



**U.S. Department of Housing and Urban
Development**

451 Seventh Street, SW
Washington, DC 20410
www.hud.gov
espanol.hud.gov

Environmental Review for Activity/Project that is Categorically Excluded Subject to Section 58.5

Pursuant to 24 CFR 58.35(a)

Project Information

Project Name: PR-CRP-000720 Revitalización y Restauración del Centro Urbano

Responsible Entity: Puerto Rico Department of Housing (PRDOH)

State/Local Identifier: Puerto Rico

Preparer: Hernan Jr Machado Torres, P.E.

Certifying Officer Name and Title: Juan Carlos Pérez-Bofill - Director, Disaster Recovery CDBG-DR; Aldo Rivera, Permits and Environmental Compliance Director; Ángel G. López Guzmán - Deputy Director, Permits and Environmental Compliance Specialist Sally Z. Acevedo-Cosme - Permits and Environmental Compliance Specialist; Pedro de León Rodríguez - Permits and Environmental Compliance Specialist; María T. Torres-Bregón - Permits and Environmental Compliance Manager; Ivelisse Lorenzo Torres - Permits and Environmental Compliance Specialist; Santa Ramírez Lebrón - Permits and Environmental Compliance Specialist; Janette I. Cambrelen - Permits and Environmental Compliance Specialist; Limary Vélez Marrero - Permits and Environmental Compliance Specialist; Mónica Machuca Ríos - Permits and Environmental Compliance Specialist

Grant Recipient (if different than Responsible Entity): Municipio de Maricao, P.R

Consultant (if applicable): _____

Direct Comments to: Puerto Rico Department of Housing (environmentcdbg@vivienda.pr.gov) and/or Angel López Guzmán at environmentcdbg@vivienda.pr.gov

Project Location: Maricao Urban Center, Maricao, PR.
Public Plaza (18.180775, -66.979881);
Kiosks (18.18104368, -66.97977998);
Small Plaza (18.18139782, -66.98022663);
Roundabout Intersection (18.183654, -66.981702)

Description of the Proposed Project [24 CFR 50.12 & 58.32; 40 CFR 1508.25]:

The main purpose is the revitalization and restoration of the Urban Center, including streets, sidewalks, open spaces, luminaries, main plaza, and commercial areas damaged by Hurricanes *Irma* and *Maria*. The damage to these areas needs to be improved for a better urban area neighborhood appearance and public usage. These improvements will provide space for recreation and aims to promote the tourism and commercial activity in the area. The scope of work includes but is not limited to:

- Restoration of Public Square, main streets, sidewalks, and commercial districts.
- Re-green of urban zone.
- Luminaries and poles improvements.
- Sidewalks & handicapped ramps improvement to comply with (ADA).
- Enable area for the construction of a new stage.
- Public square floor renovation, concrete benches and stairs improvements.
- Construction of a new structure subdivided into 5 Kiosks.
- Restoration of the PR-357 and PR-120 roundabout connector.
- Construction of a new small public square (plaza) on a municipal owned plot on PR-105 for public recreation.

Level of Environmental Review Determination:

Categorically Excluded Activities Subject to 58.5 (CEST per 24 CFR 58.35(a))

Funding Information

Grant Number	HUD Program	Funding Amount
B-17-DM-72-0001 B-18-DP-72-0001 B-19-DP-78-0002 B-18-DE-72-0001	CDBG-DR	\$11,938,162,230

Estimated Total HUD Funded Amount: \$4,004,565.79

Estimated Total Project Cost (HUD and non-HUD funds) [24 CFR 58.32(d)]: \$4,284,689.96

Compliance with 24 CFR 50.4, 58.5, and 58.6 Laws and Authorities

Record below the compliance or conformance determinations for each statute, executive order, or regulation. Provide credible, traceable, and supportive source documentation for each authority. Where applicable, complete the necessary reviews or consultations and obtain or note applicable permits of approvals. Clearly note citations, dates/names/titles of contacts, and page references. Attach additional documentation as appropriate.

Compliance Factors: Statutes, Executive Orders, and Regulations listed at 24 CFR §58.5 and §58.6	Are formal compliance steps or mitigation required?	Compliance determinations
STATUTES, EXECUTIVE ORDERS, AND REGULATIONS LISTED AT 24 CFR 50.4 & 58.6		
Airport Hazards 24 CFR Part 51 Subpart D	Yes No <input type="checkbox"/> <input checked="" type="checkbox"/>	<p>The project site is located approx. 67,872.31 feet from the Eugenio Maria de Hostos Airport and 354,340.8 feet from the Muñiz ANG Base, PR Air National Guard, Carolina, Puerto Rico. The project site is not within 15,000 feet of a military airport or 2,500 feet of a civilian airport. The project is in compliance with Airport Hazards requirements.</p> <p>Refer to worksheet in Appendix A and map in Appendix B.</p>
Coastal Barrier Resources Coastal Barrier Resources Act, as amended by the Coastal Barrier Improvement Act of 1990 [16 USC 3501]	Yes No <input type="checkbox"/> <input checked="" type="checkbox"/>	<p>According to the U.S. Fish and Wildlife Service Coastal Barrier Resources System Mapper, the project site is not located in any the Coastal Barrier Zone of Puerto Rico. The closest is PR-72 at 67,056 ft. southwest from the project. Therefore, this project has no potential to impact a CBRS Unit and is in compliance with the Coastal Barrier Resources Act.</p> <p>Refer to worksheet in Appendix A and map in Appendix B.</p>

<p>Flood Insurance</p> <p>Flood Disaster Protection Act of 1973 and National Flood Insurance Reform Act of 1994 [42 USC 4001-4128 and 42 USC 5154a]</p>	<p>Yes No</p> <p><input type="checkbox"/> <input checked="" type="checkbox"/></p>	<p>According to the FIRM of the National Flood Insurance Program, (Panel 1040H); MAP Number 72000C1040H; (Rev. April 19, 2005) most of the project site (3.336 acres) is found to be outside the 100-year floodplain zone. However approximately 0.759 acres of the project is within flood Zone A. The proposed activities in Zone A are asphalt replacement and sidewalk reconstruction, therefore the Zone A will not be impacted by the project. No flood insurance is required due to there being no insurable property within the 100-year floodplain. Nevertheless, we will follow the 8-Step Process as specified in worksheet A10. The project is in compliance with Flood Insurance requirements.</p> <p>Refer to worksheet in Appendix A, map and supporting documents in Appendix B.</p>
<p>STATUTES, EXECUTIVE ORDERS, AND REGULATIONS LISTED AT 24 CFR 50.4 & 58.5</p>		
<p>Clean Air</p> <p>Clean Air Act, as amended, particularly section 176(c) & (d); 40 CFR Parts 6, 51, 93</p>	<p>Yes No</p> <p><input type="checkbox"/> <input checked="" type="checkbox"/></p>	<p>According to the EPA's Green Book and AQI System Models in the Island, the project site is not located in a non-attainment area in Puerto Rico, the air quality is good. The project is in compliance with the Clean Air Act.</p> <p>Refer to worksheet in Appendix A, map and supporting documents in Appendix B.</p>
<p>Coastal Zone Management</p> <p>Coastal Zone Management Act, sections 307(c) & (d)</p>	<p>Yes No</p> <p><input type="checkbox"/> <input checked="" type="checkbox"/></p>	<p>According to the Coastal Management Zones Programs of Puerto Rico, the project site is not located in any coastal zone area. This project is located at a distance of approx. 61,248.0 ft. east of the Coastal Zone. The project is in compliance with the Coastal Zone Management Act.</p> <p>Refer to worksheet in Appendix A, map and supporting documents in Appendix B.</p>

<p>Contamination and Toxic Substances</p> <p>24 CFR Part 50.3(i) & 58.5(i)(2)</p>	<p>Yes No</p> <p><input checked="" type="checkbox"/> <input type="checkbox"/></p>	<p>There are no records of toxic, hazardous, or radioactive substances on the Project site. Within 3,000 feet of the Project site, two (2) RCRA sites and one (1) TRI site were identified. No releases or violations reported, or any EPA formal or informal action has been reported for the last five years for any of the sites. However, Zimmetry Environmental Management Corp. has performed a lead-based paint inspection and an asbestos inspection conforming to HUD guidelines. The inspections were conducted on October 5, 2022, and October 7, 2022. The evaluations found that lead-based paint was present in selective components and surfaces throughout the project on the dates of the assessments. According to the DRNA lead regulations, prior to the demolishing of a structure containing lead-based paint, the contaminated surfaces or substrates must be abated or removed. The firm providing the abatement services must be certified as an abatement firm by the DRNA. The evaluations also found that asbestos containing material were present in caulking components on one building facade. However, the building facade is not part of the project therefore no ACBM mitigation will be conducted. The project is in compliance with contamination and toxic substances requirements.</p> <p>Refer to worksheet in Appendix A, map and supporting documents in Appendix B.</p>
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<p>Endangered Species</p> <p>Endangered Species Act of 1973, particularly section 7; 50 CFR Part 402</p>	<p>Yes No</p> <p><input type="checkbox"/> <input checked="" type="checkbox"/></p>	<p>In compliance with the October 24, 2019 USFWS Blanket Clearance and according to the Agency certifying personnel, a Self-Certification letter was prepared on 1/18/2024. The Service determined that the project is in compliance with the following criteria and is not likely to adversely affect federally listed species: Street resurfacing, Construction of gutters and sidewalks along existing roads, and Construction of facilities on vacant properties covered with grasses in urban areas, provided that the lighting associated to the facilities are not visible directly or indirectly from the beach. Per the Official Species List from the U.S. Fish and Wildlife Service (USFWS) Information for Planning and Consultation (IPaC) website, the Puerto Rican Boa can be found but there are no critical habitats at this location. The project will have no potential to affect species or habitats due to the nature of the activities involved in the project. If any Puerto Rican Boa is encountered, work will cease until it moves off the site or, failing that, the Puerto Rico Department of Natural and Environmental Resources Rangers will be notified for safe capture and relocation of the animal, in accordance with that USFWS Puerto Rican Boa Conservation Measures guidelines. This project is in compliance with the Endangered Species Act.</p> <p>Refer to worksheet in Appendix A, map and supporting documents in Appendix B.</p>
<p>Explosive and Flammable Hazards</p> <p>24 CFR Part 51 Subpart C</p>	<p>Yes No</p> <p><input type="checkbox"/> <input checked="" type="checkbox"/></p>	<p>Based on the project description the project includes no activities that would require further evaluation under this section. There is no increase in residents or occupants nor there is no risk to residents or occupants of surrounding buildings. The project is in compliance with explosive and flammable hazard requirements.</p> <p>Refer to worksheet in Appendix A, map and supporting documents in Appendix B.</p>

<p>Farmlands Protection</p> <p>Farmland Protection Policy Act of 1981, particularly sections 1504(b) and 1541; 7 CFR Part 658</p>	<p>Yes No</p> <p><input type="checkbox"/> <input checked="" type="checkbox"/></p>	<p>The project site is located in a previously impacted area. It is not a prime farmland nor will have conversions on any state/local farmland; therefore, no protection is needed. This project is in compliance with the Farmland Protection Policy Act.</p> <p>Refer to worksheet in Appendix A.</p>
<p>Floodplain Management</p> <p>Executive Order 11988, particularly section 2(a); 24 CFR Part 55</p>	<p>Yes No</p> <p><input checked="" type="checkbox"/> <input type="checkbox"/></p>	<p>According to FEMA ABFE, (Panel 1040H); MAP Number 72000C1040H; (Rev. April 13, 2018), most of the project site (3.336 acres) is found to be outside the 100-year floodplain zone. However approximately 0.759 acres of the project is within the flood Zone A. The proposed activities in Zone A are asphalt replacement and sidewalk reconstruction. Nevertheless, we have followed the 8-Step Process as specified in worksheet A10. The process determined that there is no practicable alternative for or partially locating the project in the flood zone since the needed improvements for revitalization, restoration, and construction of the urban center are site specific. There are no alternative options or sites that can provide accessibility and functions that the proposed improvements would. Furthermore, the project area is already highly developed, and the implementation of the project would not encourage new development within the floodplain or wetlands in the proposed project area. An Early Notice (step 2) was published on 2/15/2023 and a Final Notice (step 7) was published on 5/1/2023; no public comments were received. Only short-term impacts to previously disturbed areas would result from the Proposed Action. Potential adverse impacts may include noise pollution, air pollution, pollution from construction waste and debris, and water pollution from construction erosion and sedimentation. The project is in compliance with Flood Insurance requirements and Executive Order 11988.</p> <p>Refer to worksheet in Appendix A, map and supporting documents in Appendix B.</p>

<p>Historic Preservation</p> <p>National Historic Preservation Act of 1966, particularly sections 106 and 110; 36 CFR Part 800</p>	<p>Yes No</p> <p><input checked="" type="checkbox"/> <input type="checkbox"/></p>	<p>A consultation was submitted to the State Historic Preservation Offices (SHPO) on 12/21/23 for their approval. According to their response, #12-21-23-01 of February 2, 2024, indicates that the proposed project will have no adverse effects upon any historic properties within the project's area following archeological monitoring for all new construction. The project is in compliance with Section 106.</p> <p>Refer to worksheet in Appendix A, map and supporting documents in Appendix B.</p>
<p>Noise Abatement and Control</p> <p>Noise Control Act of 1972, as amended by the Quiet Communities Act of 1978; 24 CFR Part 51 Subpart B</p>	<p>Yes No</p> <p><input type="checkbox"/> <input checked="" type="checkbox"/></p>	<p>The project site is located at approx. 36,235.26 ft. away of the major roadway PR-2; 313,516.17 ft. away of nearest railroad, 12.19 miles from the civil airport Eugenio maria de Hostos in Mayagüez, and 67.11 miles from the Muñiz ANG Base, PR Air National Guard, Carolina, Puerto Rico. The project does not involve new construction for residential use or rehabilitation of an existing residential property. Therefore, the project will not involve exposure of additional residents to existing noise sources or existing residents to new noise sources. The project is in compliance with HUD's Noise regulation.</p> <p>Refer to worksheet in Appendix A and map in Appendix B.</p>
<p>Sole Source Aquifers</p> <p>Safe Drinking Water Act of 1974, as amended, particularly section 1424(e); 40 CFR Part 149</p>	<p>Yes No</p> <p><input type="checkbox"/> <input checked="" type="checkbox"/></p>	<p>There are no EPA sole source aquifers in Puerto Rico. The project is in compliance with Sole Source Aquifer requirements.</p> <p>Refer to worksheet in Appendix A and supporting documents in Appendix B.</p>
<p>Wetlands Protection</p> <p>Executive Order 11990, particularly sections 2 and 5</p>	<p>Yes No</p> <p><input type="checkbox"/> <input checked="" type="checkbox"/></p>	<p>According to the National Wetlands Inventory of the U.S. Fish and Wildlife Service, there is a riverine wetland located 240.7 ft. west and a freshwater pond 856.9 ft. southwest from the project. The nearest freshwater emergent wetland is 52,500.0 ft. West from the project. The project is in compliance with Executive Order 11990.</p> <p>Refer to worksheet in Appendix A and map in Appendix B.</p>

<p>Wild and Scenic Rivers</p> <p>Wild and Scenic Rivers Act of 1968, particularly section 7(b) and (c)</p>	<p>Yes No</p> <p><input type="checkbox"/> <input checked="" type="checkbox"/></p>	<p>The project site activities do not impact or affect any of the 3 rivers in Puerto Rico designated as wild and scenic by the U.S. Fish and Wildlife’s National Wild and Scenic Rivers System. All 3 rivers are located inside the premises of the “El Yunque” National Forest in the municipality of Rio Grande at 414,790.78 ft. E from the project. The project is in compliance with the Wild and Scenic Rivers Act.</p> <p>Refer to worksheet in Appendix A, map and supporting documents in Appendix B.</p>
<p>ENVIRONMENTAL JUSTICE</p>		
<p>Environmental Justice</p> <p>Executive Order 12898</p>	<p>Yes No</p> <p><input type="checkbox"/> <input checked="" type="checkbox"/></p>	<p>Project site activities do not have disproportionately high and adverse human health or environmental effects on minority and low-income population, or on the surrounding population or environment. The project is in compliance with Executive Order 12898.</p> <p>Refer to worksheet in Appendix A, map and supporting documents in Appendix B.</p>

Field Inspection by: Hernan Jr Machado-Torres PE, PSC

Date: August 2022

Summary of Findings and Conclusions:

After all inspections, studies and evaluations had been completed, we concluded that this project complies with all aspects and compliance factors of this environmental review. The City of Maricao Urban Area Revitalization Project (CRP-000720) Scope of Works are in compliance with 24 CFR 58 and shall not represent a major environmental, human or neighborhood impact.

Mitigation Measures and Conditions [40 CFR 1505.2(c)]

Summarize below all mitigation measures adopted by the Responsible Entity to reduce, avoid, or eliminate adverse environmental impacts and to avoid non-compliance or non-conformance with the above-listed authorities and factors. These measures/conditions must be incorporated into project contracts, development agreements, and other relevant documents. The staff responsible for implementing and monitoring mitigation measures should be clearly identified in the mitigation plan.

Law, Authority, or Factor	Mitigation Measure
Floodplain Management	Potential adverse impacts from construction would be temporary and mitigated through construction staging plans developed in partnership with the Maricao Municipality to minimize disturbance throughout the construction period and at the end of the project.
Contamination and Toxic Substances (Lead-based Paint)	Abatement, as defined by HUD and the Department of Natural and Environmental Resources (DRNA) of Puerto Rico, means any set of measures designed to eliminate lead-based paint and/or lead-based paint hazards permanently. According to the DRNA lead regulations, prior to the demolishing of a structure containing lead-based paint, the contaminated surfaces or substrates must be abated or removed. The waste generated must be characterized to determine if the waste generated is hazardous or non-hazardous waste. The firm providing the abatement services must be certified as an abatement firm by the DRNA. Workers conducting abatement must be trained and certified as abatement workers by a training provider accredited by the DRNA. The product manufacturer and/or contractor must warrant abatement methods to last a minimum of 20 years, or these methods must have a design life of at least 20 years.
Endangered Species	If any Puerto Rican Boa is encountered prior to and during construction, work will cease until it moves off the site or, failing that, the Puerto Rico Department of natural and Environmental Resources Rangers will be notified for safe capture and relocation of the animal, in accordance with that USFWS Puerto Rican Boa Conservation Measures guidelines to avoid or minimize impacts to this species.
Historic Preservation	Archaeological monitoring is recommended for all new construction within the Maricao urban center – this includes the new plaza to be constructed on PR-105 and the lot for the proposed kiosks on Calle José de Diego. Care should be taken for vibration effects for the surrounding historic buildings to prevent damage during construction. An archaeological work plan will be prepared and submitted to the PRSHPO for review and approval.


Determination:

- This categorically excluded activity/project converts to Exempt, per 58.34(a)(12) because there are no circumstances which require compliance with any of the federal laws and authorities cited at §58.5. **Funds may be committed and drawn down after certification of this part** for this (now) EXEMPT project, OR
- This categorically excluded activity/project cannot convert to Exempt because there are circumstances which require compliance with one or more federal laws and authorities cited at §58.5. Complete consultation/mitigation protocol requirements, **publish NOI/RROF and obtain “Authority to Use Grant Funds”** (HUD 7015.16) per Section 58.70 and 58.71 before committing or drawing down any funds, OR
- This project is now subject to a full Environmental Assessment according to Part 58 Subpart E due to extraordinary circumstances (Section 58.35(c)).

Preparer Signature: _____  _____ Date: February 28, 2024

Name/Title/Organization: Hernan Jr. Machado Torres, PE / President / Hernan Jr Machado-Torres PE, PSC

Responsible Entity Agency Official

Signature: _____  _____ Date: 7/23/2024

Name/Title: Janette I. Cambrelén, Permit and Environmental Compliance Specialist

This original, signed document and related supporting material must be retained on file by the Responsible Entity in an Environmental Review Record (ERR) for the activity/project (ref: 24 CFR Part 58.38) and in accordance with recordkeeping requirements for the HUD program(s).

Appendix A



U.S. DEPARTMENT OF HOUSING AND URBAN DEVELOPMENT
WASHINGTON, DC 20410-1000

APPENDIX A: Related Federal Laws and Authorities

Airport Hazards (CEST and EA) – PARTNER

<https://www.hudexchange.info/environmental-review/airport-hazards>

1. To ensure compatible land use development, you must determine your site's proximity to civil and military airports. Is your project within 15,000 feet of a military airport or 2,500 feet of a civilian airport?

No → *If the RE/HUD agrees with this recommendation, the review is in compliance with this section. Continue to the Worksheet Summary below. Provide a map showing that the site is not within the applicable distances to a military or civilian airport.*

Yes → *Continue to Question 2.*

2. Is your project located within a Runway Potential Zone/Clear Zone (RPZ/CZ) or Accident Potential Zone (APZ)?

Yes, project is in an APZ → *Continue to Question 3.*

Yes, project is an RPZ/CZ → *Project cannot proceed at this location.*

No, project is not within an APZ or RPZ/CZ

→ *If the RE/HUD agrees with this recommendation, the review is in compliance with this section. Continue to the Worksheet Summary below. Continue to the Worksheet Summary below. Provide a map showing that the site is not within either zone.*

3. Is the project in conformance with DOD guidelines for APZ?

Yes, project is consistent with DOD guidelines without further action.

→ *If the RE/HUD agrees with this recommendation, the review is in compliance with this section. Continue to the Worksheet Summary below. Provide any documentation supporting this determination.*

No, the project cannot be brought into conformance with DOD guidelines and has not been approved. → *Project cannot proceed at this location.*

If mitigation measures have been or will be taken, explain in detail the proposed measures that must be implemented to mitigate for the impact or effect, including the timeline for implementation.

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→ *Work with the RE/HUD to develop mitigation measures. Continue to the Worksheet Summary below. Provide any documentation supporting this determination.*

Worksheet Summary

The project site is located approx. 67,872.31 feet from the Eugenio Maria de Hostos Airport and 354,340.8 feet from the Muñiz ANG Base, PR Air National Guard, Carolina, Puerto Rico. The project site is not within 15,000 feet of a military airport or 2,500 feet of a civilian airport. The project is not within an APZ or RPZ/CZ; therefore, the proposed project is consistent with DOD Guidelines for APZ. The project is in compliance with Airport Hazards requirements.

Include all documentation supporting your findings in your submission to HUD.



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Coastal Barrier Resources (CEST and EA) – PARTNER

<https://www.hudexchange.info/environmental-review/coastal-barrier-resources>

Projects located in the following states must complete this form.

Alabama	Georgia	Massachusetts	New Jersey	Puerto Rico	Virgin Islands
Connecticut	Louisiana	Michigan	New York	Rhode Island	Virginia
Delaware	Maine	Minnesota	North Carolina	South Carolina	Wisconsin
Florida	Maryland	Mississippi	Ohio	Texas	

1. Is the project located in a CBRS Unit?

No → *If the RE/HUD agrees with this recommendation, the review is in compliance with this section. Continue to the Worksheet Summary below. Provide a map showing that the site is not within a CBRS Unit.*

Yes → *Continue to 2.*

Federal assistance for most activities may not be used at this location. You must either choose an alternate site or cancel the project. In very rare cases, federal monies can be spent within CBRS units for certain exempted activities (e.g., a nature trail), after consultation with the Fish and Wildlife Service (FWS) (see [16 USC 3505](#) for exceptions to limitations on expenditures).

2. Indicate your recommended course of action for the RE/HUD

Consultation with the FWS

Cancel the project

Worksheet Summary

According to the U.S. Fish and Wildlife Service Coastal Barrier Resources System Mapper, the project site is not located in any the Coastal Barrier Zone of Puerto Rico. The closest is PR-72 at 67,056 ft. southwest from the project. Therefore, this project has no potential to impact a CBRS Unit and is in compliance with the Coastal Barrier Resources Act.

Include all documentation supporting your findings in your submission to HUD.



Flood Insurance (CEST and EA) – PARTNER

<https://www.hudexchange.info/environmental-review/flood-insurance>

1. Does this project involve mortgage insurance, refinance, acquisition, repairs, rehabilitation, or construction of a structure, mobile home, or insurable personal property?

No. This project does not require flood insurance or is excepted from flood insurance.

→ Continue to the Worksheet Summary.

Yes → Continue to Question 2.

2. Provide a FEMA/FIRM map showing the site.

The Federal Emergency Management Agency (FEMA) designates floodplains. The [FEMA Map Service Center](#) provides this information in the form of FEMA Flood Insurance Rate Maps (FIRMs).

Is the structure, part of the structure, or insurable property located in a FEMA-designated Special Flood Hazard Area?

No → Continue to the Worksheet Summary.

Yes → Continue to Question 3.

3. Is the community participating in the National Flood Insurance Program or has less than one year passed since FEMA notification of Special Flood Hazards?

Yes, the community is participating in the National Flood Insurance Program.

Flood insurance is required. Provide a copy of the flood insurance policy declaration or a paid receipt for the current annual flood insurance premium and a copy of the application for flood insurance.

→ Continue to the Worksheet Summary.

Yes, less than one year has passed since FEMA notification of Special Flood Hazards.

If less than one year has passed since notification of Special Flood Hazards, no flood insurance is required.

→ Continue to the Worksheet Summary.

No. The community is not participating, or its participation has been suspended.

Federal assistance may not be used at this location. Cancel the project at this location.

Worksheet Summary

According to the FIRM of the National Flood Insurance Program, (Panel 1040H); MAP Number 72000C1040H; (Rev. April 19, 2005) most of the project site is found to be outside the 100-year floodplain zone. However approximately 1.6% of the project is within a Zone A area. The proposed activities in this zone A are asphalt replacement and sidewalk reconstruction. There are no properties within Zone A therefore no flood insurance is required. Nevertheless, we will follow the 8-Step Process as specified in worksheet A10. The project is in compliance with Flood Insurance requirements.

Include all documentation supporting your findings in your submission to HUD.



U.S. DEPARTMENT OF HOUSING AND URBAN DEVELOPMENT
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Air Quality (CEST and EA) – PARTNER

<https://www.hudexchange.info/environmental-review/air-quality>

1. Does your project include new construction or conversion of land use facilitating the development of public, commercial, or industrial facilities OR five or more dwelling units?

Yes → Continue to Question 2.

No → If the RE/HUD agrees with this recommendation, the review is in compliance with this section. Provide any documents used to make your determination.

2. Is your project's air quality management district or county in non-attainment or maintenance status for any criteria pollutants?

Follow the link below to determine compliance status of project county or air quality management district:

<http://www.epa.gov/oaqps001/greenbk/>

No, project's county or air quality management district is in attainment status for all criteria pollutants

→ If the RE/HUD agrees with this recommendation, the review is in compliance with this section. Continue to the Worksheet Summary below. Provide any documents used to make your determination.

Yes, project's management district or county is in non-attainment or maintenance status for one or more criteria pollutants. → Continue to Question 3.

3. Determine the estimated emissions levels of your project for each of those criteria pollutants that are in non-attainment or maintenance status on your project area. Will your project exceed any of the *de minimis* or *threshold* emissions levels of non-attainment and maintenance level pollutants or exceed the screening levels established by the state or air quality management district?

No, the project will not exceed *de minimis* or threshold emissions levels or screening levels

→ If the RE/HUD agrees with this recommendation, the review is in compliance with this section. Explain how you determined that the project would not exceed *de minimis* or threshold emissions.

Yes, the project exceeds *de minimis* emissions levels or screening levels.

→ Continue to Question 4. Explain how you determined that the project would not exceed de minimis or threshold emissions in the Worksheet Summary.

- 4. For the project to be brought into compliance with this section, all adverse impacts must be mitigated. Explain in detail the exact measures that must be implemented to mitigate for the impact or effect, including the timeline for implementation.**

[Click here to enter text.](#)

Worksheet Summary

According to the EPA's Green Book and AQI System Models in the Island, the project site is not located in a non-attainment area in Puerto Rico, the air quality is good. The project is in compliance with the Clean Air Act.

Include all documentation supporting your findings in your submission to HUD.



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Coastal Zone Management Act (CEST and EA) – PARTNER

<https://www.onecpd.info/environmental-review/coastal-zone-management>

Projects located in the following states must complete this form.

Alabama	Florida	Louisiana	Mississippi	Ohio	Texas
Alaska	Georgia	Maine	New Hampshire	Oregon	Virgin Islands
American Samoa	Guam	Maryland	New Jersey	Pennsylvania	Virginia
California	Hawaii	Massachusetts	New York	Puerto Rico	Washington
Connecticut	Illinois	Michigan	North Carolina	Rhode Island	Wisconsin
Delaware	Indiana	Minnesota	Northern Mariana Islands	South Carolina	

1. Is the project located in, or does it affect, a Coastal Zone as defined in your state Coastal Management Plan?

- Yes → Continue to Question 2.
- No → If the RE/HUD agrees with this recommendation, the review is in compliance with this section. Continue to the Worksheet Summary below. Provide a map showing that the site is not within a Coastal Zone.

2. Does this project include activities that are subject to state review?

- Yes → Continue to Question 3.
- No → If the RE/HUD agrees with this recommendation, the review is in compliance with this section. Continue to the Worksheet Summary below. Provide documentation used to make your determination.

3. Has this project been determined to be consistent with the State Coastal Management Program?

- Yes, with mitigation. → The RE/HUD must work with the State Coastal Management Program to develop mitigation measures to mitigate the impact or effect of the project.
- Yes, without mitigation. → If the RE/HUD agrees with this recommendation, the review is in compliance with this section. Continue to the Worksheet Summary below. Provide documentation used to make your determination.
- No → Project cannot proceed at this location.

Worksheet Summary

According to the Coastal Management Zones Programs of Puerto Rico, the project site is not located in any coastal zone area. This project is located at a distance of approx. 61,248.0 ft. north of the Coastal Zone. The project is in compliance with the Coastal Zone Management Act.

Include all documentation supporting your findings in your submission to HUD.



U.S. DEPARTMENT OF HOUSING AND URBAN DEVELOPMENT
WASHINGTON, DC 20410-1000

Contamination and Toxic Substances (Multifamily and Non-Residential Properties) – PARTNER

<https://www.hudexchange.info/programs/environmental-review/site-contamination>

1. How was site contamination evaluated? ¹ Select all that apply.

- ASTM Phase I ESA
- ASTM Phase II ESA
- Remediation or clean-up plan
- ASTM Vapor Encroachment Screening
- None of the above

→ Provide documentation and reports and include an explanation of how site contamination was evaluated in the Worksheet Summary.

Continue to Question 2.

2. Were any on-site or nearby toxic, hazardous, or radioactive substances found that could affect the health and safety of project occupants or conflict with the intended use of the property? (Were any recognized environmental conditions or RECs identified in a Phase I ESA and confirmed in a Phase II ESA?)

- No → Explain below.

There are no records of toxic, hazardous, or radioactive substances on the Project site. Within 3,000 feet of the Project site, two (2) RCRA sites and one (1) TRI site were identified. No releases or violations reported or any EPA formal or informal action has been reported for the last five years for any of the sites.

→ If the RE/HUD agrees with this recommendation, the review is in compliance with this section. Continue to the Worksheet Summary below.

- Yes → Describe the findings, including any recognized environmental conditions (RECs), in Worksheet Summary below. Continue to Question 3.

3. Can adverse environmental impacts be mitigated?

- Adverse environmental impacts cannot feasibly be mitigated → HUD assistance may not be used for the project at this site. Project cannot proceed at this location.

¹ HUD regulations at 24 CFR § 58.5(i)(2)(ii) require that the environmental review for multifamily housing with five or more dwelling units or non-residential property include the evaluation of previous uses of the site or other evidence of contamination on or near the site. For acquisition and new construction of multifamily and nonresidential properties HUD strongly advises the review include an ASTM Phase I Environmental Site Assessment (ESA) to meet real estate transaction standards of due diligence and to help ensure compliance with HUD's toxic policy at 24 CFR §58.5(i) and 24 CFR §50.3(i). Also note that some HUD programs require an ASTM Phase I ESA.

- Yes, adverse environmental impacts can be eliminated through mitigation.
→ Provide all mitigation requirements² and documents. Continue to Question 4.

4. Describe how compliance was achieved. Include any of the following that apply: State Voluntary Clean-up Program, a No Further Action letter, use of engineering controls³, or use of institutional controls⁴.

[Click here to enter text.](#)

If a remediation plan or clean-up program was necessary, which standard does it follow?

- Complete removal
 Risk-based corrective action (RBCA)
→ Continue to the Worksheet Summary.

Worksheet Summary

According to the NEPAAssist Report, no known toxic chemical, radioactive, hazardous, superfund or brownfields operations are within or located in a 3000 ft. radius from the project site. However, there are two (2) RCRA sites and one (1) TRI site were identified. No releases or violations reported, or any EPA formal or informal action has been reported for the last five years for any of the sites. The project is in compliance with contamination and toxic substances requirements.

Include all documentation supporting your findings in your submission to HUD.

² Mitigation requirements include all clean-up actions required by applicable federal, state, tribal, or local law. Additionally, provide, as applicable, the long-term operations and maintenance plan, Remedial Action Work Plan, and other equivalent documents.

³ Engineering controls are any physical mechanism used to contain or stabilize contamination or ensure the effectiveness of a remedial action. Engineering controls may include, without limitation, caps, covers, dikes, trenches, leachate collection systems, signs, fences, physical access controls, ground water monitoring systems and ground water containment systems including, without limitation, slurry walls and ground water pumping systems.

⁴ Institutional controls are mechanisms used to limit human activities at or near a contaminated site, or to ensure the effectiveness of the remedial action over time, when contaminants remain at a site at levels above the applicable remediation standard which would allow for unrestricted use of the property. Institutional controls may include structure, land, and natural resource use restrictions, well restriction areas, classification exception areas, deed notices, and declarations of environmental restrictions.



Endangered Species Act (CEST and EA) – PARTNER

<https://www.hudexchange.info/environmental-review/endangered-species>

1. Does the project involve any activities that have the potential to affect species or habitats?

No, the project will have No Effect due to the nature of the activities involved in the project.

→ *If the RE/HUD agrees with this recommendation, the review is in compliance with this section. Continue to the Worksheet Summary below. Provide any documents used to make your determination.*

No, the project will have No Effect based on a letter of understanding, memorandum of agreement, programmatic agreement, or checklist provided by local HUD office.

Explain your determination:

[Click here to enter text.](#)

→ *If the RE/HUD agrees with this recommendation, the review is in compliance with this section. Continue to the Worksheet Summary below. Provide any documents used to make your determination.*

Yes, the activities involved in the project have the potential to affect species and/or habitats. →
Continue to Question 2.

2. Are federally listed species or designated critical habitats present in the action area?

Obtain a list of protected species from the Services. This information is available on the [FWS Website](#).

No, the project will have No Effect due to the absence of federally listed species and designated critical habitat.

→ *If the RE/HUD agrees with this recommendation, the review is in compliance with this section. Continue to the Worksheet Summary below. Provide any documents used to make your determination. Documentation may include letters from the Services, species lists from the Services' websites, surveys or other documents and analysis showing that there are no species in the action area.*

Yes, there are federally listed species or designated critical habitats present in the action area. →
Continue to Question 3.

3. Recommend one of the following effects that the project will have on federally listed species or designated critical habitat:

No Effect: Based on the specifics of both the project and any federally listed species in the action area, you have determined that the project will have absolutely no effect on listed species or critical habitat.

→ *If the RE/HUD agrees with this recommendation, the review is in compliance with this section. Continue to the Worksheet Summary below. Provide any documents used to make your determination. Documentation should include a species list and explanation of your conclusion, and may require maps, photographs, and surveys as appropriate.*

May Affect, Not Likely to Adversely Affect: Any effects that the project may have on federally listed species or critical habitats would be beneficial, discountable, or insignificant.

→ Partner entities should not contact the Services directly. *If the RE/HUD agrees with this recommendation, they will have to complete Informal Consultation. Provide the RE/HUD with a biological evaluation or equivalent document. They may request additional information, including surveys and professional analysis, to complete their consultation.*

Likely to Adversely Affect: The project may have negative effects on one or more listed species or critical habitat.

→ Partner entities should not contact the Services directly. *If the RE/HUD agrees with this recommendation, they will have to complete Formal Consultation. Provide the RE/HUD with a biological evaluation or equivalent document. They may request additional information, including surveys and professional analysis, to complete their consultation.*

Worksheet Summary

In compliance with the October 24, 2019 USFWS Blanket Clearance and according to the Agency certifying personnel, a Self-Certification letter was requested on 1/18/2024 to the USFWS for its final approval. The consultation was approved and received on 2/15/2024. Per the Official Species List from the U.S. Fish and Wildlife Service (USFWS) Information for Planning and Consultation (IPaC) website, the Puerto Rican Boa, Puerto Rican Broad-winged Hawk, Puerto Rican Parrot, and the Puerto Rican Sharp-shinned Hawk can be found but there are no critical habitats at this location. The project will have no potential to affect species or habitats due to the nature of the activities involved in the project. If any Puerto Rican Boa, Puerto Rican Broad-winged Hawk, Puerto Rican Parrot, or the Puerto Rican Sharp-shinned Hawk are encountered, work will cease until it moves off the site or, failing that, the USFWS will be notified to relocate the species encountered. This project is in compliance with the Endangered Species Act.

Include all documentation supporting your findings in your submission to HUD.



U.S. DEPARTMENT OF HOUSING AND URBAN DEVELOPMENT
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Explosive and Flammable Hazards (CEST and EA) – PARTNER

<https://www.hudexchange.info/environmental-review/explosive-and-flammable-facilities>

1. Does the proposed HUD-assisted project include a hazardous facility (a facility that mainly stores, handles or processes flammable or combustible chemicals such as bulk fuel storage facilities and refineries)?

No

→ Continue to Question 2.

Yes

Explain:

Click here to enter text.

→ Continue to Question 5.

2. Does this project include any of the following activities: development, construction, rehabilitation that will increase residential densities, or conversion?

No → If the RE/HUD agrees with this recommendation, the review is in compliance with this section. Continue to the Worksheet Summary below.

Yes → Continue to Question 3.

3. Within 1 mile of the project site, are there any current *or planned* stationary aboveground storage containers:

- Of more than 100-gallon capacity, containing common liquid industrial fuels OR
- Of any capacity, containing hazardous liquids or gases that are not common liquid industrial fuels?

No → If the RE/HUD agrees with this recommendation, the review is in compliance with this section. Continue to the Worksheet Summary below. Provide all documents used to make your determination.

Yes → Continue to Question 4.

4. Is the Separation Distance from the project acceptable based on standards in the Regulation?

Please visit HUD's website for information on calculating Acceptable Separation Distance.

Yes

→ If the RE/HUD agrees with this recommendation, the review is in compliance with this section. Continue to the Worksheet Summary below.

Provide map(s) showing the location of the project site relative to any tanks and your separation distance calculations. If the map identifies more than one tank, please identify the tank you have chosen as the "assessed tank."

No

→ Continue to Question 6.

Provide map(s) showing the location of the project site relative to any tanks and your separation distance calculations. If the map identifies more than one tank, please identify the tank you have chosen as the “assessed tank.”

5. Is the hazardous facility located at an acceptable separation distance from residences and any other facility or area where people may congregate or be present?

Please visit HUD’s website for information on calculating Acceptable Separation Distance.

Yes

→ *If the RE/HUD agrees with this recommendation, the review is in compliance with this section. Continue to the Worksheet Summary below.*

Provide map(s) showing the location of the project site relative to residences and any other facility or area where people congregate or are present and your separation distance calculations.

No

→ Continue to Question 6.

Provide map(s) showing the location of the project site relative to residences and any other facility or area where people congregate or are present and your separation distance calculations.

6. For the project to be brought into compliance with this section, all adverse impacts must be mitigated. Explain in detail the exact measures that must be implemented to make the Separation Distance acceptable, including the timeline for implementation. If negative effects cannot be mitigated, cancel the project at this location.

Note that only licensed professional engineers should design and implement blast barriers. If a barrier will be used or the project will be modified to compensate for an unacceptable separation distance, provide approval from a licensed professional engineer.

[Click here to enter text.](#)

Worksheet Summary

This project does not include any of the following activities: development, construction, rehabilitation that will increase residential densities, or conversion. The project will not result in new residents or long-term occupants of the subject buildings. Based on the project description the project includes no activities that would require further evaluation under this section. There is no increase in residents or occupants nor there is no risk to residents or occupants of surrounding buildings. The project is in compliance with explosive and flammable hazard requirements.

Include all documentation supporting your findings in your submission to HUD.



U.S. DEPARTMENT OF HOUSING AND URBAN DEVELOPMENT
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Farmlands Protection (CEST and EA) - PARTNER

<https://www.hudexchange.info/environmental-review/farmlands-protection>

1. Does your project include any activities, including new construction, acquisition of undeveloped land or conversion, that could convert agricultural land to a non-agricultural use?

Yes → *Continue to Question 2.*

No

→ *If the RE/HUD agrees with this recommendation, the review is in compliance with this section. Continue to the Worksheet Summary below.*

2. Does “important farmland,” including prime farmland, unique farmland, or farmland of statewide or local importance regulated under the Farmland Protection Policy Act, occur on the project site?

You may use the links below to determine important farmland occurs on the project site:

- Utilize USDA Natural Resources Conservation Service’s (NRCS) Web Soil Survey <http://websoilsurvey.nrcs.usda.gov/app/HomePage.htm>
- Check with your city or county’s planning department and ask them to document if the project is on land regulated by the FPPA (zoning important farmland as non-agricultural does not exempt it from FPPA requirements)
- Contact NRCS at the local USDA service center <http://offices.sc.egov.usda.gov/locator/app?agency=nrcs> or your NRCS state soil scientist http://soils.usda.gov/contact/state_offices/ for assistance

No → *If the RE/HUD agrees with this recommendation, the review is in compliance with this section. Continue to the Worksheet Summary below. Provide any documents used to make your determination.*

Yes → *Continue to Question 3.*

3. Consider alternatives to completing the project on important farmland and means of avoiding impacts to important farmland.

- Complete form [AD-1006, “Farmland Conversion Impact Rating”](#) and contact the state soil scientist before sending it to the local NRCS District Conservationist.
- Work with NRCS to minimize the impact of the project on the protected farmland. When you have finished with your analysis, return a copy of form AD-1006 to the USDA-NRCS State Soil Scientist or his/her designee informing them of your determination.

Work with the RE/HUD to determine how the project will proceed. Document the conclusion:

Project will proceed with mitigation.

Explain in detail the proposed measures that must be implemented to mitigate for the impact or effect, including the timeline for implementation.

Click here to enter text.

→ *If the RE/HUD agrees with this recommendation, the review is in compliance with this section. Continue to the Worksheet Summary below. Provide form AD-1006 and all other documents used to make your determination.*

Project will proceed without mitigation.

Explain why mitigation will not be made here:

Click here to enter text.

→ *If the RE/HUD agrees with this recommendation, the review is in compliance with this section. Continue to the Worksheet Summary below. Provide form AD-1006 and all other documents used to make your determination.*

Worksheet Summary

The site location is in an urban area, it is a previously developed area. The project is out of agricultural reserves, experimental stations, there are no soils classified as of agricultural capacity and they are not classified as prime agricultural land. This project does not include any activities that could potentially convert agricultural land to non-agricultural use. This project is in compliance with the Farmland Protection Policy Act.

Include all documentation supporting your findings in your submission to HUD.



Floodplain Management (CEST and EA) – PARTNER

<https://www.hudexchange.info/environmental-review/floodplain-management>

1. Does [24 CFR 55.12\(c\)](#) exempt this project from compliance with HUD’s floodplain management regulations in Part 55?

Yes

Provide the applicable citation at 24 CFR 55.12(c) here. If project is exempt under 55.12(c)(6) or (8), provide supporting documentation.

Click here to enter text.

→ If the RE/HUD agrees with this recommendation, the review is in compliance with this section. Continue to the Worksheet Summary below. Continue to the Worksheet Summary.

No → Continue to Question 2.

2. Provide a FEMA/FIRM map showing the site.

The Federal Emergency Management Agency (FEMA) designates floodplains. The [FEMA Map Service Center](#) provides this information in the form of FEMA Flood Insurance Rate Maps (FIRMs).

Does your project occur in a floodplain?

No → Continue to the Worksheet Summary below.

Yes

Select the applicable floodplain using the FEMA map or the best available information:

Floodway → Continue to Question 3, Floodways

Coastal High Hazard Area (V Zone) → Continue to Question 4, Coastal High Hazard Areas

500-year floodplain (B Zone or shaded X Zone) → Continue to Question 5, 500-year Floodplains

100-year floodplain (A Zone) → The 8-Step Process is required. Continue to Question 6, 8-Step Process

3. **Floodways**

Is this a functionally dependent use?

Yes

The 8-Step Process is required. Work with HUD or the RE to assist with the 8-Step Process.

→ Continue to Worksheet Summary.

- No → *Federal assistance may not be used at this location unless an exception in 55.12(c) applies. You must either choose an alternate site or cancel the project.*

4. Coastal High Hazard Area

Is this a critical action such as a hospital, nursing home, fire station, or police station?

- Yes → *Critical actions are prohibited in coastal high hazard areas unless an exception in 55.12(c) applies. You must either choose an alternate site or cancel the project.*

- No

Does this action include new construction that is not a functionally dependent use, existing construction (including improvements), or reconstruction following destruction caused by a disaster?

- Yes, there is new construction of something that is not a functionally dependent use. New construction must be designed to FEMA standards for V Zones at 44 CFR 60.3(e) (24 CFR 55.1(c)(3)(i)).

→ *Continue to Question 6, 8-Step Process*

- No, this action concerns only existing construction.

Existing construction must have met FEMA elevation and construction standards for a coastal high hazard area or other standards applicable at the time of construction.

→ *Continue to Question 6, 8-Step Process*

5. 500-year Floodplain

Is this a critical action?

- No → *If the RE/HUD agrees with this recommendation, the review is in compliance with this section. Continue to the Worksheet Summary below. Continue to the Worksheet Summary below.*

- Yes → *Continue to Question 6, 8-Step Process*

6. 8-Step Process.

Is this 8-Step Process required? Select one of the following options:

- 8-Step Process applies.

This project will require mitigation and may require elevating structure or structures. See the link to the HUD Exchange above for information on HUD's elevation requirements.

→ *Work with the RE/HUD to assist with the 8-Step Process. Continue to Worksheet Summary.*

- 5-Step Process is applicable per 55.12(a)(1-3).

Provide the applicable citation at 24 CFR 55.12(a) here.

[Click here to enter text.](#)

→ *Work with the RE/HUD to assist with the 5-Step Process. Continue to Worksheet Summary.*

- 8-Step Process is inapplicable per 55.12(b)(1-4).

Provide the applicable citation at 24 CFR 55.12(b) here.

[Click here to enter text.](#)

→ *If the RE/HUD agrees with this recommendation, the review is in compliance with this section. Continue to the Worksheet Summary below.*

Worksheet Summary

According to the FIRM of the National Flood Insurance Program, (Panel 1040H); MAP Number 72000C1040H; (Rev. April 19, 2005) most of the project site is found to be outside the 100-year floodplain zone. However approximately 1.6% of the project is within a Zone A area. The proposed activities in Zone A are asphalt replacement and sidewalk reconstruction. Nevertheless, we have followed the 8-Step Process. The process determined that there is no practicable alternative for or partially locating the project in the flood zone since the needed improvements for revitalization, restoration, and construction of the urban center are site specific. There are no alternative options or sites that can provide accessibility and functions that the proposed improvements would. Furthermore, the project area is already highly developed, and the implementation of the project would not encourage new development within the floodplain or wetlands in the proposed project area. An Early Notice (step 2) was published on 2/15/2023 and a Final Notice (step 7) was published on 5/1/2023; no public comments were received. Only short-term impacts to previously disturbed areas would result from the Proposed Action. Potential adverse impacts may include noise pollution, air pollution, pollution from construction waste and debris, and water pollution from construction erosion and sedimentation. These potential adverse impacts from construction would be temporary and mitigated through construction staging plans developed in partnership with the Maricao Municipality to minimize disturbance throughout the construction period and at the end of the project. The project is in compliance with Flood Insurance requirements and Executive Order 11988.

Include all documentation supporting your findings in your submission to HUD.



U.S. DEPARTMENT OF HOUSING AND URBAN DEVELOPMENT
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Historic Preservation (CEST and EA) – PARTNER

<https://www.hudexchange.info/environmental-review/historic-preservation>

Threshold

Is Section 106 review required for your project?

- No, because a Programmatic Agreement states that all activities included in this project are exempt. (See the [PA Database](#) to find applicable PAs.)

Either provide the PA itself or a link to it here. Mark the applicable exemptions or include the text here:

[Click here to enter text.](#)

→ *Continue to the Worksheet Summary.*

- No, because the project consists solely of activities included in a No Potential to Cause Effects memo or other determination [36 CFR 800.3(a)(1)].

Either provide the memo itself or a link to it here. Explain and justify the other determination here:

[Click here to enter text.](#)

→ *Continue to the Worksheet Summary.*

- Yes, because the project includes activities with potential to cause effects (direct or indirect). → *Continue to Step 1.*

The Section 106 Process

After determining the need to do a Section 106 review, HUD or the RE will initiate consultation with regulatory and other interested parties, identify and evaluate historic properties, assess effects of the project on properties listed on or eligible for the National Register of Historic Places, and resolve any adverse effects through project design modifications or mitigation.

Step 1: Initiate consultation

Step 2: Identify and evaluate historic properties

Step 3: Assess effects of the project on historic properties

Step 4: Resolve any adverse effects

Only RE or HUD staff may initiate the Section 106 consultation process. Partner entities may gather information, including from SHPO records, identify and evaluate historic properties, and make initial assessments of effects of the project on properties listed in or eligible for the National Register of Historic Place. Partners should then provide their RE or HUD with all of their analysis and documentation so that they may initiate consultation.

