

FEDERAL EMERGENCY MANAGEMENT AGENCY
FINDING OF NO SIGNIFICANT IMPACT
ENVIRONMENTAL ASSESSMENT
CAROLINA DOWNTOWN FLOOD MITIGATION PROJECT
PUERTO RICO, FEMA-4339-DR-PR

BACKGROUND

On September 17, 2017, Hurricane María caused significant damages to Puerto Rico. A disaster declaration was issued for Hurricane María on September 20, 2017, encompassing all of Puerto Rico. The Municipality of Carolina (subrecipient) has applied to FEMA under the Hazard Mitigation Grant Program (HMGP) for funding of the Carolina Downtown Flood Mitigation Project. Specifically, the Municipality of Carolina has applied for funding through the Central Office of Recovery, Reconstruction and Resiliency (COR3; recipient) in accordance with Section 404 of the Robert T. Stafford Disaster Relief and Emergency Assistance Act of 1974 (42 United States Code [U.S.C.] Section 5172), as amended, and the Sandy Recovery Improvement Act of 2013.

FEMA prepared an Environmental Assessment (EA) in accordance with Section 102 of the National Environmental Policy Act (NEPA) of 1969, *as amended*; and the Council on Environmental Quality (CEQ) *Regulations for Implementation of the National Environmental Policy Act* (40 Code of Federal Regulations [CFR] Parts 1500 to 1508); FEMA Directive 108-1-1; and the DHS Instruction Manual 023-1-1. The EA analyzed the potential environmental impacts of the proposed action and alternatives.

The purpose of the proposed project is to construct a new stormwater and flood control system for the Municipality of Carolina's downtown area to reduce the severity of flooding and flood-related damage that endangers life, property, and critical infrastructure in the urban center (i.e., downtown) of the Municipality of Carolina. The need for this project is to protect the community from the effects of flooding as a result of hurricanes and severe storm events and the subsequent failure of the stormwater system. Specifically, the project is needed to maintain community services and utilities, safeguard public health, and improve the community's overall resiliency from the effects of flooding.

ALTERNATIVES

FEMA evaluated alternatives based on engineering constraints, potential environmental impacts, and available property. Budgetary constraints are included but are not the controlling factor. Under the No Action Alternative, there would be no federal financial assistance provided for the

construction of a new stormwater and flood control system. The existing stormwater system would continue to deteriorate and remain susceptible to failure, leaving the community and one of the area's main hospitals vulnerable to severe flooding and at risk of direct and indirect health impacts, contamination of local potable and surface waters, impeded community accessibility, and impacts to the local and downtown economy. The Proposed Action includes the construction of a new stormwater system interconnected with the existing one; repair of existing stormwater infrastructure; construction of a new detention pond, pump station, and dike; and improvements to the infrastructure and telecommunications system within the project limits. Additionally, the Proposed Action would contribute to decreasing community risks related to direct and indirect health impacts, contamination of local potable and surface waters, impeded community accessibility, and impacts to the local and downtown economy.

SUMMARY OF IMPACTS

FEMA has determined that the proposed action will have no impacts on topography, seismicity, wetlands, air quality (impact during operations), threatened and endangered species (other species), and cultural resources (historic structures and archaeological resources – Carolina and Villa Caridad streetscape). The Proposed Action would have negligible to minor, direct, temporary, or short-term impacts to air quality, climate change, soils, water quality, wetlands, wildlife, migratory birds, threatened and endangered species (Puerto Rican boa), vegetation, fish, noise aesthetic resources, land use and planning, public services and utilities, public health and safety, and cumulative impacts. The Proposed Action would have minor to moderate direct short-term impacts with the implementation of Best Management Practices (BMPs) to transportation, environmental justice, and cultural resources (archaeological resources – detention pond area).

The Proposed Action would result in long-term beneficial impacts to climate change (climate resiliency), water quality, wetland (outside of the project footprint), floodplain, environmental justice, land use and planning, transportation, public services and utilities, public health and safety, hazardous materials, and cumulative impacts.

The Proposed Action described in the EA would have minimal impact on the affected environment. Implementing BMPs and requirements identified through permitting are expected to limit project-specific impacts. Mitigation measures to reduce impacts are addressed in each affected environment section and project conditions section. The Proposed Action would have moderate beneficial long-term impacts to the project area and surrounding community by reducing damages from flooding and mitigating the risk to residents, businesses, governmental buildings, and community-serving uses.

