this guideline, has been conducted and determined that the proposed discharge will not result in detrimental impacts to designated uses, threatened or endangered species, or marine sanctuaries, and that all necessary consultations and compliance measures will be integrated.

c) Based on the evaluation conducted, a discharge of dredged and/or fill material in the proposed material management area location is evidently the Least Environmentally Damaging Practicable Alternative (LEDPA) identified through an assessment of reasonable alternatives. This determination considers both short-term and long-term environmental impacts, including potential effects on the physical, chemical, and biological components of the aquatic environment as detailed in sections 1a-1d of this evaluation. The selection of this site reflects a comprehensive evaluation indicating no other practicable alternative exists that would pose less adverse impact while reasonably achieving the objectives of the proposed project, and all appropriate and practicable steps to minimize damage have been implemented.

d) The discharge of dredged and/or fill material has been demonstrated to not cause or contribute to significant degradation of the waters of the United States. This determination is based on a thorough evaluation, consistent with subparts C through G, confirming that all practicable measures have been taken by the proposed activity to minimize environmental impacts. Any unavoidable adverse effects are being mitigated, ensuring the ecological integrity of the aquatic environment is maintained to the fullest extent possible, and that the discharge complies with all applicable water quality standards and other relevant regulations.

7. Findings (Section 230.12) (Subpart B)

Based on a comprehensive review conducted in accordance with 40 CFR Part 230, a Finding of Compliance has been determined for the proposed discharge of dredged and/or fill material. This determination confirms the proposed disposal site meets the requirements outlined in these Guidelines, having been evaluated against subparts C through G, and demonstrates no

unacceptable adverse effects on the aquatic ecosystem. Furthermore, the project incorporates all practicable measures to minimize environmental impacts, including a wetland mitigation and contingency plan designed to offset unavoidable impacts. Therefore, the proposed disposal site is compliant with the restrictions on discharge, contingent upon implementation of the approved mitigation measures to ensure long-term ecological sustainability.