Step 1 - Initiate Consultation

The following parties are entitled to participate in Section 106 reviews: Advisory Council on Historic Preservation; State Historic Preservation Officers (SHPOs); federally recognized Indian tribes/Tribal

Historic Preservation Officers (THPOs); Native Hawaiian Organizations (NHOs); local governments; and project grantees. The general public and individuals and organizations with a demonstrated interest in a project may participate as consulting parties at the discretion of the RE or HUD official. Participation varies with the nature and scope of a project. Refer to HUD's website for guidance on consultation, including the required timeframes for response. Consultation should begin early to enable full consideration of preservation options.

Use the [When To Consult With Tribes checklist](#) within [Notice CPD-12-006: Process for Tribal Consultation](#) to determine if the RE or HUD should invite tribes to consult on a particular project. Use the [Tribal Directory Assessment Tool \(TDAT\)](#) to identify tribes that may have an interest in the area where the project is located. Note that only HUD or the RE may initiate consultation with Tribes. Partner entities may prepare a draft letter for the RE or HUD to use to initiate consultation with tribes, but may not send the letter themselves.

List all organizations and individuals that you believe may have an interest in the project here:

US Fish and Wildlife Service, US Environmental Protection Agency, US Army Corps of Engineers, National Oceanic and Atmospheric Administration Fisheries Service, Federal Emergency Management Agency, Puerto Rico Department of Agriculture, Puerto Rico Historic Preservation Office, Puerto Rico Department of Economic Development and Commerce, Puerto Rico Planning Board, Puerto Rico Department of Environment and Natural Resources, and the people of Maricao, PR.

→ *Continue to Step 2.*

Step 2 - Identify and Evaluate Historic Properties

Provide a preliminary definition of the Area of Potential Effect (APE), either by entering the address(es) or providing a map depicting the APE. Attach an additional page if necessary.

The direct APE for this project is 4.44 acres, and the visual APE is the viewshed of the proposed project. For the rehabilitation of the Public Square Luis Muñoz Rivera, the construction of the five kiosks and the small square, the APE extends north through the north and east of the PR-105 road to the junction with the José de Diego Street, one block east of Betances Street, one block south of Ruiz Belvis Street, one block west of Corchado Street and sides of the stairs that lead to the Complejo Deportivo to the west. That is equivalent to 3.22 acres. For the renovation of the roundabout, the APE consists of approximately 1.22 acres. It comprehends an offset to the existing fountain bound with the San Juan Bautista housing development (urbanización) and other structures at the perimeter, including the recreational area.

Gather information about known historic properties in the APE. Historic buildings, districts and archeological sites may have been identified in local, state, and national surveys and registers, local historic districts, municipal plans, town and county histories, and local history websites. If not already listed on the National Register of Historic Places, identified properties are then evaluated to see if they are eligible for the National Register. Refer to HUD's website for guidance on identifying and evaluating historic properties.

In the space below, list historic properties identified and evaluated in the APE.

Every historic property that may be affected by the project should be listed. For each historic property or district, include the National Register status, whether the SHPO has concurred with the finding, and whether information on the site is sensitive. Attach an additional page if necessary.



1	Private Property (262-014-032-04-001), Eligible
2	Private Property (262-014-007-01-001), Eligible
3	Private Property (262-014-007-06-001), Eligible
4	Private Property (262-014-008-01-901), Eligible
5	Maricao Traditional Center Square, Eligible Site
6	Catholic Church, Registered Property
7	Private Property (262-014-018-02-001), Eligible
8	Presbyterian Church, Eligible

Provide the documentation (survey forms, Register nominations, concurrence(s) and/or objection(s), notes, and photos) that justify your National Register Status determination.

Was a survey of historic buildings and/or archeological sites done as part of the project?

If the APE contains previously unsurveyed buildings or structures over 50 years old, or there is a likely presence of previously unsurveyed archeological sites, a survey may be necessary. For Archeological surveys, refer to HP Fact Sheet #6, [Guidance on Archeological Investigations in HUD Projects](#).

Yes → Provide survey(s) and report(s) and continue to Step 3.

Additional notes:

Project (Parcel) Location with Previous Investigations - Aerial Map

(ICP/CAT/PAE Digital Records)



Table 1: Archaeological Studies near the Urban Center of Maricao.

Project Name	Phase	Archaeologist	Results	Distance to the APE
1. Emergency Project Inspection Report ICP/CAT/AD-06-04-08	Archaeological Inspection	J. López Melendez	Negative	0.295151 miles (475 meters)
2. Urban High School Construction PR-10 ICP/CAT/MR-94-01-02	Phase IA/IB	J. López Melendez	Negative	0.368473 (593 meters)
3. Lomas del Rio Housing Apartments ICP/CAT/MR-00-01-03	Phase IA-IB	N. Medina-Carillo	Negative	1.2545484 miles (2,019 meters)

No → Continue to Step 3.

Step 3 - Assess Effects of the Project on Historic Properties

Only properties that are listed on or eligible for the National Register of Historic Places receive further consideration under Section 106. Assess the effect(s) of the project by applying the Criteria of Adverse Effect. ([36 CFR 800.5](#)) Consider direct and indirect effects as applicable as per HUD guidance.

Choose one of the findings below to recommend to the RE or HUD.

Please note: this is a recommendation only. It is **not** the official finding, which will be made by the RE or HUD, but only your suggestion as a Partner entity.

No Historic Properties Affected

Document reason for finding:

No historic properties present.

Historic properties present, but project will have no effect upon them.

No Adverse Effect

Document reason for finding and provide any comments below.

Comments may include recommendations for mitigation, monitoring, a plan for unanticipated discoveries, etc.

[Click here to enter text.](#)

Adverse Effect

Document reason for finding:

Copy and paste applicable Criteria into text box with summary and justification.

Criteria of Adverse Effect: [36 CFR 800.5](#)]

[Click here to enter text.](#)

Provide any comments below:

Comments may include recommendations for avoidance, minimization, and/or mitigation.

[Click here to enter text.](#)

A consultation was submitted to the State Historic Preservation Offices (SHPO) on 12/21/23 for their approval. According to their response, #12-21-23-01 of February 2, 2024 indicates that the proposed project will have no adverse effects upon any historic properties within the project's area following archeological monitoring for all new construction. The project is in compliance with Section 106.



U.S. DEPARTMENT OF HOUSING AND URBAN DEVELOPMENT
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Noise (CEST Level Reviews) – PARTNER

<https://www.hudexchange.info/programs/environmental-review/noise-abatement-and-control>

1. What activities does your project involve? Check all that apply:

- New construction for residential use

NOTE: HUD assistance to new construction projects is generally prohibited if they are located in an Unacceptable zone, and HUD discourages assistance for new construction projects in Normally Unacceptable zones. See 24 CFR 51.101(a)(3) for further details.

→ Continue to Question 4.

- Rehabilitation of an existing residential property

NOTE: For modernization projects in all noise zones, HUD encourages mitigation to reduce levels to acceptable compliance standards. See 24 CFR 51 Subpart B for further details.

→ Continue to Question 2.

- None of the above

→ If the RE/HUD agrees with this recommendation, the review is in compliance with this section. Continue to the Worksheet Summary below.

2. Do you have standardized noise attenuation measures that apply to all modernization and/or minor rehabilitation projects, such as the use of double glazed windows or extra insulation?

- Yes

Indicate the type of measures that will apply (check all that apply):

- Improved building envelope components (better windows and doors, strengthened sheathing, insulation, sealed gaps, etc.)

- Redesigned building envelope (more durable or substantial materials, increased air gap, resilient channels, staggered wall studs, etc.)

- Other (explain below)

[Click here to enter text.](#)

→ If the RE/HUD agrees with this recommendation, the review is in compliance with this section. Continue to the Worksheet Summary below and provide any documentation.

- No

→ Continue to Question 3.

3. Complete the Preliminary Screening to identify potential noise generators in the vicinity (1000' from a major road, 3000' from a railroad, or 15 miles from an airport).

Describe findings of the Preliminary Screening:

[Click here to enter text.](#)

→ Continue to Question 6.

4. Complete the Preliminary Screening to identify potential noise generators in the vicinity (1000' from a major road, 3000' from a railroad, or 15 miles from an airport).

Indicate the findings of the Preliminary Screening below:

There are no noise generators found within the threshold distances above.

→ If the RE/HUD agrees with this recommendation, the review is in compliance with this section. Continue to the Worksheet Summary below. Provide a map showing the location of the project relative to any noise generators.

Noise generators were found within the threshold distances.

→ Continue to Question 5.

5. Complete the Noise Assessment Guidelines to quantify the noise exposure. Indicate the findings of the Noise Assessment below:

Acceptable: (65 decibels or less; the ceiling may be shifted to 70 decibels in circumstances described in §24 CFR 51.105(a))

Indicate noise level here: [Click here to enter text.](#)

→ If the RE/HUD agrees with this recommendation, the review is in compliance with this section. Continue to the Worksheet Summary below. Provide noise analysis, including noise level and data used to complete the analysis.

Normally Unacceptable: (Above 65 decibels but not exceeding 75 decibels; the floor may be shifted to 70 decibels in circumstances described in 24 CFR 51.105(a))

Indicate noise level here: [Click here to enter text.](#)

Is the project in a largely undeveloped area¹?

No → **The project requires completion of an Environmental Assessment (EA) pursuant to 51.104(b)(1)(i).**

Yes → **The project requires completion of an Environmental Impact Statement (EIS) pursuant to 51.104(b)(1)(i).**

→ Work with the RE/HUD to elevate the level of review. Provide noise analysis, including noise level and data used to complete the analysis.
Continue to Question 6.

Unacceptable: (Above 75 decibels)

Indicate noise level here: [Click here to enter text.](#)

The project requires completion of an Environmental Impact Statement (EIS) pursuant to 51.104(b)(1)(i). Work with HUD or the RE to either complete an EIS or obtain a waiver signed by the appropriate authority.

→ Continue to Question 6.

¹ A largely undeveloped area means the area within 2 miles of the project site is less than 50 percent developed with urban uses and does not have water and sewer capacity to serve the project.

6. HUD strongly encourages mitigation be used to eliminate adverse noise impacts. Work with the RE/HUD on the development of the mitigation measures that must be implemented to mitigate for the impact or effect, including the timeline for implementation.

- Mitigation as follows will be implemented:

[Click here to enter text.](#)

→ *Provide drawings, specifications, and other materials as needed to describe the project's noise mitigation measures.*

Continue to the Worksheet Summary.

- No mitigation is necessary.

Explain why mitigation will not be made here:

[Click here to enter text.](#)

→ *Continue to the Worksheet Summary.*

Worksheet Summary

The project site is located at approx. 36,235.26 ft. away from the major roadway PR-2; 313,516.17 ft. away from the nearest railroad, 12.19 miles from the civil airport Eugenio maria de Hostos in Mayagüez, and 67.11 miles from the Muñiz ANG Base, PR Air National Guard, Carolina, Puerto Rico. The project does not involve new construction for residential use or rehabilitation of an existing residential property. Therefore, the project will not involve exposure of additional residents to existing noise sources or existing residents to new noise sources. The project is in compliance with HUD's Noise regulation.

Include all documentation supporting your findings in your submission to HUD.

[Click here to enter text.](#)



U.S. DEPARTMENT OF HOUSING AND URBAN DEVELOPMENT
WASHINGTON, DC 20410-1000

Sole Source Aquifers (CEST and EA) - PARTNER

<https://www.hudexchange.info/environmental-review/sole-source-aquifers>

1. Is the project located on a sole source aquifer (SSA)¹?

No → *If the RE/HUD agrees with this recommendation, the review is in compliance with this section. Continue to the Worksheet Summary below. Provide documentation used to make your determination, such as a map of your project or jurisdiction in relation to the nearest SSA.*

Yes → *Continue to Question 2.*

2. Does the project consist solely of acquisition, leasing, or rehabilitation of an existing building(s)?

Yes → *The review is in compliance with this section. Continue to the Worksheet Summary below.*

No → *Continue to Question 3.*

3. Does your region have a memorandum of understanding (MOU) or other working agreement with EPA for HUD projects impacting a sole source aquifer?

Contact your Field or Regional Environmental Officer or visit the HUD webpage at the link above to determine if an MOU or agreement exists in your area.

Yes → *Continue to Question 4.*

No → *Continue to Question 5.*

4. Does your MOU or working agreement exclude your project from further review?

Yes → *If the RE/HUD agrees with this recommendation, the review is in compliance with this section. Continue to the Worksheet Summary below. Provide documentation used to make your determination and document where your project fits within the MOU or agreement.*

No → *Continue to Question 5.*

5. Will the proposed project contaminate the aquifer and create a significant hazard to public health?

Consult with your Regional EPA Office. Your consultation request should include detailed information about your proposed project and its relationship to the aquifer and associated streamflow source area. EPA will also want to know about water, storm water and waste water at the proposed project. Follow your MOU or working agreement or contact your Regional EPA office for specific information you may need to provide. EPA may request additional information if impacts to the aquifer are questionable after this information is submitted for review.

¹ A sole source aquifer is defined as an aquifer that supplies at least 50 percent of the drinking water consumed in the area overlying the aquifer. This includes streamflow source areas, which are upstream areas of losing streams that flow into the recharge area.

- No → *If the RE/HUD agrees with this recommendation, the review is in compliance with this section. Continue to the Worksheet Summary below. Provide your correspondence with the EPA and all documents used to make your determination.*
- Yes → *The RE/HUD will work with EPA to develop mitigation measures. If mitigation measures are approved, attach correspondence with EPA and include the mitigation measures in your environmental review documents and project contracts. If EPA determines that the project continues to pose a significant risk to the aquifer, federal financial assistance must be denied. Continue to Question 6.*

Worksheet Summary

According to the EPA's Sole Source Aquifers Program - Region 2, the designated sole source aquifers in this region are located in the states of New York and New Jersey. Therefore, this project site and the entire island of Puerto Rico is exempt from any potential impact to any EPA aquifers. The project is in compliance with Sole Source Aquifer requirements.

Include all documentation supporting your findings in your submission to HUD.

Click here to enter text.



U.S. DEPARTMENT OF HOUSING AND URBAN DEVELOPMENT
WASHINGTON, DC 20410-1000

Wetlands (CEST and EA) – Partner

<https://www.hudexchange.info/environmental-review/wetlands-protection>

1. Does this project involve new construction as defined in Executive Order 11990, expansion of a building's footprint, or ground disturbance?

The term "new construction" includes draining, dredging, channelizing, filling, diking, impounding, and related activities and construction of any any structures or facilities.

No → *If the RE/HUD agrees with this recommendation, the review is in compliance with this section. Continue to the Worksheet Summary below.*

Yes → *Continue to Question 2.*

2. Will the new construction or other ground disturbance impact a wetland as defined in E.O. 11990?

No → *If the RE/HUD agrees with this recommendation, the review is in compliance with this section. Continue to the Worksheet Summary below. Provide a map or any other relevant documentation to explain your determination.*

Yes → *Work with HUD or the RE to assist with the 8-Step Process.* *Continue to Question 3.*

3. Does Section 55.12 state that the 8-Step Process is not required?

No, the 8-Step Process applies.

This project will require mitigation and may require elevating structure or structures. See the link to the HUD Exchange above for information on HUD's elevation requirements.

→ *Work with the RE/HUD to assist with the 8-Step Process. Continue to Worksheet Summary.*

5-Step Process is applicable per 55.12(a).

Provide the applicable citation at 24 CFR 55.12(a) here.

[Click here to enter text.](#)

→ *Work with the RE/HUD to assist with the 5-Step Process. This project may require mitigation or alternations. Continue to Worksheet Summary.*

8-Step Process is inapplicable per 55.12(b).

Provide the applicable citation at 24 CFR 55.12(b) here.

[Click here to enter text.](#)

→ *If the RE/HUD agrees with this recommendation, the review is in compliance with this section. Continue to Worksheet Summary.*

8-Step Process is inapplicable per 55.12(c).

Provide the applicable citation at 24 CFR 55.12(c) here.

[Click here to enter text.](#)

→ If the RE/HUD agrees with this recommendation, the review is in compliance with this section. Continue to Worksheet Summary.

Worksheet Summary

According to the National Wetlands Inventory of the U.S. Fish and Wildlife Service, there is a Riverine located 240.7 ft and a freshwater pond 856.9 ft west from the project. The nearest freshwater emergent wetland is 52,500.0 ft. West from the project. The project is in compliance with Executive Order 11990.

Include all documentation supporting your findings in your submission to HUD.



Wild and Scenic Rivers (CEST and EA) – PARTNER

<https://www.hudexchange.info/environmental-review/wild-and-scenic-rivers>

1. Is your project within proximity of a Wild and Scenic River, Study River, or Nationwide Rivers Inventory River?

No → *If the RE/HUD agrees with this recommendation, the review is in compliance with this section. Provide documentation used to make your determination.*

Yes → *Continue to Question 2.*

2. Could the project do *any* of the following?

- Have a direct and adverse effect within Wild and Scenic River Boundaries,
- Invade the area or unreasonably diminish the river outside Wild and Scenic River Boundaries, or
- Have an adverse effect on the natural, cultural, and/or recreational values of a NRI segment.

Consult with the appropriate federal/state/local/tribal Managing Agency(s), pursuant to Section 7 of the Act, to determine if the proposed project may have an adverse effect on a Wild & Scenic River or a Study River and, if so, to determine the appropriate avoidance or mitigation measures.

Select one:

The Managing Agency has concurred that the proposed project will not alter, directly, or indirectly, any of the characteristics that qualifies or potentially qualifies the river for inclusion in the NWSRS.

→ *If the RE/HUD agrees with this recommendation, the review is in compliance with this section. Provide documentation of the consultation (including the Managing Agency's concurrence) and any other documentation used to make your determination.*

The Managing Agency was consulted and the proposed project may alter, directly, or indirectly, any of the characteristics that qualifies or potentially qualifies the river for inclusion in the NWSRS.

→ *The RE/HUD must work with the Managing Agency to identify mitigation measures to mitigate the impact or effect of the project on the river.*

Worksheet Summary

The project site activities do not impact or affect any of the 3 rivers in Puerto Rico designated as wild and scenic by the U.S. Fish and Wildlife's National Wild and Scenic Rivers System. All 3 rivers are located inside the premises of the "El Yunque" National Forest in the municipality of Rio Grande at 414,790.78 ft. E from the project. The project is in compliance with the Wild and Scenic Rivers Act.

Include all documentation supporting your findings in your submission to HUD.



Environmental Justice (CEST and EA) – PARTNER

<https://www.hudexchange.info/environmental-review/environmental-justice>

HUD strongly encourages starting the Environmental Justice analysis only after all other laws and authorities, including Environmental Assessment factors if necessary, have been completed.

1. Were any adverse environmental impacts identified in any other compliance review portion of this project's total environmental review?

Yes → *Continue to Question 2.*

No → *If the RE/HUD agrees with this recommendation, the review is in compliance with this section. Continue to the Worksheet Summary below.*

2. Were these adverse environmental impacts disproportionately high for low-income and/or minority communities?

Yes

Explain:

[Click here to enter text.](#)

→ *The RE/HUD must work with the affected low-income or minority community to decide what mitigation actions, if any, will be taken. Provide any supporting documentation.*

No

Explain:

[Click here to enter text.](#)

→ *If the RE/HUD agrees with this recommendation, the review is in compliance with this section. Continue to the Worksheet Summary below.*

Worksheet Summary

After completing the other portions of the environmental review, we determined that neither the project site, nor the surrounding neighborhood suffer from adverse environmental conditions. The project: (a) is out of the airport hazards zones, (b) out of flood zone and coastal barrier zones, according to FIRM Maps and the Puerto Rico Coastal Zone Management Program, (c) is located in an Clean Air Act attainment area, according to the Puerto Rico Department of Environmental & Natural Resources, (d) is not a hazardous facility (e) the project will not result in an increased number of people in the area, (f) no AST's present in the project surroundings, according to location map, (g) no historic properties are affected, (h) complies with Endangered Species Act, (i) no wetlands, farmlands, sole aquifer or wild scenic river will be affected (j) no TRI, Brownfield, Superfund or RCRA sites are located in 0.5 miles from the project. No adverse environmental impacts were identified in the project's total environmental review. Project site activities do not have disproportionately high and adverse human health or environmental effects on minority and low-income population, or on the surrounding population or environment. The project is in compliance with Executive Order 12898.

Include all documentation supporting your findings in your submission to HUD.

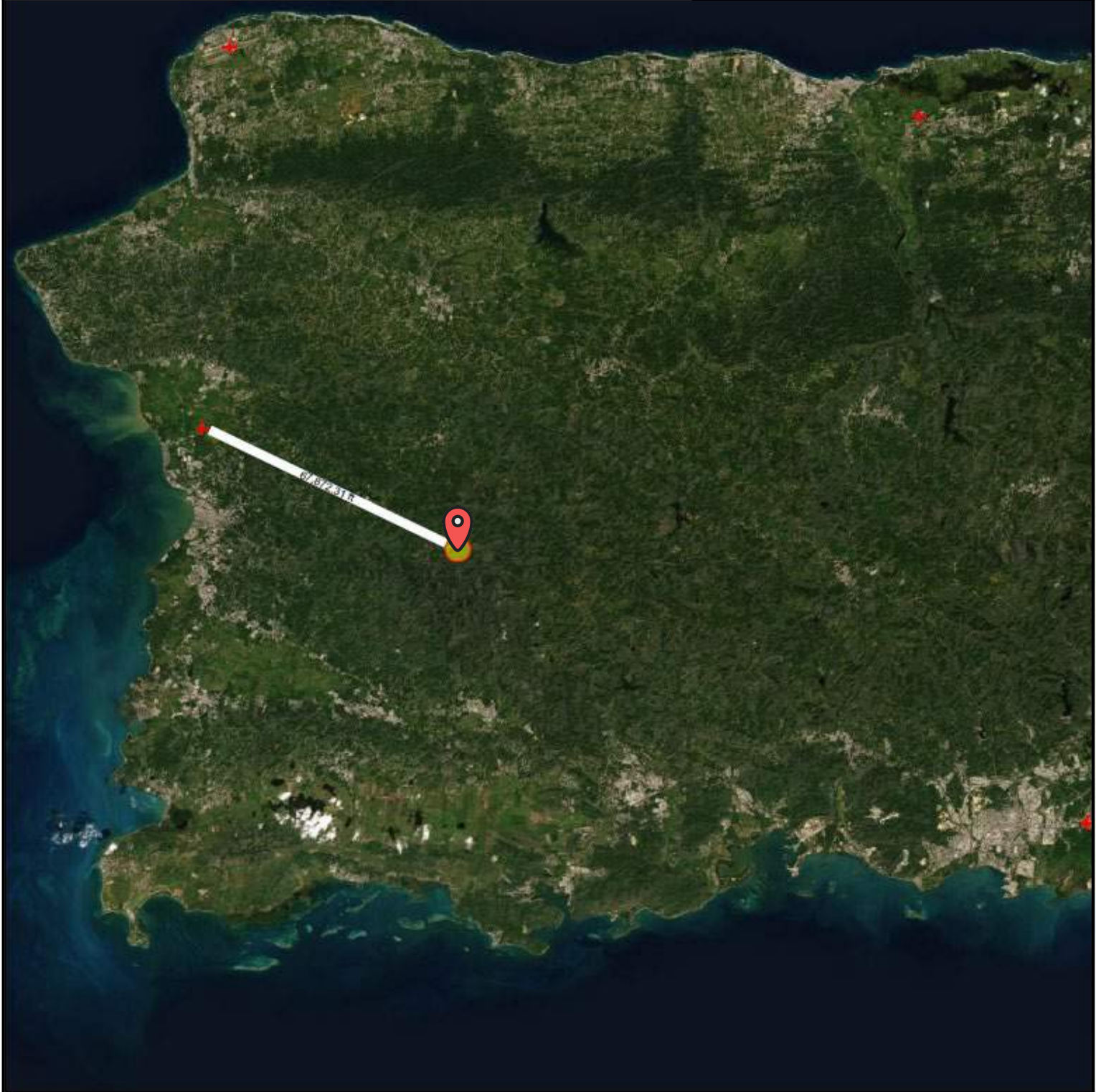
Appendix B




Airport Hazards

Airport Hazards – PR-CRP-000720

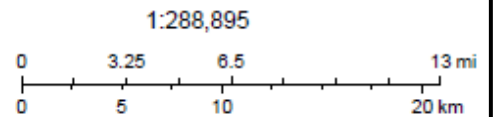
HERNAN JR. MACHADO TORRES P.E.
INGENIEROS CONSULTORES

Address: Calle José de Diego, BO. Pueblo, Maricao PR 00606
Coordinates: Public Plaza (18.180775, -66.979881); Kiosks (18.18104368, -66.97977998);
Small Plaza (18.18139782, -66.98022663); Roundabout Intersection (18.183654, -66.981702)



-  Project Buffer
-  Project Site
-  Airport Points

Distance to the nearest Civilian
Airport Aeropuerto Eugenio María
de Hostos is 67,872.31 ft.



Source: EPA NEPAassist
(<https://nepassisttool.epa.gov/nepassist/nepamap.aspx>)

Spatial Reference: Earthstar Geographics, Esri, TomTom, Garmin, Foursquare, SafeGraph, GeoTechnologies, Inc, METI/NASA, USGS, NPS, USFWS, EPA OEI

Airport Hazards – PR-CRP-000720

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INGENIEROS CONSULTORES






Address: Calle José de Diego, BO. Pueblo, Maricao PR 00606

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Small Plaza (18.18139782, -66.98022663); Roundabout Intersection (18.183654, -66.981702)



Distance to the nearest Military Airport, Muñiz ANG Base, PR
Air National Guard, Carolina, Puerto Rico is 354,340.8 feet.



-  Project Buffer
-  Project Site
-  Airport Points

Source: EPA NEPAassist
(<https://nepassisttool.epa.gov/nepassist/nepamap.aspx>)

Spatial Reference:
WGS_1984_Web_Mercator_Auxiliary_Sphere

Coastal Barrier Resources

CBRS – PR-CRP-000720

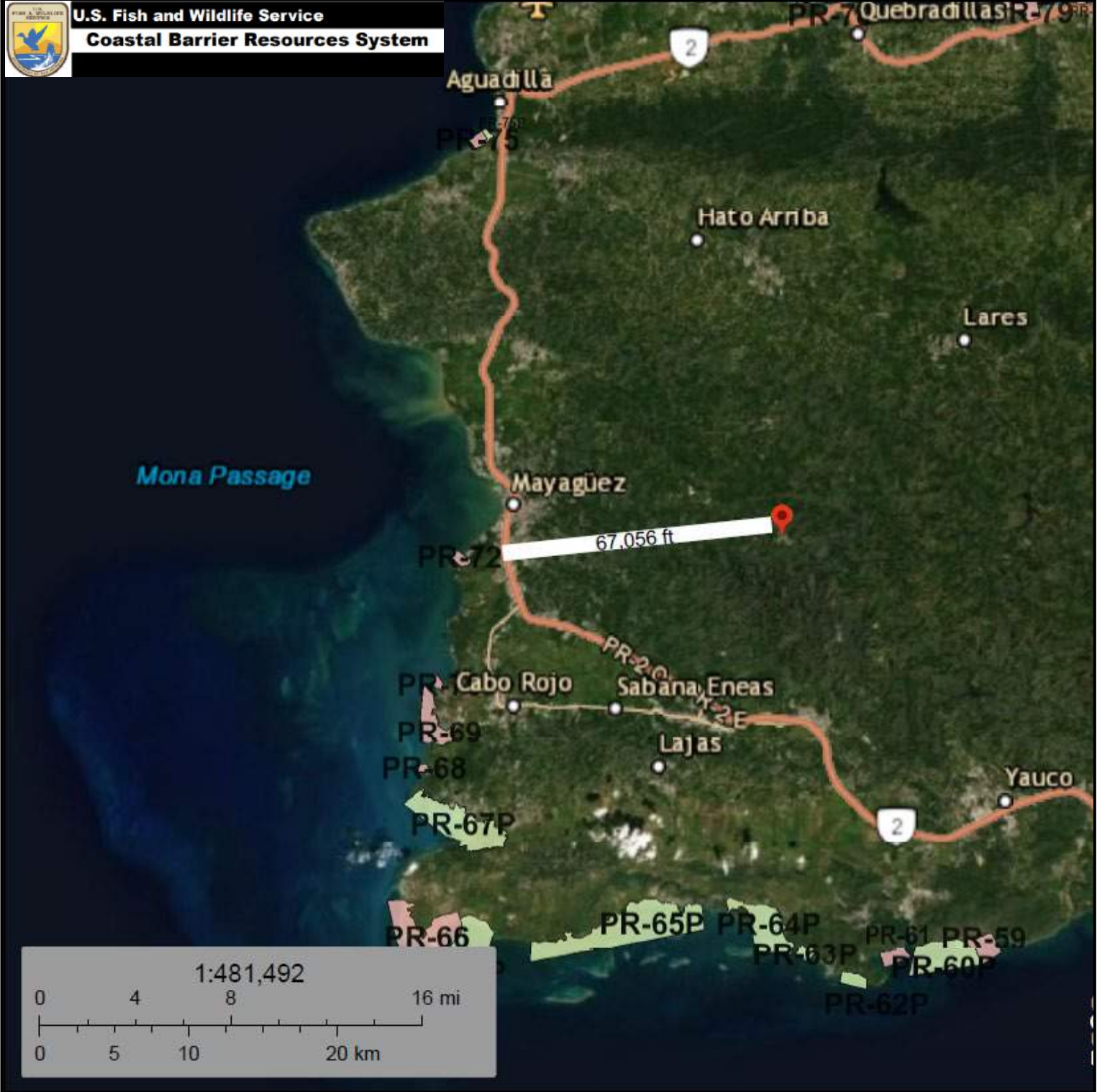
HERNAN JR. MACHADO TORRES P.E.
INGENIEROS CONSULTORES






Address: Calle José de Diego, BO. Pueblo, Maricao PR 00606
Coordinates: Public Plaza (18.180775, -66.979881); Kiosks (18.18104368, -66.97977998);
Small Plaza (18.18139782, -66.98022663); Roundabout Intersection (18.183654, -66.981702)



U.S. Fish and Wildlife Service
Coastal Barrier Resources System



CBRS Units

-  Otherwise Protected Area
-  System Unit
-  Site Location

Distance to the nearest CBRS is PR-72 at 67,056 ft.

Source: USFWS (<https://www.fws.gov/cbra/maps/index.html>)

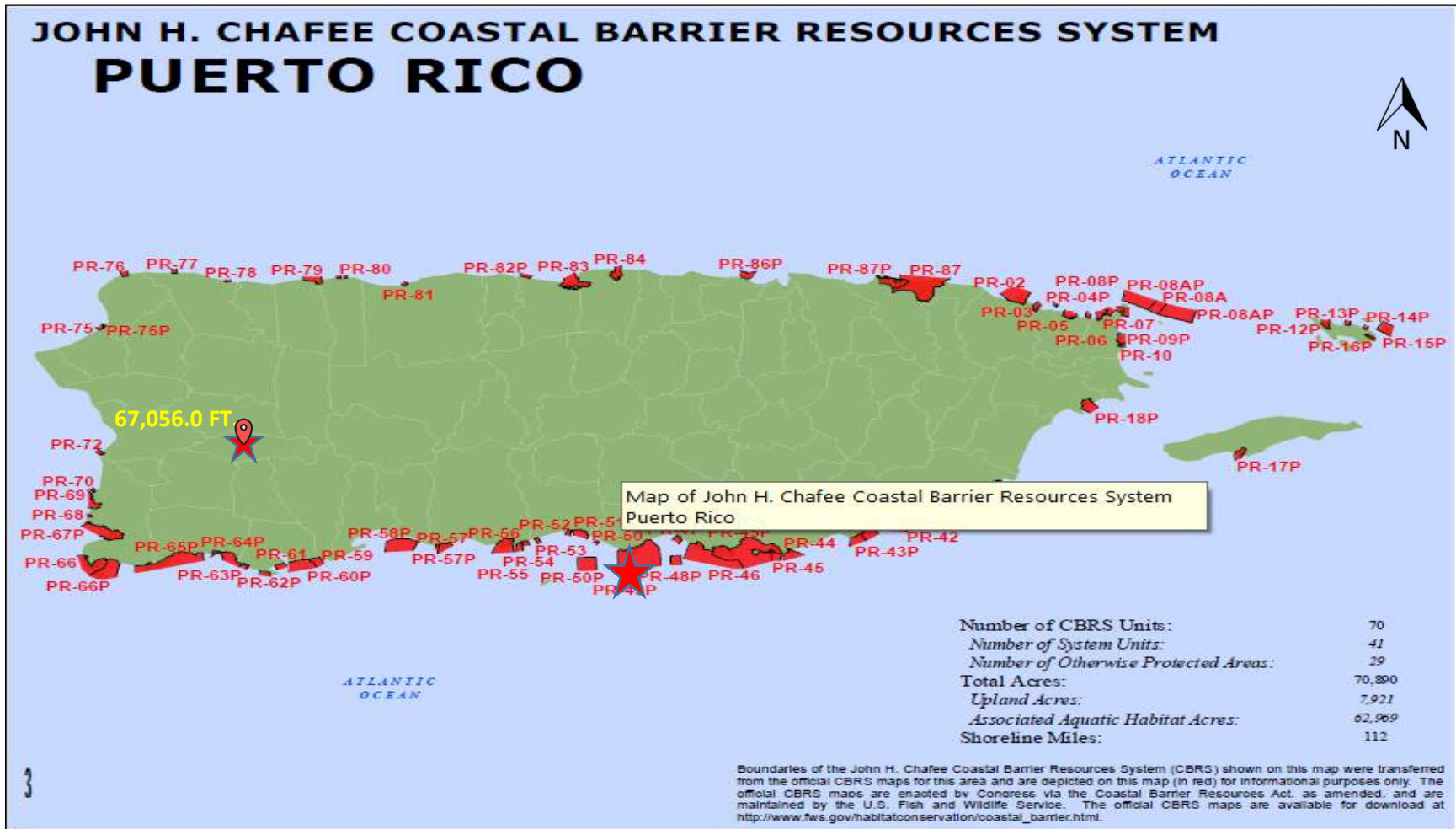
U.S. Fish and Wildlife Service, Coastal Barrier Resources Act Program, CBRA@FWS.gov, Esri, HERE, Garmin, © OpenStreetMap contributors, and the GIS user community



Coastal Barrier Resources System

Project: PR-CRP-000720 Revitalización y Restauración del Centro Urbano

Description: Display from the Coastal Barriers.



Project: PR-CRP-000720 Revitalización y Restauración del Centro Urbano, Maricao, PR

Coordinates:

Public Plaza (18.180775, -66.979881); Kiosks (18.18104368, -66.97977998); Small Plaza (18.18139782, -66.98022663); Roundabout Intersection (18.183654, -66.981702)



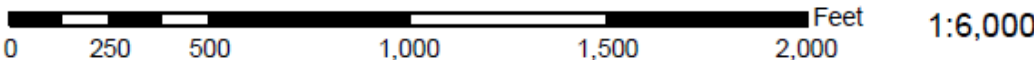
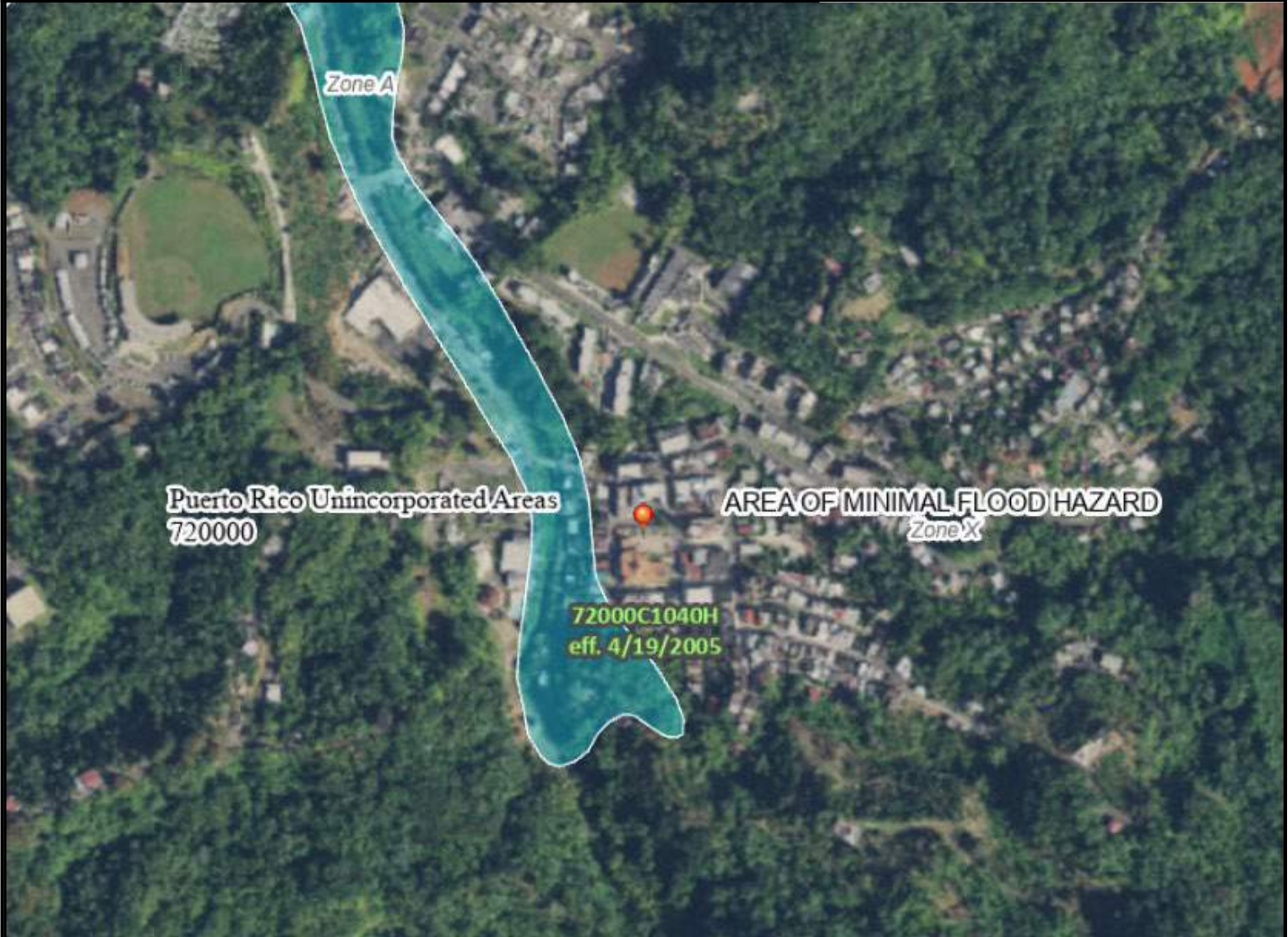
Project Site

Flood Insurance

FEMA FIRM – PR-CRP-000720

HERNAN JR. MACHADO TORRES P.E.
INGENIEROS CONSULTORES

Address: Calle José de Diego, BO. Pueblo, Maricao PR 00606
Coordinates: Public Plaza (18.180775, -66.979881); Kiosks (18.18104368, -66.97977998);
 Small Plaza (18.18139782, -66.98022663); Roundabout Intersection (18.183654, -66.981702)



Legend

SEE FIS REPORT FOR DETAILED LEGEND AND INDEX MAP FOR FIRM PANEL LAYOUT

SPECIAL FLOOD HAZARD AREAS	Without Base Flood Elevation (BFE) <i>Zone A, X, AE, AR</i>
	With BFE or Depth <i>Zone AE, AO, AH, VE, AR</i>
	Regulatory Floodway
OTHER AREAS OF FLOOD HAZARD	0.2% Annual Chance Flood Hazard, Areas of 1% annual chance flood with average depth less than one foot or with drainage areas of less than one square mile <i>Zone X</i>
	Future Conditions 1% Annual Chance Flood Hazard <i>Zone X</i>
	Area with Reduced Flood Risk due to Levee. See Notes, <i>Zone X</i>
	Area with Flood Risk due to Levee <i>Zone D</i>
OTHER AREAS	NO SCREEN Area of Minimal Flood Hazard <i>Zone X</i>
	Effective LOMRs
	Area of Undetermined Flood Hazard <i>Zone D</i>
GENERAL STRUCTURES	Channel, Culvert, or Storm Sewer
	Levee, Dike, or Floodwall

Cross Sections with 1% Annual Chance	Water Surface Elevation
Coastal Transect	Base Flood Elevation Line (BFE)
Limit of Study	Jurisdiction Boundary
Coastal Transect Baseline	Profile Baseline
Hydrographic Feature	
OTHER FEATURES	Digital Data Available
	No Digital Data Available
MAP PANELS	Unmapped

Site

This map complies with FEMA's standards for the use of digital flood maps if it is not void as described below. The basemap shown complies with FEMA's basemap accuracy standards.

The flood hazard information is derived directly from the authoritative NFHL web services provided by FEMA. This map was exported on 8/23/2022 at 4:25 PM and does not reflect changes or amendments subsequent to this date and time. The NFHL and effective information may change or become superseded by new data over time.

This map image is void if the one or more of the following map elements do not appear: basemap imagery, flood zone labels, legend, scale bar, map creation date, community identifiers, FIRM panel number, and FIRM effective date. Map images for unmapped and unmodernized area cannot be used for regulatory purposes.

Source: FEMA
<https://msc.fema.gov/portal/search?AddressQuery=00606>

Basemap: USGS National Map: orthoimagery: Data refreshed October 2020.



DETERMINACIÓN DE INUNDACIÓN

Determinación sobre la clasificación de una propiedad respecto a las Áreas Especiales de Riesgo a Inundación en Puerto Rico

Número de Catastro 262-014-012-01	Nombre de la Comunidad Participante Comunidad Participante de Puerto Rico	Número de la Comunidad Participante 720000#
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Información de la Propiedad

Municipio Maricao	Barrio Barrio Pueblo	Carretera y Sector Maricao, PR	Plus Code 77CM52JC+72	Coordenadas X:142175.6 Y:238529.2
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Información sobre el Mapa de Tasas del Seguro de Inundación

(FIRM, por sus siglas en inglés)

Número del Mapa de Inundación, FIRM 72000C1040H	Vigencia 19/Apr/2005	Status de Panel Printed	Zona Inundable X
Cauce Mayor (Sí, No, No determinado) No	¿La propiedad ubica en un área especial de riesgo a inundación del 1% de probabilidad? No	Nivel de Inundación Base (MSL) No Aplica	Profundidad de Inundación Base (Solo aplica a Zona AO) No Aplica
Sistema de Barreras Costeras (Sí o No)/Fecha de Designación No Aplica	Tipo de Barrera Costera No Aplica	Cuenca Hidrográfica (USGS) Cuenca del Río Guanajibo	¿Se propone depósito de relleno? No
Nombre del Cuerpo de Agua Adyacente (cuando es VE es el mar, primera fase el cuerpo de agua mas cercano) Río Maricao (Quebradas) a 552.4 m.			

Información sobre el Mapa de Niveles de Inundación Base Recomendados

(ABFE, por sus siglas en inglés)

Número del Mapa de Inundación 72000C1040H	Vigencia 13/Apr/2018	Zona Inundable Fuera mapa (ABFE)
--	-------------------------	-------------------------------------

La Junta de Planificación de Puerto Rico, en su resolución JP-ABFE_01 del 23 de marzo de 2018, requiere que para toda nueva construcción o mejora sustancial, otorgación de permisos según aplique en su ámbito jurisdiccional cumpla con los Mapas de Niveles de Inundación Base Recomendados preparados por la Agencia Federal para el Manejo de Emergencias (FEMA, por sus siglas en inglés); excluyendo de su uso determinaciones o decisiones relacionadas al seguro de inundación NFIP, por sus siglas en inglés.

Determinación

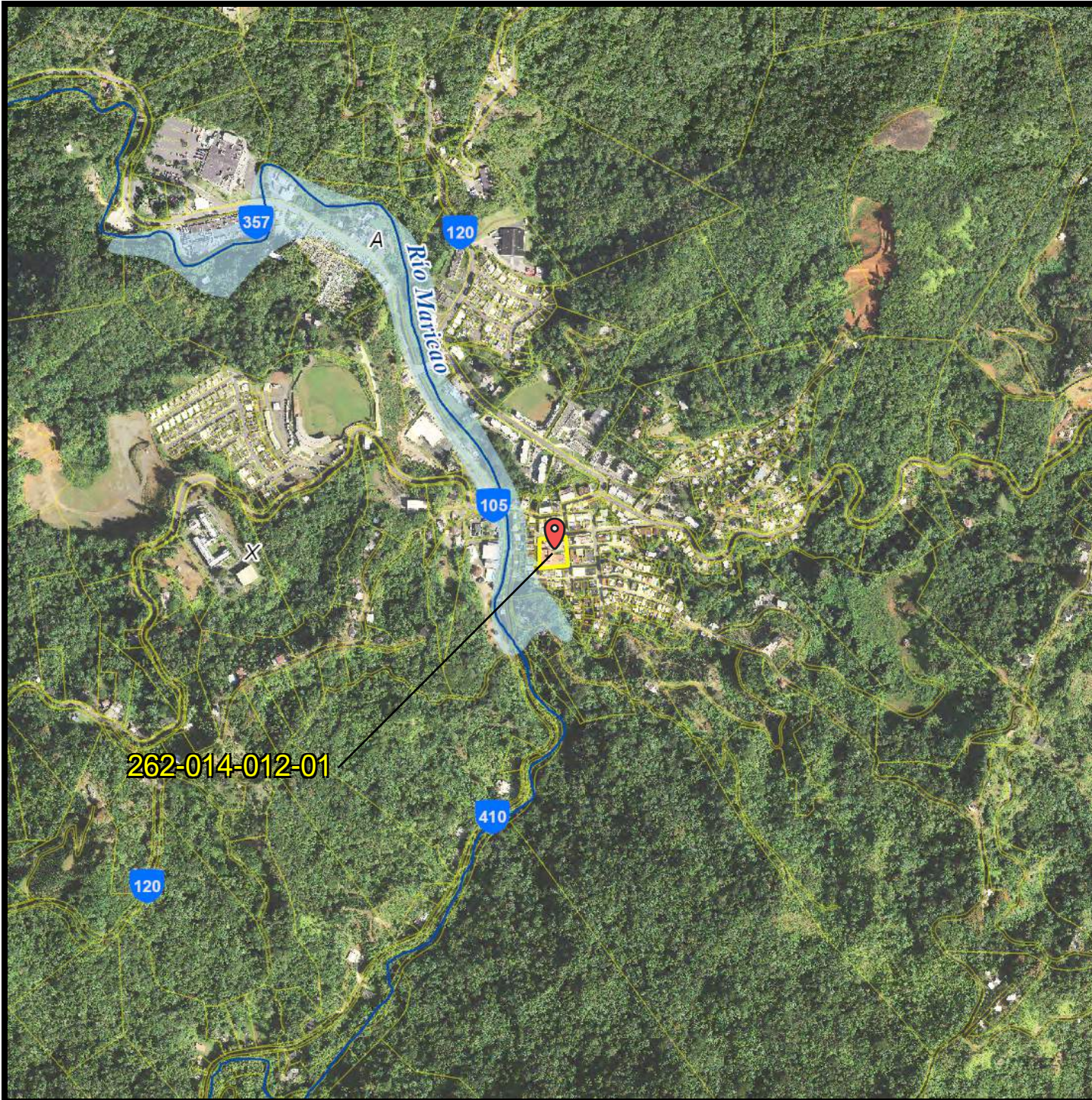
Esta determinación está basada en datos de la Junta de Planificación y datos obtenidos de los Mapas de Tasas del Seguro de Inundación vigentes y no determina la localización exacta de una estructura dentro de una propiedad. Se advierte que una propiedad no localizada dentro del área inundable regulatoria (inundación del 1% de probabilidad o inundación con recurrencia de 100 años) pudiera ser afectada por inundaciones locales o inundaciones de otras recurrencias no reflejadas en estos mapas. Para propósitos del seguro de inundación, el mapa oficial es el DFIRM, adoptado por la Junta de Planificación de Puerto Rico. La clasificación parcial entre dos o más zonas, prevalecerá la más estricta.

Si la propiedad está en un Área Especial de Riesgo [Peligro] a Inundación, se requiere cumplir con las disposiciones del Reglamento de Planificación No. 13 vigente y será requerido cumplir con la Ley Federal de Protección a Desastres del año 1973. Para las zonas A, AE, AO, AH, A99 y VE es requisito obligatorio adquirir un seguro de inundación para propiedades con hipotecas respaldadas federalmente.