PROJECT CONDITIONS

The subrecipient is responsible for obtaining and adhering to all applicable federal, state, and local permits, permit conditions, regulatory compliance, and authorizations for project implementation prior to construction and to adhere to all permit conditions. Any substantive change to the approved

scope of work will require re-evaluation by FEMA for compliance with NEPA and other laws and executive orders. The subrecipient must also adhere to the following conditions during project implementation:

1. **Municipality of Carolina:** Must comply with the environmental and historic preservation applicable laws. Federal funding is contingent upon acquiring the necessary federal, Puerto Rico, and local permits. Noncompliance with this requirement may jeopardize the receipt of federal funds.
2. **Utility Clearance:** For ground-disturbing activities, the subrecipient is responsible for locating utilities. The Occupational Safety and Health Administration mandates that if a utility provider cannot respond to a request to locate underground utility installations or cannot establish the exact location of these installations, the contractor may proceed, provided they use detection equipment or other acceptable means to locate utility installations.
3. **Stormwater and Soils:** A Construction National Pollutant Discharge Elimination System (NPDES) permit and a Stormwater Pollution Prevention Plan (SWPPP) will be prepared and implemented by the subrecipient; BMPs will be implemented during construction in accordance with requirements of the Construction General Permit to manage any piles of soil or debris, minimize steep slope disturbance, preserve native topsoil unless infeasible, and minimize soil compaction and erosion.
4. **Erosion and Sediment Control:** The BMPs and guidelines recommended in the *Puerto Rico Erosion and Sediment Control Handbook for Developing Areas* (Puerto Rico Environmental Quality Board [PREQB] and U.S. Department of Agriculture-National Resources Conservation Service, 2005) will be implemented by the subrecipient for the Proposed Action. The subrecipient will be responsible for obtaining the necessary permits such as an NPDES permit and implementing the associated erosion and sediment control plans included as part of the Puerto Rico Planning Board (PRPB) Joint Regulation Single Incidental Operational Permit and SWPPP.
5. **Spill Prevention, Control and Countermeasure (SPCC):** An SPCC plan will be prepared by the subrecipient to establish procedures, methods, and equipment requirements to (1) prevent fuel or lubricants from reaching waters and (2) contain discharges of harmful substances.
6. **Endangered Species Act (ESA):** An ESA Section 7 informal consultation letter was submitted to the U.S. Fish and Wildlife Service (USFWS) with the determination of impacts to listed federal threatened or endangered species. The USFWS, in a communication dated January 12, 2023, concurred with FEMA on a “May Affect, but is Not Likely to Adversely Affect” determination. The Municipality of Carolina will comply with the conservation measures required by USFWS and implement conservation measures on the Puerto Rican boa, listed as threatened and endangered.
7. **Floodplain:** At the time the EA was published, February 22, 2023, the preliminary No-Rise certificate was under review and the National Flood Insurance Program

compliance was pending concurrence from Puerto Rico Department of Natural and Environment Resources (PRDNER). The subrecipient has received the stamped No-Rise certificate and the Hydrologic and Hydraulic (H&H) Study endorsement was approved on April 5, 2023. The subrecipient must follow all standards and requirements as detailed in the H&H endorsement.