Solicitante
Hernan J Machado Torres

Contáctenos en avipr@jp.pr.gov

Fecha de Emisión
27/Feb/2024



Mapa sobre Tasas del Seguro de Inundación
(Flood Insurance Rate Maps, FIRM)

NFIP PANEL 1040H

FIRM
FLOOD INSURANCE RATE MAP
COMMONWEALTH OF
PUERTO RICO
AND MUNICIPALITIES

SEE MAP INDEX FOR FIRM PANEL LAYOUTS

CONTAINS	COMMUNITY	NUMBER	PANEL	SUFFIX
	Puerto Rico	72000	1040	H

MAP NUMBER
72000C1040H

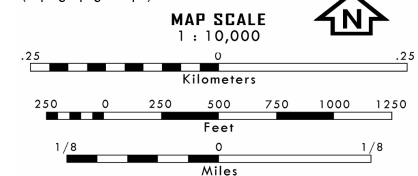
EFFECTIVE DATE
19/Apr/2005

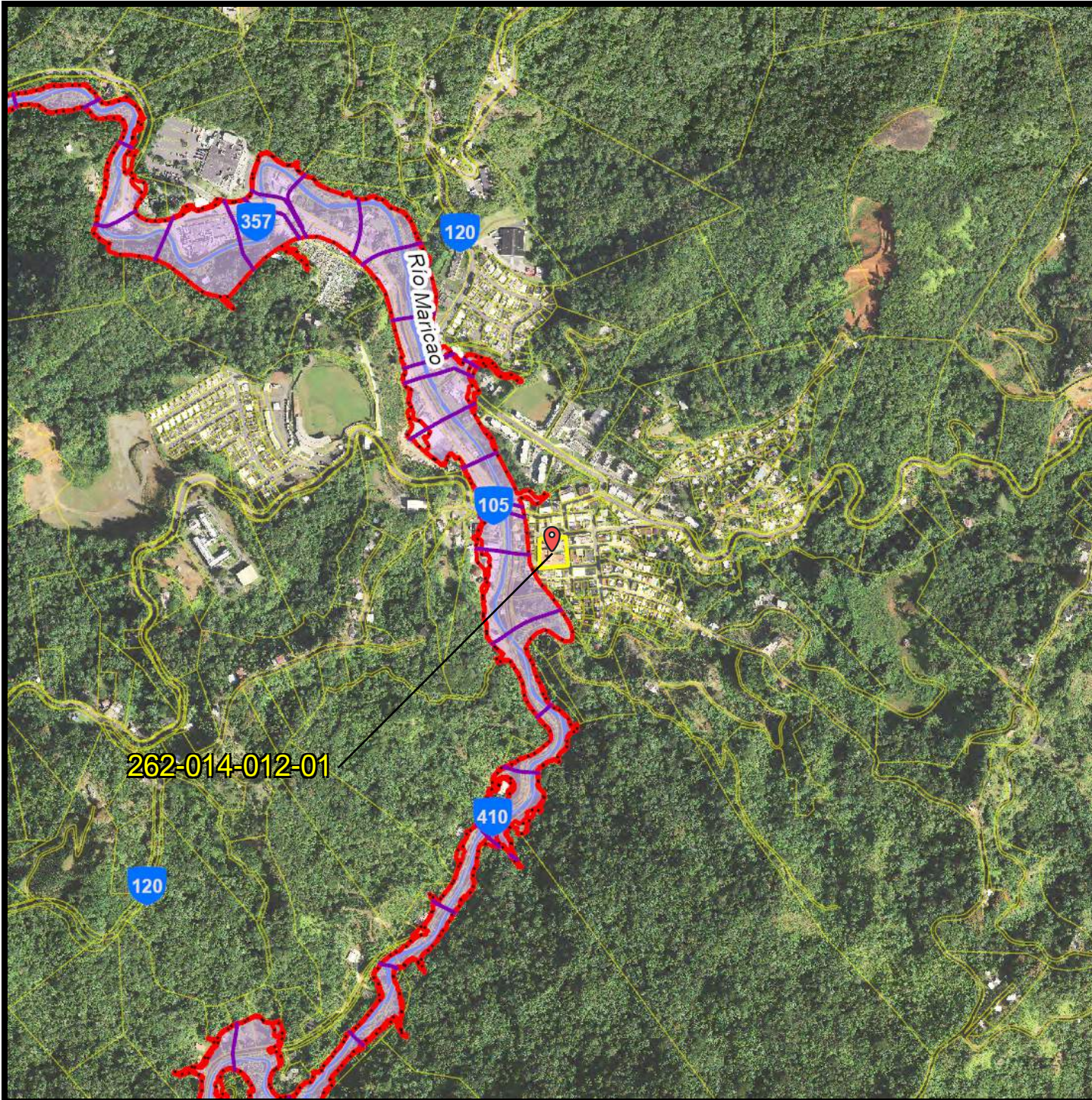
Federal Emergency Management Agency

Leyenda

0.2% ACF	AE
A	AH
A99	AO
Cauce Mayor	VE
Coastal Barrier	X

Notas:
Las elevaciones mostradas en estos mapas son consideradas la mejor información disponible hasta que se desarrollen Mapas de Tasas del Seguro de Inundación (FIRM, por sus siglas en inglés) actualizados.
Estos mapas NO han sido desarrollados para tomar determinaciones respecto al seguro de inundación del Programa Nacional del Seguro de Inundación (NFIP, por sus siglas en inglés). Para propósitos del seguro de inundación, se debe hacer referencia a los FIRMs vigentes para Puerto Rico y disponibles en <http://msc.fema.gov> o en la herramienta MiPR de la Junta de Planificación (<http://gis.pr.gov/mipr/>)





Mapa de Niveles de Inundación Base Recomendados
Para propósitos de nueva construcción o mejora substancial.

Estos mapas desarrollados por la Agencia Federal para el Manejo de Emergencias (FEMA, por sus siglas en inglés) identifican cuales áreas se encuentran en las nuevas zonas inundables recomendadas del 1% y 2% de probabilidad, así como los niveles de inundación base recomendados (ABFE, por sus siglas en inglés) que pueden afectar las prácticas de construcción en Puerto Rico.

Zona Inundabilidad Por ciento
Fuera de los límites de los mapas de inundación recomendados

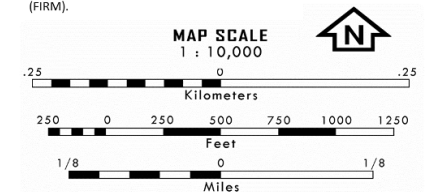
Panel Inundabilidad: 72000C1040H

Fecha de Efectividad: 18 de abril de 2018
Ver Resolución JP-ABFE_01 del 23 de marzo de 2018

Leyenda	
Site	A
Hidrografía	AE
Límite ABFE	AO
Cauce Mayor	Coastal A Zone
	VE
	X (0.2% ACF)

Notas:

La elevación de inundación base que se muestra en este mapa utiliza el nivel medio del mar (MSL). Se advierte al usuario que toda información obtenida del mapa deberá corroborarse con el Estudio del Seguro de Inundación (FIS, por sus siglas en inglés) de Puerto Rico. Se deberá utilizar la tabla de niveles de inundación provista por dicho estudio que muestra la elevación para inundación, dichos datos deberán ser utilizados en proyectos de construcción o propósitos relacionados con la administración de Valles Inundables en Puerto Rico cuando estos sean mayores a las elevaciones que muestra el mapa de inundaciones (FIRM).

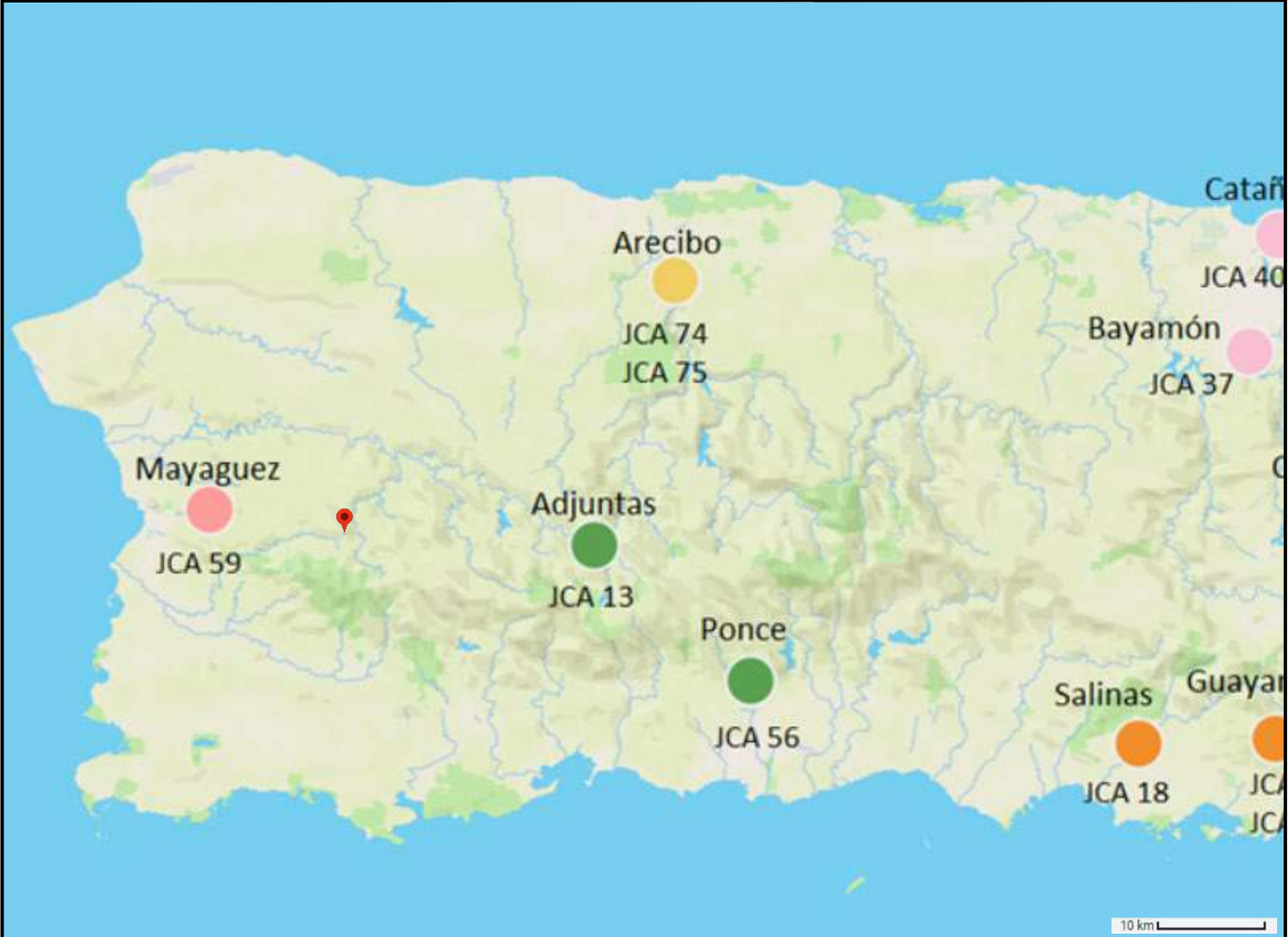



Clean Air

CLEAN AIR – PR-CRP-000720

HERNAN JR. MACHADO TORRES P.E.
INGENIEROS CONSULTORES

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 División de Muestreo de Aire, Validación y Manejo de Datos
Area de Calidad de Aire



Site

MSA Ponce

Id	Municipio	AQS	Parámetro
JCA 13	Adjuntas	72-001-0002	PM _{2.5}
JCA 56	Ponce	72-113-0004	PM ₁₀ , PM _{2.5} , CO

MSA Guayama- Salinas

Id	Municipio	AQS	Parámetro
JCA 15	Guayama	72-057-0012	PM _{2.5} , PM ₁₀
JCA 18	Salinas	72-123-0002	SO ₂
JCA 69	Guayama	72-057-0011	SO ₂

MSA- San Juan - Caguas

Id	Municipio	AQS	Parámetro
JCA 7	Guaynabo	72-061-0001	PM ₁₀
JCA 20	Guaynabo	72-061-0006	Near Roads
JCA 21	Caguas	72-025-0007	Near Roads
JCA 22	Fajardo	72-053-0003	PM ₁₀ , PM _{2.5}
JCA 24	Guaynabo	72-061-0005	PM ₁₀ , PM _{2.5}
JCA 30	San Juan	72-127-0003	CO
JCA 37	Bayamón	72-021-0010	NCore
JCA 40	Cataño	72-33-0004	PM ₁₀ , PM _{2.5} , SO ₂

MSA Arecibo

Id	Municipio	AQS	Parámetro
JCA 74	Arecibo	72-013-0001	Pb
JCA 75	Arecibo	72-013-0002	Pb

MSA Mayagüez

Id	Municipio	AQS	Parámetro
JCA 59	Mayagüez	072-97-0007	O ₃ , PM _{2.5}

Source: DRNA (<https://www.drna.pr.gov/acai/muestreo/>)

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Puerto Rico Nonattainment/Maintenance Status for Each County by Year for All Criteria Pollutants

Data is current as of August 31, 2023

Listed by County, NAAQS, Area. The 8-hour Ozone (1997) standard was revoked on April 6, 2015 and the 1-hour Ozone (1979) standard was revoked on June 15, 2005.

* The 1997 Primary Annual PM-2.5 NAAQS (level of 15 µg/m³) is revoked in attainment and maintenance areas for that NAAQS. For additional information see the PM-2.5 NAAQS SIP Requirements Final Rule, effective October 24, 2016. ([91 FR 58009](#))

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County	NAAQS	Area Name	Nonattainment in Year																				Redesignation to Maintenance	Classification	Whole or Part County	Population (2010)	State/County FIPS Codes																			
PUERTO RICO																																														
Arecibo Municipio	Lead (2008)	Arecibo, PR																							11	12	13	14	15	16	17	18	19	20	21	22	23	//		Part	32,185	72/013				
Bayamon Municipio	Sulfur Dioxide (2010)	San Juan, PR																							18	19	20	21	22	23	//		Part	22,921	72/021											
Catano Municipio	Sulfur Dioxide (2010)	San Juan, PR																							18	19	20	21	22	23	//		Whole	28,140	72/033											
Guaynabo Municipio	PM-10 (1987)	Mun. of Guaynabo, PR	92	93	94	95	96	97	98	99	00	01	02	03	04	05	06	07	08	09																						02/11/2010	Moderate	Part	90,470	72/061
Guaynabo Municipio	Sulfur Dioxide (2010)	San Juan, PR																							18	19	20	21	22	23	//		Part	23,802	72/061											
Salinas Municipio	Sulfur Dioxide (2010)	Guayama-Salinas, PR																							18	19	20	21	22	23	//		Part	23,401	72/123											
San Juan Municipio	Sulfur Dioxide (2010)	San Juan, PR																							18	19	20	21	22	23	//		Part	147,963	72/127											
Toa Baja Municipio	Sulfur Dioxide (2010)	San Juan, PR																							18	19	20	21	22	23	//		Part	52,441	72/137											

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Lead (2008) Nonattainment Areas by State/County/Area

Data is current as of October 31, 2023

Click underlined column heading to change report order

State	County	Area Name	<u>County NA</u>	<u>2010</u>	State / County FIPS
			<u>Whole/Part</u>	<u>Population</u>	
			click link for partial county description	whole or partial county population	
ARIZONA	Gila County	Hayden, AZ	Part	1,284	04/007
ARIZONA	Pinal County	Hayden, AZ	Part	3,346	04/021
CALIFORNIA	Los Angeles County	Los Angeles County-South Coast Air Basin, CA	Part	9,436,927	06/037
KANSAS	Saline County	Saline County, KS	Part	9	20/169
MINNESOTA	Dakota County	Eagan, MN	Part	8,997	27/037
MISSOURI	Dent County	Iron, Dent, and Reynolds Counties, MO	Part	106	29/065
MISSOURI	Iron County	Iron, Dent, and Reynolds Counties, MO	Part	253	29/093
MISSOURI	Jefferson County	Jefferson County, MO	Part	4,814	29/099
MISSOURI	Reynolds County	Iron, Dent, and Reynolds Counties, MO	Part	101	29/179
OHIO	Stark County	Canton-Stark County, OH	Part	6,188	39/151
PENNSYLVANIA	Beaver County	Lower Beaver Valley, PA	Part	17,654	42/007
PENNSYLVANIA	Berks County	Lyons, PA	Part	19,480	42/011
PENNSYLVANIA	Berks County	North Reading, PA	Part	29,334	42/011
PUERTO RICO	Arecibo Municipio	Arecibo, PR	Part	32,185	72/013

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Lead (2008) Nonattainment Area Area/State/County Report

Data is current as of October 31, 2023

Arecibo, PR (Nonattainment)
 PUERTO RICO (Region II)
 Arecibo Municipio (P)

Canton-Stark County, OH (Nonattainment)
 OHIO (Region V)
 Stark County (P)

Eagan, MN (Nonattainment)
 MINNESOTA (Region V)
 Dakota County (P)

Hayden, AZ (Nonattainment)
 ARIZONA (Region IX)
 Gila County (P)
 Pinal County (P)

Iron, Dent, and Reynolds Counties, MO (Nonattainment)
 MISSOURI (Region VII)
 Dent County (P)
 Iron County (P)
 Reynolds County (P)

Jefferson County, MO (Nonattainment)
 MISSOURI (Region VII)
 Jefferson County (P)
Within city limits of Herculaneum

Los Angeles County-South Coast Air Basin, CA (Nonattainment)
 CALIFORNIA (Region IX)
 Los Angeles County (P)

Lower Beaver Valley, PA (Nonattainment)
 PENNSYLVANIA (Region III)
 Beaver County (P)

Lyons, PA (Nonattainment)
 PENNSYLVANIA (Region III)
 Berks County (P)

North Reading, PA (Nonattainment)
 PENNSYLVANIA (Region III)
 Berks County (P)

Saline County, KS (Nonattainment)
 KANSAS (Region VII)
 Saline County (P)

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Sulfur Dioxide (2010) Nonattainment Areas

Data is current as of October 31, 2023

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Sulfur Dioxide (2010) Nonattainment Area Area/State/County Report

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PENNSYLVANIA (Region III)
Allegheny County (P)

Alton Township, IL (Nonattainment)
ILLINOIS (Region V)
Madison County (P)

Anne Arundel County and Baltimore County, MD (Nonattainment)
MARYLAND (Region III)
Anne Arundel County (P)
Baltimore County (P)

Beaver, PA (Nonattainment)
PENNSYLVANIA (Region III)
Beaver County (P)

Detroit, MI (Nonattainment)
MICHIGAN (Region V)
Wayne County (P)

Evangeline Parish (Partial), LA (Nonattainment)
LOUISIANA (Region VI)
Evangeline Parish (P)

Freestone and Anderson Counties, TX (Nonattainment)
TEXAS (Region VI)
Anderson County (P)
Freestone County (P)

Giles County, VA (Nonattainment)
VIRGINIA (Region III)
Giles County (P)

Guayama-Salinas, PR (Nonattainment)
PUERTO RICO (Region II)
Salinas Municipio (P)
Aguirre Ward., Lapa Ward.

Hayden, AZ (Nonattainment)
ARIZONA (Region IX)
Gila County (P)
Pinal County (P)

Henderson-Webster Counties, KY (Nonattainment)
KENTUCKY (Region IV)
Henderson County (P)
Webster County (P)

Howard County, TX (Nonattainment)
TEXAS (Region VI)
Howard County (P)

Huntington, IN (Nonattainment)
INDIANA (Region V)
Huntington County (P)
Huntington Township

Hutchinson County, TX (Nonattainment)
TEXAS (Region VI)
Hutchinson County (P)

Indiana, PA (Nonattainment)
PENNSYLVANIA (Region III)
Armstrong County (P)
Indiana County

Miami, AZ (Nonattainment)
ARIZONA (Region IX)
Gila County (P)

Muscatine, IA (Nonattainment)
IOWA (Region VII)

Muscatine County (P)

Muskingum River, OH (Nonattainment)

OHIO (Region V)

Morgan County (P)

Center Township

Washington County (P)

Waterford Township

Navarro County, TX (Nonattainment)

TEXAS (Region VI)

Navarro County (P)

New Madrid County, MO (Nonattainment)

MISSOURI (Region VII)

New Madrid County (P)

Piti-Cabras, GU (Nonattainment)

GUAM (Region IX)

Guam (P)

Rusk and Panola Counties, TX (Nonattainment)

TEXAS (Region VI)

Panola County (P)

Rusk County (P)

San Juan, PR (Nonattainment)

PUERTO RICO (Region II)

Bayamon Municipio (P)

Juan Sanchez Ward.

Catano Municipio

Guaynabo Municipio (P)

Pueblo Viejo Ward.

San Juan Municipio (P)

San Juan Antiguo Ward., Santurce Ward., Hato Rey Norte Ward., Gobernador Pinero Ward.

Toa Baja Municipio (P)

Palo Seco Ward., Sabana Seca Ward.

St. Bernard Parish, LA (Nonattainment)

LOUISIANA (Region VI)

St. Bernard Parish

St. Clair, MI (Nonattainment)

MICHIGAN (Region V)

St. Clair County (P)

St. Lawrence County, NY (Nonattainment)

NEW YORK (Region II)

St. Lawrence County (P)

Sullivan County, TN (Nonattainment)

TENNESSEE (Region IV)

Sullivan County (P)

Titus County, TX (Nonattainment)

TEXAS (Region VI)

Titus County (P)

Warren, PA (Nonattainment)

PENNSYLVANIA (Region III)

Warren County (P)

Whatcom County, WA (Nonattainment)

WASHINGTON (Region X)

Whatcom County (P)

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EPA Approved Nonregulatory Provisions and Quasi-Regulatory Measures in the Puerto Rico SIP

UPDATED DECEMBER 2018

SIP element	Applicable geographic or nonattainment area	Puerto Rico submittal date	EPA approval date	Explanation
PM ₁₀ Attainment and Maintenance Demonstration	Municipality of Guaynabo	November 14, 1993 and supplemented on March 18, 1994 and March 30, 1994	May 31, 1995, 60 FR 28333 ↗ < https://www.gpo.gov/fdsys/pkg/fr-1995-05-31/pdf/95-13181.pdf >	Additional information < https://epa.gov/sips-pr/puerto-rico-pm10-attainment-plan-fine-particulates >
PM ₁₀ Emission Inventory	Municipality of Guaynabo	November 14, 1993 and supplemented on March 18, 1994 and March 30, 1994	May 31, 1995, 60 FR 28333 ↗ < https://www.gpo.gov/fdsys/pkg/fr-1995-05-31/pdf/95-13181.pdf >	Additional information < https://epa.gov/sips-pr/puerto-rico-pm10-attainment-plan-fine-particulates >
PM ₁₀ RACM and RACT Analysis	Municipality of Guaynabo	November 14, 1993 and supplemented on March 18, 1994 and March 30, 1994	May 31, 1995, 60 FR 28333 ↗ < https://www.gpo.gov/fdsys/pkg/fr-1995-05-31/pdf/95-13181.pdf >	Additional information < https://epa.gov/sips-pr/puerto-rico-pm10-attainment-plan-fine-particulates >
PM ₁₀ NSR Permit Provisions	Municipality of Guaynabo	November 14, 1993 and supplemented on March 18, 1994 and March 30, 1994	May 31, 1995, 60 FR 28333 ↗ < https://www.gpo.gov/fdsys/pkg/fr-1995-05-31/pdf/95-13181.pdf >	Additional information < https://epa.gov/sips-pr/puerto-rico-pm10-attainment-plan-fine-particulates >
PM ₁₀ Contingency Measures	Municipality of Guaynabo	November 14, 1993 and supplemented on March 18, 1994 and March 30, 1994	May 31, 1995, 60 FR 28333 ↗ < https://www.gpo.gov/fdsys/pkg/fr-1995-05-31/pdf/95-13181.pdf >	Additional information < https://epa.gov/sips-pr/puerto-rico-pm10-attainment-plan-fine-particulates >
Memorandum of Understanding signed by the Chairman of EQB and the Executive Director of Puerto Rico Electrical Power Authority, San Juan plant	Municipality of Guaynabo	November 14, 1993 and supplemented on March 18, 1994 and March 30, 1994	May 31, 1995, 60 FR 28333 ↗ < https://www.gpo.gov/fdsys/pkg/fr-1995-05-31/pdf/95-13181.pdf >	Additional information < https://epa.gov/sips-pr/puerto-rico-pm10-attainment-plan-fine-particulates >

SIP element	Applicable geographic or nonattainment area	Puerto Rico submittal date	EPA approval date	Explanation
Memorandum of Understanding signed by the Chairman of EQB and the Secretary of Puerto Rico Department of Transportation and Public Works and the Executive Director of the Highway Authority	Municipality of Guaynabo	November 14, 1993 and supplemented on March 18, 1994 and March 30, 1994	May 31, 1995, 60 FR 28333 🔗 < https://www.gpo.gov/fdsys/pkg/fr-1995-05-31/pdf/fr-1995-05-31.pdf >	Additional information < https://epa.gov/sips-pr/puerto-rico-pm10-attainment-plan-fine-particulates >
Memorandum of Understanding signed by the Chairman of EQB and the Mayor of the Municipality of Guaynabo	Municipality of Guaynabo	November 14, 1993 and supplemented on March 18, 1994 and March 30, 1994	May 31, 1995, 60 FR 28333 🔗 < https://www.gpo.gov/fdsys/pkg/fr-1995-05-31/pdf/fr-1995-05-31.pdf >	Additional information < https://epa.gov/sips-pr/puerto-rico-pm10-attainment-plan-fine-particulates >
Memorandum of Understanding signed by the signed by the Chairman of EQB and the Executive Director of the Puerto Rico Port Authority	Municipality of Guaynabo	November 14, 1993 and supplemented on March 18, 1994 and March 30, 1994	May 31, 1995, 60 FR 28333 🔗 < https://www.gpo.gov/fdsys/pkg/fr-1995-05-31/pdf/fr-1995-05-31.pdf >	Additional information < https://epa.gov/sips-pr/puerto-rico-pm10-attainment-plan-fine-particulates >
PM ₁₀ Limited Maintenance Attainment Plan	Municipality of Guaynabo	3/31/2009	January 12, 2010, 75 FR 1543 🔗 < https://www.gpo.gov/fdsys/pkg/fr-2010-01-12/pdf/fr-2010-01-12.pdf >	
2002 PM ₁₀ attainment emissions inventory	Municipality of Guaynabo	3/31/2009	January 12, 2010, 75 FR 1543 🔗 < https://www.gpo.gov/fdsys/pkg/fr-2010-01-12/pdf/fr-2010-01-12.pdf >	
PM ₁₀ Limited Maintenance Plan Maintenance Demonstration	Municipality of Guaynabo	3/31/2009	January 12, 2010, 75 FR 1543 🔗 < https://www.gpo.gov/fdsys/pkg/fr-2010-01-12/pdf/fr-2010-01-12.pdf >	
PM ₁₀ Limited Maintenance Plan Contingency Measures	Municipality of Guaynabo	3/31/2009	January 12, 2010, 75 FR 1543 🔗 < https://www.gpo.gov/fdsys/pkg/fr-2010-01-12/pdf/fr-2010-01-12.pdf >	
PM ₁₀ Limited Maintenance Plan Monitoring Network	Municipality of Guaynabo	3/31/2009	January 12, 2010, 75 FR 1543 🔗 < https://www.gpo.gov/fdsys/pkg/fr-2010-01-12/pdf/fr-2010-01-12.pdf >	
PM ₁₀ Limited Maintenance Plan Transportation Conformity Analysis	Municipality of Guaynabo	3/31/2009	January 12, 2010, 75 FR 1543 🔗 < https://www.gpo.gov/fdsys/pkg/fr-2010-01-12/pdf/fr-2010-01-12.pdf >	

SIP element	Applicable geographic or nonattainment area	Puerto Rico submittal date	EPA approval date	Explanation
Modeling demonstration for the Arecibo Lead Nonattainment Area	Municipality of Arecibo (4 kilometer radius surrounding The Battery Recycling Company, Inc.)	August, 13, 2016	July 14, 2017, 82 FR 32480 ↗ <https://www.gpo.gov/fdsys/pkg/fr-2017-07-14/pdf/2017-14730.pdf>	
Base Year Emissions Inventory for the Arecibo Lead Nonattainment Area	Municipality of Arecibo (4 kilometer radius surrounding The Battery Recycling Company, Inc.)	August, 13, 2016	July 14, 2017, 82 FR 32480 ↗ <https://www.gpo.gov/fdsys/pkg/fr-2017-07-14/pdf/2017-14730.pdf>	
Contingency Measures for the Arecibo Lead Nonattainment Area	Municipality of Arecibo (4 kilometer radius surrounding The Battery Recycling Company, Inc.)	August, 13, 2016	July 14, 2017, 82 FR 32480 ↗ <https://www.gpo.gov/fdsys/pkg/fr-2017-07-14/pdf/2017-14730.pdf>	
Reasonably Available Control Measures/ Reasonably Available Control Technology for the Arecibo Lead Nonattainment Area	Municipality of Arecibo (4 kilometer radius surrounding The Battery Recycling Company, Inc.)	August, 13, 2016	July 14, 2017, 82 FR 32480 ↗ <https://www.gpo.gov/fdsys/pkg/fr-2017-07-14/pdf/2017-14730.pdf>	
Reasonable further progress for the Arecibo Lead Nonattainment Area	Municipality of Arecibo (4 kilometer radius surrounding The Battery Recycling Company, Inc.)	August, 13, 2016	July 14, 2017, 82 FR 32480 ↗ <https://www.gpo.gov/fdsys/pkg/fr-2017-07-14/pdf/2017-14730.pdf>	
Section 110(a)(2) Infrastructure Requirements for the 1997 8-hour ozone and the 1997 PM _{2.5} NAAQS	Entire Commonwealth	November 29, 2006, and supplemented on February 1, 2016	September 13, 2016, 81 FR 62817 ↗ <https://www.gpo.gov/fdsys/pkg/fr-2016-09-13/pdf/2016-21326.pdf>	This action addresses the following CAA elements: 110(a)(2)(A),(B),(C),(D), (E), (F), (G), (H), (J), (K), (L),and (M). 110(a)(2)(D)(i)(I) was approved November 29, 2018, at 83 FR 61328 ↗ <https://www.govinfo.gov/content/pkg/fr-2018-11-29/pdf/2018-25888.pdf>
Section 110(a)(2) Infrastructure Requirements for the 2008 8-hour ozone and the 2006 PM _{2.5} NAAQS	Entire Commonwealth	November 29, 2006, and supplemented on February 1, 2016	September 13, 2016, 81 FR 62817 ↗ <https://www.gpo.gov/fdsys/pkg/fr-2016-09-13/pdf/2016-21326.pdf>	This action addresses the following CAA elements: 110(a)(2)(A),(B),(C),(D), (E), (F), (G), (H), (J), (K), (L),and (M). 110(a)(2)(D)(i)(I) was approved November 29, 2018, at 83 FR 61328 ↗ <https://www.govinfo.gov/content/pkg/fr-2018-11-29/pdf/2018-25888.pdf>
Section 110(a)(2) Infrastructure Requirements for 2008 Lead NAAQS	Entire Commonwealth	November 29, 2006, and supplemented on February 1, 2016	September 13, 2016, 81 FR 62817 ↗ <https://www.gpo.gov/fdsys/pkg/fr-2016-09-13/pdf/2016-21326.pdf>	This action addresses the following CAA elements: 110(a)(2)(A),(B),(C),(D), (E), (F), (G), (H), (J), (K), (L),and (M). 110(a)(2)(D)(i)(I) was approved November 29, 2018, at 83 FR 61328 ↗ <https://www.govinfo.gov/content/pkg/fr-2018-11-29/pdf/2018-25888.pdf>

Contact Us <https://epa.gov/sips-pr/forms/contact-us-about-puerto-rico-air-quality-implementation-plans> to ask a question, provide feedback, or report a problem.

LAST UPDATED ON DECEMBER 21, 2022



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Maricao

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To view facilities and sites regulated by EPA, click on the menu icon at upper left, select "Layers", turn on the checkboxes for the layers you want to see, and then click the "X" to close the menu.

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The Air Quality Index (AQI) is an index for reporting daily air quality. It tells you how clean or polluted your air is, and what associated health effects might be a concern for you. [Read more about air quality \(https://airnow.gov/index.cfm?action=aqibasics.index\)](https://airnow.gov/index.cfm?action=aqibasics.index).

Mayaguez, PR; February 27, 2024

	Current:	<div style="width: 100%; height: 10px; background-color: green;"></div>	Good
	Forecast:		N/A
No Data Available.			

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MyWater

The Assessment Total Maximum Daily Load (TMDL) Tracking and Implementation System (ATTAINS) provides information reported by the states to EPA about the conditions in their surface waters. This information is required every two years under Clean Water Act Sections 305(b) and 303(d). [Read more about water quality \(https://www.epa.gov/waterdata/assessing-and-reporting-water-quality-questions-and-answers\)](https://www.epa.gov/waterdata/assessing-and-reporting-water-quality-questions-and-answers).

[More Water](#)

MyEnergy

The State Energy Data System (SEDS) is the U.S. Energy Information Administration's (EIA) source for comprehensive State energy statistics. Included are estimates of energy production, consumption, prices, and expenditures broken down by energy source and sector.

Select a Year: 2021

State Data Comparisons

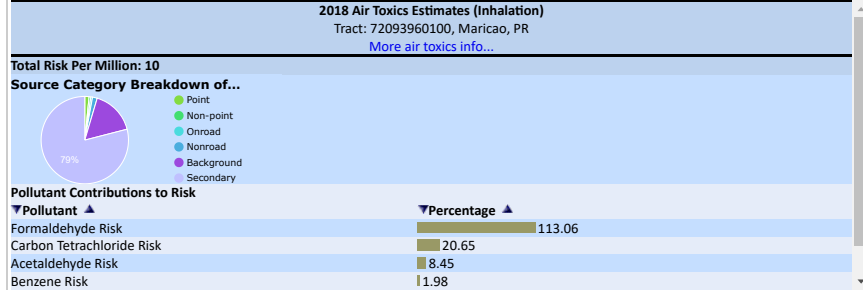
No data for this area.

Data Source: [DOE EIA](#)

[More Energy](#)

MyHealth

Toxic air pollutants, or air toxics, are those pollutants known or suspected of causing cancer or other serious health problems, such as birth defects. Not all air pollutants are considered - please visit the [Air Toxics Web site \(https://www.epa.gov/AirToxScreen/2018-airtoxscreen\)](https://www.epa.gov/AirToxScreen/2018-airtoxscreen) for more information on the 2018 Air Toxics data.



[More Health](#)

MyClimate

In response to the FY2008 [Consolidated Appropriations Act \(H.R. 2764; Public Law 110--161\) \(https://www.gpo.gov/fdsys/pkg/PLAW-110publ161/pdf/PLAW-110publ161.pdf\)](https://www.gpo.gov/fdsys/pkg/PLAW-110publ161/pdf/PLAW-110publ161.pdf), EPA launched the Greenhouse Gas Reporting Program (CHGRP). The program requires annual reporting of greenhouse gas (GHG) data and other relevant information from large direct emissions sources and suppliers of certain fossil fuels and industrial gases in the United States. [Read More \(https://www2.epa.gov/enviro/greenhouse-gas-overview\)](https://www2.epa.gov/enviro/greenhouse-gas-overview)

Data reported to EPA as of 08/18/2023

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MyLand

The National Priorities List (NPL) is the list of national priorities among the known releases or threatened releases of hazardous substances, pollutants, or contaminants throughout the United States and its territories. [Read more about the NPL \(https://www2.epa.gov/superfund/superfund-national-priorities-list-npl\)](https://www2.epa.gov/superfund/superfund-national-priorities-list-npl).

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Maricao

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Air Quality Index

The Air Quality Index (AQI) is an index for reporting daily air quality. It tells you how clean or polluted your air is, and what associated health effects might be a concern for you. The AQI focuses on health effects you may experience within a few hours or days after breathing polluted air.

Mayaguez, PR; February 27, 2024

Current Conditions	Forecast
observed at 9 AST	N/A
35 1 Good	

No Data Available.

[More AQI Information >> \(https://www.airnow.gov\)](https://www.airnow.gov)

Air Facilities

[Enlarge Map](#)



Radon

Exposure to radon in the home is responsible for an estimated 20,000 lung cancer deaths each year. Radon is a health hazard with a simple solution. Read "A Citizen's Guide to Radon (<https://www2.epa.gov/radon/citizens-guide-radon-guide-protecting-yourself-and-your-family-radon>)".

Click [here](#) for more info on the radon map. Use the mouse scroll wheel to zoom in or out on the map.



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[More Radon Information >> \(https://www.epa.gov/radon\)](https://www.epa.gov/radon)

UV Index

Daily UV Index Forecast
Maricao, PR - February 27, 2024



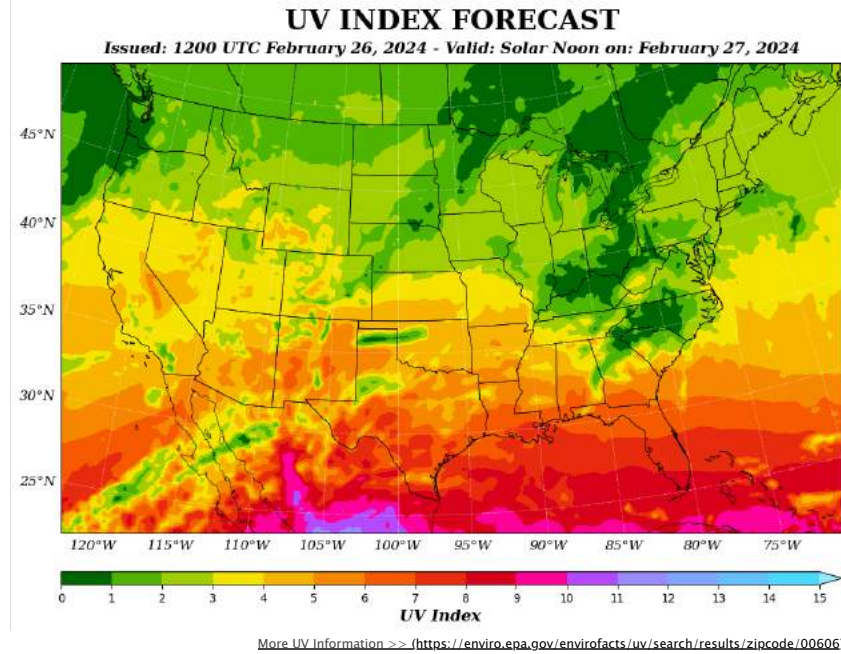
<https://enviro.epa.gov/envirofacts/uv/search/results/zipcode/00606>

Protection against sun damage is needed. If you need to be outside during midday hours between 10 a.m. and 4 p.m., take steps to reduce sun exposure. Protective clothing, a wide-brimmed hat, sunglasses, and SPF 15+ sunscreen are a must, and be sure you seek shade.

Beachgoers should know that white sand and other bright surfaces reflect UV and can double UV exposure.

UV Index Forecast

[Day 1](#) [Day 2](#) [Day 3](#) [Day 4](#)



Air Data Trends

To visualize trends use this AQI to view the multiyear tile plot showing long-term changes in air quality.

Visualize Trends

The multiyear tile plot shows long-term changes in air quality.

For more information: <https://www.epa.gov/outdoor-air-quality-data/air-data-multiyear-tile-plot> (<https://www.epa.gov/outdoor-air-quality-data/air-data-multiyear-tile-plot>)

Air Data Updates



<https://www.epa.gov/sites/production/files/2016-09/rssairdata.xml>

Subscribe to our RSS feed to keep up with the latest news, including scheduled system downtime, major data updates, etc. (click icon to get RSS feed.)

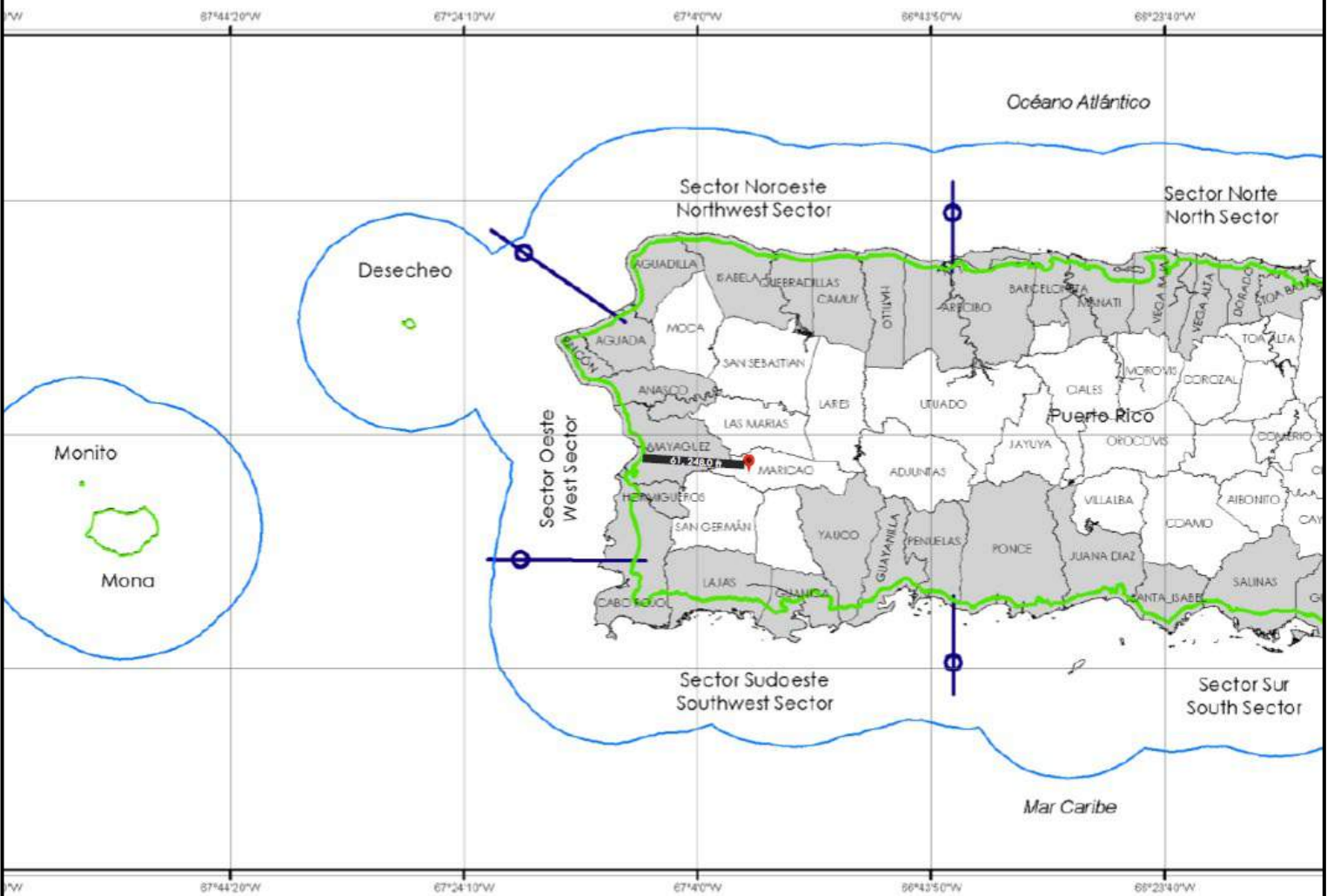
Coastal Zone Management

Coastal Zone – PR-CRP-000720

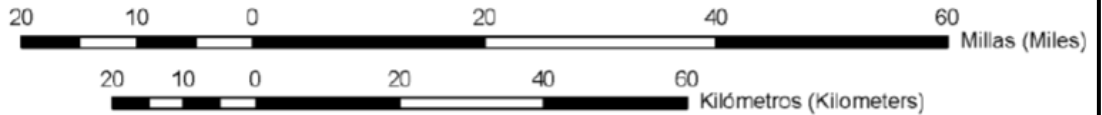
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Address: Calle José de Diego, BO. Pueblo, Maricao PR 00606
Coordinates: Public Plaza (18.180775, -66.979881); Kiosks (18.18104368, -66.97977998);
 Small Plaza (18.18139782, -66.98022663); Roundabout Intersection (18.183654, -66.981702)



Scale: 1:860,000



The project is located at a distance of 61,248.0 ft. east of the Coastal Zone.

- Leyenda - Map Key:
- Municipios costeros - Coastal Municipalities
 - Límite de la zona costanera tierra adentro - Coastal Zone Inland Boundary
 - Límite de la zona costanera marina (9 millas náuticas) - Coastal Zone Maritime Boundary
 - Project Site Location

Fuente de Información - Source:
 Puerto Rico Coastal Zone Management Program - Final EIS, 1978
 Junta de Planificación de Puerto Rico



Programa de Manejo de la Zona Costanera
 Coastal Zone Management Program

STATE COASTAL ZONE BOUNDARIES

February 9, 2012

STATE	DEFINITION OF STATE'S COASTAL ZONE (The seaward boundary of the Great Lake States is the U.S.-Canada International boundary, and for all other States is the 3 nautical mile territorial sea, except for those States marked with an asterisk (*))
ALABAMA	Alabama's coastal zone extends inland to the continuous 10-foot elevation contour in Baldwin and Mobile Counties.
ALASKA	As of July 1, 2011, Alaska no longer has a federally approved coastal management program or defined coastal zone and federal consistency does not apply to Alaska. Contact NOAA's Office of Ocean and Coastal Resource Management for additional information.
AMERICAN SAMOA	American Samoa's coastal zone is the entire Territory.
CALIFORNIA & BCDC	California's coastal zone generally extends 1,000 yards inland from the mean high tide line. In significant coastal estuarine habitat and recreational areas it extends inland to the first major ridgeline or 5 miles from the mean high tide line, whichever is less. In developed urban areas, the boundary is generally less than 1,000 yards. The coastal zone for the San Francisco Bay Conservation and Development Commission (BCDC) includes the open water, marshes and mudflats of greater San Francisco Bay, and areas 100 feet inland from the line of highest tidal action. The boundary also includes: the Suisun marsh and buffer zone; managed wetlands diked off from the Bay; and open waters diked off from the Bay and used in salt production.
CONNECTICUT	Connecticut's coastal zone has two tiers incorporated within the 36 coastal townships. The first tier is bounded by a continuous line delineated by a 1,000 foot linear setback measured from the mean high water mark in coastal waters; or a 1,000 foot linear setback measured from the inland boundary of state regulated tidal wetlands; or the continuous interior contour elevation of the one hundred year frequency coastal flood zone; whichever is farthest inland. The second tier is the area between the inland boundary of the 36 coastal communities and the inland boundary of the first tier.
DELAWARE	Delaware's coastal zone includes the whole state.
FLORIDA *	Florida's coastal zone is the entire State, but has two tiers. Local governments eligible to receive coastal management funds are limited to those Gulf and Atlantic coastal cities and counties which include or are contiguous to state water bodies where marine species of vegetation constitute the dominant plant community. Florida's seaward boundary in the Gulf of Mexico is 3 marine leagues (9 nautical miles) and is 3 nautical miles in the Atlantic.
GEORGIA	Georgia's coastal zone includes the 11 counties that border tidally-influenced waters or have economies that are closely tied to coastal resources.
GUAM	Guam's coastal zone is the entire Territory.
HAWAII	Hawaii's coastal zone is the entire state.

ILLINOIS	Illinois' coastal zone has two components. The Lakeshore Boundary is based on the Lake Michigan watershed and is generally parallel to the Lake Michigan shoreline. The Inland Waterway Boundary includes Inland Waterway Corridors, which are select segments of the Chicago River system (North Branch, South Branch, Main Branch and North Shore Channel) and select segments of the Little Calumet and Grand Calumet Rivers. The Inland Waterway Corridors consist of both the waterway and designated land area to either side of the waterway.
INDIANA	Indiana's coastal zone is based on watershed boundaries within coastal townships and the counties of Lake, Porter and LaPorte. To create an inland boundary that is identifiable in practical landmarks, the coastal zone boundary is described based on the U.S. Geological Survey Quadrangle maps and major roads for each county. The coastal zone boundary is located in the northern portions of Lake, Porter, and LaPorte Counties. At its widest extent, the boundary extends away from the shoreline 17 miles to the Crown Point area and at its narrowest point, less than 2 miles, just north of Hudson Lake in LaPorte County. See NOAA, <i>Indiana Lake Michigan Coastal Program and Final Environmental Impact Statement</i> , Appendix C (April 2002), to determine the precise coastal zone boundary in a particular area of the State.
LOUISIANA	Louisiana's coastal zone varies from 16 to 32 miles inland from the Gulf coast and generally follows the Intracoastal Waterway running from the Texas-Louisiana state line then follows highways through Vermilion, Iberia, and St. Mary parishes, then dipping southward following the natural ridges below Houma, then turning northward to take in Lake Pontchartrain and ending at the Mississippi-Louisiana border.
MAINE	Maine's coastal zone includes the inland line of coastal towns on tidewaters and all islands.
MARYLAND	Maryland's coastal zone extends to the inland boundary of the 16 counties bordering the Atlantic Ocean, the Chesapeake Bay, and the Potomac River (as far as the municipal limits of Washington, D.C), and includes Baltimore City and all local jurisdictions within the counties.
MASSACHUSETTS	Massachusetts' coastal zone extends 100 feet inland of specified major roads, RR tracks, or other visible right of ways which are located within a half mile of coastal waters or salt marshes. The coastal zone includes all islands, transitional and intertidal areas, and coastal wetlands and beaches. In instances where the road boundary excludes significant resource areas, the boundary line may depart from the road to encompass.
MICHIGAN	Michigan's coastal zone, generally, extends a minimum of 1,000 feet from the ordinary high water mark. The boundary extends further inland in some locations to encompass coastal lakes, rivermouths, and bays; floodplains; wetlands; dune areas; urban areas; and public park, recreation, and natural areas.
MINNESOTA	Minnesota's coastal zone is divided into three areas. The first includes the area of the St. Louis River in Carlton County, south of Duluth. The second is the city of Duluth and surrounding areas of urban growth and expansion to the north and west. The third is the region between the Duluth city limits north to the Canadian border, also known as the "North Shore," which includes portions of St. Louis, Lake, and Cook Counties. See NOAA, <i>Minnesota's Lake Superior Coastal Program Final Environmental Impact Statement</i> , Chapter One, (May 1999), to determine the precise coastal zone boundary in a particular area of the State.

MISSISSIPPI	Mississippi's coastal zone includes the 3 counties adjacent to the coast. The coastal zone includes these counties, as well as all adjacent coastal waters. Included in this definition are the barrier islands of the coast.
NEW HAMPSHIRE	New Hampshire's coastal zone is the 17 coastal municipalities.
NEW JERSEY	New Jersey's coastal zone recognizes four distinct regions of the State and treats them separately. From the New York border to the Raritan Bay, the boundary extends landward from mean high water to the first road or property line. From the Raritan Bay south along the Atlantic shoreline and up to the Delaware Memorial Bridge, the boundary extends from half a mile to 24 miles inland (1,376 square miles of land area). From the Delaware Memorial Bridge northward up the Delaware River to Trenton, the boundary extends landward to the first road inclusive of all wetlands. The fourth boundary serves a 31-mile square area in the northeast corner of the state bordering the Hudson river (New Jersey Meadowlands Commission).
NEW YORK	New York's coastal zone varies from region to region while incorporating the following conditions: The inland boundary is approximately 1,000 feet from the shoreline of the mainland. In urbanized and developed coastal locations the landward boundary is approximately 500 feet from the mainland's shoreline, or less than 500 feet where a roadway or railroad line runs parallel to the shoreline at a distance of under 500 feet and defines the boundary. In locations where major state-owned lands and facilities or electric power generating facilities abut the shoreline, the boundary extends inland to include them. In some areas, such as Long Island Sound and the Hudson River Valley, the boundary may extend inland up to 10,000 feet to encompass significant coastal resources, such as areas of exceptional scenic value, agricultural or recreational lands, and major tributaries and headlands.
NORTH CAROLINA	North Carolina's coastal zone includes the 20 counties that in whole or in part are adjacent to, adjoining, intersected by or bounded by the Atlantic Ocean or any coastal sound(s). Within this boundary, there are two tiers. The first tier is comprised of Areas of Environmental Concern (AEC) and is subject to more thorough regulatory controls. AECs include: coastal wetlands, estuarine waters, public trust areas, estuarine shorelines, ocean beaches, frontal dunes, ocean erosion areas, inlet lands, small surface water supply watersheds, public water supply well-fields, and fragile natural resource areas. The second tier includes land uses which have potential to affect coastal waters even though they are not located in AECs.
NORTHERN MARIANA ISLANDS	Northern Mariana Islands' coastal zone is the entire Commonwealth. (Note: a recent federal court decision ruled that the Commonwealth does not own the adjacent territorial sea. A consent decree allows the CNMI to manage the area.)
OHIO	Ohio's coastal zone includes portions of 9 counties bordering Lake Erie and its tributaries and varies depending on biophysical characteristics of various coastal regions— in the western part of the coast the boundary extends inland up to 15 miles along certain low lying wetland and floodplain areas; in most of the eastern part of the State, areas with high bluffs, the boundary extends inland for only about an eighth of a mile, with the exception of the Mentor Marsh area.
OREGON	Oregon's coastal zone extends inland to the crest of the coastal range, except for the following: along the Umpqua River, where it extends upstream to Scottsburg; along the Rogue River, where it extends upstream to Agness; and except in the Columbia River Basin, where it extends upstream to the downstream end of Puget Island.

PENNSYLVANIA	Pennsylvania's coastal zone along Lake Erie varies from 900 feet in urban areas to over 3 miles in more rural areas, and encompasses the floodplains of Lake Erie and tributary streams, bluff hazards recession areas, and coastal wetlands. The coastal zone along the Delaware River Estuary extends inland to 660 feet in urbanized areas, to 3.5 miles in rural areas, and includes floodplains of the Delaware and Schuylkill Rivers and their tributaries to the upper limit of tidal influence, and tidal and freshwater wetlands.
PUERTO RICO *	Puerto Rico's coastal zone, generally, extends 1,000 meters inland; however, it extends further inland in certain areas to include important coastal resources. Puerto Rico's seaward boundary is 3 marine leagues (9 nautical miles).
RHODE ISLAND	Rhode Island's coastal zone includes the whole state. However, the inland extent of the regulatory authority of the State's CZMA agency is 200 feet inland from any coastal feature, to watersheds, and to certain activities that occur anywhere within the State that include: power-generating plants; petroleum storage facilities; chemical or petroleum processing; minerals extraction; sewage treatment and disposal plants; solid waste disposal facilities; and, desalination plants.
SOUTH CAROLINA	South Carolina's coastal zone includes all lands and waters in the counties which contain any one or more of the critical areas (coastal waters, tidelands, beaches, and primary oceanfront sand dunes).
TEXAS *	Texas' coastal zone is generally the area seaward of the Texas coastal facility designation line which roughly follows roads that are parallel to coastal waters and wetlands generally within one mile of tidal rivers. The boundary encompasses all or portions of 18 coastal counties. Texas' seaward boundary is 3 marine leagues (9 nautical miles).
VIRGINIA	Virginia's coastal zone includes the 29 counties, 17 cities, and 42 incorporated towns of <i>Tidewater Virginia</i> , including the Atlantic Coast watershed and portions of the Chesapeake Bay and Albemarle-Pamlico Sound watersheds.
VIRGIN ISLANDS	Virgin Islands' coastal zone includes the entire territory.
WASHINGTON	Washington's coastal zone is the 15 coastal counties that front saltwater.
WISCONSIN	Wisconsin's coastal zone is the 15 counties that front Lake Superior, Lake Michigan, or Green Bay.

Contamination and Toxic Substances

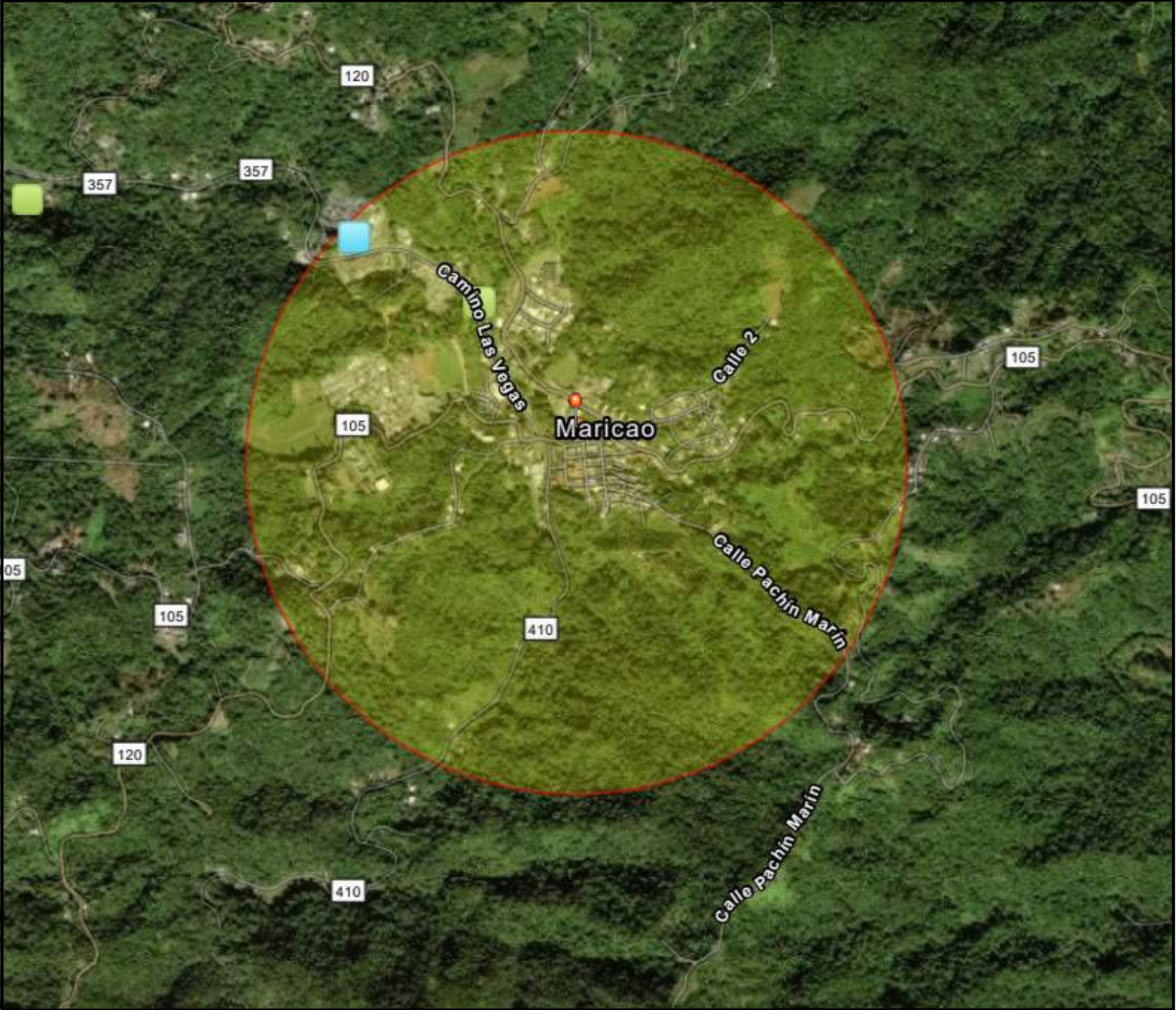
**Contamination & Toxic Substances –
PR-CRP-000720**

**HERNAN JR. MACHADO TORRES P.E.
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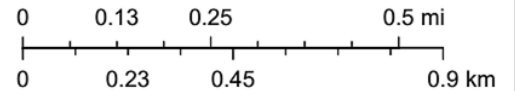




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Small Plaza (18.18139782, -66.98022663); Roundabout Intersection (18.183654, -66.981702)



1:18,056



-  Toxic Releases (TRI)
-  Hazardous Waste (RCRAInfo)
-  Project Buffer (3,000 ft)
-  Project Site

Source: EPA NEPAassist

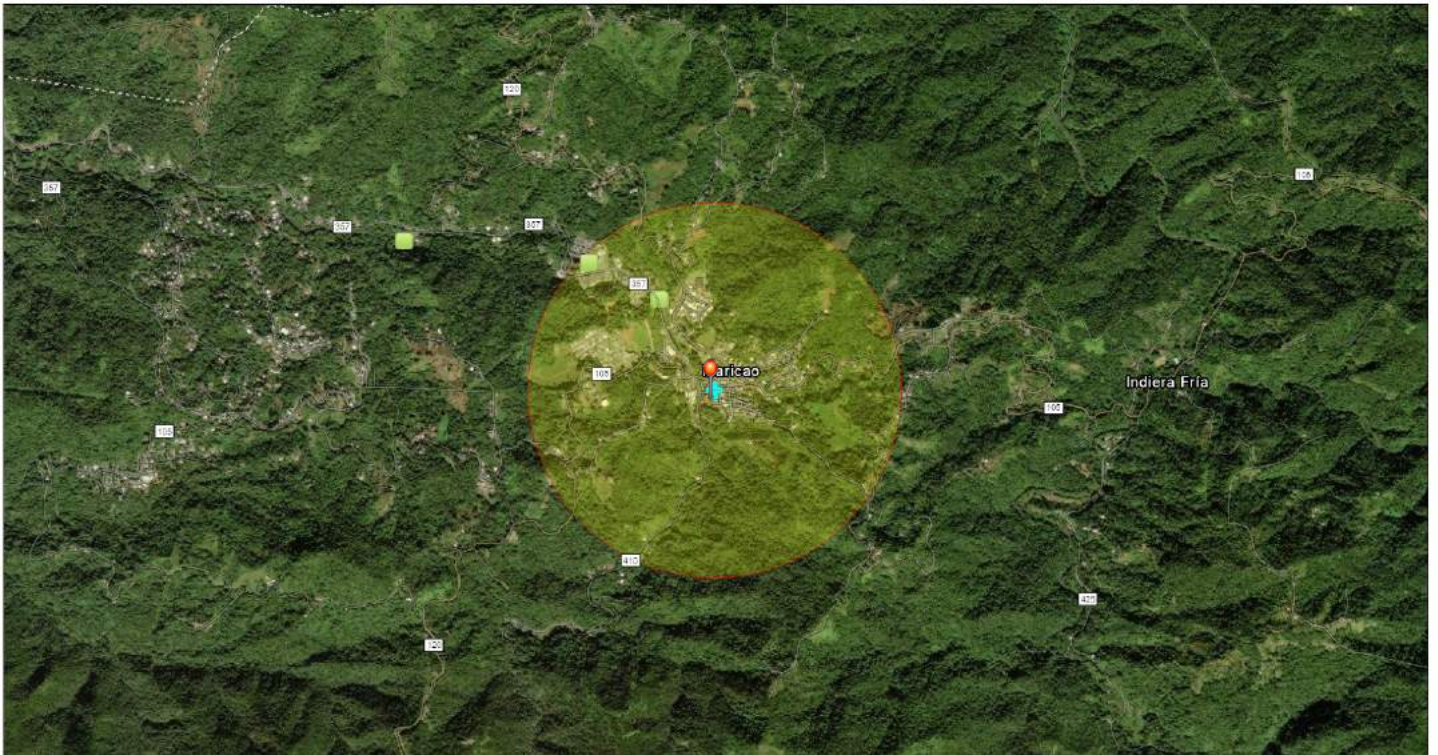
(<https://nepassisttool.epa.gov/nepassist/nepamap.aspx>)

Maxar, Esri Community Maps Contributors, Esri, TomTom, Garmin, Foursquare, SafeGraph, GeoTechnologies, Inc, METI/NASA, USGS, NPS, US Census Bureau, USFWS

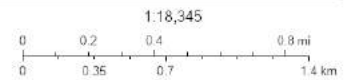
NEPAssist Report

Project Site

PR-CRP-000720



- Hazardous Waste (RCRAInfo)
- Toxic Releases (TRI)
- Project Buffer
- Project Site



Esri, TomTom, Garmin, FourSquare, SafeGraph, GeoTechnologies, Inc., METRASA, USGS, NPS, US Census Bureau, USFWS, Maxar

Project Location	18.180812,-66.979882
Within 3000 feet of an Ozone 1-hr (1979 standard) Non-Attainment/Maintenance Area?	no
Within 3000 feet of an Ozone 8-hr (1997 standard) Non-Attainment/Maintenance Area?	no
Within 3000 feet of an Ozone 8-hr (2008 standard) Non-Attainment/Maintenance Area?	no
Within 3000 feet of an Ozone 8-hr (2015 standard) Non-Attainment/Maintenance Area?	no
Within 3000 feet of a Lead (2008 standard) Non-Attainment/Maintenance Area?	no
Within 3000 feet of a SO2 1-hr (2010 standard) Non-Attainment/Maintenance Area?	no
Within 3000 feet of a PM2.5 24hr (2006 standard) Non-Attainment/Maintenance Area?	no
Within 3000 feet of a PM2.5 Annual (1997 standard) Non-Attainment/Maintenance Area?	no
Within 3000 feet of a PM2.5 Annual (2012 standard) Non-Attainment/Maintenance Area?	no
Within 3000 feet of a PM10 (1987 standard) Non-Attainment/Maintenance Area?	no
Within 3000 feet of a CO Annual (1971 standard) Non-Attainment/Maintenance Area?	no
Within 3000 feet of a NO2 Annual (1971 standard) Non-Attainment/Maintenance Area?	no
Within 3000 feet of a Federal Land?	no
Within 3000 feet of an impaired stream?	no
Within 3000 feet of an impaired waterbody?	yes
Within 3000 feet of a waterbody?	yes
Within 3000 feet of a stream?	yes
Within 3000 feet of an NWI wetland?	Available Online
Within 3000 feet of a Brownfields site?	no
Within 3000 feet of a Superfund site?	no

Within 3000 feet of a Toxic Release Inventory (TRI) site?	yes
Within 3000 feet of a water discharger (NPDES)?	yes
Within 3000 feet of a hazardous waste (RCRA) facility?	yes
Within 3000 feet of an air emission facility?	yes
Within 3000 feet of a school?	no
Within 3000 feet of an airport?	no
Within 3000 feet of a hospital?	no
Within 3000 feet of a designated sole source aquifer?	no
Within 3000 feet of a historic property on the National Register of Historic Places?	yes
Within 3000 feet of a Land Cession Boundary?	no
Within 3000 feet of a tribal area (lower 48 states)?	no
Within 3000 feet of the service area of a mitigation or conservation bank?	no
Within 3000 feet of the service area of an In-Lieu-Fee Program?	no
Within 3000 feet of a Public Property Boundary of the Formerly Used Defense Sites?	no
Within 3000 feet of a Munitions Response Site?	no
Within 3000 feet of an Essential Fish Habitat (EFH)?	yes
Within 3000 feet of a Habitat Area of Particular Concern (HAPC)?	no
Within 3000 feet of an EFH Area Protected from Fishing (EFHA)?	no
Within 3000 feet of a Bureau of Land Management Area of Critical Environmental Concern?	no
Within 3000 feet of an ESA-designated Critical Habitat Area per U.S. Fish & Wildlife Service?	yes
Within 3000 feet of an ESA-designated Critical Habitat river, stream or water feature per U.S. Fish & Wildlife Service?	no

Created on: 2/23/2024 1:14:19 PM



Detailed Facility Report

Facility Summary

FENWAL INTERNATIONAL

PR-357 KM 0.8, MARICAO, PR 00606

FRS (Facility Registry Service) ID: 110012638725

EPA Region: 02

Latitude: 18.18642

Longitude: -66.985694

Locational Data Source: RCRAINFO

Industries: Chemical Manufacturing

Indian Country: N

Enforcement and Compliance Summary

Statute	CAA
Compliance Monitoring Activities (5 years)	--
Date of Last Compliance Monitoring Activity	--
Compliance Status	No Violation Identified
Qtrs in Noncompliance (of 12)	0
Qtrs with Significant Violation	0
Informal Enforcement Actions (5 years)	--
Formal Enforcement Actions (5 years)	--
Penalties from Formal Enforcement Actions (5 years)	--
EPA Cases (5 years)	--
Penalties from EPA Cases (5 years)	--

Statute	RCRA
Compliance Monitoring Activities (5 years)	--
Date of Last Compliance Monitoring Activity	03/18/2004
Compliance Status	No Violation Identified
Qtrs in Noncompliance (of 12)	0
Qtrs with Significant Violation	0
Informal Enforcement Actions (5 years)	--
Formal Enforcement Actions (5 years)	--
Penalties from Formal Enforcement Actions (5 years)	--
EPA Cases (5 years)	--
Penalties from EPA Cases (5 years)	--
Statute	SDWA
Compliance Monitoring Activities (5 years)	--
Date of Last Compliance Monitoring Activity	--
Compliance Status	Inactive
Qtrs in Noncompliance (of 12)	0
Qtrs with Significant Violation	0
Informal Enforcement Actions (5 years)	--
Formal Enforcement Actions (5 years)	--
Penalties from Formal Enforcement Actions (5 years)	--
EPA Cases (5 years)	--
Penalties from EPA Cases (5 years)	--

Regulatory Information

Clean Air Act (CAA): Operating Minor (PR0000007209300005)

Clean Water Act (CWA): No Information

Resource Conservation and Recovery Act (RCRA): Active SQG, (PRD000706473)

Safe Drinking Water Act (SDWA): OWNER: Local government, PRIMARY SERVICE AREA DESCRIPTION: Other Non-transient Area, SOURCE: Ground water, TYPE: Non-Transient non-community system Permit Inactive - 2009-09-17 (PR0348133)

Go To Enforcement/Compliance Details

Known Data Problems <<https://epa.gov/resources/echo-data/known-data-problems>>

Other Regulatory Reports

Air Emissions Inventory (EIS): 7013411, 15512411

Greenhouse Gas Emissions (eGGRT): No Information

Toxic Releases (TRI): 00706BXTRFCARR3

Compliance and Emissions Data Reporting Interface (CEDRI): No Information

Facility/System Characteristics

Facility/System Characteristics

System	Statute	Identifier	Universe	Status	Areas	Permit Expiration Date	Indian Country	Latitude	Longitude
FRS		110012638725					N	18.18642	-66.985694
ICIS		42603					N	18.18642	-66.985694
ICIS-Air	CAA	PR0000007209300005	Minor Emissions	Operating	CAASIP		N	18.18642	-66.985694
EIS	CAA	7013411					N	18.19166	-66.99166
EIS	CAA	15512411					N	18.1916	-66.9916
TRI	EP313	00706BXRFCARR3	Toxics Release Inventory	Last Reported for 2022			N	18.18642	-66.985694
RCRAInfo	RCRA	PRD000706473	SQG	Active (H A)			N	18.18642	-66.985694
SDWIS	SDWA	PR0348133	OWNER: Local government, PRIMARY SERVICE AREA DESCRIPTION: Other Non-transient Area, SOURCE: Ground water, TYPE: Non-Transient non-community system	Inactive - 2009-09-17	Population Served: 700		N		

Facility Address

System	Statute	Identifier	Facility Name	Facility Address	Facility County
FRS		110012638725	FENWAL INTERNATIONAL	PR-357 KM 0.8, MARICAO, PR 00606	Maricao Municipio
ICIS		42603	BAXTER HEALTHCARE CORP	RTE 357 KM 0.8, MARICAO, PR 00606	Maricao Municipio
ICIS-Air	CAA	PR0000007209300005	BAXTER-BIOTECH FENWAL- MARICAO	ROAD PR-357, KM. 0.8, MARICAO, PR 00606	Maricao Municipio
EIS	CAA	7013411	BAXTER HEALTHCARE FENWAL DIV	RD. 357 KM. 0.8, MARICAO, PR 00606	Maricao Municipio
EIS	CAA	15512411	FENWAL INTERNATIONAL INC. MARICAO	PR-357, KM 0.8, MARICAO, MARICAO, PR 00606	Maricao Municipio
TRI	EP313	00706BXRFCARR3	FENWAL INTERNATIONAL INC	RD 357 KM 0.8, MARICAO, PR 00606	Maricao Municipio
RCRAInfo	RCRA	PRD000706473	FENWAL INTERNATIONAL INC	RD 357 KM 0.8, MARICAO, PR 00606	Maricao Municipio
SDWIS	SDWA	PR0348133	FENWAL INTERNATIONAL MARICAO	PR	

Facility SIC (Standard Industrial Classification) Codes

System	Identifier	SIC Code	SIC Description
ICIS-Air	PR0000007209300005	2834	Pharmaceutical Preparations

Facility NAICS (North American Industry Classification System) Codes

System	Identifier	NAICS Code	NAICS Description
TRI	00706BXRFCARR3	325412	Pharmaceutical Preparation Manufacturing
EIS	15512411	339112	Surgical and Medical Instrument Manufacturing
EIS	7013411	325412	Pharmaceutical Preparation Manufacturing
ICIS-Air	PR0000007209300005	325412	Pharmaceutical Preparation Manufacturing
RCRAInfo	PRD000706473	325412	Pharmaceutical Preparation Manufacturing

Facility Tribe Information

No data records returned

Reservation Name	Tribe Name	EPA Tribal ID	Distance to Tribe (miles)
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Enforcement and Compliance

Compliance Monitoring History Last 5 Years

No data records returned

Statute	Source ID	System	Activity Type	Compliance Monitoring Type	Lead Agency	Date	Finding (if applicable)
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Entries in italics are not included in ECHO's Compliance Monitoring Activity counts because they are not compliance monitoring strategy [activities](https://www.epa.gov/compliance/compliance-monitoring-programs) or because they are not counted as inspections within EPA's Annual Results [enforcement data and results](https://www.epa.gov/enforcement/enforcement-data-and-results).

SDWA (Safe Drinking Water Act) Sanitary Survey Results (5 Years)

No data records returned

Source ID	Date	Type	Agency	Data Verification	Distribution	Management Operation	Finished Water Storage	Operator Compliance	Other Evaluation	Pumps	Security	Source	Financial	Treatment
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Sanitary survey result codes: S = Significant Deficiencies M = Minor Deficiencies R = Recommendations Made N = No Deficiencies or Recommendations X = Not Evaluated Z = Not Applicable D = Sanitary Defect -- = Not Reported to EPA

Compliance Summary Data

Statute	Source ID	Current SNC (Significant Noncompliance)/HPV (High Priority Violation)	Current As Of	Qtrs with NC (Noncompliance) (of 12)	Data Last Refreshed
CAA	PR000007209300005	No	02/17/2024	0	02/16/2024
RCRA	PRD000706473	No	02/17/2024	0	02/16/2024
SDWA	PR0348133	No	09/30/2023	0	01/09/2024

Three-Year Compliance History by Quarter

Statute	Program/Pollutant/Violation Type	QTR 1	QTR 2	QTR 3	QTR 4	QTR 5	QTR 6	QTR 7	QTR 8	QTR 9	QTR 10	QTR 11	QTR 12+
CAA (Source ID: PR000007209300005)		04/01-06/30/21	07/01-09/30/21	10/01-12/31/21	01/01-03/31/22	04/01-06/30/22	07/01-09/30/22	10/01-12/31/22	01/01-03/31/23	04/01-06/30/23	07/01-09/30/23	10/01-12/31/23	01/01-03/31/24
	Facility-Level Status	No Violation Identified	No Violation Identified	No Violation Identified	No Violation Identified	No Violation Identified	No Violation Identified	No Violation Identified	No Violation Identified	No Violation Identified	No Violation Identified	No Violation Identified	No Violation Identified
	HPV History												
	Violation Type	Agency	Programs	Pollutants									

Statute	Program/Pollutant/Violation Type	QTR 1	QTR 2	QTR 3	QTR 4	QTR 5	QTR 6	QTR 7	QTR 8	QTR 9	QTR 10	QTR 11	QTR 12+
RCRA (Source ID: PRD000706473)		04/01-06/30/21	07/01-09/30/21	10/01-12/31/21	01/01-03/31/22	04/01-06/30/22	07/01-09/30/22	10/01-12/31/22	01/01-03/31/23	04/01-06/30/23	07/01-09/30/23	10/01-12/31/23	01/01-03/31/24
	Facility-Level Status	No Violation Identified	No Violation Identified	No Violation Identified	No Violation Identified	No Violation Identified	No Violation Identified	No Violation Identified	No Violation Identified	No Violation Identified	No Violation Identified	No Violation Identified	No Violation Identified
	Violation	Agency											

Statute	Violation Type/Category	QTR 1	QTR 2	QTR 3	QTR 4	QTR 5	QTR 6	QTR 7	QTR 8	QTR 9	QTR 10	QTR 11	QTR 12	QTR 13*
SDWA (Source ID: PR0348133)		10/01-12/31/20	01/01-03/31/21	04/01-06/30/21	07/01-09/30/21	10/01-12/31/21	01/01-03/31/22	04/01-06/30/22	07/01-09/30/22	10/01-12/31/22	01/01-03/31/23	04/01-06/30/23	07/01-09/30/23	10/01-12/31/23
	Facility-Level Status	Inactive	Inactive	Inactive	Inactive	Inactive	Inactive	Inactive	Inactive	Inactive	Inactive	Inactive	Inactive	Inactive
	Category	Violation Type												

*Quarter 13 data is voluntarily entered and/or incomplete, and may not form a complete picture for that quarter. Read more <https://epa.gov/help/reports/dfr-data-dictionary#sdwacomp>

Informal Enforcement Actions

Last 5 Years

No data records returned

Statute	System	Source ID	Type of Action	Lead Agency	Date
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Entries in italics are not counted as "informal enforcement actions" in EPA policies pertaining to enforcement response tools.

Formal Enforcement Actions

Last 5 Years

No data records returned

Statute	System	Law/Section	Source ID	Type of Action	Case No.	Lead Agency	Case Name	Issued/Filed Date	Settlements/Actions	Settlement/Action Date	Federal Penalty Assessed	State/Local Penalty Assessed	Penalty Amount Collected	SEP Value	Comp Action Cost
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SDWA (Safe Drinking Water Act) Violations and Enforcement Actions (5 Years)

No data records returned

Source ID	Noncompliance Period	Violation ID	Federal Rule	Violations							Enforcement Actions			
				Contaminant	Category	Description	Measured Value	State MCL (Maximum Contaminant Level)	Federal MCL (Maximum Contaminant Level)	Status	Date	Category	Description	Agency

Environmental Conditions

Watersheds

No data records returned

12-Digit WBD (Watershed Boundary Dataset) HUC (RAD (Reach Address Database))	WBD (Watershed Boundary Dataset) Subwatershed Name (RAD (Reach Address Database))	State Water Body Name (ICIS (Integrated Compliance Information System))	Beach Closures Within Last Year	Beach Closures Within Last Two Years	Pollutants Potentially Related to Impairment	Watershed with ESA (Endangered Species Act)-listed Aquatic Species?
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Assessed Waters From Latest State Submission (ATTAINS)

No data records returned

State	Report Cycle	Assessment Unit ID	Assessment Unit Name	Water Condition	Cause Groups Impaired	Drinking Water Use	Ecological Use	Fish Consumption Use	Recreation Use	Other Use
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Air Quality Nonattainment Areas

No data records returned

Pollutant	Within Nonattainment Status Area?	Nonattainment Status Applicable Standard(s)	Within Maintenance Status Area?	Maintenance Status Applicable Standard(s)
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Pollutants

Toxics Release Inventory History of Reported Chemicals Released or Transferred in Pounds per Year at Site

Air Pollutant Report TRI Pollution Prevention Report



TRI Facility ID	Year	Air Emissions	Surface Water Discharges	Off-Site Transfers to POTWs (Publicly Owned Treatment Works)	Underground Injections	Disposal to Land	Total On-Site Releases	Total Off-Site Transfers
00706BXRFCARR3	2022	8	--	0	--	--	8	--
00706BXRFCARR3	2021	8	--	0	--	--	8	--

TRI Facility ID	Year	Air Emissions	Surface Water Discharges	Off-Site Transfers to POTWs (Publicly Owned Treatment Works)	Underground Injections	Disposal to Land	Total On-Site Releases	Total Off-Site Transfers
00706BXRFCARR3	2020	5	--	0	--	--	5	--
00706BXRFCARR3	2019	4	--	0	--	--	4	--
00706BXRFCARR3	2018	4	--	0	--	--	4	--
00706BXRFCARR3	2017	4	--	0	--	--	4	9,821
00706BXRFCARR3	2016	4	--	0	--	--	4	12,048
00706BXRFCARR3	2015	10	--	0	--	--	10	12,932
00706BXRFCARR3	2014	10	--	0	--	--	10	18,811
00706BXRFCARR3	2013	10	--	0	--	--	10	23,924

Toxics Release Inventory Total Releases and Transfers in Pounds by Chemical and Year

Chemical Name	2022	2021	2020	2019	2018	2017	2016	2015	2014	2013
Di(2-ethylhexyl) phthalate	8	8	5	4	4	9,825	12,052	12,942	18,821	23,934

e-Manifest Hazardous Waste History (Public)

Hazardous Waste Shipped in Kilograms by Year (Through 11/18/2023)

Source ID	Waste Description	2021	2022	2023	2024
PRD000706473	Hazardous Waste	3,479	2,141	900	--
PRD000706473	Acute Hazardous Waste	0	0 - 2	0 - 1	--
PRD000706473	Pharmaceutical Hazardous Waste	0	0	0	--

Pharmaceutical Hazardous Waste is excluded from the Hazardous and Acute Hazardous Waste quantities shown above because Pharmaceutical Waste is managed under 40 CFR part 266 subpart P <<https://www.epa.gov/hwgenerators/final-rule-management-standards-hazardous-waste-pharmaceuticals-and-amendment-p075>>.

Community

Environmental Justice

This section shows indexes from EJScreen, EPA's screening tool for environmental justice (EJ) concerns. EPA uses these indexes to identify geographic areas that may warrant further consideration or analysis for potential EJ concerns. Use of these indexes does not designate an area as an "EJ community" or "EJ facility." EJScreen provides screening level indicators, not a determination of the existence or absence of EJ concerns. For more information, see the EJScreen home page.

EJScreen Indexes Shown

Compare to US State

Index Type Environmental Justice Supplemental

Related Reports

[EJScreen Community Report](#)

 Download Data

Census Block Group ID: 720939602001	US (Percentile)	
Supplemental Indexes	Facility Census Block Group	1-mile Max
Count of Indexes At or Above 80th Percentile	6	6

Census Block Group ID: 720939602001	US (Percentile)	
Supplemental Indexes	Facility Census Block Group	1-mile Max
Particulate Matter 2.5	0	--
Ozone	0	--
Diesel Particulate Matter	5	5
Air Toxics Cancer Risk	36	36
Air Toxics Respiratory Hazard Index	38	38
Toxic Releases to Air	88	90
Traffic Proximity	77	77
Lead Paint	98	98
Risk Management Plan (RMP) Facility Proximity	83	87
Hazardous Waste Proximity	68	69
Superfund Proximity	99	99
Underground Storage Tanks (UST)	95	95
Wastewater Discharge	98	98

Facility 1-mile Radius
 Facility Census Block Group



Powered by Esri <<http://www.esri.com/>>

Demographic Profile of Surrounding Area (1-Mile Radius)

This section provides demographic information regarding the community surrounding the facility. ECHO compliance data alone are not sufficient to determine whether violations at a particular facility had negative impacts on public health or the environment. Statistics are based upon the 2010 U.S. Census and 2017 - 2021 American Community Survey (ACS) 5-year Summary and are accurate to the extent that the facility latitude and longitude listed below are correct. EPA's spatial processing methodology considers the overlap between the selected radii and the census blocks (for U.S. Census demographics) and census block groups (for ACS demographics) in determining the demographics surrounding the facility. For more detail about this methodology, see the DFR Data Dictionary <<https://epa.gov/help/reports/dfr-data-dictionary#demographic>>.

General Statistics (U.S. Census)	
Total Persons	2,142
Population Density	675/sq.mi.
Housing Units in Area	1,030

General Statistics (ACS (American Community Survey))	
Total Persons	1,154
Percent People of Color	98%
Households in Area	430
Households on Public Assistance	20
Persons With Low Income	984
Percent With Low Income	85%

Geography	
Radius of Selected Area	1 mi.
Center Latitude	18.18642
Center Longitude	-66.985694
Land Area	100%
Water Area	0%

Income Breakdown (ACS (American Community Survey)) - Households (%)	
Less than \$15,000	174 (40.47%)
\$15,000 - \$25,000	97 (22.56%)
\$25,000 - \$50,000	114 (26.51%)
\$50,000 - \$75,000	35 (8.14%)
Greater than \$75,000	10 (2.33%)

Age Breakdown (U.S. Census) - Persons (%)	
Children 5 years and younger	138 (6%)
Minors 17 years and younger	482 (23%)
Adults 18 years and older	1,659 (77%)
Seniors 65 years and older	360 (17%)

Race Breakdown (U.S. Census) - Persons (%)	
White	1,919 (90%)
African-American	95 (4%)
Hispanic-Origin	2,127 (99%)
Asian/Pacific Islander	4 (0%)
American Indian	9 (0%)
Other/Multiracial	115 (5%)

Education Level (Persons 25 & older) (ACS (American Community Survey)) - Persons (%)	
Less than 9th Grade	250 (27.62%)
9th through 12th Grade	97 (10.72%)
High School Diploma	260 (28.73%)
Some College/2-year	115 (12.71%)
B.S./B.A. (Bachelor of Science/Bachelor of Arts) or More	116 (12.82%)



Detailed Facility Report

Facility Summary

**TOTAL PETROLEUM PUERTO RICO CORP-
SERVICE STATION 110238**

CARR 357 KM 0.4, MARICAO, PR 00606

FRS (Facility Registry Service) ID: 110042422786

EPA Region: 02

Latitude: 18.1848

Longitude: -66.98243

Locational Data Source: RCRAINFO

Industries: Gasoline Stations

Indian Country: N

Enforcement and Compliance Summary

Statute	RCRA
Compliance Monitoring Activities (5 years)	--
Date of Last Compliance Monitoring Activity	--
Compliance Status	No Violation Identified
Qtrs in Noncompliance (of 12)	0
Qtrs with Significant Violation	0
Informal Enforcement Actions (5 years)	--
Formal Enforcement Actions (5 years)	--
Penalties from Formal Enforcement Actions (5 years)	--
EPA Cases (5 years)	--
Penalties from EPA Cases (5 years)	--

Regulatory Information

Clean Air Act (CAA): No Information

Clean Water Act (CWA): No Information

Other Regulatory Reports

Air Emissions Inventory (EIS): No Information

Greenhouse Gas Emissions (eGGRT): No Information

Toxic Releases (TRI): No Information

Resource Conservation and Recovery Act (RCRA): Active VSQG, (PRR000023028)

Compliance and Emissions Data Reporting Interface (CEDRI):

Safe Drinking Water Act (SDWA): No Information

No Information

[Go To Enforcement/Compliance Details](#)

[Known Data Problems <https://epa.gov/resources/echo-data/known-data-problems>](https://epa.gov/resources/echo-data/known-data-problems)

Facility/System Characteristics

Facility/System Characteristics

System	Statute	Identifier	Universe	Status	Areas	Permit Expiration Date	Indian Country	Latitude	Longitude
FRS		110042422786					N	18.1848	-66.98243
RCRAInfo	RCRA	PRR000023028	VSQG	Active (H)			N	18.1848	-66.98243

Facility Address

System	Statute	Identifier	Facility Name	Facility Address	Facility County
FRS		110042422786	TOTAL PETROLEUM PUERTO RICO CORP-SERVICE STATION 110238	CARR 357 KM 0.4, MARICAO, PR 00606	Maricao Municipio
RCRAInfo	RCRA	PRR000023028	TOTAL PETROLEUM PUERTO RICO CORP-SERVICE STATION 110238	CARR #357 KM 0.4, MARICAO, PR 00606	Maricao Municipio

Facility SIC (Standard Industrial Classification) Codes

No data records returned

System	Identifier	SIC Code	SIC Description
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Facility NAICS (North American Industry Classification System) Codes

System	Identifier	NAICS Code	NAICS Description
RCRAInfo	PRR000023028	44711	Gasoline Stations with Convenience Stores
RCRAInfo	PRR000023028	44719	Other Gasoline Stations


Facility Tribe Information

No data records returned

Reservation Name	Tribe Name	EPA Tribal ID	Distance to Tribe (miles)
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Enforcement and Compliance

Compliance Monitoring History

Last 5 Years 

No data records returned

Statute	Source ID	System	Activity Type	Compliance Monitoring Type	Lead Agency	Date	Finding (if applicable)
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Entries in italics are not included in ECHO's Compliance Monitoring Activity counts because they are not compliance monitoring strategy <<https://www.epa.gov/compliance/compliance-monitoring-programs>> activities or because they are not counted as inspections within EPA's Annual Results <<https://www.epa.gov/enforcement/enforcement-data-and-results>>.


Compliance Summary Data

Statute	Source ID	Current SNC (Significant Noncompliance)/HPV (High Priority Violation)	Current As Of	Qtrs with NC (Noncompliance) (of 12)	Data Last Refreshed
RCRA	PRR000023028	No	02/17/2024	0	02/16/2024

Three-Year Compliance History by Quarter

Statute	Program/Pollutant/Violation Type	QTR 1	QTR 2	QTR 3	QTR 4	QTR 5	QTR 6	QTR 7	QTR 8	QTR 9	QTR 10	QTR 11	QTR 12+
RCRA (Source ID: PRR000023028)		04/01-06/30/21	07/01-09/30/21	10/01-12/31/21	01/01-03/31/22	04/01-06/30/22	07/01-09/30/22	10/01-12/31/22	01/01-03/31/23	04/01-06/30/23	07/01-09/30/23	10/01-12/31/23	01/01-03/31/24
	Facility-Level Status	No Violation Identified	No Violation Identified	No Violation Identified	No Violation Identified	No Violation Identified	No Violation Identified	No Violation Identified	No Violation Identified	No Violation Identified	No Violation Identified	No Violation Identified	No Violation Identified
	Violation												
	Agency												

Informal Enforcement Actions


Last 5 Years 

No data records returned

Statute	System	Source ID	Type of Action	Lead Agency	Date
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Entries in italics are not counted as "informal enforcement actions" in EPA policies pertaining to enforcement response tools.

Formal Enforcement Actions

Last 5 Years 

No data records returned

Statute	System	Law/Section	Source ID	Type of Action	Case No.	Lead Agency	Case Name	Issued/Filed Date	Settlements/Actions	Settlement/Action Date	Federal Penalty Assessed	State/Local Penalty Assessed	Penalty Amount Collected	SEP Value	Comp Action Cost
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Environmental Conditions

Watersheds

No data records returned

12-Digit WBD (Watershed Boundary Dataset) HUC (RAD (Reach Address Database))	WBD (Watershed Boundary Dataset) Subwatershed Name (RAD (Reach Address Database))	State Water Body Name (ICIS (Integrated Compliance Information System))	Beach Closures Within Last Year	Beach Closures Within Last Two Years	Pollutants Potentially Related to Impairment	Watershed with ESA (Endangered Species Act)-listed Aquatic Species?
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Assessed Waters From Latest State Submission (ATTAINS)

No data records returned

State	Report Cycle	Assessment Unit ID	Assessment Unit Name	Water Condition	Cause Groups Impaired	Drinking Water Use	Ecological Use	Fish Consumption Use	Recreation Use	Other Use
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Air Quality Nonattainment Areas

No data records returned

Pollutant	Within Nonattainment Status Area?	Nonattainment Status Applicable Standard(s)	Within Maintenance Status Area?	Maintenance Status Applicable Standard(s)
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Pollutants

Toxics Release Inventory History of Reported Chemicals Released or Transferred in Pounds per Year at Site ⓘ

No data records returned

TRI Facility ID	Year	Air Emissions	Surface Water Discharges	Off-Site Transfers to POTWs (Publicly Owned Treatment Works)	Underground Injections	Disposal to Land	Total On-Site Releases	Total Off-Site Transfers
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Toxics Release Inventory Total Releases and Transfers in Pounds by Chemical and Year ⓘ

No data records returned

Chemical Name

Community

Environmental Justice

This section shows indexes from EJScreen, EPA's screening tool for environmental justice (EJ) concerns. EPA uses these indexes to identify geographic areas that may warrant further consideration or analysis for potential EJ concerns. Use of these indexes does not designate an area as an "EJ community" or "EJ facility." EJScreen provides screening level indicators, not a determination of the existence or absence of EJ concerns. For more information, see the EJScreen home page.

EJScreen Indexes Shown

Compare to US State

Index Type Environmental Justice Supplemental

Related Reports

EJScreen Community Report

[Download Data](#)

Census Block Group ID: 720939602001	US (Percentile)	
Supplemental Indexes	Facility Census Block Group	1-mile Max
Count of Indexes At or Above 80th Percentile	6	6
Particulate Matter 2.5	0	--
Ozone	0	--
Diesel Particulate Matter	5	5
Air Toxics Cancer Risk	36	36
Air Toxics Respiratory Hazard Index	38	38
Toxic Releases to Air	 ⓘ 88	 ⓘ 88
Traffic Proximity	77	77
Lead Paint	 ⓘ 98	 ⓘ 98
Risk Management Plan (RMP) Facility Proximity	 ⓘ 83	 ⓘ 83
Hazardous Waste Proximity	68	69
Superfund Proximity	 ⓘ 99	 ⓘ 99
Underground Storage Tanks (UST)	 ⓘ 95	 ⓘ 95

Census Block Group ID: 720939602001	US (Percentile)	
Supplemental Indexes	Facility Census Block Group	1-mile Max
Wastewater Discharge	98	98

○ Facility 1-mile Radius □ Facility Census Block Group



Demographic Profile of Surrounding Area (1-Mile Radius)

This section provides demographic information regarding the community surrounding the facility. ECHO compliance data alone are not sufficient to determine whether violations at a particular facility had negative impacts on public health or the environment. Statistics are based upon the 2010 U.S. Census and 2017 - 2021 American Community Survey (ACS) 5-year Summary and are accurate to the extent that the facility latitude and longitude listed below are correct. EPA's spatial processing methodology considers the overlap between the selected radii and the census blocks (for U.S. Census demographics) and census block groups (for ACS demographics) in determining the demographics surrounding the facility. For more detail about this methodology, see the DFR Data Dictionary <<https://epa.gov/help/reports/dfr-data-dictionary#demographic>>.

General Statistics (U.S. Census)	
Total Persons	1,971
Population Density	607/sq.mi.
Housing Units in Area	974

General Statistics (ACS (American Community Survey))	
Total Persons	1,081
Percent People of Color	98%
Households in Area	404

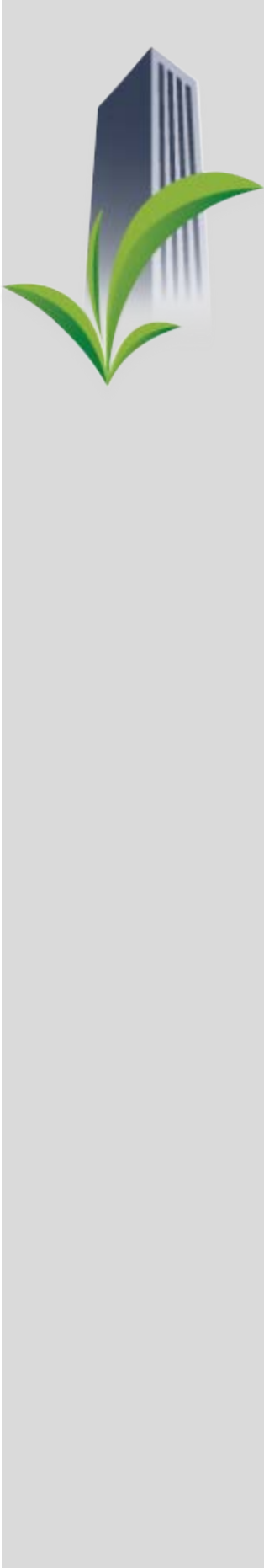
Age Breakdown (U.S. Census) - Persons (%)	
Children 5 years and younger	131 (7%)
Minors 17 years and younger	446 (23%)
Adults 18 years and older	1,524 (77%)
Seniors 65 years and older	335 (17%)

Race Breakdown (U.S. Census) - Persons (%)	
White	1,768 (90%)
African-American	83 (4%)

General Statistics (ACS (American Community Survey))	
Households on Public Assistance	17
Persons With Low Income	921
Percent With Low Income	85%
Geography	
Radius of Selected Area	1 mi.
Center Latitude	18.1848
Center Longitude	-66.98243
Land Area	100%
Water Area	0%

Income Breakdown (ACS (American Community Survey)) - Households (%)	
Less than \$15,000	160 (39.6%)
\$15,000 - \$25,000	90 (22.28%)
\$25,000 - \$50,000	110 (27.23%)
\$50,000 - \$75,000	35 (8.66%)
Greater than \$75,000	9 (2.23%)

Race Breakdown (U.S. Census) - Persons (%)	
Hispanic-Origin	1,960 (99%)
Asian/Pacific Islander	0 (0%)
American Indian	4 (0%)
Other/Multiracial	116 (6%)
Education Level (Persons 25 & older) (ACS (American Community Survey)) - Persons (%)	
Less than 9th Grade	230 (27.25%)
9th through 12th Grade	88 (10.43%)
High School Diploma	245 (29.03%)
Some College/2-year	108 (12.8%)
B.S./B.A. (Bachelor of Science/Bachelor of Arts) or More	110 (13.03%)



Asbestos Containing Building Materials Inspection Report

Project:

Improvements Urban Center Municipality
Pueblo Ward, Maricao, Puerto Rico

Client:

Architects + Engineers

ZEM-22223

October, 2022

Prepared By:

Zimmetry Environmental Management, Corp.
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SECTION 1: EXECUTIVE SUMMARY

1.1 INTRODUCTION

An Asbestos Containing Building Materials (ACBM) Inspection was conducted between October 5, 2022 and October 7, 2022 at Improvements Urban Center Municipality of Maricao project located at Pueblo Ward in Maricao, Puerto Rico. The asbestos containing building materials sampling was performed to identify material that contains asbestos fibers above allowable levels and to assist with the compliance of local, state and federal regulations.

1.2 SUMMARY OF PROPERTY EVALUATION

The project consisted of the evaluation of selective areas of the site, including façade from selective buildings, stairways and public plaza of the aforementioned project (refer to *Appendix E: Demolition/Improvement Plans* for specific project locations). The evaluation found that asbestos fibers were present at the selective materials. For specific locations and additional details on the location of ACBM reference Sections 2 and 3. If suspected components and surfaces that were not previously evaluated are identified in the facilities they shall be considered as containing asbestos until the appropriate analysis is performed.

1.3 PROPERTY LOCATIONS OF BUILDING COMPONENTS WITH ASBESTOS

Table 1-1 summarizes the site components containing asbestos fibers. Details that identify positive asbestos findings within specific areas and on surfaces were provided in the Asbestos Sampling inspection report, Section 2. The quantification of positives materials presented in Table 1-1 is only an estimate. If an abatement of the materials will be conducted the Contractors shall estimate the amount of materials to be abated. If homogeneous materials that were not accounted for are identified in areas that are not described they shall be managed as asbestos containing material.

Table 1-1: Summary of Building Components Containing Asbestos		
Location (Area)	Component	Amount (Approx.)
Building 1, Exterior Side A	All Doors and Windows	Undetermined Ft ²

SECTION 2: ASBESTOS CONTAINING BUILDING MATERIALS INSPECTION REPORT

2.1 OVERVIEW OF THE EVALUATION

This ACBM inspection is an evaluation to identify the location of material containing asbestos that exist within. Our scope of work services for this project consisted of the following tasks.

- A walk-through and observation of the site was performed.
- Bulk sampling of Suspected ACBM within the structure.
- Polarized Light Microscopy (PLM) Analysis of bulk samples.
- Final Inspection Report.

Throughout the inspection the following suspected ACBM were observed and sampled:

- Door Caulking
- Window Caulking

The sampling was conducted by the Department of Natural and Environmental Resources (DRNA) of Puerto Rico and United States Environmental Protection Agency (USEPA) accredited Inspectors qualified by experience, education and training in the recognition of potential ACBM and approved bulk sampling techniques. Some areas may not have been directly accessible due to the physical hazards encountered within. In these areas, if any, assumptions based on findings in other areas were made whenever possible. These assumptions, if any, are duly noted as such in this report.