8. **Historic Preservation/Archaeological Resources:** FEMA first initiated consultation with the State Historic Preservation Office (SHPO) in reference to the undertaking on December 6, 2022, presenting the project and its findings. On December 12, 2022, the SHPO responded stating “because the project's Area of Potential Effect is in a flood prone area, additional archaeological sampling should be carried out in the area where the new detention basin is proposed to be built and that the depth of these tests should not be less than two meters deep.” On December 14, 2022, FEMA acknowledged and agreed with SHPO’s comments and issued a finding of No Adverse Effect to Historic Properties with Conditions. The conditions included additional mechanical subsurface testing to depths greater than 2 meters (6.56 feet) and appropriate archaeological reporting. Additional archaeological field deep testing revealed no intact archaeological resources are located in the project limits. In a consultation letter dated May 18, 2023, FEMA determined that the project would result in No Historic Properties Affected. SHPO concurred with this finding on June 2, 2023. The subrecipient is responsible for coordinating with the Institute of Puerto Rican Culture to comply with Puerto Rico’s historic preservation and archaeological requirements. If any cultural materials or human remains are discovered during construction, the contractor must halt work immediately and contact FEMA. The FEMA staff will evaluate the discovery in coordination with SHPO.
9. **Construction/Demolition Material and Debris:** The subrecipient is responsible for obtaining required permits for the demolition activities, as well as the handling and transportation of construction material, solid waste, and debris. The subrecipient is also responsible for procuring the required lead and asbestos certifications. The contractor will identify, handle, transport, and dispose of hazardous materials and/or toxic waste in accordance with U.S. Environmental Protection Agency (EPA) and PRDNER requirements, including the details associated with the proposed action construction materials and debris handling as part of the PRPB Joint Regulation, General Consolidated Permit of the Single Incidental Operational Permit. It is also responsible for ensuring that nonrecyclable debris generated from project activities will be disposed at a PRDNER-permitted landfill.
10. **Clean Air Act:** The subrecipient is responsible for complying with applicable EPA and PRDNER requirements for fugitive dust suppression. Vehicular emission and airborne dust particulates resulting from construction activities and equipment operation must be below the National Ambient Air Quality Standards (NAAQS). An Operation Plan to implement emissions control measures would be included as part of

the Single Incidental Operational Permit application, as required by the PRPB Joint Regulation.

11. **Atmospheric Pollution Control:** The subrecipient will evaluate the proposed equipment associated to the proposed action to comply with Regulation 5300 and PRDNER requirements. A Puerto Rico General Consolidated Permit application will be prepared and submitted to PRDNER for a permit to operate emergency generators.
12. **Invasive Species Act:** The subrecipient is responsible for restoring disturbed soils with planting native, noninvasive species once project activities are completed. Construction equipment should be power washed prior to initial transport to the construction site and prior to changing locations to prevent spread of noxious weeds.
13. **Compliance with State (Local) Permit Requirements:** The subrecipient will submit to OGPe and PRDNER the corresponding applications to obtain, if required, the following environmental protection permits and endorsements:
 - a. **Single Incidental Operational Permit:** This permit includes the Incidental Activity Permit for Public Infrastructure Works, Trees Cutting and Pruning Authorization, and the General Consolidated Permit.
 - i. **Determination of Environmental Assessment (Determinación de Evaluación Ambiental):** The subrecipient is responsible for complying with the recommendations and conditions stipulated in the Determination of Environmental Compliance for Environmental Assessment.
 - ii. **Tree Cutting:** The subrecipient is responsible for complying with the requirements of the PRPB Joint Regulation on the requirements to mitigate trees that are impacted by the proposed action. A tree inventory will be prepared by an OGPe Planting Authorized Inspector to identify trees within the proposed action areas, as part of the Single Incidental Operational Permit as required by the PRPB Joint Regulation. A permit will be required for tree cutting prior to beginning clearing and grubbing.
 - iii. **Natural Habitat Categorization Certificate:** The subrecipient will submit to the PRDNER an application to request concurrence on the habitat classification for the proposed project.
 - b. **Infrastructure and Utilities Recommendations:** The Proposed Action information is presented for consideration and comments for conformity with state utility agencies for building requirements.
 - c. **Maintenance of Public Infrastructure Works Permit:** Required for maintenance of public infrastructure facilities.
14. **Construction Noise:** The construction contractor(s) would be required to implement BMPs to reduce construction-related noise levels to within the permissible noise limits, consistent with Rule 29.D of the Puerto Rico Noise Pollution Control Regulation.
15. Submit copies of all permits obtained to FEMA at or prior to final closeout of the grant.

16. Do not initiate construction activities until fifteen (15) days after the date that the FONSI has been signed as “APPROVED.”

PUBLIC ENGAGEMENT

FEMA issued a public notice, in both Spanish and English, in the *El Nuevo Dia* and *Primera Hora*, on March 6, 2022, to notify the public of the thirty-day public review and comment period. Accordingly, FEMA posted an electronic version of the EA to the FEMA Region 2 website <https://www.fema.gov/emergency-managers/practitioners/environmental-historic/nepa-repository>, the Municipality of Carolina website <https://www.municipiocarolina.com>, and the COR3 website <https://recovery.pr.gov/es/document-library#>. The publicly available materials included both Spanish and English versions of the EA. The subrecipient made hard copies of the EA available for public review at the Carolina Municipality City Hall, Planning Department, 2do Floor, Manuel Fernandez Juncos Avenue, Pueblo Ward, Carolina Puerto Rico. FEMA and the Municipality also posted the public notice on social media outlets (Facebook) and distributed the EA to federal partners through the United Federal Review Working Group. In addition, the Municipality posted information banners around the proposed project perimeter.