The inspection was performed in accordance with Environmental Protection Agency recommended procedures found in EPA-450/2-78-014 (Parts I and II), EPA 560/5-85-024, and 40 CFR 763. These procedures call for the visual inspection of the building for suspect friable material and collection and analysis of representative samples of suspect material.

2.2 SAMPLING PROCEDURE AND RESULTS PRESENTATION

The bulk sampling procedures utilized for the collection of the ACBM, required the establishment of homogeneous sampling areas. A homogeneous sampling area is defined as an area of friable or non-friable material of similar type that appears to be applied or constructed during the same time period.

Samples collected from these predetermined homogeneous sampling areas were labeled and transported for analysis. Sample locations were identified by their current use or functional space name. Each type of asbestos displays a unique property when subject to PLM. Properties are unique to crystalline asbestos form and; therefore, can be used to identify the type of asbestos mineral as chrysotile, amosite, crocidolite, anthophyllite, tremolite and actinolite.

Percentage of each asbestos mineral type is determined by visual estimation, by mixing the sample thoroughly to provide a more accurate percentage. Any material containing over one percentage (>1%) by weight of any type of asbestos mineral forms is considered by the USEPA to be asbestos containing material; and if disturbed, it must be handled according to specific State and Federal Regulations.

Five (5) samples of suspected materials were collected. It is our opinion that an acceptable minimum number of critical areas were sampled in keeping with the homogeneous nature of much of the material that was observed. Non-destructive sampling techniques were used. If they exist, walls, ceilings, columns and other inaccessible areas were not broken into. It should be noted that these inaccessible areas may contain ACBM which was not observed during the inspection. Any future construction or renovation should anticipate the presence of these materials.

The samples were received and analyzed by Analytical Environmental Services, Inc. in Atlanta GA (Certified Proficient by the National Institute of Science and Technology NVLAP program for bulk sample asbestos analysis; Laboratory Id 102082-0). The method of analysis was polarized light microscopy with dispersion staining, as recommended by the US EPA. This survey focused on the building materials, which are present throughout the interior and exterior of the building structure.

2.3 FINDINGS AND RECOMMENDATIONS

2.3.1 INTRODUCTION

This section describes the asbestos containing building materials (ACBM), which were observed in the inspection. Please note that the recommendations given are always the minimum action, which in our professional judgment should be taken.

There were two types of Asbestos Containing Building Materials found within the evaluated site:

- Door Caulking
- Window Caulking

If these materials are to be removed, they should be managed and disposed by a licensed asbestos contractor and disposed of as contaminated waste in as approved asbestos landfill site.

2.3.2 SPECIFIC FINDINGS

The following ACBM were found to contain more than one percent (1%) of asbestos by weight and are listed according to their homogeneous area:

1. Door Caulking Material Samples: 22223-05

These materials are in a non-friable condition and the analytical result was 2% Chrysotile asbestos.

2. Window Caulking Material Samples: 22223-054

These materials are in a non-friable condition and the analytical result was 2% Chrysotile asbestos.

2.3.3 HOMOGENEOUS AREAS WITH SPECIAL CONSIDERATIONS

NONE

2.3.4 SUSPECT MATERIALS PRESUMED TO BE ASBESTOS-CONTAINING MATERIALS WITHOUT LABORATORY ANALYSIS

NONE

2.3.5 INACCESSIBLE AREAS

NONE

2.4 CONDITIONS AND LIMITATIONS—DISCLAIMER

Zimmetry Environmental Management Corp. has performed this asbestos containing building materials inspection in a thorough and professional manner consistent with commonly accepted industry standards. The Preparer cannot guarantee and does not warrant that this evaluation has identified all adverse environmental factors and/or conditions affecting this site on the dates of the evaluation. If suspected materials are identified they shall be managed as containing asbestos until the appropriated laboratory analysis is performed. The quantification of positives materials presented in the table 1-1 is only an estimate. If an abatement of the materials will be conducted the Contractors shall estimate the amount of the materials to be abated.

The results reported and conclusions reached by the Preparer are solely for the benefit of the Owner and occupants. The results and opinions in this report, based solely on the conditions found at the site on the dates of the evaluation, are valid only on those dates. The Preparer assumes no obligation to advise the client of any changes in any real or potential asbestos hazards at this structure beyond the dates of the site evaluation.

2.5 ABATEMENT CONDITIONS

The US Environmental Protection Agency rules concerning the application, removal, and disposal of Asbestos Containing Building Materials (ACBM) were issued under the asbestos NESHAP (U.S. EPA National Emission Standards of Hazardous Air Pollutants, 40 CFR 61 Subpart M, October 30, 1987). The asbestos **N.E.S.H.A.P.** regulation governs asbestos demolition and renovation projects in all facilities. The NESHAP rule usually requires owners or operators to have all friable ACBM removed before a building is demolished, and may require its removal before a renovation. The Department of Natural and Environmental Resources (DRNA) of Puerto Rico requires inspecting the presence of Asbestos Containing Materials prior to buildings demolitions.

If the identified materials are to be removed, they should be managed following the work practices and procedures for the removal and disposal of asbestos containing materials by a licensed asbestos contractor and disposed of as contaminated waste in as approved asbestos landfill site. The Contractor shall comply with all the Department of Natural and Environmental Resources (DRNA) of Puerto Rico requirements. The Contractor has to submit to the DRNA the abatement work plan for its approval. The asbestos abatement is classified Class II for the miscellaneous materials by OSHA, which includes the abatement, packing and storage of asbestos. The abatement has to be performed without damaging any structure or adjacent area and protecting the safety and health of the employees and the general public.

2.6 ENVIRONMENTAL ASSESSMENT REPORT CERTIFICATION

Zimmetry Environmental Management Corp. has performed this asbestos containing building materials inspection in a thorough and professional manner consistent with commonly accepted industry standards. The ACBM inspection was performed between October 5, 2022 and October 7, 2022 by Ramón Rosado, ASB-1121-0598-SI, qualified by experience, education and training in the recognition of asbestos containing materials and approved sampling techniques.



Ramón Rosado
Environmental Building Consultant

SECTION 3: APPENDICES

Appendix A: Certifications, Licenses and Accreditations

Appendix B: Laboratory Results & Chain of Custody

Appendix C: Photographic Record

Appendix D: Location of Positive Materials

APPENDIX A: CERTIFICATIONS, LICENSES, AND ACCREDITATIONS

	<p>TARJETA DE REGISTRO LA REMOCION PARA DE ASBESTO</p> <p>Esta tarjeta autoriza a:</p> <p>Ramón Rosado Izquierdo</p> <p>Inspector</p> <p>A trabajar en la remoción de asbesto en Puerto Rico. Esta persona NO es un empleado del DRNA.</p> <p></p> <p>Firma Autorizada - Departamento Recursos Naturales y Ambientales</p>
<p>ASB-1121-0598-SI</p> <p>Número de Registro</p> <p>2-Nov-2022</p> <p>Fecha de vencimiento</p>	

APPENDIX A: CERTIFICATIONS, LICENSES, AND ACCREDITATIONS



APPENDIX B: LABORATORY RESULTS AND CHAIN OF CUSTODY


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Analytical Environmental Services, Inc.
 Accounts Receivable
 3080 Presidential Drive, Atlanta GA 30340-3704
 Phone (770) 457-8177 Fax (770) 457-8188

**CHAIN OF CUSTODY
 BULK ASBESTOS SAMPLE**

Project Name: Improvements Urban Center Municipality of Maricao Contact: Harry Peña
 Project Location: Maricao, Puerto Rico Samplers Name: Ramón Rosado
 Project Number: ZEM-22223 Sampling Date: 10/5/2022

	Sample ID	Sample Description	Sample Location	Analysis Requested	Turnaround Time	Comments	For AES Use Only
1	22223-01	Door Caulking	Building 1, Exterior Side D	PLM	RUSH	3 Days	
2	22223-02	Door Caulking	Building 1, Exterior Side D	PLM	RUSH	3 Days	
3	22223-03	Window Caulking	Building 1, Exterior Side A	PLM	RUSH	3 Days	
4	22223-04	Window Caulking	Building 1, Exterior Side A	PLM	RUSH	3 Days	
5	22223-05	Door Caulking	Building 1, Exterior Side A	PLM	RUSH	3 Days	
6							
7							
8							
9							
10							
11							
12							
13							
14							
15							
16							
17							
18							
19							
20							

Relinquished by: Isamar Rivera  Date/Time: 10/10/2022 15:00

FOR LAB USE ONLY

Lab Recipient: LEILA DYE Date/Time: 10.11.22 9:36 Method of Shipment: FED EX



3080 Presidential Drive
Atlanta, GA 30340
Tel : (770) 457-8177
Fax: (770) 457-8188

ANALYTICAL ENVIRONMENTAL SERVICES, INC.

Bulk Sample Summary Report



Report Date: 14-Oct-22

Client Name:	Zimmetry Environmental Mgmt Corp.	AES Job Number:	2210A75
Project Name:	Improvements Urban Center Municipality of Maricao	Project Number:	ZEM-22223

Client ID	AES ID	Location	Asbestos Mineral Percentage						Comments
			CH	AM	CR	AN	TR	AC	
22223-01 Layer: 1	2210A75 -001A	Door Caulking	ND	ND	ND	ND	ND	ND	Paint included as binder
22223-02 Layer: 1	2210A75 -002A	Door Caulking	ND	ND	ND	ND	ND	ND	Paint included as binder
22223-03 Layer: 1	2210A75 -003A	Window Caulking	ND	ND	ND	ND	ND	ND	Paint included as binder
22223-04 Layer: 1	2210A75 -004A	Window Caulking	2	ND	ND	ND	ND	ND	Paint included as binder
22223-05 Layer: 1	2210A75 -005A	Door Caulking	2	ND	ND	ND	ND	ND	Paint included as binder

Note: CH=chrysotile, AM=amosite, CR=crocidolite, AC=actinolite, TR=tremolite, AN=anthophyllite
For comments on the samples, see the individual analysis sheets.
ND = None Detected

AES, Inc. is accredited by NIST's National Voluntary Laboratory Accreditation Program (NVLAP) for Polarized Light Microscopy (PLM) analysis, Lab Code 102082-0. All analyses performed in accordance with EPA "Interim Method for the Determination of Asbestos in Bulk Insulation Samples" (EPA 600/M4-82-020), 1982 as found in 40 CFR, Part 763, Appendix E to Subpart E and "Method for the Determination of Asbestos in Bulk Building Materials" (EPA/600/R-93/116), 1993.
These test results apply only to those samples actually tested, as submitted by the client. All percentages are reported by visually estimated volume. PLM is not consistently reliable in detecting small concentrations of asbestos in floor tiles and similar nonfriable materials, quantitative TEM is currently the only method that can be used to determine conclusive asbestos content.
This report must not be reproduced except in full without written approval of Analytical Environmental Services, Inc.



Microanalyst:

Elena Ivanova

QC Analyst:

Yelena Khanina

APPENDIX C: PHOTOGRAPHIC RECORD

<p>Photo No. 5684</p>	<p>Date: 10/7/2022</p>	
<p>Description:</p> <p>Building 1 Asbestos containing doors and windows caulking.</p>		
<p>Photo No. 5690</p>	<p>Date: 10/7/2022</p>	
<p>Description:</p> <p>Building 1 Asbestos containing doors and windows caulking.</p>		

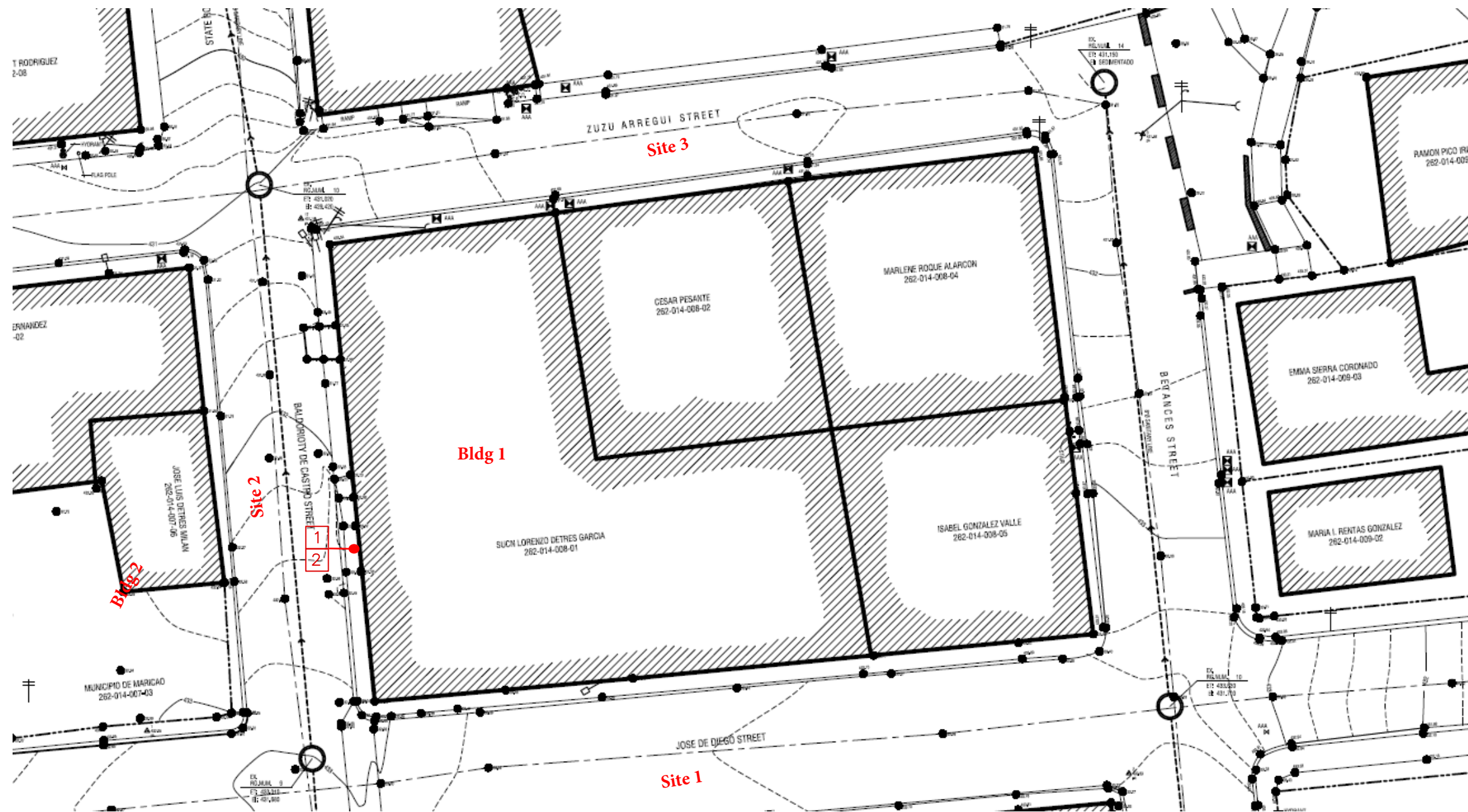
Photographic Documentation is for reference purposes and doesn't necessarily include all the surfaces with asbestos.

APPENDIX C: PHOTOGRAPHIC RECORD

Photo No. 5692	Date: 10/7/2022	
Description: Building 1 Asbestos containing windows caulking.		
Photo No. 5693	Date: 10/7/2022	
Description: Building 1 Asbestos containing doors caulking.		

Photographic Documentation is for reference purposes and doesn't necessarily include all the surfaces with asbestos.

APPENDIX D: LOCATION OF POSITIVE MATERIALS



Asbestos Legend:

- 1 Window Caulking
- 2 Door Caulking

Note:

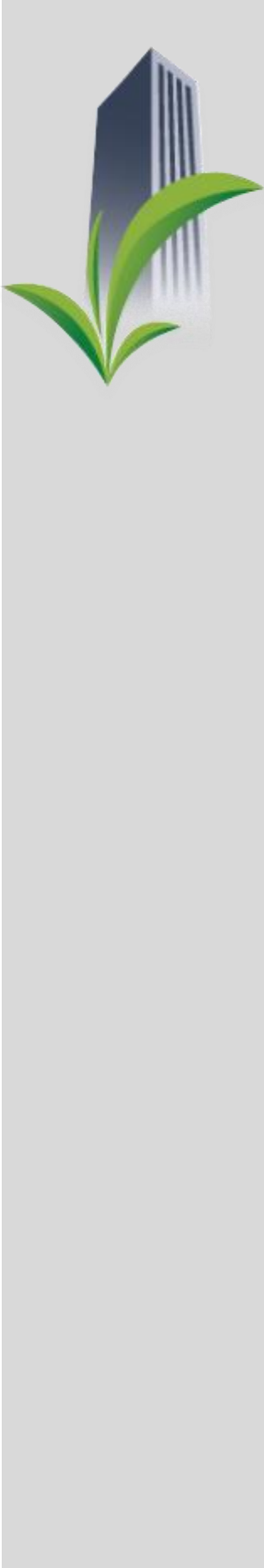
The layout of materials shown in this figure is for illustrative purposes only. For actual location and quantity of materials refer to the survey report

Zimmetry Environmental
 Environmental Building Inspectors
 Indoor Environmental Quality / Mold Assessments, Asbestos,
 Lead Based Paint Consulting - Phone - Fax (787) 995-0005

Project: Improvements Urban Center Municipality of Maricao Pueblo Ward
 Maricao, PR

Date: October, 2022 Project No: ZEM-22223

APPENDIX E: DEMOLITION/IMPROVEMENTS PLANS



Lead Based Paint Inspection Report

Project:

Improvements Urban Center Municipality
Pueblo Ward, Maricao, Puerto Rico

Client:

Architects + Engineers

ZEM-22223

October, 2022

Prepared By:

Zimmetry Environmental Management, Corp.

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SECTION 1: EXECUTIVE SUMMARY

1.1 INTRODUCTION

A Lead-Based Paint inspection was conducted between October 5, 2022 and October 7, 2022 at Improvements Urban Center Municipality of Maricao project located at Pueblo Ward in Maricao, Puerto Rico. The lead-based paint inspection was performed to identify paint that contains lead above allowable levels and to assist with the compliance of local, state and federal regulations.

1.2 SUMMARY OF PROPERTY EVALUATION

The project consisted of the evaluation of selective areas of the site, including façade from selective buildings, stairways and public plaza of the aforementioned project (refer to *Appendix E: Demolition/Improvement Plans* for specific project locations). The evaluation found that lead based paint was present in selective components and surfaces through the project on the dates of the inspection. Table 1-1 identifies the components positive for lead. Table 2-1 identifies lead-based paint as defined by the U.S. Environmental Protection Agency (EPA) and the Department of Natural and Environmental Resources (DRNA) of Puerto Rico. For specific locations and additional detail on the location of lead- reference Sections 2 and 3.

1.3 PROPERTY LOCATIONS OF BUILDING COMPONENTS WITH LEAD-BASED PAINT

Table 1-1 summarizes the site components and surfaces coated with lead-based paint. Details that identify positive lead-based paint findings within specific areas and on surfaces were provided in the lead-based paint inspection report. The “substrate” is the building component material directly beneath the painted surface. Photographic documentation is for reference purposes and doesn't necessarily include all the surfaces with lead based paint and/or components containing lead. The quantification of positives materials presented in this table is only an estimate. If an abatement of the materials will be conducted, the Contractors shall estimate the amount of materials to be abated.

If homogeneous materials that were not accounted for are identified in areas that are not describe in this report or inaccessible areas described in Section 2.3.3, they shall be managed as containing lead. If suspected components that could contain lead are encountered underneath current installed tiles or other construction material, they shall be managed as containing lead until the appropriate test is performed. Refer to Appendix F: Location of Positive Materials for specific location.

Table 1-1: Summary of Components Containing Lead				
Location	Component	Color	Substrate	Approximate Amount
Building 1 Side A	Wall A	Pink	Concrete	1,480 Ft ²
	Lower Wall A	Dark Pink	Concrete	
	Columns	Dark Pink	Concrete	
	Fascia	Dark Pink	Concrete	
	Molding	Dark Pink	Concrete	
	Beam	Dark Pink	Concrete	
	Door Molding	Dark Pink	Concrete	
Building 1 Side B	Wall B	Pink	Concrete	720 Ft ²
	Column	Dark Pink	Concrete	
	Fascia	Dark Pink	Concrete	
	Beam	Dark Pink	Concrete	
	Door Molding	Dark Pink	Concrete	
	Door & Door Casing	Pink	Metal	2 units ea.
Building 1 Side D	Molding	Dark Pink	Concrete	125 Ft ²
	Beam	Dark Pink	Concrete	
	Fascia	Dark Pink	Concrete	
Site 2	Curb	Yellow & Blue	Concrete	95 Ln. Ft.
Site 3	Curb	Yellow	Concrete	35 Ft ²
Site 4	Curb	Yellow	Concrete	45 Ln. Ft.
Site 5	Curb	Yellow	Concrete	20 Ln. Ft.
Site 7	Curb	Yellow	Concrete	100 Ln. Ft.
Site 8	Curb	Yellow	Concrete	30 Ln. Ft.
Site 9	Curb	Yellow	Concrete	115 Ln. Ft.
Site 10	Curb	Yellow & Blue	Concrete	45 Ln. Ft.
	Curb	Yellow	Concrete	135 Ln. Ft.
Site 12	Railing	White	Metal	40 units
Site 13	Curb	Yellow	Concrete	125 Ln. Ft.

Note:

1. The quantification of positives materials presented in this table is only an estimate. If an abatement of the materials will be conducted, the Contractors shall estimate the amount of materials to be abated.

SECTION 2: LEAD-BASED PAINT INSPECTION REPORT

2.1 OVERVIEW OF THE EVALUATION

This lead-based paint inspection is an investigation to identify all lead-based paint on a surface-by-surface basis. A lead-based paint inspection conforming to HUD guidelines was performed at the aforementioned project.

Averages of 230 samples were taken at identified surfaces of the evaluated areas using X-ray fluorescence (XRF) analyzer. The evaluation found that lead-based paint was present in selective components and surfaces through the project on the dates of the assessment (See Table 1-1).

Some of the remaining XRF test locations exhibited lead-in-paint levels below the level that EPA identifies as lead-based paint, namely 1.0 mg/cm². Such surfaces could create dust-lead or soil-lead hazards if the paint is turned into dust by abrasion, scraping, or sanding. Should these or any lead containing components or surfaces be disturbed in any manner that generates dust, care should be taken to limit its spread.

Testing was performed by Isamar Rivera, state-certified risk assessor LBPRA-20322-196, using the Niton XLp-300A XRF, SN-101222. The credentials are provided in Section 3, Appendix A: Certifications, Licenses, and Accreditations. The XRF analyzer is designed to measure the lead content of surface coatings on a variety of building surfaces, substrates, and components. The measurement is rapid and nondestructive and, according to the manufacturer, is capable of detecting lead concentrations that occur within numerous layers of various surface coatings.

Please refer to the XRF Testing Results Section 3, Appendix B: XRF Sampling Data for the detailed analytical testing results for each distinct area inspected. The reports provide a complete testing data.

2.2 SAMPLING PROCEDURE

The Lead Based Paint Sampling Procedure was design to evaluate and document all the data obtained form the inspection in a sequential method that provided confidence at the moment of the results presentation.

The survey was performed following the methodology established in the HUD Guidelines for the Evaluation and Control of Lead Based Paint in Housing (2012 revision) and the Department of Natural and Environmental Resources (DRNA) of Puerto Rico Regulation 9098: Regulation for Proper Management of Lead-Based Paint Activities. The surfaces evaluation was performed as follows:

- If the lead concentration measured by the XRF Spectrum Analyzer is less than 1.0 mg/cm² it is considered negative.

- If the lead concentration measured by the XRF Spectrum Analyzer is equal or greater than 1.0 mg/cm² it is considered positive.

To each functional space of the project a name was assigned according to the use of that space. If no name could be assigned then a code letter or number was assigned.

Each wall surface was named with letters beginning with wall A the wall facing the main entrance direction. The wall at your left will be wall B, the wall at front wall C and the wall at you right will be wall D.

2.3 RESULTS PRESENTATION

This section describes the project components and surfaces coated with lead-based paint (LBP), which were observed in the inspection. Please note that the recommendations given are always the minimum action, which in our professional judgment should be taken.

According to the DRNA lead regulations, prior to the demolishing of a structure containing lead based paint, the contaminated surfaces or substrates must be abated or removed. The firm providing the abatement services must be certified as an abatement firm by the DRNA.

2.3.1 SPECIFIC FINDINGS

The following LBP were found to contain more than 1.0 mg/cm² for what Department of Natural and Environmental Resources (DRNA) of Puerto Rico identifies as lead-based paint or materials containing lead:

- Beam
- Columns
- Curb
- Door & Door Casing
- Door Molding
- Fascia
- Molding
- Railing
- Wall Surface

2.3.2 HOMOGENEOUS AREAS WITH SPECIAL CONSIDERATIONS

NONE

2.3.3 INACCESSIBLE AREAS PRESUMED TO BE LEAD-BASED PAINTED

NONE

2.4 LEAD REGULATORY LEVELS

The lead regulatory levels provided below are those used when preparing this lead-based paint evaluation or when evaluating data collected. The EPA regulatory levels are the same as the state regulatory levels provided in the following table.

TABLE 2-1: LEAD REGULATORY LEVELS	
	EPA/DRNA Levels
Lead-Based Paint	1.0 mg/cm² or 0.5% by weight (or 5,000 ppm)

2.5 CONDITIONS AND LIMITATIONS—DISCLAIMER

Zimmetry Environmental Management Corp. has performed this lead-based paint inspection in a thorough and professional manner consistent with commonly accepted industry standards. The Preparer cannot guarantee and does not warrant that this evaluation has identified all adverse environmental factors and/or conditions affecting this project on the dates of the evaluation.

The results reported and conclusions reached by the Preparer are solely for the benefit of the Owner. The results and opinions in this report, based solely on the conditions found at the project on the dates of the evaluation, are valid only on those dates. The Preparer assumes no obligation to advise the client of any changes in any real or potential lead-based paint hazards at this project beyond the dates of the evaluation.

The lead inspection was performed to ready accessible components and surfaces. If suspected components that could contain lead are encountered underneath current installed tiles or other construction material, they shall be managed as containing lead until the appropriate test is performed.

2.6 ABATEMENT CONDITIONS

Abatement, as defined by HUD and the Department of Natural and Environmental Resources (DRNA) of Puerto Rico, means any set of measures designed to eliminate lead-based paint and/or lead-based paint hazards permanently. The people providing these services must be trained in accordance with the DRNA licensing/certification requirements. The product manufacturer and/or contractor must warrant abatement methods to last a minimum of 20 years, or these methods must have a design life of at least 20 years.

- onsite or offsite removal of lead-based paint from substrates and components
- replacement of components or fixtures painted with lead-based paint
- permanent enclosure of lead-based paint with construction materials mechanically-fastened to the substrate
- encapsulation of lead-based paint with specially designed encapsulant products
- removal or permanent covering (concrete or asphalt) of soil-lead-based paint hazards

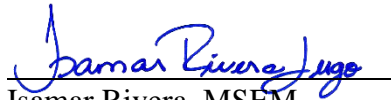
If enclosure or encapsulation is conducted as an abatement method, the lead-based paint remains on the property, so ongoing lead-based paint maintenance is required.

2.7 RECOMMENDATIONS

According to the DRNA lead regulations, prior to the demolishing of a structure containing lead-based paint, the contaminated surfaces or substrates must be abated or removed. The waste generated has to be characterized to determine if the waste generated is hazardous or non-hazardous waste. The firm providing the abatement services must be certified as an abatement firm by the DRNA. Workers conducting abatement must be trained and certified as abatement workers by a training provider accredited by the DRNA.

2.8 ENVIRONMENTAL ASSESSMENT REPORT CERTIFICATION

Zimmetry Environmental Management Corp. has performed this lead-based paint inspection in a thorough and professional manner consistent with commonly accepted industry standards. The inspection was conducted between October 5, 2022 and October 7, 2022 by Isamar Rivera, state-certified risk assessor LBPRA-20322-196, qualified by experience, education and training in the recognition of lead-based paint and approved sampling techniques using the Niton XLP-300A XRF, SN-101222.



Isamar Rivera, MSEM
Environmental Risk Assessor

SECTION 3: APPENDICES

Appendix A: Certifications, Licenses, and Accreditations

Appendix B: XRF Sampling Data

Appendix C: XRF's Performance Characteristics Sheet

Appendix D: Photographic Record

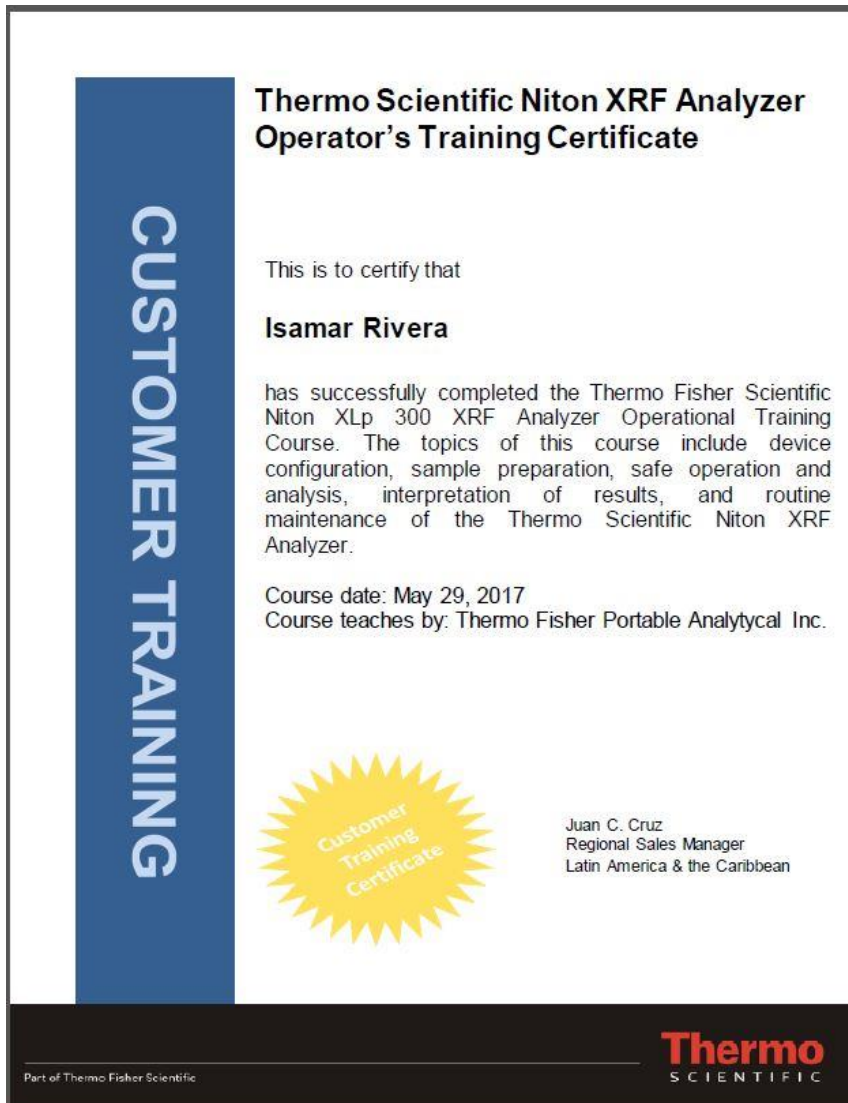
Appendix E: Demolition/Improvement Plans

Appendix F: Location of Positive Materials

APPENDIX A: CERTIFICATIONS, LICENSES, AND ACCREDITATIONS



APPENDIX A: CERTIFICATIONS, LICENSES, AND ACCREDITATIONS



APPENDIX B: XRF SAMPLING DATA

PROJECT:		Improvements Urban Center Municipality of Maricao, Maricao, PR			CLIENT: Architects + Engineers		
DATE:		10/5/2022			LBP Inspector: Isamar Rivera		
Sample ID.	Functional Space	Location	Color	Subst.	XRF Reading	Pos/Neg	Comments
1	Calibration				1.00		
2	Calibration				1.00		
3	Calibration				1.00		
4	Site 1	Curb	Yellow	Concrete	0.05	Negative	
5	Site 1	Light Pole	Green	Wood	0.00	Negative	
6	Site 1	Light Pole	Green	Wood	0.00	Negative	
7	Site 1	Floor	White	Concrete	0.00	Negative	
8	Building 1, Side D	Wall D	Pink	Concrete	0.00	Negative	
9	Building 1, Side D	Door Molding	Dark Pink	Concrete	0.00	Negative	
10	Building 1, Side D	Column	Dark Pink	Concrete	0.00	Negative	
11	Building 1, Side D	Fascia	Dark Pink	Concrete	2.40	Positive	
12	Building 1, Side D	Floor Tile	Terracotta	Ceramic	0.00	Negative	
13	Building 1, Side D	Window	Brown	Wood	0.00	Negative	
14	Building 1, Side D	Beam	Dark Pink	Concrete	1.50	Positive	
15	Building 1, Side D	Molding	Dark Pink	Concrete	1.70	Positive	
16	Building 1, Side A	Wall A	Pink	Concrete	1.70	Positive	
17	Building 1, Side A	Lower Wall A	Dark Pink	Concrete	1.50	Positive	
18	Building 1, Side A	Column	Dark Pink	Concrete	1.80	Positive	
19	Building 1, Side A	Fascia	Dark Pink	Concrete	1.20	Positive	
20	Building 1, Side A	Ramp	Blue	Concrete	0.00	Negative	
21	Building 1, Side A	Handrail	Dark Pink	Metal	0.00	Negative	
22	Building 1, Side A	Door Molding	Dark Pink	Concrete	1.60	Positive	
23	Building 1, Side A	Gate	Pink	Metal	0.00	Negative	
24	Building 1, Side A	Grille	Pink	Metal	0.00	Negative	
25	Building 1, Side A	Pipeline	Dark Pink	Metal	0.00	Negative	
26	Building 1, Side A	Column	Dark Pink	Concrete	2.60	Positive	
27	Building 1, Side A	Step	Blue	Concrete	0.00	Negative	
28	Building 1, Side A	Riser	Blue	Concrete	0.00	Negative	
29	Building 1, Side A	Door Molding	Dark Pink	Concrete	1.70	Positive	
30	Building 1, Side A	Step	Dark Pink	Concrete	0.00	Negative	
31	Building 1, Side A	Riser	Dark Pink	Concrete	0.00	Negative	
32	Building 1, Side A	Beam	Dark Pink	Concrete	0.00	Negative	
33	Building 1, Side B	Wall B	Pink	Concrete	1.40	Positive	
34	Building 1, Side B	Column	Dark Pink	Concrete	1.50	Positive	
35	Building 1, Side B	Fascia	Dark Pink	Concrete	2.10	Positive	
36	Building 1, Side B	Beam	Dark Pink	Concrete	1.60	Positive	
37	Building 1, Side B	Door	Pink	Metal	1.50	Positive	
38	Building 1, Side B	Door Casing	Pink	Metal	1.50	Positive	
39	Building 1, Side B	Window Casing	Pink	Metal	0.00	Negative	
40	Building 1, Side B	Door Molding	Dark Pink	Concrete	1.80	Positive	
41	Building 1, Side B	Pipeline	Pink	Metal	0.00	Negative	
42	Site 2	Light Pole	Yellow	Wood	0.00	Negative	
43	Site 2	Pole	Green	Metal	0.00	Negative	
44	Site 2	Curb	Yellow	Concrete	0.00	Negative	
45	Site 2	Ramp	Blue	Concrete	0.00	Negative	
46	Site 2	Curb	Yellow	Concrete	0.00	Negative	
47	Site 2	Curb	Blue	Concrete	2.50	Positive	
48	Site 2	Stringer	Blue	Concrete	0.00	Negative	
49	Site 3	Curb	Yellow	Concrete	2.10	Positive	
50	Site 3	Light Pole	Yellow	Wood	0.00	Negative	
51	Site 4	Curb	Yellow	Concrete	1.40	Positive	
52	Site 4	Curb	Yellow	Concrete	0.00	Negative	
53	Site 4	Riser	Pink	Concrete	0.00	Negative	
54	Building 2	Fence	Cream	Concrete	0.00	Negative	
55	Building 2	Fence	Cream	Concrete	0.00	Negative	
56	Building 2	Planter	Blue	Concrete	0.00	Negative	
57	Building 2	Wall B	Purple	Concrete	0.00	Negative	
58	Building 2	Wall B	Cream	Concrete	0.00	Negative	
59	Building 2	Door Molding	Cream	Concrete	0.00	Negative	
60	Building 2	Beam	Cream	Concrete	0.00	Negative	

PROJECT:		Improvements Urban Center Municipality of Maricao, Maricao, PR		CLIENT: Architects + Engineers			
DATE:		10/5/2022		LBP Inspector: Isamar Rivera			
Sample ID.	Functional Space	Location	Color	Subst.	XRF Reading	Pos/Neg	Comments
61	Building 2	Fascia	Cream	Concrete	0.00	Negative	
62	Building 2	Window Casing	Black	Metal	0.00	Negative	
63	Building 2	Window Casing	Black	Metal	0.00	Negative	
64	Building 2	Pipeline	Purple	Metal	0.00	Negative	
65	Building 2	Pipeline	Cream	Metal	0.00	Negative	
66	Building 2	Wall A	Cream	Concrete	0.00	Negative	
67	Stairway 1	Step	White	Concrete	0.00	Negative	
68	Stairway 1	Riser	White	Concrete	0.00	Negative	
69	Stairway 1	Handrail	Black	Metal	0.00	Negative	
70	Stairway 1	Floor	Black	Concrete	0.00	Negative	
71	Building 3, Side A	Column	Blue	Concrete	0.00	Negative	
72	Building 3, Side A	Wall A	Cream	Concrete	0.30	Negative	
73	Building 3, Side A	Riser	Pink	Concrete	0.00	Negative	
74	Building 3, Side A	Molding	Dark Pink	Concrete	0.00	Negative	
75	Building 3, Side A	Fascia	Dark Pink	Concrete	0.00	Negative	
76	Building 3, Side A	Lower Wall A	Blue	Concrete	0.40	Negative	
77	Building 3, Side A	Window	Dark Pink	Wood	0.01	Negative	
78	Building 3, Side A	Railing	Cream	Metal	0.30	Negative	
79	Building 3, Side A	Curtain	White	Metal	0.00	Negative	
80	Building 3, Side A	Step	Orange	Metal	0.00	Negative	
81	Building 3, Side A	Step	Blue	Concrete	0.00	Negative	
82	Building 3, Side A	Stringer	Red	Concrete	0.00	Negative	
83	Building 3, Side B	Wall B	Blue	Concrete	0.00	Negative	
84	Building 3, Side B	Upper Wall B	Cream	Concrete	0.00	Negative	
85	Building 3, Side B	Column	Blue	Concrete	0.00	Negative	
86	Building 3, Side B	Molding	Blue	Concrete	0.00	Negative	
87	Building 3, Side B	Curtain	White	Metal	0.00	Negative	
88	Building 3, Side B	Molding	Dark Pink	Concrete	0.00	Negative	
89	Building 3, Side B	Fascia	Dark Pink	Concrete	0.00	Negative	
90	Building 3, Side B	Pipeline	Cream	Metal	0.00	Negative	
91	Building 3, Side B	Pipeline	Blue	Metal	0.00	Negative	
92	Building 3, Side B	Door	Black	Metal	0.00	Negative	
93	Building 3, Side B	Door Casing	Black	Metal	0.00	Negative	
94	Building 3, Side B	Column	Cream	Concrete	0.00	Negative	
95	Site 5	Curb	Yellow	Concrete	1.40	Positive	
96	Site 5	Light Pole	Orange	Wood	0.00	Negative	
97	Site 5	Light Pole	Yellow	Wood	0.00	Negative	
98	Site 5	Curb	Yellow	Concrete	0.00	Negative	
99	Site 5	Light Pole	Cream	Wood	0.00	Negative	
100	Building 4, Side A	Column	Brown	Concrete	0.00	Negative	
101	Building 4, Side A	Wall A	Cream	Concrete	0.00	Negative	
102	Building 4, Side A	Molding	Brown	Concrete	0.00	Negative	
103	Building 4, Side A	Panel	Red	Wood	0.00	Negative	
104	Building 4, Side A	Panel	Blue	Wood	0.00	Negative	
105	Building 4, Side A	Panel	White	Wood	0.00	Negative	
106	Building 4, Side A	Panel	Gold	Wood	0.00	Negative	
107	Building 4, Side A	Panel	Green	Wood	0.00	Negative	
108	Building 4, Side B	Wall B	Cream	Concrete	0.00	Negative	
109	Building 4, Side B	Column	Blue	Concrete	0.02	Negative	
110	Building 4, Side B	Fascia	Blue	Concrete	0.00	Negative	
111	Building 4, Side B	Window Grille	Black	Metal	0.00	Negative	
112	Building 4, Side B	Window Molding	Blue	Concrete	0.00	Negative	
113	Public Plaza	Planter	Cream	Concrete	0.00	Negative	
114	Public Plaza	Planter	Blue	Concrete	0.00	Negative	
115	Public Plaza	Bench	Blue	Concrete	0.00	Negative	
116	Public Plaza	Light Pole	Black	Metal	0.00	Negative	
117	Public Plaza	Fence	Cream	Concrete	0.01	Negative	
118	Public Plaza	Baluster	Red	Concrete	0.00	Negative	
119	Public Plaza	Floor Tile	Brown	Ceramic	0.00	Negative	
120	Public Plaza	Planter	Blue	Concrete	0.00	Negative	

PROJECT: Improvements Urban Center Municipality of Maricao, Maricao, PR				CLIENT: Architects + Engineers			
DATE: 10/7/2022		LBP Inspector: Isamar Rivera					
Sample ID.	Functional Space	Location	Color	Subst.	XRF Reading	Pos/Neg	Comments
170	Calibration				1.00		
171	Calibration				1.00		
172	Calibration				1.00		
173	Site 10	Curb	Yellow	Concrete	2.70	Positive	
174	Site 10	Curb	Blue	Concrete	1.80	Positive	
175	Site 10	Curb	Yellow	Concrete	2.00	Positive	
176	Site 10	Light Pole	Yellow	Wood	0.00	Negative	
177	Site 10	Curb	Yellow	Concrete	1.40	Positive	
178	Site 10	Ramp	Blue	Concrete	0.00	Negative	
179	Site 10	Light Pole	Yellow	Wood	0.00	Negative	
180	Site 10	Curb	Yellow	Concrete	2.50	Positive	
181	Site 10	Light Pole	Green	Concrete	0.00	Negative	
182	Site 10	Ramp	Blue	Concrete	0.00	Negative	
183	Site 10	Floor Line	White	Concrete	0.00	Negative	
184	Site 10	Parapet	Green	Concrete	0.29	Negative	
185	Site 10	Parapet	Yellow	Concrete	0.01	Negative	
186	Site 10	Curb	Yellow	Concrete	0.00	Negative	
187	Site 11	Curb	Yellow	Concrete	0.00	Negative	
188	Site 11	Floor Line	White	Concrete	0.00	Negative	
189	Site 11	Light Pole	Yellow	Wood	0.00	Negative	
190	Site 11	Light Pole	Green	Wood	0.00	Negative	
191	Site 11	Light Pole	Yellow	Wood	0.00	Negative	
192	Site 11	Curb	Yellow	Concrete	0.28	Negative	
193	Site 11	Light Pole	Green	Wood	0.00	Negative	
194	Site 11	Floor Line	White	Concrete	0.00	Negative	
195	Site 12	Column	Green	Concrete	0.50	Negative	
196	Site 12	Column	Yellow	Concrete	0.40	Negative	
197	Site 12	Railing	White	Metal	1.40	Positive	
198	Site 12	Column	Green	Concrete	0.60	Negative	
199	Site 12	Column	Yellow	Concrete	0.40	Negative	
200	Site 12	Railing	White	Metal	1.20	Positive	
201	Site 12	Light Pole	Green	Wood	0.00	Negative	
202	Site 12	Light Pole	Yellow	Wood	0.00	Negative	
203	Site 12	Gate	Red	Metal	0.00	Negative	
204	Site 12	Curb	Yellow	Concrete	0.20	Negative	
205	Site 8	Ramp	Blue	Concrete	0.00	Negative	
206	Site 8	Curb	Yellow	Concrete	0.03	Negative	
207	Site 8	Floor Line	White	Concrete	0.00	Negative	
208	Site 8	Floor Line	Yellow	Concrete	0.00	Negative	
209	Site 8	Light Pole	Yellow	Wood	0.00	Negative	
210	Site 8	Light Pole	Green	Wood	0.00	Negative	
211	Site 8	Parapet	Red	Concrete	0.00	Negative	
212	Site 8	Parapet	Yellow	Concrete	0.00	Negative	
213	Site 8	Parapet	Red	Concrete	0.02	Negative	
214	Site 8	Parapet	Yellow	Concrete	0.00	Negative	
215	Site 8	Curb	Yellow	Concrete	4.90	Positive	
216	Site 13	Curb	Yellow	Concrete	0.00	Negative	
217	Site 13	Light Pole	Red	Wood	0.00	Negative	
218	Site 13	Curb	Yellow	Concrete	0.00	Negative	
219	Site 13	Light Pole	Yellow	Wood	0.00	Negative	
220	Site 13	Ramp	Blue	Concrete	0.00	Negative	
221	Site 13	Curb	Yellow	Concrete	0.00	Negative	
222	Site 13	Hydrant	Yellow	Metal	0.00	Negative	
223	Site 13	Curb	Yellow	Concrete	1.50	Positive	
224	Site 13	Light Pole	Green	Wood	0.00	Negative	
225	Site 13	Ramp	Light Blue	Concrete	0.00	Negative	
226	Site 13	Bollard	Yellow	Metal	0.00	Negative	
227	Site 13	Ramp	Yellow	Concrete	0.00	Negative	
228	Calibration				1.00		
229	Calibration				1.00		

APPENDIX C: XRF's PERFORMANCE CHARACTERISTICS SHEET

Performance Characteristic Sheet

EFFECTIVE DATE: September 24, 2004

EDITION NO.: 1

MANUFACTURER AND MODEL:

Make: *Niton LLC*Tested Model: *XLp 300*Source: ^{109}Cd

Note: This PCS is also applicable to the equivalent model variations indicated below, for the Lead-in-Paint K+L variable reading time mode, in the XLi and XLp series:

XLi 300A, XLi 301A, XLi 302A and XLi 303A.

XLp 300A, XLp 301A, XLp 302A and XLp 303A.

XLi 700A, XLi 701A, XLi 702A and XLi 703A.

XLp 700A, XLp 701A, XLp 702A, and XLp 703A.

Note: The XLi and XLp versions refer to the shape of the handle part of the instrument. The differences in the model numbers reflect other modes available, in addition to Lead-in-Paint modes. The manufacturer states that specifications for these instruments are identical for the source, detector, and detector electronics relative to the Lead-in-Paint mode.

FIELD OPERATION GUIDANCE

OPERATING PARAMETERS:

Lead-in-Paint K+L variable reading time mode.

XRF CALIBRATION CHECK LIMITS:

0.8 to 1.2 mg/cm ² (inclusive)

The calibration of the XRF instrument should be checked using the paint film nearest 1.0 mg/cm² in the NIST Standard Reference Material (SRM) used (e.g., for NIST SRM 2579, use the 1.02 mg/cm² film).

If readings are outside the acceptable calibration check range, follow the manufacturer's instructions to bring the instruments into control before XRF testing proceeds.

SUBSTRATE CORRECTION:

For XRF results using Lead-in-Paint K+L variable reading time mode, substrate correction is not needed for:

Brick, Concrete, Drywall, Metal, Plaster, and Wood

INCONCLUSIVE RANGE OR THRESHOLD:

K+L MODE READING DESCRIPTION	SUBSTRATE	THRESHOLD (mg/cm ²)
Results not corrected for substrate bias on any substrate	Brick	1.0
	Concrete	1.0
	Drywall	1.0
	Metal	1.0
	Plaster	1.0
	Wood	1.0

BACKGROUND INFORMATION

EVALUATION DATA SOURCE AND DATE:

This sheet is supplemental information to be used in conjunction with Chapter 7 of the HUD *Guidelines for the Evaluation and Control of Lead-Based Paint Hazards in Housing* ("HUD Guidelines"). Performance parameters shown on this sheet are calculated from the EPA/HUD evaluation using archived building components. Testing was conducted in August 2004 on 133 testing combinations. The instruments that were used to perform the testing had new sources; one instrument's was installed in November 2003 with 40 mCi initial strength, and the other's was installed June 2004 with 40 mCi initial strength.

OPERATING PARAMETERS:

Performance parameters shown in this sheet are applicable only when properly operating the instrument using the manufacturer's instructions and procedures described in Chapter 7 of the HUD Guidelines.

SUBSTRATE CORRECTION VALUE COMPUTATION:

Substrate correction is not needed for brick, concrete, drywall, metal, plaster or wood when using Lead-in-Paint K+L variable reading time mode, the normal operating mode for these instruments. If substrate correction is desired, refer to Chapter 7 of the HUD Guidelines for guidance on correcting XRF results for substrate bias.

EVALUATING THE QUALITY OF XRF TESTING:

Randomly select ten testing combinations for retesting from each house or from two randomly selected units in multifamily housing. Use the K+L variable time mode readings.

Conduct XRF retesting at the ten testing combinations selected for retesting.

Determine if the XRF testing in the units or house passed or failed the test by applying the steps below.

Compute the Retest Tolerance Limit by the following steps:

Determine XRF results for the original and retest XRF readings. Do not correct the original or retest results for substrate bias. In single-family housing a result is defined as the average of three readings. In multifamily housing, a result is a single reading. Therefore, there will be ten original and ten retest XRF results for each house or for the two selected units.

Calculate the average of the original XRF result and retest XRF result for each testing combination.

Square the average for each testing combination.

Add the ten squared averages together. Call this quantity C.

Multiply the number C by 0.0072. Call this quantity D.

Add the number 0.032 to D. Call this quantity E.

Take the square root of E. Call this quantity F.

Multiply F by 1.645. The result is the Retest Tolerance Limit.

Compute the average of all ten original XRF results.

Compute the average of all ten re-test XRF results.

Find the absolute difference of the two averages.

If the difference is less than the Retest Tolerance Limit, the inspection has passed the retest. If the difference of the overall averages equals or exceeds the Retest Tolerance Limit, this procedure should be repeated with ten new testing combinations. If the difference of the overall averages is equal to or greater than the Retest Tolerance Limit a second time, then the inspection should be considered deficient.

Use of this procedure is estimated to produce a spurious result approximately 1% of the time. That is, results of this procedure will call for further examination when no examination is warranted in approximately 1 out of 100 dwelling units tested.

TESTING TIMES:

For the Lead-in-Paint K+L variable reading time mode, the instrument continues to read until it is moved away from the testing surface, terminated by the user, or the instrument software indicates the reading is complete. The following table provides testing time information for this testing mode. The times have been adjusted for source decay, normalized to the initial source strengths as noted above. Source strength and type of substrate will affect actual testing times. At the time of testing, the instruments had source strengths of 26.6 and 36.6 mCi.

Testing Times Using K+L Reading Mode (Seconds)						
Substrate	All Data			Median for laboratory-measured lead levels (mg/cm ²)		
	25 th Percentile	Median	75 th Percentile	Pb < 0.25	0.25 ≤ Pb < 1.0	1.0 ≤ Pb
Wood Drywall	4	11	19	11	15	11
Metal	4	12	18	9	12	14
Brick Concrete Plaster	8	16	22	15	18	16

CLASSIFICATION RESULTS:

XRF results are classified as positive if they are greater than or equal to the threshold, and negative if they are less than the threshold.

DOCUMENTATION:

A document titled *Methodology for XRF Performance Characteristic Sheets* provides an explanation of the statistical methodology used to construct the data in the sheets, and provides empirical results from using the recommended inconclusive ranges or thresholds for specific XRF instruments. For a copy of this document call the National Lead Information Center Clearinghouse at 1-800-424-LEAD.

This XRF Performance Characteristic Sheet was developed by the Midwest Research Institute (MRI) and QuanTech, Inc., under a contract between MRI and the XRF manufacturer. HUD has determined that the information provided here is acceptable when used as guidance in conjunction with Chapter 7, Lead-Based Paint Inspection, of HUD's *Guidelines for the Evaluation and Control of Lead-Based Paint Hazards in Housing*.

APPENDIX D: PHOTOGRAPHIC RECORD



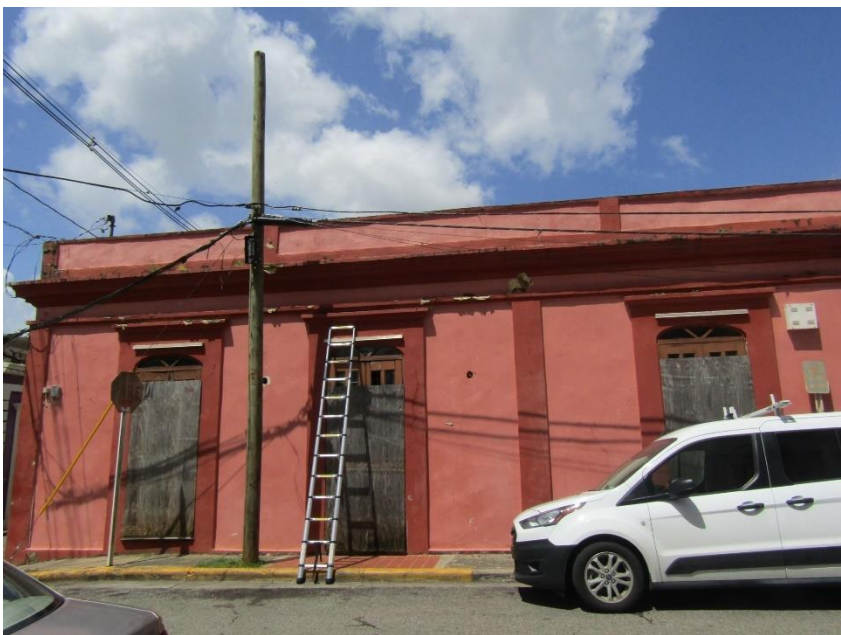
Photo No. 5684	Date: 10/5/2022	
Description: Building 1, Side A Lead-based painted concrete wall A, fascia, door molding, beam and columns.		

Photo No. 5685	Date: 10/5/2022	
Description: Building 1, Side B Lead-based painted concrete wall B, fascia, door molding, beam and columns.		


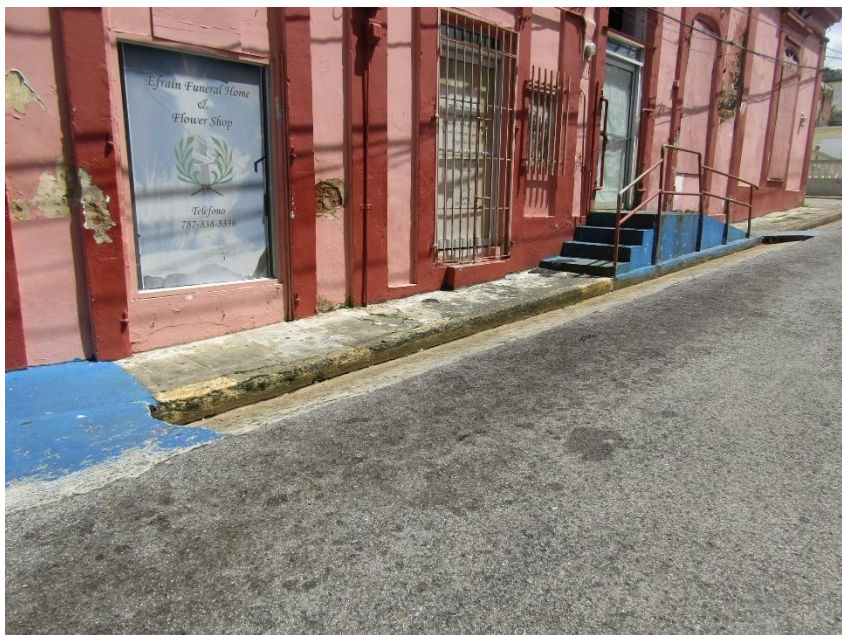
Photographic Documentation is for reference purposes and doesn't necessarily include all the surfaces with lead based paint and/or components containing lead.

APPENDIX D: PHOTOGRAPHIC RECORD

Photo No. 5686	Date: 10/5/2022	
Description: Building 1, Side B Lead-based painted metal door & door casings.		
Photo No. 5687	Date: 10/5/2022	
Description: Building 1, Side D Lead-based painted concrete fascia, molding and beam.		

Photographic Documentation is for reference purposes and doesn't necessarily include all the surfaces with lead based paint and/or components containing lead.

APPENDIX D: PHOTOGRAPHIC RECORD

Photo No. 5688	Date: 10/5/2022	
Description: Site 3 Lead-based painted concrete curb.		
Photo No. 5690	Date: 10/5/2022	
Description: Site 2 Lead-based painted concrete curb.		

Photographic Documentation is for reference purposes and doesn't necessarily include all the surfaces with lead based paint and/or components containing lead.

APPENDIX D: PHOTOGRAPHIC RECORD

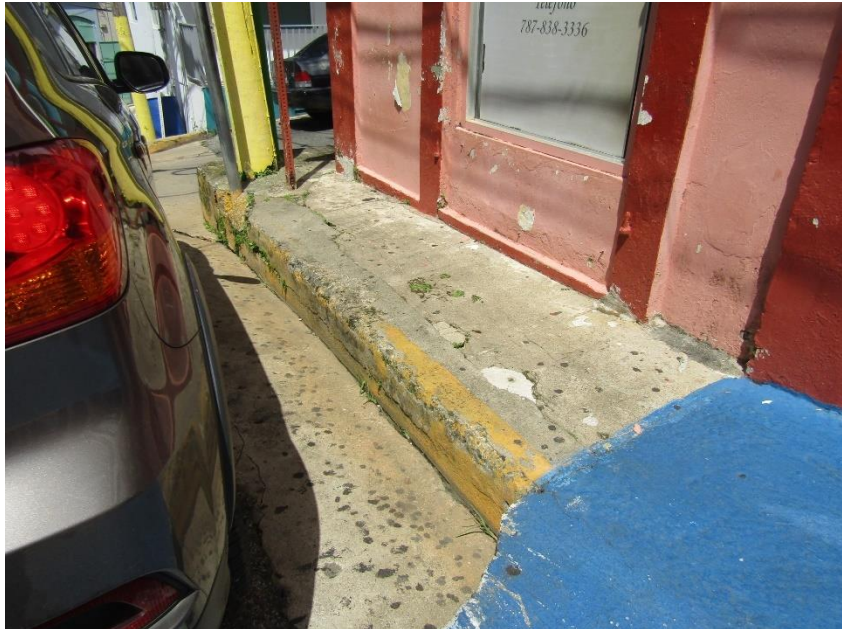
Photo No. 5691	Date: 10/5/2022	
Description: Site 2 Lead-based painted concrete curb.		

Photo No. 5695	Date: 10/5/2022	
Description: Building 2, Side B		

Photographic Documentation is for reference purposes and doesn't necessarily include all the surfaces with lead based paint and/or components containing lead.

APPENDIX D: PHOTOGRAPHIC RECORD

Photo No. 5696	Date: 10/5/2022	
Description: Building 2, Side A		
Photo No. 5697	Date: 10/5/2022	
Description: Stairway 1		

Photographic Documentation is for reference purposes and doesn't necessarily include all the surfaces with lead based paint and/or components containing lead.

APPENDIX D: PHOTOGRAPHIC RECORD


Photo No. 5698	Date: 10/5/2022	
Description: Building 3, Side A		

Photo No. 5699	Date: 10/5/2022	
Description: Building 3, Side B		

Photographic Documentation is for reference purposes and doesn't necessarily include all the surfaces with lead based paint and/or components containing lead.



APPENDIX D: PHOTOGRAPHIC RECORD

Photo No. 5700	Date: 10/5/2022	
Description: Building 4, Side A		

Photo No. 5701	Date: 10/5/2022	
Description: Public Plaza		

Photographic Documentation is for reference purposes and doesn't necessarily include all the surfaces with lead based paint and/or components containing lead.

APPENDIX D: PHOTOGRAPHIC RECORD

Photo No. 5708	Date: 10/5/2022	
Description: Site 4 Lead-based painted concrete curb.		
Photo No. 5706	Date: 10/5/2022	
Description: Site 5 Lead-based painted concrete curb.		


Photographic Documentation is for reference purposes and doesn't necessarily include all the surfaces with lead based paint and/or components containing lead.

APPENDIX D: PHOTOGRAPHIC RECORD

Photo No. 5711	Date: 10/5/2022	
Description: Building 5, Side A	 A photograph of a two-story building with significant paint peeling and damage. The building has a light-colored facade with pinkish-red accents around the windows and doorways. There are several arched doorways on the ground floor, some of which are dark. A white SUV is parked in front of the building. The sky is overcast.	
Photo No. 5712	Date: 10/5/2022	
Description: Site 7 Lead-based painted concrete curb.	 A photograph of a street scene. In the foreground, there is a concrete curb painted with a yellow stripe and a blue section. The curb is adjacent to a road with a pothole. In the background, there are buildings, including one with a red metal fence and a white wall. The sky is overcast.	



Photographic Documentation is for reference purposes and doesn't necessarily include all the surfaces with lead based paint and/or components containing lead.

APPENDIX D: PHOTOGRAPHIC RECORD

<p>Photo No. 5724</p>	<p>Date: 10/7/2022</p>	
<p>Description:</p> <p>Site 9 Lead-based painted concrete curb.</p>		
<p>Photo No. 5725</p>	<p>Date: 10/7/2022</p>	
<p>Description:</p> <p>Site 9 Lead-based painted concrete curb.</p>		


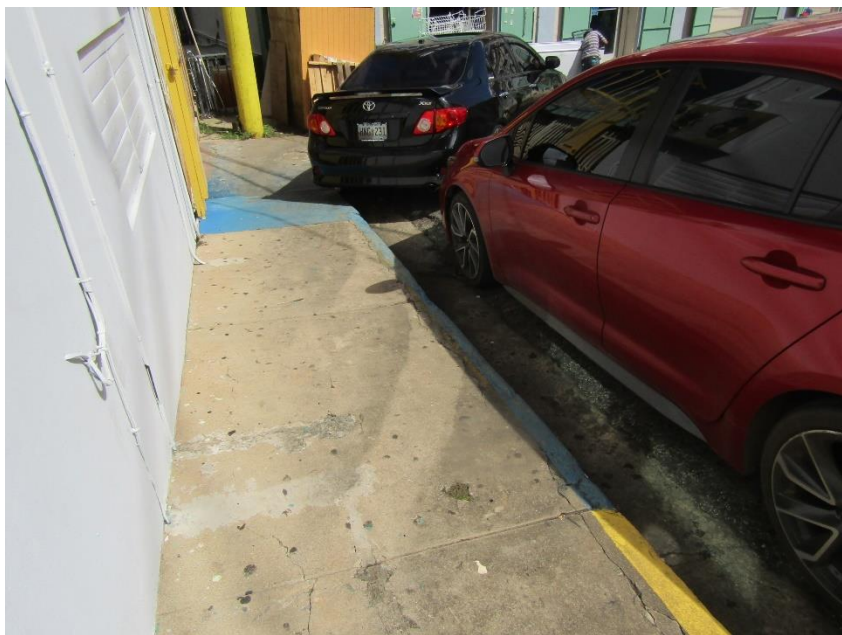
Photographic Documentation is for reference purposes and doesn't necessarily include all the surfaces with lead based paint and/or components containing lead.

APPENDIX D: PHOTOGRAPHIC RECORD

Photo No. 5714	Date: 10/7/2022	
Description: Site 10 Lead-based painted concrete curb.		
Photo No. 5715	Date: 10/7/2022	
Description: Site 10 Lead-based painted concrete curb.		



Photographic Documentation is for reference purposes and doesn't necessarily include all the surfaces with lead based paint and/or components containing lead.

APPENDIX D: PHOTOGRAPHIC RECORD

Photo No. 5716	Date: 10/7/2022	
Description: Site 10 Lead-based painted concrete curb.		
Photo No. 5717	Date: 10/7/2022	
Description: Site 10 Lead-based painted concrete curb.		



Photographic Documentation is for reference purposes and doesn't necessarily include all the surfaces with lead based paint and/or components containing lead.

APPENDIX D: PHOTOGRAPHIC RECORD

Photo No. 5718	Date: 10/7/2022	
Description: Site 10 Lead-based painted concrete curb.	 A photograph showing a concrete curb in front of a building with teal-colored shutters. The curb appears to be made of concrete and is situated on a paved asphalt surface. A glass pane is leaning against the curb on the left side.	
Photo No. 5719	Date: 10/7/2022	
Description: Stairway 2	 A photograph of a concrete stairway leading up a hillside. The stairs are surrounded by dense green vegetation, including bushes and trees with yellow flowers. The concrete steps are visible, and the background shows a building with light-colored walls.	



Photographic Documentation is for reference purposes and doesn't necessarily include all the surfaces with lead based paint and/or components containing lead.

APPENDIX D: PHOTOGRAPHIC RECORD

<p>Photo No. 5720</p>	<p>Date: 10/7/2022</p>	
<p>Description:</p> <p>Site 12 Lead-based painted metal railing.</p>		
<p>Photo No. 5721</p>	<p>Date: 10/7/2022</p>	
<p>Description:</p> <p>Site 12 Lead-based painted metal railing.</p>		

Photographic Documentation is for reference purposes and doesn't necessarily include all the surfaces with lead based paint and/or components containing lead.

APPENDIX D: PHOTOGRAPHIC RECORD

Photo No. 5723	Date: 10/7/2022	
Description: Site 8 Lead-based painted concrete curb.		
Photo No. 5726	Date: 10/7/2022	
Description: Site 13 Lead-based painted concrete curb.		

Photographic Documentation is for reference purposes and doesn't necessarily include all the surfaces with lead based paint and/or components containing lead.

APPENDIX D: PHOTOGRAPHIC RECORD

Photo No. 5727	Date: 10/7/2022	
Description: Site 13 Lead-based painted concrete curb.		
Photo No. 5728	Date: 10/7/2022	
Description: Site 13 Lead-based painted concrete curb.		

Photographic Documentation is for reference purposes and doesn't necessarily include all the surfaces with lead based paint and/or components containing lead.

APPENDIX E: DEMOLITION/IMPROVEMENTS PLANS

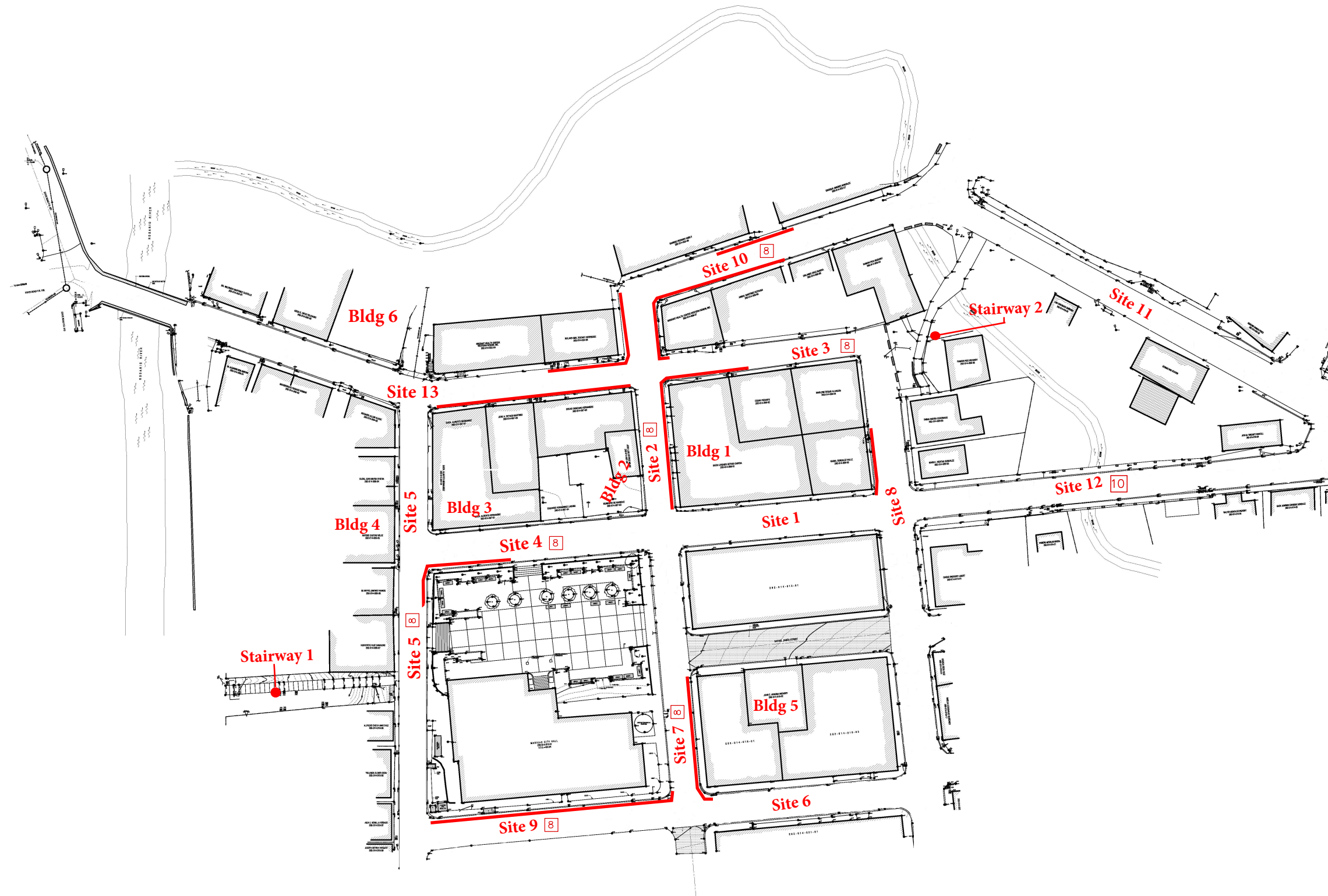
Proyecto 000720 – Revitalización y restauración del Centro Urbano (Mapa)

Leyenda:

- Color amarillo: 4 edificios a remodelar (fachadas, pintura y aleros).
- Color azul: Construcción de edificio tipo gazebo.
- Color violeta: Plaza pública donde se remodelará el piso, asientos, alumbrado, jardines, etc.
- Color marrón: Escaleras a remodelar donde se realizará escalones mas grandes, pasamanos, jardín, etc.
- Color rosa: Solar disponible a trabajar.



APPENDIX F: LOCATION OF POSITIVE MATERIALS



Graphic Legend:

— Concrete Curb

Lead Legend:

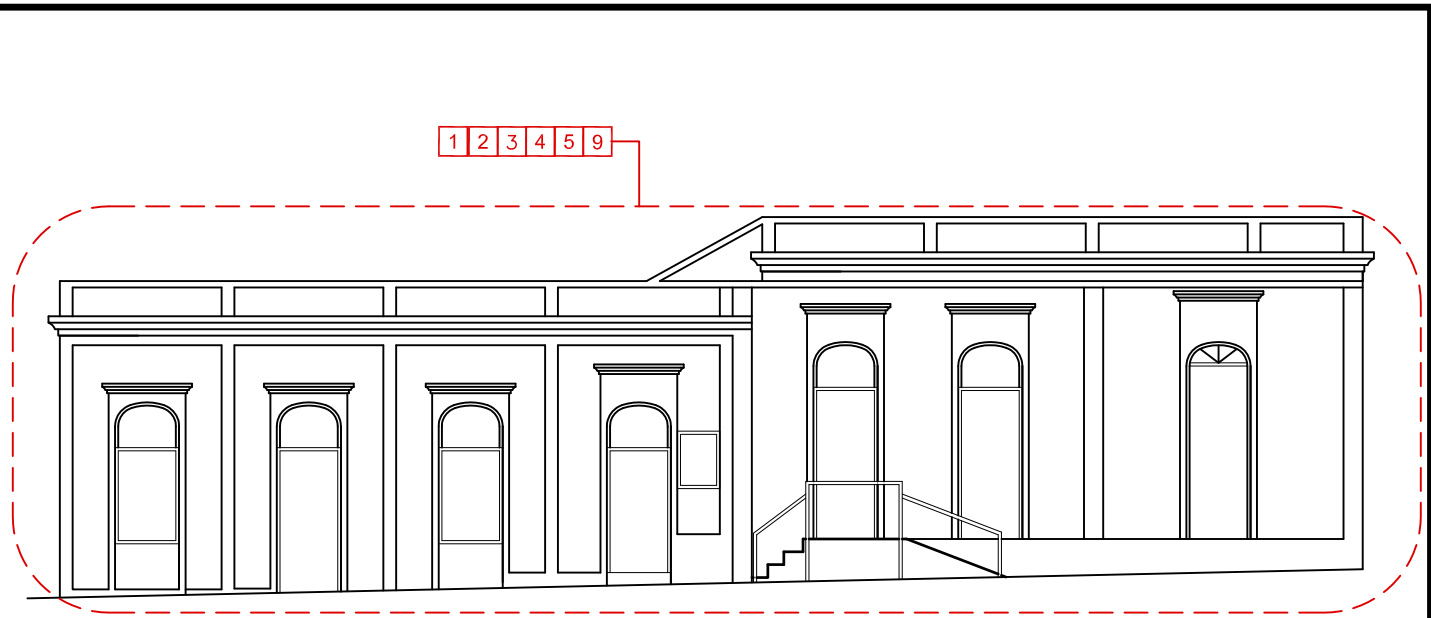
- 1 Concrete Wall
- 2 Fascia
- 3 Door Molding
- 4 Beam
- 5 Column
- 6 Metal Doors
- 7 Door Casings
- 8 Concrete Curb
- 9 Molding
- 10 Railing

Note:

The layout of materials shown in this figure is for illustrative purposes only. For actual location and quantity of materials refer to the Lead Based Paint survey report

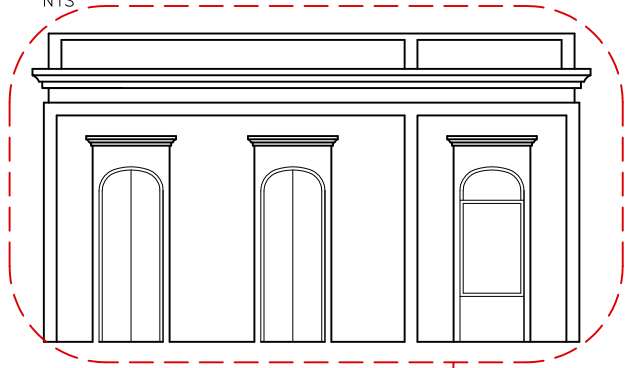
Zimmetry Environmental
 Environmental Building Inspectors
 Indoor Environmental Quality / Mold Assessments, Asbestos,
 Lead Based Paint Consulting – Phone – Fax (787) 995-0005

Project: Improvements Urban Center Municipality of Maricao Pueblo Ward Maricao, PR	Project No: ZEM-22223
Date: October, 2022	



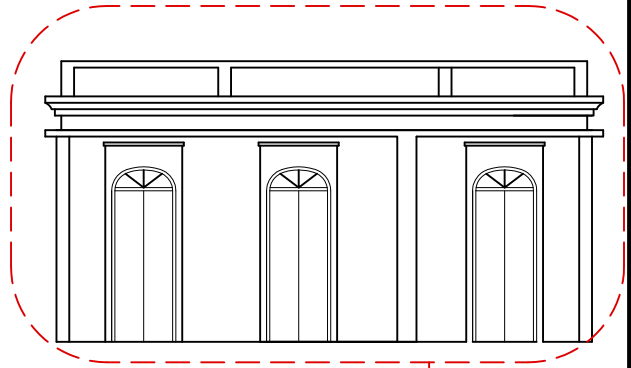
SIDE A

NTS



SIDE B

NTS



SIDE D

NTS

Lead Legend:

- 1 Concrete Wall
- 2 Fascia
- 3 Door Molding
- 4 Beam
- 5 Column
- 6 Metal Doors
- 7 Door Casings
- 8 Concrete Curb
- 9 Molding
- 10 Railing

Note:

The layout of materials shown in this figure is for illustrative purposes only. For actual location and quantity of materials refer to the Lead Based Paint survey report dated October 2022

Zimmetry Environmental Environmental Building Inspectors Indoor Environmental Quality / Mold Assessments, Asbestos, Lead Base Paint Consulting – Phone – Fax (787) 995-0005	
Project: Improvements Urban Center Municipality of Maricao Pueblo Ward Maricao, PR	
Date: October 2022	Project No. ZEM-22223
Drawing:	

Endangered Species

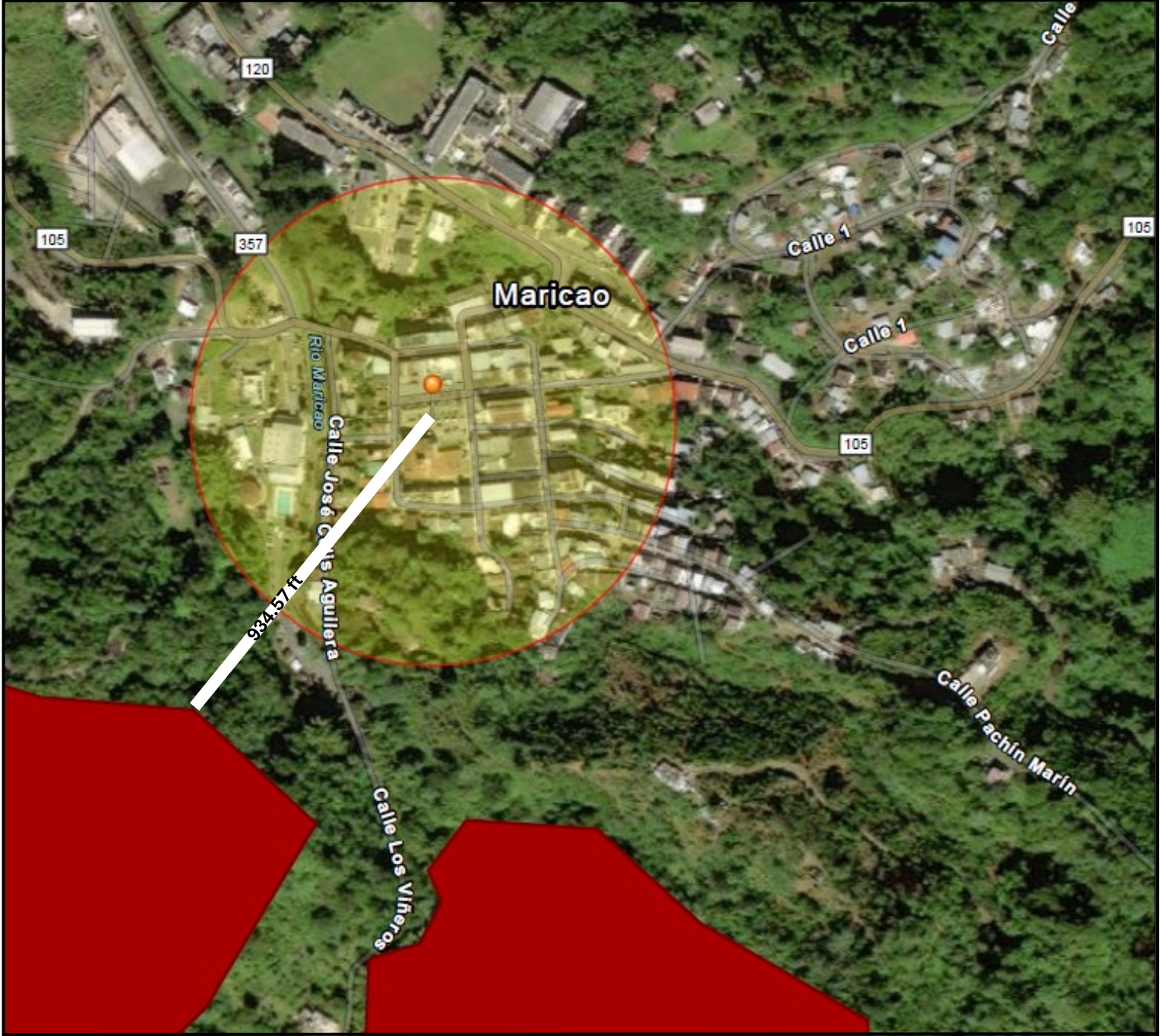
Endangered Species - PR-CRP-000720




HERNAN JR. MACHADO TORRES P.E.
INGENIEROS CONSULTORES

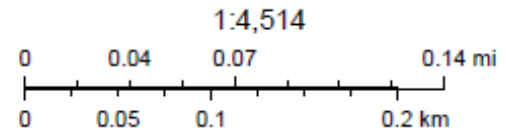


Address: Calle José de Diego, BO. Pueblo, Maricao PR 00606

Coordinates: Public Plaza (18.180775, -66.979881); Kiosks (18.18104368, -66.97977998);
Small Plaza (18.18139782, -66.98022663); Roundabout Intersection (18.183654, -66.981702)



-  Critical Habitat
-  Project Buffer
-  Project Site



The project site is located approx. 934.57 ft from critical habitats.

Source: EPA NEPAAssist
(<https://nepassisttool.epa.gov/nepassist/nepamap.aspx>)

Maxar, Esri Community Maps Contributors, Esri, TomTom, Garmin, Foursquare, SafeGraph, GeoTechnologies, Inc, METI/NASA, USGS, NPS, US Census Bureau, USFWS



Self-Certification

<http://www.fws.gov/caribbean/ES/Index.html>

Endangered Species Act Certification

The U.S. Fish and Wildlife Service, Caribbean Ecological Services Field Office developed a Blanket Clearance Letter in compliance with Endangered Species Act of 1973, as amended, and the Fish and Wildlife Coordination Act for federally funded projects.

The Service determined that projects in compliance with the following criteria are not likely to adversely affect federally-listed species.

Puerto Rico Department of Housing (PRDOH) certifies that the following project **Revitalización y Restauración del Centro Urbano (PR-CRP-000720)**, consisting of street resurfacing, sidewalk reconstruction, replacement of luminaries, renovation of main plaza and commercial areas damaged by Hurricanes Irma and Maria located at Lat: 18.180777°, Lon: -66.979819°, complies with:

Check	Project Criteria
<input checked="" type="checkbox"/>	1. Street resurfacing.
<input checked="" type="checkbox"/>	2. Construction of gutters and sidewalks along existing roads.
<input type="checkbox"/>	3. Reconstruction or emergency repairs of existing buildings, facilities and homes.
<input type="checkbox"/>	4. Rehabilitation of existing occupied single-family homes, and buildings; provided that equipment storage or staging areas are not located on vacant property harboring a wetland and/or forested vegetation and that the lighting associated to the new facilities is not visible directly or indirectly from a beach.
<input type="checkbox"/>	5. Demolition of dilapidated single-family homes or buildings; provided that the demolition debris is disposed in certified receiving facilities; equipment storage or staging areas are not located on vacant property harboring a wetland and/or forested vegetation.
<input type="checkbox"/>	6. Rebuilding of demolished single-family homes or buildings, provided

	that the new construction is within the existing footprint of the previous structure and/or within pre-existing grassed or paved areas, and that the lighting associated to the new facilities are not visible directly or indirectly from a beach.
<input type="checkbox"/>	7. Activities within existing Right of Ways (ROWs) of roads, bridges and highways, when limited to actions that do not involve cutting native vegetation or mayor earth moving; and are not located within, or adjacent to, drainages, wetlands, or aquatic systems. These activities include the installation of potable water and sanitary pipelines.
<input type="checkbox"/>	8. Improvements to existing recreational facilities, including the installation of roofs to existing basketball courts, provided that the lighting associated to the facilities are not visible directly or indirectly from the beach.
<input type="checkbox"/>	9. Construction of electric underground systems in existing towns and communities, provided that the property is not a wetland area and the lighting associated to the facilities are not visible directly or indirectly from the beach.
<input checked="" type="checkbox"/>	10. Construction of facilities on vacant properties covered with grasses in urban areas, provided that the lighting associated to the facilities are not visible directly or indirectly from the beach.
<input type="checkbox"/>	11. Construction of houses, buildings or acquiring lands in urban areas covered by grass for relocation of low-income families and/or facilities that have been affected by weather conditions.



Ángel G. López-Guzmán
Deputy Director

Permits and Environmental Compliance Division

Office of Disaster Recovery

Address: P.O. Box 21365 San Juan, PR 00928

Telephone and Ext: 787-274-2527 ext. 4320

Email: environmentcdbg@vivienda.pr.gov



Date

18 de enero de 2024

Sr. Edwin Muñiz

Field Supervisor
Caribbean Field Office

United States Department of the Interior
FISH & WILDLIFE SERVICE

Boquerón Field Office
Carr. 301 KM 5.1 Bo. Corozo
P.O. Box 491
Boquerón, P.R. 00622

Ref. Solicitud de No-Objeción

PROYECTO: PR-CRP-000720 REVITALIZACIÓN Y RESTAURACIÓN DEL CENTRO URBANO, CALLE JOSÉ DE DIEGO BARRIO PUEBLO, MARICAO, PUERTO RICO 00606

Estimado Sr. Muñiz,

Reciba un cordial saludo de nuestra parte. El presente comunicado es para dar paso a la solicitud de servicios sobre evaluación u endoso del caso presentado por nuestras oficinas sobre mejoras sustanciales al Centro Urbano, la Plaza Pública y a las calles circundantes en representación del Municipio de Maricao, para el proyecto PR-CRP-000720 Revitalización y Restauración del Centro Urbano, ubicado en la calle José de Diego del BO. Pueblo del Municipio de Maricao, Puerto Rico. En este sentido informamos que según presentado a la agencia gubernamental del Departamento de la Vivienda de Puerto Rico adscrita a la agencia federal Departamento de Vivienda y Desarrollo Urbano de los Estados Unidos (HUD, por sus siglas en inglés) para la solicitud de fondos bajo el Programa de Subvención en Bloque para el Desarrollo Comunitario para la Recuperación ante Desastres de Puerto Rico (CDBG-DR, por sus siglas en inglés, Community Development Block Grant -Disaster Recovery); donde se establece la necesidad de rehabilitar, revitalizar y restaurar el Centro Urbano por los daños ocasionados por los huracanes Irma y María del 2017.

Se propone realizar mejoras tales como repavimentación de las calles principales, la ampliación de aceras, el reemplazo de luminarias, reemplazo de adoquines en la Plaza Pública, eliminación de barreras arquitectónicas y la construcción de una tarima, entre otros, al Centro Urbano del Municipio de Maricao. Adicional se propone la construcción de 5 kioscos comerciales y una pequeña plaza en dos solares vacantes pertenecientes al municipio. Áreas que se encuentran



Based on the information provided, we determined the project proposed qualifies for the blanket clearance letter. Nevertheless, if the project is modified this office should be contacted concerning the need for the initiation of consultation under section 7 of Endangered Species Act of 1973.

Reviewer DAMARIS ROMAN RUIZ Digitally signed by DAMARIS ROMAN RUIZ
Date: 2024.02.15 07:40:22 -04'00'

LOURDES MENA Digitally signed by LOURDES MENA
Date: 2024.02.15 08:47:00 -04'00'
Adobe Acrobat version: 2023.008.20470
Acting Caribbean ES Field Supervisor

HERNAN JR. MACHADO TORRES P.E.
INGENIEROS CONSULTORES

totalmente construida y/o han sido desarrollados previamente, que serán intervenidos por tales efectos. No obstante, como requisitos suplementarios de tal propuesta es necesario someter a FISH & WILDLIFE SERVICE la información referente para endoso y evaluación pertinente sometida a continuación. Esperamos contar con su acostumbrada atención.

De tener alguna duda favor comunicarse. Gracias anticipadas.

Cordialmente,



Hernan Jr
Machado
Torres PE

Digitally signed by
Hernan Jr Machado
Torres PE
Date: 2024.01.18
10:06:52 -04'00'

Ing. Hernán Jr. Machado Torres



Self-Certification

<http://www.fws.gov/caribbean/ES/Index.html>

Endangered Species Act Certification

The U.S. Fish and Wildlife Service, Caribbean Ecological Services Field Office developed a Blanket Clearance Letter in compliance with Endangered Species Act of 1973, as amended, and the Fish and Wildlife Coordination Act for federally funded projects.

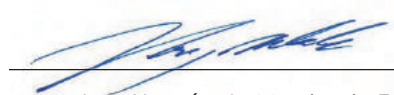
The Service determined that projects in compliance with the following criteria are not likely to adversely affect federally listed species.

Ing. Hernán Jr. Machado Torres certifies that the following project **PR-CRP-000720 Revitalización y Restauración del Centro Urbano**, funded by the Community Development Block Grant for Disaster Recovery (CDBG-DR) for the City Revitalization Program (City Rev Program) as approved by the U.S. Housing and Urban Development (HUD), located at Calle José de Diego BO. Pueblo, Maricao, PUERTO RICO 00606, complies with:

Check	Project Criteria
<input checked="" type="checkbox"/>	1. Street resurfacing.
<input checked="" type="checkbox"/>	2. Construction of gutters and sidewalks along existing roads.
<input type="checkbox"/>	3. Reconstruction or emergency repairs of existing buildings, facilities, and homes.
<input type="checkbox"/>	4. Rehabilitation of existing occupied single-family homes, and buildings; provided that equipment storage or staging areas are not located on vacant property harboring a wetland and/or forested vegetation and that the lighting associated to the new facilities is not visible directly or indirectly from a beach.
<input type="checkbox"/>	5. Demolition of dilapidated single-family homes or buildings; provided that the demolition debris is disposed in certified receiving facilities; equipment storage or staging areas are not located on vacant property harboring a wetland and/or forested vegetation.
<input type="checkbox"/>	6. Rebuilding of demolished single-family homes or buildings, provided that the new construction is within the existing footprint of the previous

HERNAN JR. MACHADO TORRES P.E.
INGENIEROS CONSULTORES

	structure and/or within pre-existing grassed or paved areas, and that the lighting associated to the new facilities are not visible directly or indirectly from a beach.
<input type="checkbox"/>	7. Activities within existing Right of Ways (ROWs) of roads, bridges and highways, when limited to actions that do not involve cutting native vegetation or mayor earth moving; and are not located within, or adjacent to, drainages, wetlands, or aquatic systems. These activities include the installation of potable water and sanitary pipelines.
<input type="checkbox"/>	8. Improvements to existing recreational facilities, including the installation of roofs to existing basketball courts, provided that the lighting associated to the facilities are not visible directly or indirectly from the beach.
<input type="checkbox"/>	9. Construction of electric underground systems in existing towns and communities, provided that the property is not a wetland area and the lighting associated to the facilities are not visible directly or indirectly from the beach.
<input checked="" type="checkbox"/>	10. Construction of facilities on vacant properties covered with grasses in urban areas, provided that the lighting associated to the facilities are not visible directly or indirectly from the beach.
<input type="checkbox"/>	11. Construction of houses, buildings or acquiring lands in urban areas covered by grass for relocation of low-income families and/or facilities that have been affected by weather conditions.



Hernan Jr Machado
Torres PE

Digitally signed by Hernan Jr
Machado Torres PE
Date: 2024.01.18 10:51:43 -0400'

Ing. Hernán Jr. Machado Torres
Project Proponent

Enero 18, 2024

Date

Hernán Jr. Machado Torres, PE, PSC
 Consulting Engineers
Address: P.O. Box 495 Mayagüez, PR 00681
Telephone: 787-831-0088
Email: jrmachadopr@yahoo.com

Sr. Edwin Muñiz
Field Supervisor
Caribbean Field Office
United States Department of the Interior
FISH & WILDLIFE SERVICE
Boquerón Field Office
Carr. 301 KM 5.1 Bo. Corozo
P.O. Box 491
Boquerón, P.R. 00622

18 de enero de 2024

REF: PR-CRP-000720 REVITALIZACIÓN Y RESTAURACIÓN DEL CENTRO URBANO, CALLE JOSÉ DE DIEGO BARRIO PUEBLO, MARICAO, PUERTO RICO 00606

MEMORIAL OBRA PROPUESTA

El proyecto consiste en rehabilitar, revitalizar y restaurar el Centro Urbano del Municipio de Maricao; bajo el número de catastro 262-014-012-01 cuyas coordenadas son x: 142175.5894, y: 238529.2220 (Lat: 18.18066754, Lon: -66.97989779) bajo la calificación P-Público. Se propone realizar mejoras sustanciales al Centro Urbano de Maricao como parte del proyecto de Revitalización y Restauración del Centro Urbano perteneciente al Municipio de Maricao bajo el Programa de Revitalización de la Ciudad (“City Revitalization Program”, CRP por sus siglas en inglés) del Departamento de la Vivienda (Vivienda) sufragado con fondos CDBG-DR. Área que se encuentra totalmente construida que será intervenida por tales efectos.

Este proyecto de Revitalización y Restauración del Centro Urbano se enfocará en restaurar, mejorar y modernizar las calles principales, aceras, la plaza pública, las zonas centrales y los distritos comerciales del pueblo que se vieron afectadas por los huracanes Irma y María, con esto trabajaremos con el fin de brindar y motivar a los residentes a que utilicen las áreas públicas y zonas del centro de la ciudad como recursos de recreación y bienestar. Le añadiremos un valor estético que motive a los ciudadanos a cuidar, proteger y querer a su pueblo en crecimiento. Se impactará las zonas en deterioro para evitar que empeore y cause mejoras más costosas, con esto respaldamos la seguridad de los residentes. Se propone realizar mejoras tales como repavimentación de las calles principales, la ampliación de aceras, el reemplazo de luminarias, reemplazo de adoquines en la Plaza Pública, eliminación de barreras arquitectónicas y la construcción de una tarima, entre otros. Adicional se propone la construcción de 5 kioscos comerciales y una pequeña plaza en dos solares vacantes pertenecientes al municipio.

En cuanto a su impacto ambiental, se entiende que esta obra no propone intervenciones mayores en que afecten el área existente de acuerdo con la flora y fauna de la zona o parámetros adicionales durante la intervención. Por tal razón, para cumplir con los requerimientos de la Evaluación Ambiental Federal sometemos para su evaluación el proyecto en referencia sometiendo la documentación pertinente en cuanto a la obra y desarrollo propuesto.

Sin nada más, agradecido.



Ing. Hernán Jr Machado, P.E.



IPaC resource list

This report is an automatically generated list of species and other resources such as critical habitat (collectively referred to as *trust resources*) under the U.S. Fish and Wildlife Service's (USFWS) jurisdiction that are known or expected to be on or near the project area referenced below. The list may also include trust resources that occur outside of the project area, but that could potentially be directly or indirectly affected by activities in the project area. However, determining the likelihood and extent of effects a project may have on trust resources typically requires gathering additional site-specific (e.g., vegetation/species surveys) and project-specific (e.g., magnitude and timing of proposed activities) information.

Below is a summary of the project information you provided and contact information for the USFWS office(s) with jurisdiction in the defined project area. Please read the introduction to each section that follows (Endangered Species, Migratory Birds, USFWS Facilities, and NWI Wetlands) for additional information applicable to the trust resources addressed in that section.

Location

Maricao County, Puerto Rico



Local office

Caribbean Ecological Services Field Office

☎ (787) 834-1600

📅 (787) 851-7440

✉ CARIBBEAN_ES@FWS.GOV

MAILING ADDRESS

Post Office Box 491

Boqueron, PR 00622-0491

PHYSICAL ADDRESS

Office Park I

State Road #2 Km 156.5, Suite 303}

Mayaguez, PR 00680

NOT FOR CONSULTATION

Endangered species

This resource list is for informational purposes only and does not constitute an analysis of project level impacts.

The primary information used to generate this list is the known or expected range of each species. Additional areas of influence (AOI) for species are also considered. An AOI includes areas outside of the species range if the species could be indirectly affected by activities in that area (e.g., placing a dam upstream of a fish population even if that fish does not occur at the dam site, may indirectly impact the species by reducing or eliminating water flow downstream). Because species can move, and site conditions can change, the species on this list are not guaranteed to be found on or near the project area. To fully determine any potential effects to species, additional site-specific and project-specific information is often required.

Section 7 of the Endangered Species Act **requires** Federal agencies to "request of the Secretary information whether any species which is listed or proposed to be listed may be present in the area of such proposed action" for any project that is conducted, permitted, funded, or licensed by any Federal agency. A letter from the local office and a species list which fulfills this requirement can **only** be obtained by requesting an official species list from either the Regulatory Review section in IPaC (see directions below) or from the local field office directly.

For project evaluations that require USFWS concurrence/review, please return to the IPaC website and request an official species list by doing the following:

1. Draw the project location and click CONTINUE.
2. Click DEFINE PROJECT.
3. Log in (if directed to do so).
4. Provide a name and description for your project.
5. Click REQUEST SPECIES LIST.

Listed species¹ and their critical habitats are managed by the [Ecological Services Program](#) of the U.S. Fish and Wildlife Service (USFWS) and the fisheries division of the National Oceanic and Atmospheric Administration (NOAA Fisheries²).

Species and critical habitats under the sole responsibility of NOAA Fisheries are **not** shown on this list. Please contact [NOAA Fisheries](#) for [species under their jurisdiction](#).

-
1. Species listed under the [Endangered Species Act](#) are threatened or endangered; IPaC also shows species that are candidates, or proposed, for listing. See the [listing status page](#) for more information. IPaC only shows species that are regulated by USFWS (see FAQ).

2. [NOAA Fisheries](#), also known as the National Marine Fisheries Service (NMFS), is an office of the National Oceanic and Atmospheric Administration within the Department of Commerce.

The following species are potentially affected by activities in this location:

Birds

NAME	STATUS
<p>Puerto Rican Broad-winged Hawk <i>Buteo platypterus</i> <i>brunnescens</i> Wherever found No critical habitat has been designated for this species. https://ecos.fws.gov/ecp/species/5512</p>	Endangered
<p>Puerto Rican Parrot <i>Amazona vittata</i> Wherever found No critical habitat has been designated for this species. https://ecos.fws.gov/ecp/species/3067</p>	Endangered
<p>Puerto Rican Sharp-shinned Hawk <i>Accipiter striatus</i> <i>venator</i> Wherever found No critical habitat has been designated for this species. https://ecos.fws.gov/ecp/species/604</p>	Endangered

Reptiles

NAME	STATUS
<p>Puerto Rican Boa <i>Chilabothrus inornatus</i> Wherever found No critical habitat has been designated for this species. https://ecos.fws.gov/ecp/species/6628</p>	Endangered

Insects

NAME	STATUS
<p>Puerto Rican Harlequin Butterfly <i>Atlantea tulita</i> Wherever found There is final critical habitat for this species. Your location does not overlap the critical habitat. https://ecos.fws.gov/ecp/species/9005</p>	Threatened

Critical habitats

Potential effects to critical habitat(s) in this location must be analyzed along with the endangered species themselves.

There are no critical habitats at this location.

You are still required to determine if your project(s) may have effects on all above listed species.

Bald & Golden Eagles

There are no documented cases of eagles being present at this location. However, if you believe eagles may be using your site, please reach out to the local Fish and Wildlife Service office.