FEMA received comments on the EA during the thirty-day public comment period that ended April 6, 2023. Attachment A summarizes the Commenter, the Comment(s) made, and FEMA’s response.

FINDINGS

In accordance with NEPA and its implementing regulations at 40 CFR Parts 1500-1508, FEMA Directive 108-1 and FEMA Instruction 108-1-1, FEMA has determined that the proposed action will have no significant adverse impact on the quality of the human environment. As a result of this FONSI, an EIS will not be prepared, and the proposed project as described in the EA may proceed. This FONSI serves as the final public notice for the proposed project.

APPROVED BY:

JOHN J MCKEE

Digitally signed by JOHN J
MCKEE
Date: 2023.07.14 15:33:35
-04'00'

John J. McKee

Date

Regional Environmental Officer, FEMA Region 2

PROGRAM ENDORSEMENT:

Danna E. Planas Ocasio

Date

Infrastructure Division Director, Joint Recovery Office

**ANTONIO R
BUSQUETS LOPEZ**

Digitally signed by ANTONIO R
BUSQUETS LOPEZ
Date: 2023.07.14 17:26:32 -04'00'

Antonio Busquets López

Date

Hazard Mitigation Division Director, Joint Recovery Office

APPENDIX A: COMMENT AND RESPONSE SUMMARY

Commenter	Comment	FEMA Response
COR3	COR3 asked, in response to Section 5.7, when mitigating, create a reforestation program with documented native species typical of the area before anthropogenic activities took place, taking into consideration wildlife habitat as well as erosion control when planting.	FEMA addresses impacts to vegetation and reforestation in Section 5.7 of the EA. The extent of vegetation loss resulting from the Proposed Action would be relatively small. In addition, the vegetation to be removed primarily consists of nonnative and/or invasive species. The Proposed Action would include the revegetation of temporarily disturbed areas with noninvasive native species and would establish a reforestation program using native species that, in addition to helping to minimize erosion, would benefit wildlife.
COR3	COR3 asked, in response to Section 5.5, referring to the breeding season for bird species, COR3 comments that surveys should be conducted to document any presence of birds in the area that may be nesting on the trees, particularly during the months March through June.	The EA addresses how vegetation will be handled in Section 5.8. The EA states it will be cleared and grubbed and if the nesting season cannot be avoided (March through June), the subrecipient would be responsible for (1) determining whether active nests are present prior to removing vegetation and (2) obtaining and complying with any necessary permits from USFWS.
COR3	COR3 notes that in response to Section 5.8.2, referring to impacts on terrestrial wildlife, once the mitigation of vegetation with native species is completed and are fully established, there should be more species diversity, which in turn attracts more fauna species enriching the ecosystem.	FEMA acknowledges and appreciates the comment for the long-term benefit on the ecosystems due to the completion of the proposed project.
EPA	EPA encourages FEMA to consider including an Executive Summary with visual aids to improve ease of public understanding of the purpose and need, alternatives, and proposed mitigation for this project.	FEMA acknowledges EPA's recommendation for an Executive Summary. FEMA has utilized such summaries in the past and will consider it for future EAs.
EPA	The subrecipient's plan states that the contractor will provide temporary sanitary sewerage, potable water, electricity, and telecommunications to the	FEMA acknowledges EPA comment that portable generator devices meet the national standards and regulations set forth by the EPA for NRCI engines. The EA and FONSI conditions