Additional information can be found using the following links:

- Eagle Management <https://www.fws.gov/program/eagle-management>
- Measures for avoiding and minimizing impacts to birds
<https://www.fws.gov/library/collections/avoiding-and-minimizing-incident-take-migratory-birds>
- Nationwide conservation measures for birds
<https://www.fws.gov/sites/default/files/documents/nationwide-standard-conservation-measures.pdf>
- Supplemental Information for Migratory Birds and Eagles in IPaC
<https://www.fws.gov/media/supplemental-information-migratory-birds-and-bald-and-golden-eagles-may-occur-project-action>

What does IPaC use to generate the potential presence of bald and golden eagles in my specified location?

The potential for eagle presence is derived from data provided by the [Avian Knowledge Network \(AKN\)](#). The AKN data is based on a growing collection of [survey, banding, and citizen science datasets](#) and is queried and filtered to return a list of those birds reported as occurring in the 10km grid cell(s) which your project intersects, and that have been identified as warranting special attention because they are a BCC species in that area, an eagle ([Eagle Act](#) requirements may apply). To see a list of all birds potentially present in your project area, please visit the [Rapid Avian Information Locator \(RAIL\) Tool](#).

What does IPaC use to generate the probability of presence graphs of bald and golden eagles in my specified location?

The Migratory Bird Resource List is comprised of USFWS [Birds of Conservation Concern \(BCC\)](#) and other species that may warrant special attention in your project location.

The migratory bird list generated for your project is derived from data provided by the [Avian Knowledge Network \(AKN\)](#). The AKN data is based on a growing collection of [survey, banding, and citizen science datasets](#) and is queried and filtered to return a list of those birds reported as occurring in the 10km grid cell(s) which your project intersects, and that have been identified as warranting special attention because they are a BCC species in that area, an eagle ([Eagle Act](#) requirements may apply), or a species that has a particular vulnerability to offshore activities or development.

Again, the Migratory Bird Resource list includes only a subset of birds that may occur in your project area. It is not representative of all birds that may occur in your project area. To get a list of all birds potentially present in your project area, please visit the [Rapid Avian Information Locator \(RAIL\) Tool](#).

What if I have eagles on my list?

If your project has the potential to disturb or kill eagles, you may need to obtain a permit to avoid violating the [Eagle Act](#) should such impacts occur. Please contact your local Fish and Wildlife Service Field Office if you have questions.

Migratory birds

Certain birds are protected under the Migratory Bird Treaty Act¹ and the Bald and Golden Eagle Protection Act².

Any person or organization who plans or conducts activities that may result in impacts to migratory birds, eagles, and their habitats should follow appropriate regulations and consider implementing appropriate conservation measures, as described below.

1. The [Migratory Birds Treaty Act](#) of 1918.
2. The [Bald and Golden Eagle Protection Act](#) of 1940.

Additional information can be found using the following links:

- Eagle Management <https://www.fws.gov/program/eagle-management>
- Measures for avoiding and minimizing impacts to birds <https://www.fws.gov/library/collections/avoiding-and-minimizing-incident-take-migratory-birds>
- Nationwide conservation measures for birds <https://www.fws.gov/sites/default/files/documents/nationwide-standard-conservation-measures.pdf>
- Supplemental Information for Migratory Birds and Eagles in IPaC <https://www.fws.gov/media/supplemental-information-migratory-birds-and-bald-and-golden-eagles-may-occur-project-action>

The [data](#) in this location indicates there are no migratory [birds of conservation concern](#) expected to occur in this area.

There may be migratory birds in your project area, but we don't have any survey data available to provide further direction. For additional information, please refer to the links above for recommendations to minimize impacts to migratory birds or contact your local FWS office.

Tell me more about conservation measures I can implement to avoid or minimize impacts to migratory birds.

[Nationwide Conservation Measures](#) describes measures that can help avoid and minimize impacts to all birds at any location year round. Implementation of these measures is particularly important when birds are most likely to occur in the project area. When birds may be breeding in the area, identifying the locations of any active nests and avoiding their destruction is a very helpful impact minimization measure. To see when birds are most likely to occur and be breeding in your project area, view the Probability of Presence Summary. [Additional measures](#) or [permits](#) may be advisable depending on the type of activity you are conducting and the type of infrastructure or bird species present on your project site.

What does IPaC use to generate the list of migratory birds that potentially occur in my specified location?

The Migratory Bird Resource List is comprised of USFWS [Birds of Conservation Concern \(BCC\)](#) and other species that may warrant special attention in your project location.

The migratory bird list generated for your project is derived from data provided by the [Avian Knowledge Network \(AKN\)](#). The AKN data is based on a growing collection of [survey, banding, and citizen science datasets](#) and is queried and filtered to return a list of those birds reported as occurring in the 10km grid cell(s) which your project intersects, and that have been identified as warranting special attention because they are a BCC species in that area, an eagle ([Eagle Act](#) requirements may apply), or a species that has a particular vulnerability to offshore activities or development.

Again, the Migratory Bird Resource list includes only a subset of birds that may occur in your project area. It is not representative of all birds that may occur in your project area. To get a list of all birds potentially present in your project area, please visit the [Rapid Avian Information Locator \(RAIL\) Tool](#).

What does IPaC use to generate the probability of presence graphs for the migratory birds potentially occurring in my specified location?

The probability of presence graphs associated with your migratory bird list are based on data provided by the [Avian Knowledge Network \(AKN\)](#). This data is derived from a growing collection of [survey, banding, and citizen science datasets](#).

Probability of presence data is continuously being updated as new and better information becomes available. To learn more about how the probability of presence graphs are produced and how to interpret them, go the Probability of Presence Summary and then click on the "Tell me about these graphs" link.

How do I know if a bird is breeding, wintering or migrating in my area?

To see what part of a particular bird's range your project area falls within (i.e. breeding, wintering, migrating or year-round), you may query your location using the [RAIL Tool](#) and look at the range maps provided for birds in your area at the bottom of the profiles provided for each bird in your results. If a bird on your migratory bird species list has a breeding season associated with it, if that bird does occur in your project area, there may be nests present at some point within the timeframe specified. If "Breeds elsewhere" is indicated, then the bird likely does not breed in your project area.

What are the levels of concern for migratory birds?

Migratory birds delivered through IPaC fall into the following distinct categories of concern:

1. "BCC Rangewide" birds are [Birds of Conservation Concern](#) (BCC) that are of concern throughout their range anywhere within the USA (including Hawaii, the Pacific Islands, Puerto Rico, and the Virgin Islands);
2. "BCC - BCR" birds are BCCs that are of concern only in particular Bird Conservation Regions (BCRs) in the continental USA; and
3. "Non-BCC - Vulnerable" birds are not BCC species in your project area, but appear on your list either because of the [Eagle Act](#) requirements (for eagles) or (for non-eagles) potential susceptibilities in offshore areas from certain types of development or activities (e.g. offshore energy development or longline fishing).

Although it is important to try to avoid and minimize impacts to all birds, efforts should be made, in particular, to avoid and minimize impacts to the birds on this list, especially eagles and BCC species of rangewide concern. For more information on conservation measures you can implement to help avoid and minimize migratory bird impacts and requirements for eagles, please see the FAQs for these topics.

Details about birds that are potentially affected by offshore projects

For additional details about the relative occurrence and abundance of both individual bird species and groups of bird species within your project area off the Atlantic Coast, please visit the [Northeast Ocean Data Portal](#). The Portal also offers data and information about other taxa besides birds that may be helpful to you in your project review. Alternately, you may download the bird model results files underlying the portal maps through the [NOAA NCCOS Integrative Statistical Modeling and Predictive Mapping of Marine Bird Distributions and Abundance on the Atlantic Outer Continental Shelf](#) project webpage.

Bird tracking data can also provide additional details about occurrence and habitat use throughout the year, including migration. Models relying on survey data may not include this information. For additional information on marine bird tracking data, see the [Diving Bird Study](#) and the [nanotag studies](#) or contact [Caleb Spiegel](#) or [Pam Loring](#).

What if I have eagles on my list?

If your project has the potential to disturb or kill eagles, you may need to [obtain a permit](#) to avoid violating the Eagle Act should such impacts occur.

Proper Interpretation and Use of Your Migratory Bird Report

The migratory bird list generated is not a list of all birds in your project area, only a subset of birds of priority concern. To learn more about how your list is generated, and see options for identifying what other birds may be in your project area, please see the FAQ "What does IPaC use to generate the migratory birds potentially occurring in my specified location". Please be aware this report provides the "probability of

presence" of birds within the 10 km grid cell(s) that overlap your project; not your exact project footprint. On the graphs provided, please also look carefully at the survey effort (indicated by the black vertical bar) and for the existence of the "no data" indicator (a red horizontal bar). A high survey effort is the key component. If the survey effort is high, then the probability of presence score can be viewed as more dependable. In contrast, a low survey effort bar or no data bar means a lack of data and, therefore, a lack of certainty about presence of the species. This list is not perfect; it is simply a starting point for identifying what birds of concern have the potential to be in your project area, when they might be there, and if they might be breeding (which means nests might be present). The list helps you know what to look for to confirm presence, and helps guide you in knowing when to implement conservation measures to avoid or minimize potential impacts from your project activities, should presence be confirmed. To learn more about conservation measures, visit the FAQ "Tell me about conservation measures I can implement to avoid or minimize impacts to migratory birds" at the bottom of your migratory bird trust resources page.

Facilities

National Wildlife Refuge lands

Any activity proposed on lands managed by the [National Wildlife Refuge](#) system must undergo a 'Compatibility Determination' conducted by the Refuge. Please contact the individual Refuges to discuss any questions or concerns.

There are no refuge lands at this location.

Fish hatcheries

There are no fish hatcheries at this location.

Wetlands in the National Wetlands Inventory (NWI)

Impacts to [NWI wetlands](#) and other aquatic habitats may be subject to regulation under Section 404 of the Clean Water Act, or other State/Federal statutes.

For more information please contact the Regulatory Program of the local [U.S. Army Corps of Engineers District](#).

Wetland information is not available at this time

This can happen when the National Wetlands Inventory (NWI) map service is unavailable, or for very large projects that intersect many wetland areas. Try again, or visit the [NWI map](#) to view wetlands at this location.

Data limitations

The Service's objective of mapping wetlands and deepwater habitats is to produce reconnaissance level information on the location, type and size of these resources. The maps are prepared from the analysis of high altitude imagery. Wetlands are identified based on vegetation, visible hydrology and geography. A margin of error is inherent in the use of imagery; thus, detailed on-the-ground inspection of any particular site may result in revision of the wetland boundaries or classification established through image analysis.

The accuracy of image interpretation depends on the quality of the imagery, the experience of the image analysts, the amount and quality of the collateral data and the amount of ground truth verification work conducted. Metadata should be consulted to determine the date of the source imagery used and any mapping problems.

Wetlands or other mapped features may have changed since the date of the imagery or field work. There may be occasional differences in polygon boundaries or classifications between the information depicted on the map and the actual conditions on site.

Data exclusions

Certain wetland habitats are excluded from the National mapping program because of the limitations of aerial imagery as the primary data source used to detect wetlands. These habitats include seagrasses or submerged aquatic vegetation that are found in the intertidal and subtidal zones of estuaries and nearshore coastal waters. Some deepwater reef communities (coral or tubercid worm reefs) have also been excluded from the inventory. These habitats, because of their depth, go undetected by aerial imagery.

Data precautions

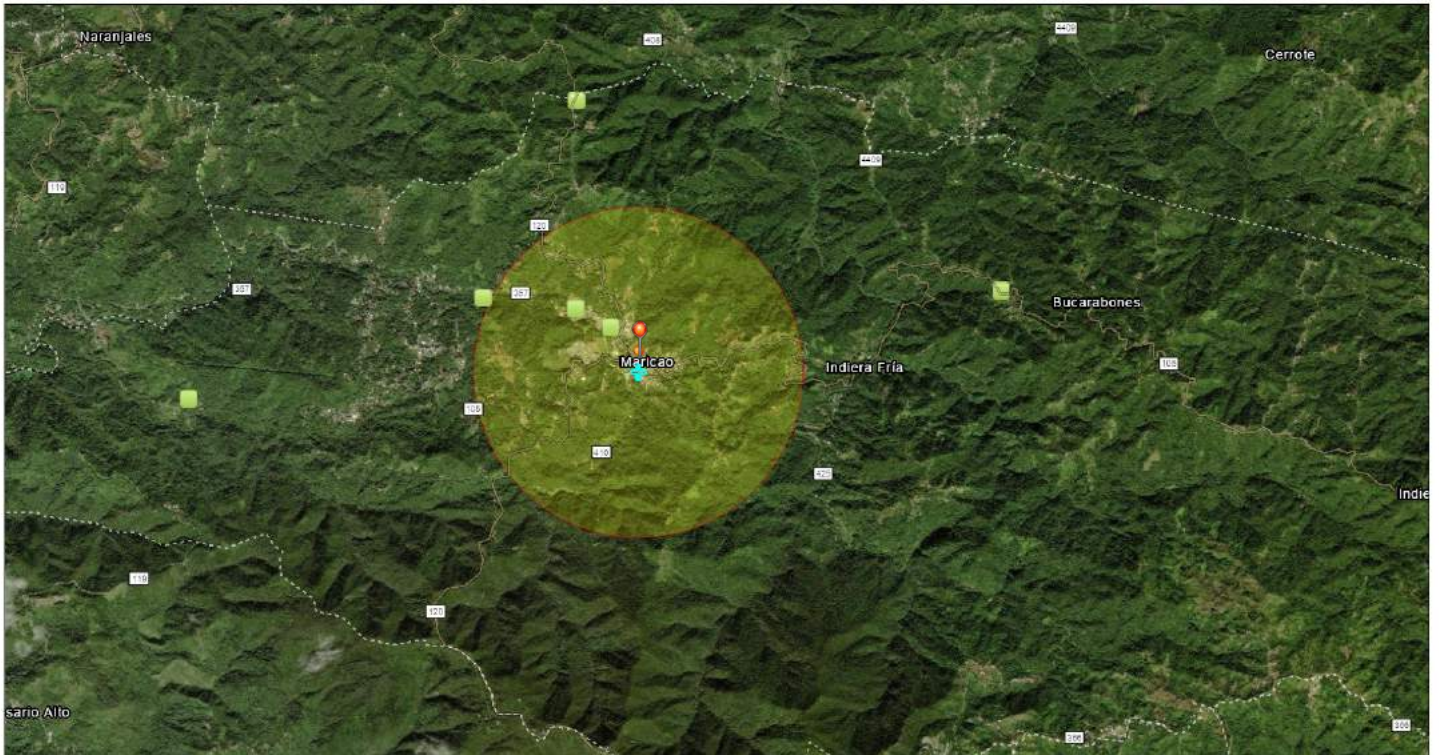
Federal, state, and local regulatory agencies with jurisdiction over wetlands may define and describe wetlands in a different manner than that used in this inventory. There is no attempt, in either the design or products of this inventory, to define the limits of proprietary jurisdiction of any Federal, state, or local government or to establish the geographical scope of the regulatory programs of government agencies. Persons intending to engage in activities involving modifications within or adjacent to wetland areas should seek the advice of appropriate Federal, state, or local agencies concerning specified agency regulatory programs and proprietary jurisdictions that may affect such activities.

Explosives and Flammable Hazards

NEPAssist Report

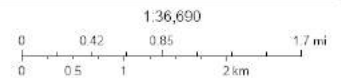
Project Site

PR-CRP-000720



February 23, 2024

- Hazardous Waste (RCRAInfo)
- Project Buffer
- Project Site



Eri, TomTom, Garmin, FourSquare, SafeGraph, GeoTechnologies, Inc, METI/NSA, USGS, IFS, USFWS, Maxar

Project Location	18.180812,-66.979882
Within 1 mile of an Ozone 1-hr (1979 standard) Non-Attainment/Maintenance Area?	no
Within 1 mile of an Ozone 8-hr (1997 standard) Non-Attainment/Maintenance Area?	no
Within 1 mile of an Ozone 8-hr (2008 standard) Non-Attainment/Maintenance Area?	no
Within 1 mile of an Ozone 8-hr (2015 standard) Non-Attainment/Maintenance Area?	no
Within 1 mile of a Lead (2008 standard) Non-Attainment/Maintenance Area?	no
Within 1 mile of a SO2 1-hr (2010 standard) Non-Attainment/Maintenance Area?	no
Within 1 mile of a PM2.5 24hr (2006 standard) Non-Attainment/Maintenance Area?	no
Within 1 mile of a PM2.5 Annual (1997 standard) Non-Attainment/Maintenance Area?	no
Within 1 mile of a PM2.5 Annual (2012 standard) Non-Attainment/Maintenance Area?	no
Within 1 mile of a PM10 (1987 standard) Non-Attainment/Maintenance Area?	no
Within 1 mile of a CO Annual (1971 standard) Non-Attainment/Maintenance Area?	no
Within 1 mile of a NO2 Annual (1971 standard) Non-Attainment/Maintenance Area?	no
Within 1 mile of a Federal Land?	no
Within 1 mile of an impaired stream?	no
Within 1 mile of an impaired waterbody?	yes
Within 1 mile of a waterbody?	yes
Within 1 mile of a stream?	yes
Within 1 mile of an NWI wetland?	Available Online
Within 1 mile of a Brownfields site?	no
Within 1 mile of a Superfund site?	no

Within 1 mile of a Toxic Release Inventory (TRI) site?	yes
Within 1 mile of a water discharger (NPDES)?	yes
Within 1 mile of a hazardous waste (RCRA) facility?	yes
Within 1 mile of an air emission facility?	yes
Within 1 mile of a school?	no
Within 1 mile of an airport?	no
Within 1 mile of a hospital?	no
Within 1 mile of a designated sole source aquifer?	no
Within 1 mile of a historic property on the National Register of Historic Places?	yes
Within 1 mile of a Land Cession Boundary?	no
Within 1 mile of a tribal area (lower 48 states)?	no
Within 1 mile of the service area of a mitigation or conservation bank?	no
Within 1 mile of the service area of an In-Lieu-Fee Program?	no
Within 1 mile of a Public Property Boundary of the Formerly Used Defense Sites?	no
Within 1 mile of a Munitions Response Site?	no
Within 1 mile of an Essential Fish Habitat (EFH)?	yes
Within 1 mile of a Habitat Area of Particular Concern (HAPC)?	no
Within 1 mile of an EFH Area Protected from Fishing (EFHA)?	no
Within 1 mile of a Bureau of Land Management Area of Critical Environmental Concern?	no
Within 1 mile of an ESA-designated Critical Habitat Area per U.S. Fish & Wildlife Service?	yes
Within 1 mile of an ESA-designated Critical Habitat river, stream or water feature per U.S. Fish & Wildlife Service?	no

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Detailed Facility Report

Facility Summary

FENWAL INTERNATIONAL
PR-357 KM 0.8, MARICAO, PR 00606
FRS (Facility Registry Service) ID: 110012638725
EPA Region: 02
Latitude: 18.18642
Longitude: -66.985694
Locational Data Source: RCRAINFO
Industries: Chemical Manufacturing
Indian Country: N

Enforcement and Compliance Summary

Statute	CAA
Compliance Monitoring Activities (5 years)	--
Date of Last Compliance Monitoring Activity	--
Compliance Status	No Violation Identified
Qtrs in Noncompliance (of 12)	0
Qtrs with Significant Violation	0
Informal Enforcement Actions (5 years)	--
Formal Enforcement Actions (5 years)	--
Penalties from Formal Enforcement Actions (5 years)	--
EPA Cases (5 years)	--
Penalties from EPA Cases (5 years)	--
Statute	RCRA
Compliance Monitoring Activities (5 years)	--
Date of Last Compliance Monitoring Activity	03/18/2004
Compliance Status	No Violation Identified
Qtrs in Noncompliance (of 12)	0
Qtrs with Significant Violation	0
Informal Enforcement Actions (5 years)	--
Formal Enforcement Actions (5 years)	--
Penalties from Formal Enforcement Actions (5 years)	--
EPA Cases (5 years)	--
Penalties from EPA Cases (5 years)	--
Statute	SDWA
Compliance Monitoring Activities (5 years)	--
Date of Last Compliance Monitoring Activity	--
Compliance Status	Inactive
Qtrs in Noncompliance (of 12)	0
Qtrs with Significant Violation	0
Informal Enforcement Actions (5 years)	--
Formal Enforcement Actions (5 years)	--
Penalties from Formal Enforcement Actions (5 years)	--
EPA Cases (5 years)	--
Penalties from EPA Cases (5 years)	--

Regulatory Information

Clean Air Act (CAA): Operating Minor (PR0000007209300005)
Clean Water Act (CWA): No Information
Resource Conservation and Recovery Act (RCRA): Active SQG, (PRD000706473)

Other Regulatory Reports

Air Emissions Inventory (EIS): 7013411, 15512411
Greenhouse Gas Emissions (eGGRT): No Information
Toxic Releases (TRI): 00706BXRFCARR3

Safe Drinking Water Act (SDWA): OWNER: Local government, PRIMARY SERVICE AREA DESCRIPTION: Other Non-transient Area, SOURCE: Ground water, TYPE: Non-Transient non-community system Permit Inactive - 2009-09-17 (PR0348133)

Compliance and Emissions Data Reporting Interface (CEDRI): No Information

Go To Enforcement/Compliance Details

Known Data Problems <<https://epa.gov/resources/echo-data/known-data-problems>>

Facility/System Characteristics

Facility/System Characteristics

System	Statute	Identifier	Universe	Status	Areas	Permit Expiration Date	Indian Country	Latitude	Longitude
FRS		110012638725					N	18.18642	-66.985694
ICIS		42603					N	18.18642	-66.985694
ICIS-Air	CAA	PR0000007209300005	Minor Emissions	Operating	CAASIP		N	18.18642	-66.985694
EIS	CAA	7013411					N	18.19166	-66.99166
EIS	CAA	15512411					N	18.1916	-66.9916
TRI	EP313	00706BTRFCARR3	Toxics Release Inventory	Last Reported for 2022			N	18.18642	-66.985694
RCRAInfo	RCRA	PRD000706473	SQG	Active (HA)			N	18.18642	-66.985694
SDWIS	SDWA	PR0348133	OWNER: Local government, PRIMARY SERVICE AREA DESCRIPTION: Other Non-transient Area, SOURCE: Ground water, TYPE: Non-Transient non-community system	Inactive - 2009-09-17	Population Served: 700		N		

Facility Address

System	Statute	Identifier	Facility Name	Facility Address	Facility County
FRS		110012638725	FENWAL INTERNATIONAL	PR-357 KM 0.8, MARICAO, PR 00606	Maricao Municipio
ICIS		42603	BAXTER HEALTHCARE CORP	RTE 357 KM 0.8, MARICAO, PR 00606	Maricao Municipio
ICIS-Air	CAA	PR0000007209300005	BAXTER-BIOTECH FENWAL- MARICAO	ROAD PR-357, KM. 0.8, MARICAO, PR 00606	Maricao Municipio
EIS	CAA	7013411	BAXTER HEALTHCARE FENWAL DIV	RD. 357 KM. 0.8, MARICAO, PR 00606	Maricao Municipio
EIS	CAA	15512411	FENWAL INTERNATIONAL INC. MARICAO	PR-357, KM 0.8, MARICAO, MARICAO, PR 00606	Maricao Municipio
TRI	EP313	00706BTRFCARR3	FENWAL INTERNATIONAL INC	RD 357 KM 0.8, MARICAO, PR 00606	Maricao Municipio
RCRAInfo	RCRA	PRD000706473	FENWAL INTERNATIONAL INC	RD 357 KM 0.8, MARICAO, PR 00606	Maricao Municipio
SDWIS	SDWA	PR0348133	FENWAL INTERNATIONAL MARICAO	PR	

Facility SIC (Standard Industrial Classification) Codes

System	Identifier	SIC Code	SIC Description
ICIS-Air	PR0000007209300005	2834	Pharmaceutical Preparations

Facility NAICS (North American Industry Classification System) Codes

System	Identifier	NAICS Code	NAICS Description
TRI	00706BTRFCARR3	325412	Pharmaceutical Preparation Manufacturing
EIS	15512411	339112	Surgical and Medical Instrument Manufacturing
EIS	7013411	325412	Pharmaceutical Preparation Manufacturing
ICIS-Air	PR0000007209300005	325412	Pharmaceutical Preparation Manufacturing
RCRAInfo	PRD000706473	325412	Pharmaceutical Preparation Manufacturing

Facility Tribe Information

No data records returned

Reservation Name	Tribe Name	EPA Tribal ID	Distance to Tribe (miles)
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Enforcement and Compliance

Compliance Monitoring History

Last 5 Years

No data records returned

Statute	Source ID	System	Activity Type	Compliance Monitoring Type	Lead Agency	Date	Finding (if applicable)
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Entries in italics are not included in ECHO's Compliance Monitoring Activity counts because they are not compliance monitoring strategy <<https://www.epa.gov/compliance/compliance-monitoring-programs>> activities or because they are not counted as inspections within EPA's Annual Results <<https://www.epa.gov/enforcement/enforcement-data-and-results>>.

SDWA (Safe Drinking Water Act) Sanitary Survey Results (5 Years)

No data records returned

Source ID	Date	Type	Agency	Data Verification	Distribution	Management Operation	Finished Water Storage	Operator Compliance	Other Evaluation	Pumps	Security	Source	Financial	Treatment
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Sanitary survey result codes:

S = Significant Deficiencies
 M = Minor Deficiencies
 R = Recommendations Made
 N = No Deficiencies or Recommendations
 X = Not Evaluated
 Z = Not Applicable
 D = Sanitary Defect
 -- = Not Reported to EPA

Compliance Summary Data

Statute	Source ID	Current SNC (Significant Noncompliance)/HPV (High Priority Violation)	Current As Of	Qtrs with NC (Noncompliance) (of 12)	Data Last Refreshed
CAA	PR0000007209300005	No	02/24/2024	0	02/23/2024
RCRA	PRD000706473	No	02/24/2024	0	02/23/2024
SDWA	PR0348133	No	09/30/2023	0	01/09/2024

Three-Year Compliance History by Quarter

Statute	Program/Pollutant/Violation Type	QTR 1	QTR 2	QTR 3	QTR 4	QTR 5	QTR 6	QTR 7	QTR 8	QTR 9	QTR 10	QTR 11	QTR 12+
CAA (Source ID: PR0000007209300005)		04/01-06/30/21	07/01-09/30/21	10/01-12/31/21	01/01-03/31/22	04/01-06/30/22	07/01-09/30/22	10/01-12/31/22	01/01-03/31/23	04/01-06/30/23	07/01-09/30/23	10/01-12/31/23	01/01-03/31/24
	Facility-Level Status	No Violation Identified	No Violation Identified	No Violation Identified	No Violation Identified	No Violation Identified	No Violation Identified	No Violation Identified	No Violation Identified	No Violation Identified	No Violation Identified	No Violation Identified	No Violation Identified
	HPV History												

Statute	Program/Pollutant/ Violation Type	QTR 1	QTR 2	QTR 3	QTR 4	QTR 5	QTR 6	QTR 7	QTR 8	QTR 9	QTR 10	QTR 11	QTR 12+	
	Violation Type Agency Programs Pollutants													
Statute	Program/Pollutant/ Violation Type	QTR 1	QTR 2	QTR 3	QTR 4	QTR 5	QTR 6	QTR 7	QTR 8	QTR 9	QTR 10	QTR 11	QTR 12+	
	RCRA (Source ID: PRD000706473)	04/01-06/30/21	07/01-09/30/21	10/01-12/31/21	01/01-03/31/22	04/01-06/30/22	07/01-09/30/22	10/01-12/31/22	01/01-03/31/23	04/01-06/30/23	07/01-09/30/23	10/01-12/31/23	01/01-03/31/24	
	Facility-Level Status	No Violation Identified	No Violation Identified	No Violation Identified	No Violation Identified	No Violation Identified	No Violation Identified	No Violation Identified	No Violation Identified	No Violation Identified	No Violation Identified	No Violation Identified	No Violation Identified	
	Violation Agency													
Statute	Violation Type/Category	QTR 1	QTR 2	QTR 3	QTR 4	QTR 5	QTR 6	QTR 7	QTR 8	QTR 9	QTR 10	QTR 11	QTR 12	QTR 13+
	SDWA (Source ID: PR0348133)	10/01-12/31/20	01/01-03/31/21	04/01-06/30/21	07/01-09/30/21	10/01-12/31/21	01/01-03/31/22	04/01-06/30/22	07/01-09/30/22	10/01-12/31/22	01/01-03/31/23	04/01-06/30/23	07/01-09/30/23	10/01-12/31/23
	Facility-Level Status	Inactive	Inactive	Inactive	Inactive	Inactive	Inactive	Inactive	Inactive	Inactive	Inactive	Inactive	Inactive	Inactive
	Category Violation Type													

*Quarter 13 data is voluntarily entered and/or incomplete, and may not form a complete picture for that quarter. Read more <https://epa.gov/help/reports/dfp-data-dictionary#sdwacomp> SDWA Compliance Data Last Reported: 09/30/2023

Informal Enforcement Actions

Last 5 Years

No data records returned

Statute	System	Source ID	Type of Action	Lead Agency	Date
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Entries in italics are not counted as "informal enforcement actions" in EPA policies pertaining to enforcement response tools.

Formal Enforcement Actions

Last 5 Years

No data records returned

Statute	System	Law/ Section	Source ID	Type of Action	Case No.	Lead Agency	Case Name	Issued/ Filed Date	Settlements/ Actions	Settlement/ Action Date	Federal Penalty Assessed	State/ Local Penalty Assessed	Penalty Amount Collected	SEP Value	Comp Action Cost
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SDWA (Safe Drinking Water Act) Violations and Enforcement Actions (5 Years)

No data records returned

Violations											Enforcement Actions			
Source ID	Noncompliance Period	Violation ID	Federal Rule	Contaminant	Category	Description	Measured Value	State MCL (Maximum Contaminant Level)	Federal MCL (Maximum Contaminant Level)	Status	Date	Category	Description	Agency

Environmental Conditions

Watersheds

No data records returned

12-Digit WBD (Watershed Boundary Dataset) HUC (RAD (Reach Address Database))	WBD (Watershed Boundary Dataset) Subwatershed Name (RAD (Reach Address Database))	State Water Body Name (ICIS (Integrated Compliance Information System))	Beach Closures Within Last Year	Beach Closures Within Last Two Years	Pollutants Potentially Related to Impairment	Watershed with ESA (Endangered Species Act)-listed Aquatic Species?
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Assessed Waters From Latest State Submission (ATTAINS)

No data records returned

State	Report Cycle	Assessment Unit ID	Assessment Unit Name	Water Condition	Cause Groups Impaired	Drinking Water Use	Ecological Use	Fish Consumption Use	Recreation Use	Other Use
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Air Quality Nonattainment Areas

No data records returned

Pollutant	Within Nonattainment Status Area?	Nonattainment Status Applicable Standard(s)	Within Maintenance Status Area?	Maintenance Status Applicable Standard(s)
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Pollutants

Toxics Release Inventory History of Reported Chemicals Released or Transferred in Pounds per Year at Site

Air Pollutant Report TRI Pollution Prevention Report

TRI Facility ID	Year	Air Emissions	Surface Water Discharges	Off-Site Transfers to POTWs (Publicly Owned Treatment Works)	Underground Injections	Disposal to Land	Total On-Site Releases	Total Off-Site Transfers
00706BXRFCARR3	2022	8	--	0	--	--	8	--
00706BXRFCARR3	2021	8	--	0	--	--	8	--
00706BXRFCARR3	2020	5	--	0	--	--	5	--
00706BXRFCARR3	2019	4	--	0	--	--	4	--
00706BXRFCARR3	2018	4	--	0	--	--	4	--
00706BXRFCARR3	2017	4	--	0	--	--	4	9,821
00706BXRFCARR3	2016	4	--	0	--	--	4	12,048
00706BXRFCARR3	2015	10	--	0	--	--	10	12,932
00706BXRFCARR3	2014	10	--	0	--	--	10	18,811
00706BXRFCARR3	2013	10	--	0	--	--	10	23,924

Toxics Release Inventory Total Releases and Transfers in Pounds by Chemical and Year

Chemical Name	2022	2021	2020	2019	2018	2017	2016	2015	2014	2013
Di(2-ethylhexyl) phthalate	8	8	5	4	4	9,825	12,052	12,942	18,821	23,934

e-Manifest Hazardous Waste History (Public)

Hazardous Waste Shipped in Kilograms by Year (Through 11/25/2023)

Source ID	Waste Description	2021	2022	2023	2024
PRD000706473	Hazardous Waste	3,479	2,141	900	--
PRD000706473	Acute Hazardous Waste	0	0 - 2	0 - 1	--
PRD000706473	Pharmaceutical Hazardous Waste	0	0	0	--

Pharmaceutical Hazardous Waste is excluded from the Hazardous and Acute Hazardous Waste quantities shown above because Pharmaceutical Waste is managed under 40 CFR part 266 subpart P <<https://www.epa.gov/hwgenerators/final-rule-management-standards-hazardous-waste-pharmaceuticals-and-amendment-p075>>.

Community

Environmental Justice

This section shows indexes from EJScreen, EPA's screening tool for environmental justice (EJ) concerns. EPA uses these indexes to identify geographic areas that may warrant further consideration or analysis for potential EJ concerns. Use of these indexes does not designate an area as an "EJ community" or "EJ facility." EJScreen provides screening level indicators, not a determination of the existence or absence of EJ concerns. For more information, see the EJScreen home page.

EJScreen Indexes Shown

Compare to US State

Index Type Environmental Justice Supplemental

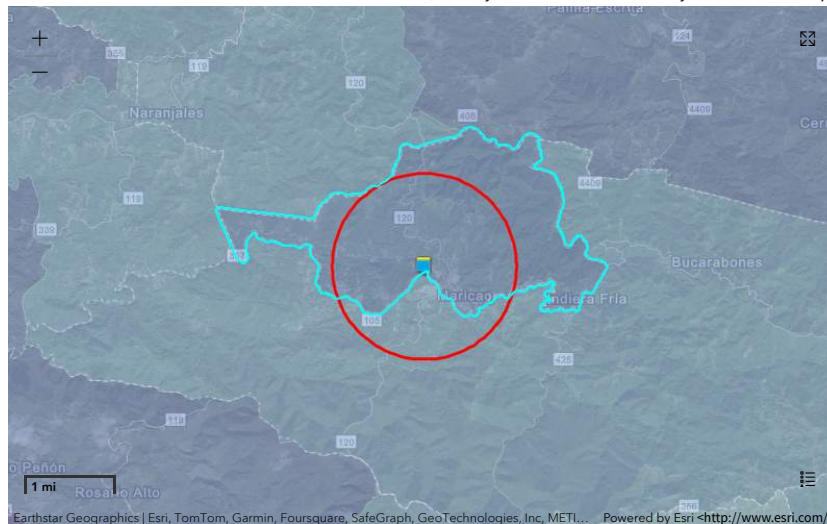
Related Reports

EJScreen Community Report

[Download Data](#)

Census Block Group ID: 720939602001	US (Percentile)	
Supplemental Indexes	Facility Census Block Group	1-mile Max
Count of Indexes At or Above 80th Percentile	6	6
Particulate Matter 2.5	0	--
Ozone	0	--
Diesel Particulate Matter	5	5
Air Toxics Cancer Risk	36	36
Air Toxics Respiratory Hazard Index	38	38
Toxic Releases to Air	88	90
Traffic Proximity	77	77
Lead Paint	98	98
Risk Management Plan (RMP) Facility Proximity	83	87
Hazardous Waste Proximity	68	69
Superfund Proximity	99	99
Underground Storage Tanks (UST)	95	95
Wastewater Discharge	98	98

Facility 1-mile Radius Facility Census Block Group



Demographic Profile of Surrounding Area (1-Mile Radius)

This section provides demographic information regarding the community surrounding the facility. ECHO compliance data alone are not sufficient to determine whether violations at a particular facility had negative impacts on public health or the environment. Statistics are based upon the 2010 U.S. Census and 2017 - 2021 American Community Survey (ACS) 5-year Summary and are accurate to the extent that the facility latitude and longitude listed below are correct. EPA's spatial processing methodology considers the overlap between the selected radii and the census blocks (for U.S. Census demographics) and census block groups (for ACS demographics) in determining the demographics surrounding the facility. For more detail about this methodology, see the DFR Data Dictionary <<https://epa.gov/help/reports/dfr-data-dictionary#demographic>>.

General Statistics (U.S. Census)	
Total Persons	2,142
Population Density	675/sq.mi.
Housing Units in Area	1,030

General Statistics (ACS (American Community Survey))	
Total Persons	1,154
Percent People of Color	98%
Households in Area	430
Households on Public Assistance	20
Persons With Low Income	984
Percent With Low Income	85%

Geography	
Radius of Selected Area	1 mi.
Center Latitude	18.18642
Center Longitude	-66.985694
Land Area	100%
Water Area	0%

Income Breakdown (ACS (American Community Survey)) - Households (%)	
Less than \$15,000	174 (40.47%)
\$15,000 - \$25,000	97 (22.56%)
\$25,000 - \$50,000	114 (26.51%)
\$50,000 - \$75,000	35 (8.14%)
Greater than \$75,000	10 (2.33%)

Age Breakdown (U.S. Census) - Persons (%)	
Children 5 years and younger	138 (6%)
Minors 17 years and younger	482 (23%)
Adults 18 years and older	1,659 (77%)
Seniors 65 years and older	360 (17%)

Race Breakdown (U.S. Census) - Persons (%)	
White	1,919 (90%)
African-American	95 (4%)
Hispanic-Origin	2,127 (99%)
Asian/Pacific Islander	4 (0%)
American Indian	9 (0%)
Other/Multiracial	115 (5%)

Education Level (Persons 25 & older) (ACS (American Community Survey)) - Persons (%)	
Less than 9th Grade	250 (27.62%)
9th through 12th Grade	97 (10.72%)
High School Diploma	260 (28.73%)
Some College/2-year	115 (12.71%)
B.S./B.A. (Bachelor of Science/Bachelor of Arts) or More	116 (12.82%)



Detailed Facility Report

Facility Summary

TOTAL PETROLEUM PUERTO RICO CORP-SERVICE STATION 110238

CARR 357 KM 0.4, MARICAO, PR 00606

FRS (Facility Registry Service) ID: 110042422786

EPA Region: 02

Latitude: 18.1848

Longitude: -66.98243

Locational Data Source: RCRAINFO

Industries: Gasoline Stations

Indian Country: N

Enforcement and Compliance Summary

Statute	RCRA
Compliance Monitoring Activities (5 years)	--
Date of Last Compliance Monitoring Activity	--
Compliance Status	No Violation Identified
Qtrs in Noncompliance (of 12)	0
Qtrs with Significant Violation	0
Informal Enforcement Actions (5 years)	--
Formal Enforcement Actions (5 years)	--
Penalties from Formal Enforcement Actions (5 years)	--
EPA Cases (5 years)	--
Penalties from EPA Cases (5 years)	--

Regulatory Information

Clean Air Act (CAA): No Information

Clean Water Act (CWA): No Information

Resource Conservation and Recovery Act (RCRA): Active VSQG, (PRR000023028)

Safe Drinking Water Act (SDWA): No Information

Go To Enforcement/Compliance Details

Known Data Problems <<https://epa.gov/resources/echo-data/known-data-problems>>

Other Regulatory Reports

Air Emissions Inventory (EIS): No Information

Greenhouse Gas Emissions (eGGRT): No Information

Toxic Releases (TRI): No Information

Compliance and Emissions Data Reporting Interface (CEDRI): No Information

Facility/System Characteristics

Facility/System Characteristics

System	Statute	Identifier	Universe	Status	Areas	Permit Expiration Date	Indian Country	Latitude	Longitude
FRS		110042422786					N	18.1848	-66.98243
RCRAInfo	RCRA	PRR000023028	VSQG	Active (H)			N	18.1848	-66.98243

Facility Address

System	Statute	Identifier	Facility Name	Facility Address	Facility County
FRS		110042422786	TOTAL PETROLEUM PUERTO RICO CORP-SERVICE STATION 110238	CARR 357 KM 0.4, MARICAO, PR 00606	Maricao Municipio
RCRAInfo	RCRA	PRR000023028	TOTAL PETROLEUM PUERTO RICO CORP-SERVICE STATION 110238	CARR #357 KM 0.4, MARICAO, PR 00606	Maricao Municipio

Facility SIC (Standard Industrial Classification) Codes

No data records returned

System	Identifier	SIC Code	SIC Description
--------	------------	----------	-----------------

Facility NAICS (North American Industry Classification System) Codes

System	Identifier	NAICS Code	NAICS Description
RCRAInfo	PRR000023028	44711	Gasoline Stations with Convenience Stores
RCRAInfo	PRR000023028	44719	Other Gasoline Stations

Facility Tribe Information

No data records returned

Reservation Name	Tribe Name	EPA Tribal ID	Distance to Tribe (miles)
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Enforcement and Compliance

Compliance Monitoring History

Last 5 Years

No data records returned

Statute	Source ID	System	Activity Type	Compliance Monitoring Type	Lead Agency	Date	Finding (if applicable)
---------	-----------	--------	---------------	----------------------------	-------------	------	-------------------------

Entries in italics are not included in ECHO's Compliance Monitoring Activity counts because they are not compliance monitoring strategy <https://www.epa.gov/compliance/compliance-monitoring-programs> activities or because they are not counted as inspections within EPA's Annual Results <https://www.epa.gov/enforcement/enforcement-data-and-results>.

Compliance Summary Data

Statute	Source ID	Current SNC (Significant Noncompliance)/HPV (High Priority Violation)	Current As Of	Qtrs with NC (Noncompliance) (of 12)	Data Last Refreshed
RCRA	PRR000023028	No	02/24/2024	0	02/23/2024

Three-Year Compliance History by Quarter

Statute	Program/Pollutant/Violation Type	QTR 1	QTR 2	QTR 3	QTR 4	QTR 5	QTR 6	QTR 7	QTR 8	QTR 9	QTR 10	QTR 11	QTR 12+
RCRA (Source ID: PRR000023028)		04/01-06/30/21	07/01-09/30/21	10/01-12/31/21	01/01-03/31/22	04/01-06/30/22	07/01-09/30/22	10/01-12/31/22	01/01-03/31/23	04/01-06/30/23	07/01-09/30/23	10/01-12/31/23	01/01-03/31/24
	Facility-Level Status	No Violation Identified	No Violation Identified	No Violation Identified	No Violation Identified	No Violation Identified	No Violation Identified	No Violation Identified	No Violation Identified	No Violation Identified	No Violation Identified	No Violation Identified	No Violation Identified
	Violation												
	Agency												

Informal Enforcement Actions

Last 5 Years

No data records returned

Statute	System	Source ID	Type of Action	Lead Agency	Date
---------	--------	-----------	----------------	-------------	------

Entries in italics are not counted as "informal enforcement actions" in EPA policies pertaining to enforcement response tools.

Formal Enforcement Actions

Last 5 Years

No data records returned

Statute	System	Law/Section	Source ID	Type of Action	Case No.	Lead Agency	Case Name	Issued/Filed Date	Settlements/Actions	Settlement/Action Date	Federal Penalty Assessed	State/Local Penalty Assessed	Penalty Amount Collected	SEP Value	Comp Action Cost
---------	--------	-------------	-----------	----------------	----------	-------------	-----------	-------------------	---------------------	------------------------	--------------------------	------------------------------	--------------------------	-----------	------------------

Environmental Conditions

Watersheds

No data records returned

12-Digit WBD (Watershed Boundary Dataset) HUC (RAD (Reach Address Database))	WBD (Watershed Boundary Dataset) Subwatershed Name (RAD (Reach Address Database))	State Water Body Name (ICIS (Integrated Compliance Information System))	Beach Closures Within Last Year	Beach Closures Within Last Two Years	Pollutants Potentially Related to Impairment	Watershed with ESA (Endangered Species Act)-listed Aquatic Species?
--	---	---	---------------------------------	--------------------------------------	--	---

Assessed Waters From Latest State Submission (ATTAINS)

No data records returned

State	Report Cycle	Assessment Unit ID	Assessment Unit Name	Water Condition	Cause Groups Impaired	Drinking Water Use	Ecological Use	Fish Consumption Use	Recreation Use	Other Use
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Air Quality Nonattainment Areas

No data records returned

Pollutant	Within Nonattainment Status Area?	Nonattainment Status Applicable Standard(s)	Within Maintenance Status Area?	Maintenance Status Applicable Standard(s)
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Pollutants

Toxics Release Inventory History of Reported Chemicals Released or Transferred in Pounds per Year at Site

No data records returned

TRI Facility ID	Year	Air Emissions	Surface Water Discharges	Off-Site Transfers to POTWs (Publicly Owned Treatment Works)	Underground Injections	Disposal to Land	Total On-Site Releases	Total Off-Site Transfers
-----------------	------	---------------	--------------------------	--	------------------------	------------------	------------------------	--------------------------

Toxics Release Inventory Total Releases and Transfers in Pounds by Chemical and Year

No data records returned

Chemical Name

Community

Environmental Justice

This section shows indexes from EJSscreen, EPA's screening tool for environmental justice (EJ) concerns. EPA uses these indexes to identify geographic areas that may warrant further consideration or analysis for potential EJ concerns. Use of these indexes does not designate an area as an "EJ community" or "EJ facility." EJSscreen provides screening level indicators, not a determination of the existence or absence of EJ concerns. For more information, see the EJSscreen home page.

EJSscreen Indexes Shown

Compare to US State

Index Type Environmental Justice Supplemental

Download Data

Census Block Group ID: 720939602001	US (Percentile)	
Supplemental Indexes	Facility Census Block Group	1-mile Max
Count of Indexes At or Above 80th Percentile	6	6

Related Reports

EJSscreen Community Report

Facility 1-mile Radius Facility Census Block Group

Census Block Group ID: 720939602001	US (Percentile)	
	Facility Census Block Group	1-mile Max
Particulate Matter 2.5	0	--
Ozone	0	--
Diesel Particulate Matter	5	5
Air Toxics Cancer Risk	36	36
Air Toxics Respiratory Hazard Index	38	38
Toxic Releases to Air	88	88
Traffic Proximity	77	77
Lead Paint	98	98
Risk Management Plan (RMP) Facility Proximity	83	83
Hazardous Waste Proximity	68	69
Superfund Proximity	99	99
Underground Storage Tanks (UST)	95	95
Wastewater Discharge	98	98



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Demographic Profile of Surrounding Area (1-Mile Radius)

This section provides demographic information regarding the community surrounding the facility. ECHO compliance data alone are not sufficient to determine whether violations at a particular facility had negative impacts on public health or the environment. Statistics are based upon the 2010 U.S. Census and 2017 - 2021 American Community Survey (ACS) 5-year Summary and are accurate to the extent that the facility latitude and longitude listed below are correct. EPA's spatial processing methodology considers the overlap between the selected radii and the census blocks (for U.S. Census demographics) and census block groups (for ACS demographics) in determining the demographics surrounding the facility. For more detail about this methodology, see the DFR Data Dictionary <<https://epa.gov/help/reports/dfr-data-dictionary#demographic>>.