	community. EPA suggests that FEMA elaborate on how these temporary services will be provided and ensure that any portable generator devices meet the national standards and regulations set forth by the EPA for Non-Road Compression-Ignition (NRCI) engines.	detail that the subrecipient will evaluate the proposed equipment associated to the proposed action to comply with Regulation 5300 and PRDNER requirements. A Puerto Rico General Consolidated Permit application will be prepared and submitted to PRDNER for a permit to operate emergency generators.
EPA	EPA states that the staging areas are described as “possible staging areas” (pg. 8). EPA suggests that the EA clearly indicate which staging areas will be used, for what purpose, and during which timeframe. We suggest including discussions on the impact of using the chosen staging area(s) and any potential impacts to the local community.	FEMA acknowledges EPA comment on the locations and use(s) of the staging areas. The EA considers the staging areas as part of the project limits and in the analysis. The subrecipient is responsible for obtaining all applicable federal, Government of Puerto Rico, and local permits and other prior to construction. Appendix Document B1 of the EA – <i>Management Plan to Minimize Impact to Inhabitants and Structures During Construction, November 9, 2022, and Supplemental Revision dated December 1, 2022</i> , provides conditions for the contractor. Management requirements of staging areas must be followed by the contractor according to the parameters required by local and federal environmental regulations to prevent erosion, sedimentation, and fugitive dusts.
EPA	EPA acknowledges FEMA’s efforts to ensure archaeological resources are not negatively impacted by coordinating with SHPO and scheduling an Intensive Archaeological Survey of the project area.	FEMA appreciates EPA’s acknowledgement. Additional archaeological field testing revealed no intact archaeological resources are located in the project limits. FEMA determined that the project would result in No Historic Properties Affected. SHPO concurred with this finding on June 2, 2023.
EPA	Regarding the Municipal Government of Carolina’s Traffic Maintenance Plan, EPA suggests that the proper operation of the hospital and Security Command Center during construction should be mentioned as a mitigation measure in the Public Health and Safety section.	FEMA acknowledges EPA’s comment. Appendix Document B1 of the EA – <i>Management Plan to Minimize Impact to Inhabitants and Structures During Construction, November 9, 2022, and Supplemental Revision dated December 1, 2022</i> , provides conditions for the contractor for the implementation of the traffic maintenance plan.
EPA	EPA suggests that FEMA expand on how cumulative impacts of the project and independent projects may	FEMA acknowledges EPA’s comment. The EA identifies three projects that are all independent of the Proposed Action. The

	<p>have short-term cumulative adverse impacts to air quality, water quality, aesthetic resources, environmental justice, noise, transportation, public services and utilities, public health and safety, and hazardous materials. FEMA should discuss the cooperation between the project lead agencies to mitigate potential cumulative impacts.</p>	<p>EA identifies that if construction were to occur at the same time this could result in short-term cumulative impacts. Section 6 of the EA outlines construction conditions and the implementation BMPs required to reduce construction-related impacts. In the long term the cumulative impacts of the three independent projects and the Proposed Action would be beneficial and would improve public health and safety and, indirectly, would be beneficial with respect to environmental justice.</p>
EPA	<p>EPA states that FEMA should consider holding public meetings to allow for meaningful public stakeholder engagement. EPA suggests that meetings be held after usual workday hours to ensure the accessibility for the community. Public meetings should offer both in-person and virtual attendance options, make reasonable accommodations for non-English language users, and ensure the meeting is accessible to attendees with disabilities (https://www.section508.gov/create/accessible-meetings/).</p>	<p>FEMA acknowledges EPA comments on holding a public meeting. FEMA’s public engagement outreach are presented in the EA in Section 7 and the FONSI. These have been included in English and Spanish and meet Section 508 standards. Banners announcing the preparation of an EA, websites for providing public comments, and the location of hard copies for public review were placed within the project area.</p>
EPA	<p>FEMA should provide evidence in the EA that supports the claim that combined direct construction emissions and indirect emissions from traffic disruption would not be anticipated to result in an exceedance of any NAAQS.</p>	<p>FEMA acknowledges EPA’s comment. The EA includes a quantitative analysis of direct and indirect construction emissions. The analysis supports the conclusion Long-term operation of the Proposed Action would not involve the notable use of pollutant emitting equipment or vehicles. Negligible amounts of criteria pollutants would be generated by maintenance vehicles and by the intermittent use of the emergency generator at the pump station.</p>
EPA	<p>EPA states that the Municipal Government of Carolina’s Management Plan should also include details regarding plans for the reduction of air pollutant emissions and control of fugitive dust.</p>	<p>FEMA will inform the Municipality of Carolina of this recommendation regarding plans for the reduction of air pollutant emissions and control of fugitive dust. Appendix Document B1 of the EA – <i>Management Plan to Minimize Impact to Inhabitants and Structures During Construction</i>,</p>