General Statistics (U.S. Census)	
Total Persons	1,971
Population Density	607/sq.mi.
Housing Units in Area	974
General Statistics (ACS (American Community Survey))	
Total Persons	1,081
Percent People of Color	98%
Households in Area	404
Households on Public Assistance	17
Persons With Low Income	921
Percent With Low Income	85%
Geography	
Radius of Selected Area	1 mi.
Center Latitude	18.1848
Center Longitude	-66.98243
Land Area	100%
Water Area	0%
Income Breakdown (ACS (American Community Survey)) - Households (%)	
Less than \$15,000	160 (39.6%)
\$15,000 - \$25,000	90 (22.28%)
\$25,000 - \$50,000	110 (27.23%)
\$50,000 - \$75,000	35 (8.66%)
Greater than \$75,000	9 (2.23%)

Age Breakdown (U.S. Census) - Persons (%)	
Children 5 years and younger	131 (7%)
Minors 17 years and younger	446 (23%)
Adults 18 years and older	1,524 (77%)
Seniors 65 years and older	335 (17%)
Race Breakdown (U.S. Census) - Persons (%)	
White	1,768 (90%)
African-American	83 (4%)
Hispanic-Origin	1,960 (99%)
Asian/Pacific Islander	0 (0%)
American Indian	4 (0%)
Other/Multiracial	116 (6%)
Education Level (Persons 25 & older) (ACS (American Community Survey)) - Persons (%)	
Less than 9th Grade	230 (27.25%)
9th through 12th Grade	88 (10.43%)
High School Diploma	245 (29.03%)
Some College/2-year	108 (12.8%)
B.S./B.A. (Bachelor of Science/Bachelor of Arts) or More	110 (13.03%)

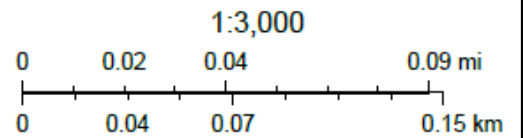
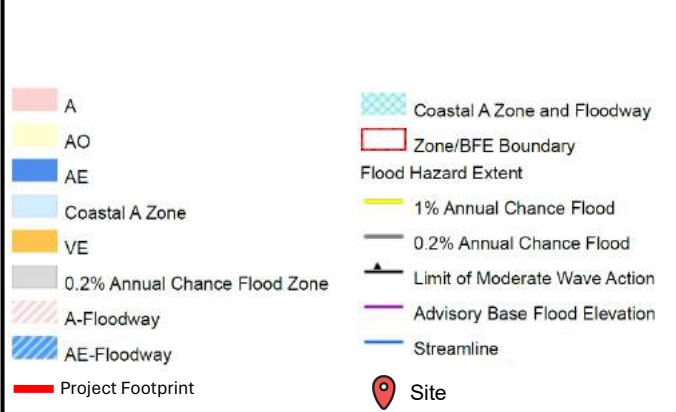
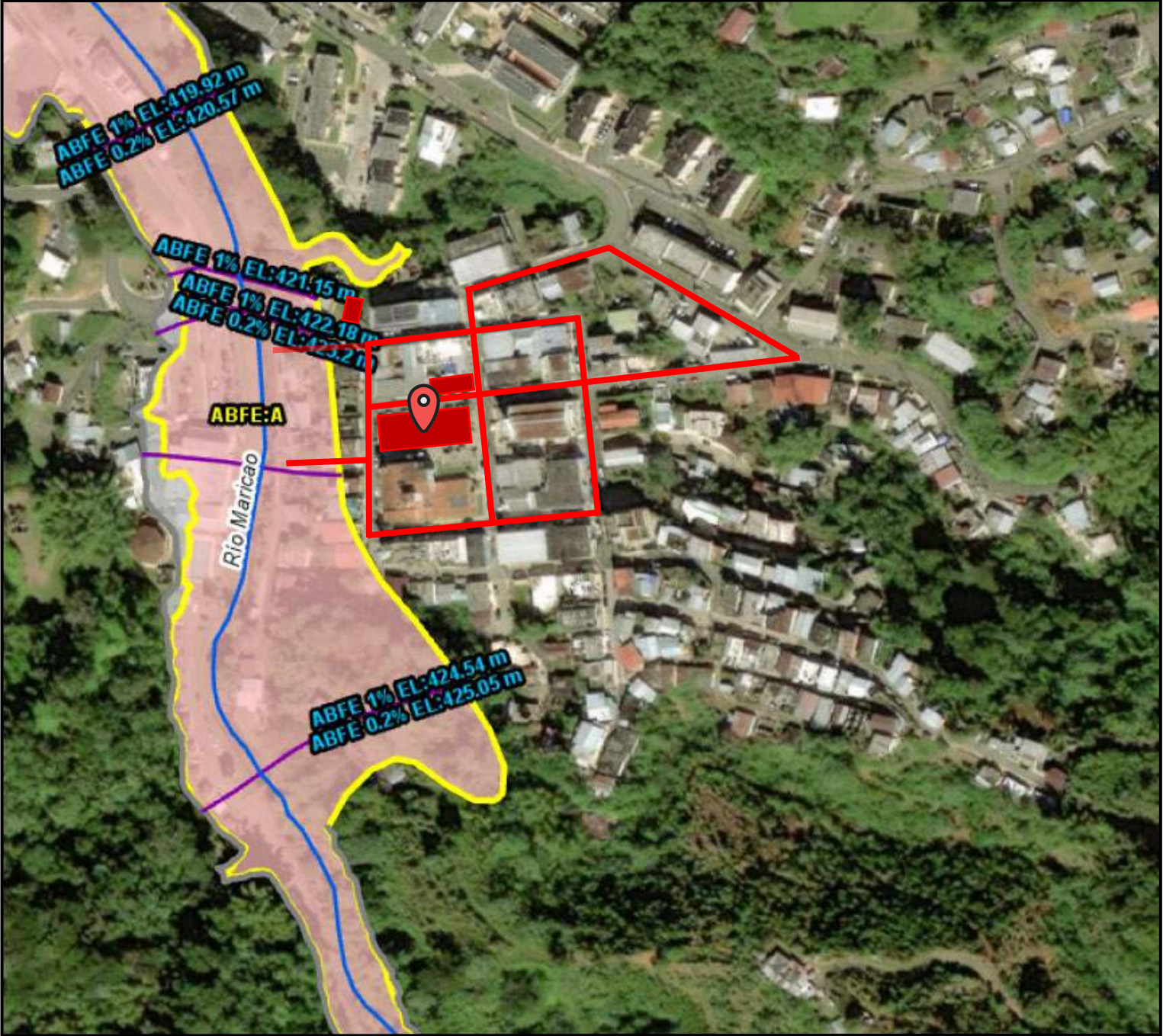
Floodplain Management

FEMA ABFE – PR-CRP-000720

HERNAN JR. MACHADO TORRES P.E.
INGENIEROS CONSULTORES

Address: Calle José de Diego, BO. Pueblo, Maricao PR 00606

Coordinates: Public Plaza (18.180775, -66.979881); Kiosks (18.18104368, -66.97977998);
Small Plaza (18.18139782, -66.98022663); Roundabout Intersection (18.183654, -66.981702)



Spatial Reference: WGS_1984_Web_Mercator_Auxiliary_Sphere

Source: FEMA Advisory Flood Elevation

<https://gis-r2-fema.hub.arcgis.com/apps/31dfa15671944086b54b55bfc03344d7/explore>

FEMA, Source: Esri, Maxar, Earthstar Geographics, and the GIS User Community

EXECUTIVE ORDER 11988 – FLOODPLAIN MANAGEMENT

EIGHT-STEP PROCESS

U.S. DEPARTMENT OF HOUSING AND URBAN DEVELOPMENT

COMMUNITY DEVELOPMENT BLOCK GRANT – DISASTER RELIEF (CDBG-DR) PROGRAM

Maricao Urban Center Revitalization and Restoration Project- Maricao, PR

--Hernan Jr. Machado Torres, PE, PSC (Project No. PR-CRP-000720, Grant No. B-18-DM-72-0001, B-18-DP-72-0001)

--Decision Process for Executive Order 11988 as Provided by 24 CFR §55.20

Introduction and Overview

The proposed project, Maricao Urban Center Revitalization and Restoration Project, consists of the revitalization and restoration of the Urban Center damaged by Hurricanes Irma and Maria in the Municipality of Maricao, Puerto Rico. The damage to these areas needs to be improved for a better urban area neighborhood appearance and public usage. These improvements will provide space for recreation and aims to promote the tourism and commercial activity in the area. Among the proposed activities are: Restoration of Public Square including floors, luminaries and new stage, replacement of asphalt in main streets, reconstruction of sidewalks, public stairs and handicapped ramps to comply with Americans with Disabilities Act (ADA); Re-green of urban zone, Facades improvements in (5) five urban center buildings, and construction of a new structure (divided into kiosks) in a commercial district. There will not be new construction on previously undisturbed areas. Therefore, this analysis will consider impacts to the floodway along with concerns for loss of life and property. A location map is attached to this document.

Step 1: *Determine whether the action is located in a 100-year floodplain (or a 500-year floodplain for critical actions) or wetland.*

This action is partially located in a 100-year floodplain. The proposed project locates on a quadrangle of several streets and public facilities of the traditional urban center of the municipality of Maricao, from coordinates 18.181333, -66.980584, to coordinates 18.181121, -66.97826, to coordinates 18.180267, -66.979106 and coordinates 18.180394, -66.980117 with dimensions of 4.095 acres. The proposed activity locates in diverse flood zone types, being 0.759 acres of Zone A, and 3.336 acres within an area outside the 500-year floodplain, Zone X. These areas are considered a functionally dependent use. Project area is shown in Flood Insurance Rate Map (FIRM) 72000C1040 suffix H, revised on April 19, 2005, as indicated on the Flood Map Service Center page in <https://msc.fema.gov/portal/home>. No wetlands will be impacted. Both maps are attached to this document.

This project is federally funded for construction and urban improvements, for these reasons, E.O. 11988- Floodplain Management apply. This project does not meet any of the exceptions at 24 CFR 55.12 and therefore requires an 8-step analysis of the direct and indirect impacts associated with the construction, occupancy, and modification of the floodplain.

Step 2: *Notify the public for early review of the proposal and involve the affected and interested public in the decision-making process.*

A public notice describing the project was published in the *Primera Hora*, the local and regional paper, on February 15, 2023. A Spanish translation of the ad was also published in the *Primera Hora* newspaper on February 15, 2023. The ad targeted local residents, including those in the floodplain. A copy of the published notification is kept in the project’s environmental review records and is attached to this document. A copy was also posted on the Maricao’s Townhall Bulletin Board and at the local Postal Office. The required 15 calendar days were allowed for public and agency comment. As required by regulation, the notice also included the name, proposed location and description of the activity, total number of floodplain acres involved, and the HUD official or responsible entity contact for information as well as the location and hours of the office at which a full description of the proposed action can be viewed. No comments were received following the conclusion of the comment period.

Step 3: *Identify and evaluate practicable alternatives.*

The Community Development Block Grant – Disaster Recovery (CDBG – DR) Program is responsible to assure decent affordable housing opportunities, provision of services, assistance to the most vulnerable in our communities, the expansion and conservation of jobs. The funds of this Program come from the Disaster Recovery Program for community development of the United States Department of Housing and Urban Development (HUD) to grant support disaster recovery activities, including housing redevelopment and rebuilding. The Department of Housing of Puerto Rico (PRDOH) has been designated as the entity responsible for administering this grant that will help in the recovery from disasters caused by hurricanes Irma and Maria of 2017; this includes long-term recovery, restoration of housing, economic infrastructure, and revitalization.

The following viable alternatives have been identified:

- (a) Revitalization, restoration, and construction of urban improvements in the Urban Center of Maricao P.R. (**Option A**).
- (b) Undertake the project at the Jurisdiction’s expense (**Option B**).
- (c) “No Action Alternative” (**Option C**).

Option A is the Proposed Alternative as identified in the project application and includes improvements to existing roads replacing asphalt and sidewalks, installing street lighting, landscaping and street furniture, as well as installing handicapped ramps that meet Americans with Disabilities Act (ADA) standards. Empty lots, commercial building facades and the Public Square Plaza will also be improved.

Option B is the second alternative. Due to limited local funds, undertaking this activity with local funds would unduly slow the process of improving infrastructure in its effort toward creating a safer environment.

Option C is the “No Action Alternative”. Under this alternative, no urban improvements would be implemented. This would not assist in the City’s need to revitalize its urban center and central business district. In addition, this alternative would not meet the State’s need to rehabilitate and revitalize storm-impacted communities.

The two alternate Options considered (B and C) are not feasible since the needed improvements for revitalization, restoration, and construction of the urban center are site specific. As a result, PRDOH decided that there are no alternative options or sites that can provide accessibility and functions that the proposed improvements would. Furthermore, the project area is already highly developed, and the implementation of the preferred alternative (Option A) would not encourage new development within the floodplain or wetlands in the proposed project area.

Step 4: *Identify Potential Direct and Indirect Impacts of Associated with Floodplain Development.*

Since the Proposed Action involves road segments and infrastructure that have been in place many years, only short-term impacts to previously disturbed areas would result from the Proposed Action. Potential adverse impacts may include noise pollution, air pollution, pollution from construction waste and debris, and water pollution from construction erosion and sedimentation. Potential adverse impacts from construction would be temporary and mitigated through construction staging plans developed in partnership with the Maricao Municipality to minimize disturbance throughout the construction period and at the end of the project. The Proposed Action would not only provide better stormwater management but increase the safety of several access roads which serve as key community gateways and important evacuation routes. Placement of new and smooth surface benefits motorists and residents. It reduces the risk of accidents. In addition, ancillary benefits would be realized including streetscaping which would support local business growth, as well as improved water quality in nearby waterbodies.

Step 5: *Where practicable, design or modify the proposed action to minimize the potential adverse impacts to lives, property, and natural values within the floodplain and to restore, and preserve the values of the floodplain.*

- (a) **Preserving Lives:** In order to preserve lives, local law enforcement and the emergency broadcast system will implement an early warning system should flooding conditions arise. In addition to the warning system, law enforcement has an emergency evacuation and relocation plan. All residents will also be briefed on the location of the flood hazard area and evacuation plans upon placement.
- (b) **Preserving Property:** The action is in a floodplain but does not require to be elevated above the floodplain, or floodproofed or insured because it consists mainly of civil works occurring within previously developed sites (roadway, parking, street repairs, sidewalk repairs, building façade repairs).

(c) **Preserving Natural Values and Minimizing Impacts:** The Proposed Action would be implemented adjacent to existing road segments and on land that has been previously disturbed. Improving infrastructure that is already in place would minimize impacts to the floodplain and wetlands. Strict requirements for the disposal of debris generated during construction will be in place to prevent, to the extent possible, negative impacts to the floodplain and wetlands. The handling and disposal of construction debris, control of stormwater runoff, and noise impacts resulting from construction activities would be in accordance with all local and state regulations. The Proposed Action would also implement and maintain erosion and sedimentation control measures to prevent deposition of sediment and eroded soil into adjacent areas. Best management practices (BMPs), such as silt fence and erosion prevention, would be implemented as required by permits or agency discretion. Because the Proposed Action would not result in adverse impacts on the natural and beneficial values of wetlands and the floodplain, no additional methods to minimize those impacts are proposed.

Step 6: *Reevaluate the Alternatives.*

PRDOH has reevaluated the Proposed Action and determined that the action is still practicable in light of its potential exposure to flood hazards in the floodplain area. The Proposed Action would not aggravate current hazards to the floodplain, nor will the Proposed Action permanently disrupt floodplain values. No significant changes are expected to occur to the current floodplain of the areas surrounding the infrastructure. Wetlands will not be impacted by the Proposed Action.

The no action alternative is also impracticable because it will not satisfy the need to rehabilitate and revitalize storm-impacted communities.

Step 7: *Determination of No Practicable Alternative*

It is PRDOH's determination that the preferred alternative is implementing the Maricao Urban Center Revitalization and Restoration Project and that there is no practicable alternative for partially locating the project in the flood zone. This is due to: 1) only a small portion of the project is located within the 100-year floodplain; 2) the desire to rehabilitate and revitalize the storm-impacted urban center; and 3) the ability to mitigate and minimize impacts on human health, public property, and floodplain values. Furthermore, the action is partially in a floodplain but does not require to be elevated above the floodplain, or floodproofed or insured because it consists mainly of civil works occurring within previously developed sites (roadway, parking, street repairs, sidewalk repairs, building façade repairs). Given these factors, the proposed project presents more balanced benefits, fewer risks to the City, and greater sustainability benefits.

A 7-day "Final Notice and Public Explanation of a Proposed Activity in a Floodplain" was published in the *Primera Hora*, the local and regional paper, on May 1, 2023 in accordance with 24 CFR 55. 19. The 7-day period expired on May 8, 2023. The notice targeted local residents, including those in the floodplain. The notice stated the reasons why the project must be located in the floodplain, a list of alternatives considered, and the mitigation measures to be taken to minimize adverse impacts and

preserve natural and beneficial floodplain values. No comments were received following the conclusion of the comment period. The notice is attached to this document.

Step 8: *Implement the Proposed Action*

The PRDOH will assure that this plan, as modified and described above, is executed and necessary language will be included in all agreements with participating parties. The city will also take an active role in monitoring the construction process to ensure no unnecessary impacts occur nor unnecessary risks are taken. Implementation of the Proposed Action will require additional local and state permits, which may place additional design modifications or mitigation requirements on the Proposed Action. It is acknowledged there is a continuing responsibility by the responsible entity to ensure, to the extent feasible and necessary, compliance with the steps herein.

PROPOSED PROJECT LOCATION MAP

PR-CRP-000720



Project: CDBG-DR City Revitalization Program
Maricao Urban Center, Municipality of Maricao, Puerto Rico
 PO Box 837, Maricao PR 00606



LEGEND

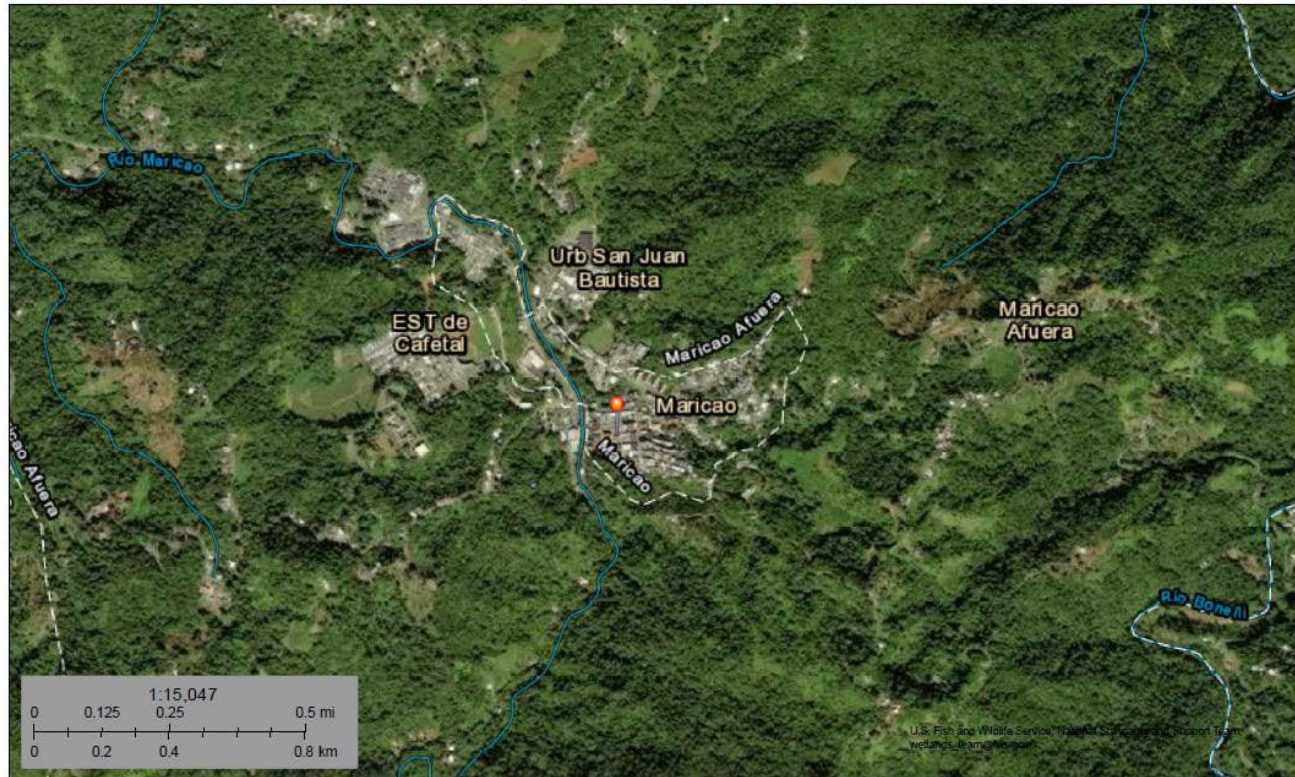
- | | |
|---|---|
|  Facade Improvements (5) |  Construction of Small Plaza for Public Recreation |
|  Public Stairs Improvements |  Restoration of the Roundabout Connector |
|  Street and Sidewalks Improvements |  Town Hall |
|  Construction of 5 New Kiosks |  San Juan Bautista Church |
|  Public Square Renovation | |

Source: <https://catastro.crimpr.net/cdprpc/>

WETLANDS MAP



Wetlands Protection



September 13, 2022

Site Coordinates: 18-181076, -66.98005

Wetlands

- Estuarine and Marine Deepwater
- Estuarine and Marine Wetland

- Freshwater Emergent Wetland
- Freshwater Forested/Shrub Wetland
- Freshwater Pond

- Lake
- Other
- Riverine

This map is for general reference only. The US Fish and Wildlife Service is not responsible for the accuracy or currentness of the base data shown on this map. All wetlands related data should be used in accordance with the layer metadata found on the Wetlands Mapper web site.

National Wetlands Inventory (NWI)
This page was produced by the NWI mapper

Project: CDBG-DR City Revitalization Program
Maricao Urban Center, Municipality of Maricao Puerto Rico
PO Box 837, Maricao PR 00606



PROXIMITY TO WETLANDS

According to APA NEPAAssist Tool the project does not impact any on or off-site wetlands. The project is in compliance with Executive order 11990.

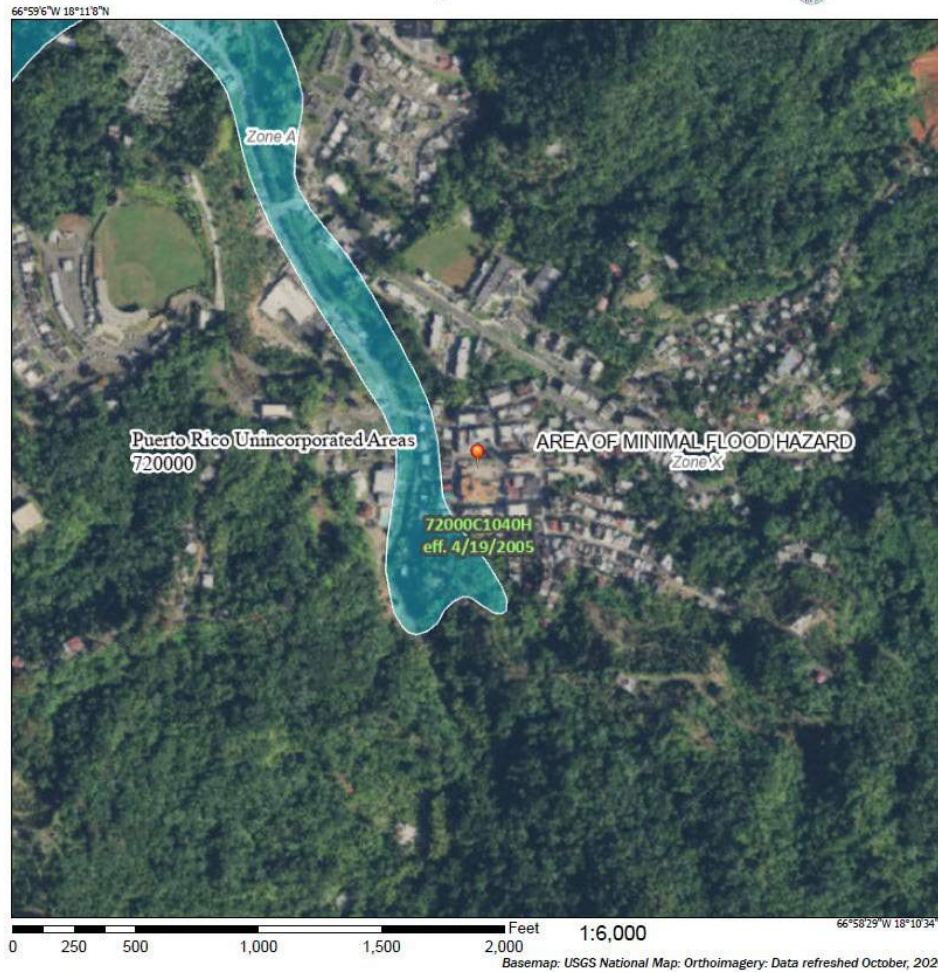
Source: EPA NEPAAssist Tool

**HERNAN J. MACHADO TORRES, P.E.
INGENIERO EN SUELOS Y TORRES**

Site

FLOOD INSURANCE RATE MAP

National Flood Hazard Layer FIRMette



Legend

SEE FIS REPORT FOR DETAILED LEGEND AND INDEX MAP FOR FIRM PANEL LAYOUT

SPECIAL FLOOD HAZARD AREAS		Without Base Flood Elevation (BFE) Zone A, V, A99
		With BFE or Depth Zone AE, AO, AH, VE, AR
		Regulatory Floodway
OTHER AREAS OF FLOOD HAZARD		0.2% Annual Chance Flood Hazard, Areas of 1% annual chance flood with average depth less than one foot or with drainage areas of less than one square mile Zone X
		Future Conditions 1% Annual Chance Flood Hazard Zone X
		Area with Reduced Flood Risk due to Levee. See Notes. Zone X
		Area with Flood Risk due to Levee Zone D
OTHER AREAS		Area of Minimal Flood Hazard Zone X
		Effective LOMRs
GENERAL STRUCTURES		Channel, Culvert, or Storm Sewer
		Levee, Dike, or Floodwall
OTHER FEATURES		Cross Sections with 1% Annual Chance Water Surface Elevation
		Coastal Transect
		Base Flood Elevation Line (BFE)
		Limit of Study
		Jurisdiction Boundary
		Coastal Transect Baseline
MAP PANELS		Digital Data Available
		No Digital Data Available
		Unmapped
		The pin displayed on the map is an approximate point selected by the user and does not represent an authoritative property location.

This map complies with FEMA's standards for the use of digital flood maps if it is not void as described below. The basemap shown complies with FEMA's basemap accuracy standards.

The flood hazard information is derived directly from the authoritative NFHL web services provided by FEMA. This map was exported on 8/13/2022 at 4:22 PM and does not reflect changes or amendments subsequent to this date and time. The NFHL and effective information may change or become superseded by new data over time.

This map image is void if the one or more of the following map elements do not appear: basemap imagery, flood zone labels, legend, scale bar, map creation date, community identifier, FIRM panel number, and FIRM effective date. Map images for unmapped and unnumbered areas cannot be used for regulatory purposes.

Project: CDBG-DR City Revitalization Program Maricao Urban Center, Municipality of Maricao, Puerto Rico PO Box 837, Maricao PR 00606
Site Coordinates: 18.181076, -66.98005

FLOOD SUSCEPTIBILITY
According to FEMA panel 72000C1040H with effective date 4-19-2005, the provided site location is in the Zone X (Area of minimal Flood Hazard). The provided Site location is in compliance with the low flood susceptibility parameter.


Source: FEMA

MARICAO

HERNAN RAMIREZ TORRES, P.E.
INGENIERO EN CONSULTORIA

STEP 2 PUBLIC NOTICE

PRIMERA HORA Miércoles, 15 de febrero de 2023 27



public notice

Early Notice and Public Review of a Proposed Activity in a 100-Year Floodplain.

To: All Interested Parties, Groups & Individuals.




This is to give notice that the Puerto Rico Department of Housing (PRDOH) has determined that the following proposed action under the PRDOH Community Development Block Grant – Disaster Recovery (CDBG-DR) City Revitalization Program, Grant number 8-17-DM-72-0001 & 8-18-DM-72-0001 is located in the 100-year floodplain, and PRDOH will be identifying and evaluating practicable alternatives to locate the action in the floodplain and the potential impacts on the floodplain from the proposed action, as required by the Executive Order 11988, in accordance with HUD regulations at 24 CFR 55.20 Subpart C - Procedures for Making Determinations on Floodplain Management and Protection of Wetlands. The proposed project, PR-CRP-000720 Revitalization and Restoration of the Urban Center, is within a municipality with structures damaged by Hurricanes Irma and Maria and it is located throughout several streets and public facilities of the urban center of the municipality of Maricao, from coordinates 18.181333, -66.980584, to coordinates 18.181121, -66.97826, to coordinates 18.180267, -66.979106 and to coordinates 18.180394, -66.980117 with dimensions of 4.095 acres. The proposed activity is situated in a diverse flood zone type, 0.759 acres located in a 100-year floodplain, flood zone A, and 3.336 acres within an area outside the 500-year floodplain, flood zone X. These areas are considered as functionally dependent use. The floodplains in the project area can be found in the Flood Insurance Rate Map (FIRM) 72000C1040 suffix H, revised on April 19, 2005, as indicated on the Flood Map Service Center page in <https://msc.fema.gov/portal/home>.

The objective of the project is the need to improve the damages to the urban center for a better neighborhood appearance and for public usage. It consists in the revitalization and restoration of the Urban Center of Maricao damaged by Hurricanes Irma and Maria. These improvements will provide space for recreation and aims to promote the tourism and commercial activity in the area. The project entails the restoration of the public square including floors, luminaries and a new stage, the replacement of asphalt in main streets, reconstruction of sidewalks, public stairs, and handicapped ramps to comply with the Americans with Disabilities Act (ADA); re-green of urban zone, facade improvements in four urban center buildings, construction of a new structure subdivided into five kiosks in a commercial district; restoration of the PR-357 and PR-120 roundabout connector, and the construction of a new small plaza on a municipal owned plot on PR-106 road. This notice is for homeowners already in the floodplain. There won't be any new construction on previously unsludged areas addressed by this notice.

There are three primary purposes for this notice. First, people who may be affected by activities in floodplains and those who have an interest in the protection of the natural environment should be given an opportunity to express their concerns and provide information about these areas. Commenters are encouraged to offer alternative sites outside of the floodplains, alternative methods to serve the same project purpose, and methods to minimize and mitigate impacts. Second, an adequate public notice program can be an important public education tool. The dissemination of information and request for public comment about floodplains can facilitate and enhance Federal efforts to reduce the risks and impacts associated with the occupancy and modification of these special areas. Third, as a matter of fairness, when the Federal government determines it will participate in actions taking place in floodplains, it must inform those who may be put at greater or continued risk.

PRDOH will consider all comments on or before March 2, 2023 [a minimum 15 calendar day comment period will begin the day after the publication and end on the 14th day after the publication]. Written comments can be sent to the following address: Puerto Rico Department of Housing, 606 Barbosa Ave., Juan C. Cordero Building, Rio Piedras, PR 00918-8461. Attention: Janette Cambreñ, Permit and Environmental Compliance Specialist. A complete description of the project is available to the public for review from 8:30 am to 4:00 pm at the Puerto Rico Department of Housing, 606 Barbosa Ave., Juan C. Cordero Building, Rio Piedras, PR 00918. The number to get information is (787) 274-2527 ext. 6654. In the alternative, comments may also be sent to PRDOH by email at InfoCDRG@vivienda.pr.gov.

Date: February 15, 2023



aviso público

Aviso y Revisión Pública Preliminar de una Actividad Propuesta en Terrenos Inundables de 100 años.

A: Todas las partes, grupos y personas interesadas.

Este aviso notifica que el Departamento de Vivienda de Puerto Rico (Vivienda, en adelante) ha determinado que la siguiente acción propuesta bajo el Programa de Revitalización de la Ciudad (City-Rev), Subvención en Bloque para el Desarrollo Comunitario – Recuperación ante Desastres (CDBG-DR), número 8-17-DM-72-0001 y 8-18-DM-72-0001, está ubicada en terreno inundable. Vivienda estará evaluando e identificando alternativas prácticas para realizar la acción propuesta y el impacto potencial en los terrenos inundables debido a la acción propuesta, según establecido por la Orden Ejecutiva 11988, de acuerdo con los regulaciones de HUD en 24 CFR 55.20 Subparte C - Procedimientos para tomar determinaciones sobre el manejo de terrenos inundables y protección de humedales. El proyecto propuesto, PR-CRP-000720 Revitalización y Restauración del Centro Urbano, se encuentra dentro de un municipio que sufrió daños debido a los huracanes Irma y María, y está localizado a lo largo de varias calles y estructuras públicas en el centro urbano de Maricao desde las coordenadas 18.181333, -66.980584, las coordenadas 18.181121, -66.97826, las coordenadas 18.180267, -66.979106 hasta las coordenadas 18.180394, -66.980117 y tiene cabida de 4.095 acres. La actividad propuesta se ubica en diversos tipos de zonas de inundación, 0.759 acres en área de inundación zona A de 100 años y 3.336 acres en un área fuera del plano inundable de 500 años, zona X. Estas áreas se consideran un uso funcionalmente dependiente. El área del proyecto se encuentra en el Flood Insurance Rate Map (FIRM) 72000C1040 sufixo H, revisado el 19 de abril de 2005, según indicado en la página del Centro de Servicios de Mapas de Inundaciones en <https://msc.fema.gov/portal/home>.

El objetivo del proyecto es la necesidad de mejorar los daños causados al centro urbano para tener un mejor uso público y embellecer la apariencia del área urbana. Este consiste en la revitalización y restauración del centro urbano de Maricao por daños causados por los huracanes Irma y María. Estas mejoras brindarán espacio para la recreación y promover la actividad turística y comercial en la zona. Entre las actividades propuestas está la restauración de la plaza pública incluyendo pisos, luminarias y una nueva tarima, el reemplazo de asfalto en calles principales, la reconstrucción de aceras, escaleras públicas y rampas para cumplir con la Ley para Estadounidenses con Discapacidades (ADA, por su sigla en inglés); el reverdecimiento de la zona urbana, mejoras de fachadas en cuatro edificios del centro urbano y construcción de una nueva estructura subdividida en cinco kioscos en un distrito comercial; restauración del conector de rotonda de la PR-357 y PR-120, y la construcción de una plazoleta pequeña en un solar municipal en la PR-106. Este aviso es para los propietarios de viviendas que ya se encuentran en los terrenos inundables. No habrá nuevas construcciones en zonas previamente inalteradas.

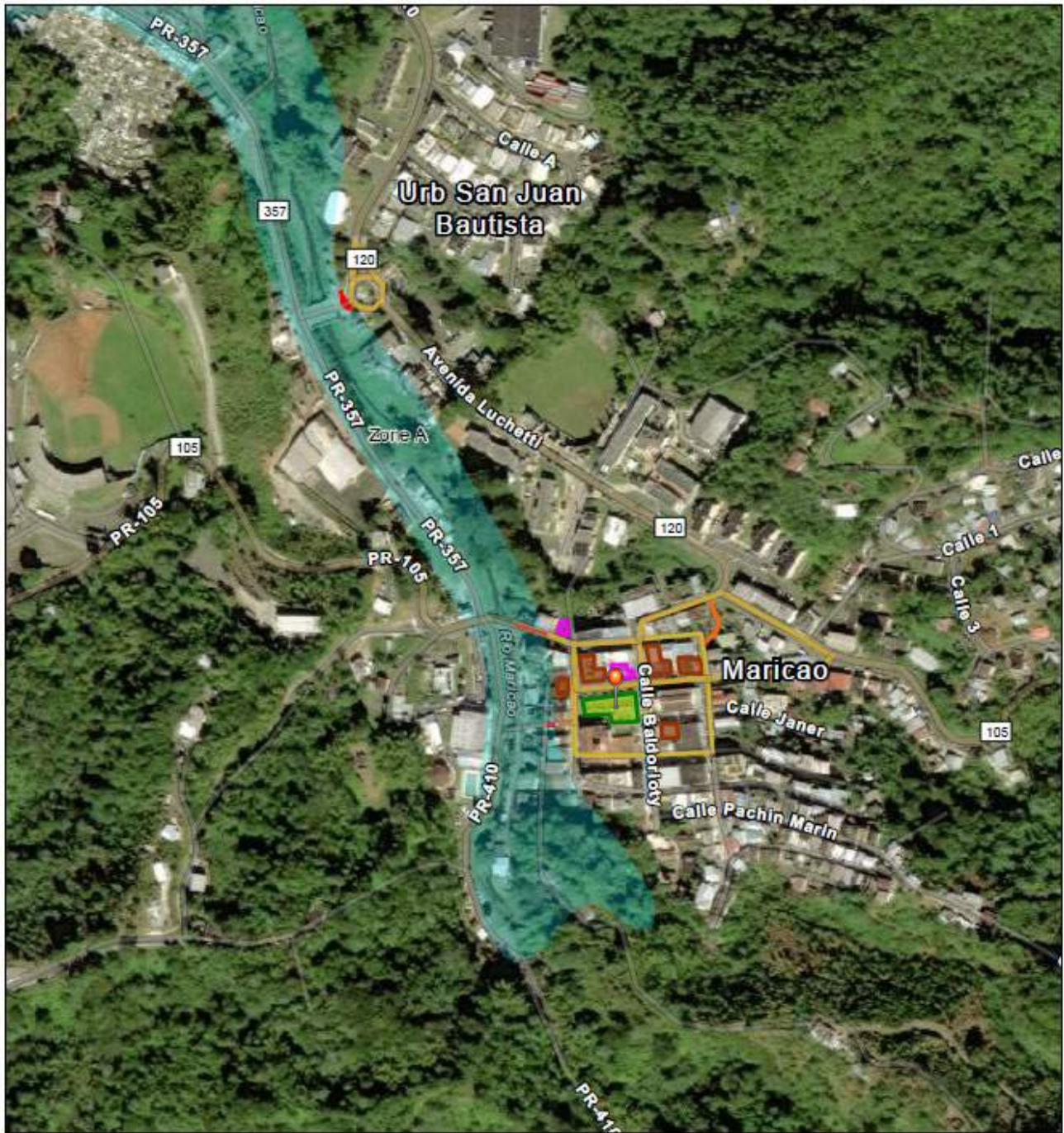
Este aviso tiene tres propósitos principales. En primer lugar, las personas que puedan verse afectadas por las actividades en los terrenos inundables y aquellos que tengan interés en la protección del ambiente natural deben tener la oportunidad de expresar sus inquietudes y proveer información sobre estas áreas. Se exhorta a la comunidad a ofrecer ubicaciones alternativas fuera de los terrenos inundables, métodos alternos para cumplir el mismo propósito del proyecto y métodos para minimizar y mitigar los impactos. Segundo, un programa adecuado de avisos públicos puede ser una herramienta importante para la educación pública. La divulgación de información sobre los terrenos inundables puede facilitar y mejorar los esfuerzos federales por reducir los riesgos e impactos asociados con la ocupación y alteración de estas zonas especiales. Tercero, como materia de justicia, cuando el gobierno federal determine participar en acciones ubicadas en los terrenos inundables, debe informarse a quienes puedan ser expuestos a un riesgo mayor o similar al presente.

Vivienda considerará todos los comentarios recibidos en o antes de 2 de marzo de 2023 [un período mínimo de comentarios de 15 días comenzará el día siguiente de la publicación y terminará en el 14º día después de la publicación]. Pueden enviar los comentarios de forma impresa a la siguiente dirección: Departamento de la Vivienda de Puerto Rico, Edificio Juan C. Cordero, 606 Avenida Barbosa, Río Piedras, PR 00918-8461. Atención: Janette Cambreñ, Especialista en Permisos y Cumplimiento Ambiental. Una descripción completa del proyecto está disponible al público para revisión de 8:30 am a 4:00 pm en el Departamento de la Vivienda de Puerto Rico, Edificio Juan C. Cordero, 606 Avenida Barbosa, Río Piedras, PR 00918. El número para obtener información es (787) 274-2527 ext. 6654. Como alternativa, también pueden enviar los comentarios a Vivienda por medio electrónico a InfoCDRG@vivienda.pr.gov.

Fecha: 15 de febrero de 2023



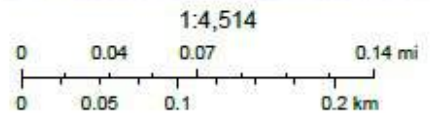
Proposed Project and Potential Impact in a Flood Zone



April 5, 2023

- Potential Impact in Flood Zone
- Street and Sidewalk Improvements
- Public Stairs Improvements
- Public Square Renovation
- Facade Improvements
- New Construction

- Flood Hazard Zones**
- 1% Annual Chance Flood Hazard
 - Regulatory Floodway
 - Special Floodway
 - Area of Undetermined Flood Hazard
 - 0.2% Annual Chance Flood Hazard



Esri, Community Maps Contributors, Esri, HERE, Garmin, Foursquare, SafeGraph, GeoTechnologies, Inc., METINASA, USGS, NPS, US Census Bureau, Maxar



HERNAN JR MACHADO TORRES P.E.
INGENIEROS CONSULTORES



public notice

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To: All Interested Parties, Groups & Individuals.

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Date: February 15, 2023



DEPARTMENT OF HOUSING



primerahora#jmachadoopr@yahoo.com



aviso público

Aviso y Revisión Pública Preliminar de una Actividad Propuesta en Terrenos Inundables de 100 años.

A: Todas las partes, grupos y personas interesadas.

Este aviso notifica que el Departamento de Vivienda de Puerto Rico (Vivienda, en adelante) ha determinado que la siguiente acción propuesta bajo el Programa de Revitalización de la Ciudad (City-Rev), Subvención en Bloque para el Desarrollo Comunitario – Recuperación ante Desastres (CDBG-DR), número B-17-DM-72-0001 y B-18-DP-72-0001, está ubicado en terreno inundable. Vivienda estará evaluando e identificando alternativas prácticas para realizar la acción propuesta y el impacto potencial en los terrenos inundables debido a la acción propuesta, según establecido por la Orden Ejecutiva 11988, de acuerdo con las regulaciones de HUD en 24 CFR 55.20 Subparte C - Procedimientos para tomar determinaciones sobre el manejo de terrenos inundables y protección de humedales. El proyecto propuesto, PR-CRP-000720 Revitalización y Restauración del Centro Urbano, se encuentra dentro de un municipio que sufrió daños debido a los huracanes Irma y María, y está localizado a lo largo de varias calles y estructuras públicas en el centro urbano de Maricao desde las coordenadas 18.181333, -66.980584, las coordenadas 18.181121, -66.97826, las coordenadas 18.180267, -66.979106 hasta las coordenadas 18.180394, -66.980117 y tiene cabida de 4.095 acres. La actividad propuesta se ubica en diversos tipos de zonas de inundación, 0.759 acres en área de inundación zona A de 100 años y 3.336 acres en un área fuera del plano inundable de 500 años, zona X. Estas áreas se consideran un uso funcionalmente dependiente. El área del proyecto se encuentra en el Flood Insurance Rate Map (FIRM) 72000C1040 sufixo H, revisado el 19 de abril de 2005, según indicado en la página del Centro de Servicios de Mapas de Inundaciones en <https://msc.fema.gov/portal/home>.

El objetivo del proyecto es la necesidad de mejorar los daños causados al centro urbano para tener un mejor uso público y embellecer la apariencia del área urbana. Este consiste en la revitalización y restauración del centro urbano de Maricao por daños causados por los huracanes Irma y María. Estas mejoras brindarán espacio para la recreación y promover la actividad turística y comercial en la zona. Entre las actividades propuestas está la restauración de la plaza pública incluyendo pisos, luminarias y una nueva tarima, el reemplazo de asfalto en calles principales, la reconstrucción de aceras, escaleras públicas y rampas para cumplir con la Ley para Estadounidenses con Discapacidades (ADA, por su sigla en inglés); el reverdecimiento de la zona urbana, mejoras de fachadas en cuatro edificios del centro urbano y construcción de una nueva estructura subdividida en cinco kioscos en un distrito comercial; restauración del conector de rotonda de la PR-357 y PR-120, y la construcción de una plazoleta pequeña en un solar municipal en la PR-105. Este aviso es para los propietarios de viviendas que ya se encuentran en los terrenos inundables. No habrá nuevas construcciones en zonas previamente inalteradas.

Este aviso tiene tres propósitos principales. En primer lugar, las personas que puedan verse afectadas por las actividades en los terrenos inundables y aquellos que tengan interés en la protección del ambiente natural deben tener la oportunidad de expresar sus inquietudes y proveer información sobre estas áreas. Se exhorta a la comunidad a ofrecer ubicaciones alternas fuera de los terrenos inundables, métodos alternos para cumplir el mismo propósito del proyecto y métodos para minimizar y mitigar los impactos. Segundo, un programa adecuado de avisos públicos puede ser una herramienta importante para la educación pública. La divulgación de información sobre los terrenos inundables puede facilitar y mejorar los esfuerzos federales por reducir los riesgos e impactos asociadas con la ocupación y alteración de estas zonas especiales. Tercero, como materia de justicia, cuando el gobierno federal determine participar en acciones ubicadas en los terrenos inundables, debe informárselo a quienes puedan ser expuestos a un riesgo mayor o similar al presente.

Vivienda considerará todos los comentarios recibidos en o antes de 2 de marzo de 2023 **[un período mínimo de comentarios de 15 días comenzará el día siguiente de la publicación y terminará en el 16º día después de la publicación]**. Pueden enviar los comentarios de forma impresa a la siguiente dirección: Departamento de la Vivienda de Puerto Rico, Edificio Juan C. Cordero, 606 Avenida Barbosa, Río Piedras, PR 00918-8461, Atención: Janette Cambrelén, Especialista en Permisos y Cumplimiento Ambiental. Una descripción completa del proyecto está disponible al público para revisión de 8:30 am a 4:00 pm en el Departamento de la Vivienda de Puerto Rico, Edificio Juan C. Cordero, 606 Avenida Barbosa, Río Piedras, PR 00918. El número para obtener información es (787) 274-2527 ext. 6654. Como alternativa, también pueden enviar los comentarios a Vivienda por medio electrónico a infoCDBG@vivienda.pr.gov.

Fecha: 15 de febrero de 2023



DEPARTAMENTO DE LA VIVIENDA





aviso público

Aviso final y explicación pública de una propuesta actividad en una llanura aluvial de 100 años

Revitalización y Restauración del Centro Urbano PR-CRP-000720

Para: Todas las partes interesadas, grupos e individuos

Este aviso notifica que el Departamento de la Vivienda de Puerto Rico (Vivienda) completó una evaluación según establece la Orden Ejecutiva 11988, de acuerdo con los reglamentos de HUD en 24 CFR 55.20 Subparte C - Procedimientos para hacer determinaciones sobre el manejo del valle inundable y la protección de humedales. La actividad está subvencionada con fondos del Programa de Revitalización de la Ciudad (CRP, por sus siglas en inglés), Subvención en Bloque para el Desarrollo Comunitario - Recuperación de Desastres (CDBG-DR), número de subvención B-17-DM-72-0001 y B-18-DP-72-0001. El proyecto propuesto, **PR-CRP-000720**, está localizado en a lo largo de varias calles y estructuras públicas en el centro urbano de Maricao, PR, desde las coordenadas 18.181333, -66.980584, las coordenadas 18.181121, -66.97826, las coordenadas 18.180267, -66.979106 hasta las coordenadas 18.180394, -66.980117 y tiene cabida de 4.095 acres. El proyecto consiste en la restauración de la plaza pública incluyendo pisos, luminarias y una nueva tarima, el reemplazo de asfalto en calles principales, la reconstrucción de aceras, escaleras públicas y rampas para cumplir con la Ley para Estadounidenses con Discapacidades (ADA, por su sigla en Inglés). El reverdecimiento de la zona urbana, mejoras de fachadas en cuatro edificios del centro urbano y construcción de una nueva estructura subdividida en cinco kioscos en un distrito comercial. Finalmente, la restauración del conector de rotonda de la PR-357 y PR-120, y la construcción de una plazoleta pequeña en un solar municipal en la PR-105. La actividad propuesta se ubica en diversos tipos de zonas de inundación, 0.759 acres en área de inundación zona A de 100 años y 3.336 acres en un área fuera del plano inundable de 500 años, zona X. Estas áreas se consideran un uso funcionalmente dependiente. El área del proyecto se encuentra en el Flood Insurance Rate Map (FIRM) 72000C1040 sufijo H, revisado el 19 de abril de 2005, según indicado en la página del Centro de Servicios de Mapas de Inundaciones en <https://msc.fema.gov/portal/home>.

Vivienda ha considerado las siguientes alternativas y medidas de mitigación para minimizar los impactos adversos y restaurar y preservar los valores naturales y beneficiosos: (a) revitalización, restauración y construcción de mejoras urbanas en el centro urbano de Maricao, (b) emprender el proyecto a expensas de la Jurisdicción y (c) no alternativa de acción. Las opciones (b) y (c) no son factibles ya que las mejoras necesarias para la revitalización, restauración y construcción del centro urbano son específicas del sitio. Como resultado, Vivienda decidió que no hay opciones o sitios alternos que puedan proporcionar la accesibilidad y funciones que brindarían las mejoras propuestas. La alternativa de no tomar acción (c) también es impráctica porque no satisfará la necesidad de rehabilitar y revitalizar las comunidades afectadas por los huracanes. Además, la zona del proyecto ya está muy desarrollada, y la Implementación de la alternativa preferida (opción a) no fomentaría nuevos desarrollos dentro de la llanura aluvial o los humedales de la zona del proyecto propuesto. Esta actividad no tendrá un impacto significativo en el medio ambiente por las siguientes razones: Vivienda ha reevaluado la "Acción propuesta" y determinó que la acción aún es factible considerando su posible exposición a riesgos de inundación en el área de la llanura aluvial. La "Acción propuesta" no agravaría los peligros actuales de la llanura aluvial, ni alteraría permanentemente los valores de la llanura aluvial. No se espera que ocurran cambios significativos en llanura aluvial actual de las áreas aledañas a la infraestructura. Los humedales no se verán afectados por la "Acción propuesta".

Vivienda reevaluó las alternativas para construir en la llanura aluvial y que no cuenta con alternativas prácticas. La documentación ambiental que evidencia el cumplimiento de los pasos 3 a 6 de la Orden Ejecutiva 11988, está disponible para inspección, revisión y reproducción de parte del público, de ser solicitado, en el horario y lugar indicado en el último párrafo sobre recibo de comentarios de este aviso.

Este aviso tiene tres propósitos principales. Primero, las personas que pueden verse afectadas por actividades en las llanuras aluviales y aquellos que tengan interés en la protección del ambiente natural deben recibir la oportunidad de expresar sus inquietudes y proveer información sobre estas áreas. Segundo, un programa adecuado de avisos públicos puede ser una importante herramienta de educación pública. La divulgación de información y solicitud de comentarios sobre las llanuras aluviales puede facilitar y mejorar los esfuerzos federales para reducir los riesgos e impactos asociados con la ocupación y alteración de estas áreas especiales. Tercero, como materia de justicia, cuando el gobierno federal determine participar en acciones ubicadas en las llanuras aluviales, debe informárselo a quienes puedan ser expuestos a un riesgo mayor o similar al presente.

Vivienda considerará todos los comentarios recibidos en o antes del 9 de mayo de 2023 [un período mínimo de comentarios de 7 días comenzará el día siguiente de la publicación y terminará en el 8vo día después de la publicación]. Pueden enviar los comentarios de forma impresa a la siguiente dirección: Departamento de la Vivienda de Puerto Rico, Edificio Juan C. Cordero, 606 Avenida Barbosa, Río Piedras, PR 00918-8461, Atención: Janette Cambrelén, Especialista en Permisos y Cumplimiento Ambiental. Una descripción completa del proyecto está disponible al público para revisión de 8:30 am a 4:00 pm en el Departamento de la Vivienda de Puerto Rico, Edificio Juan C. Cordero, 606 Avenida Barbosa, Río Piedras, PR 00918. El número para obtener información es (787) 274-2527 ext. 6654. Como alternativa, también pueden enviar los comentarios a Vivienda por medio electrónico a environmentcdbg@vivienda.pr.gov.

Fecha: 1 de mayo de 2023



DEPARTAMENTO DE LA VIVIENDA



public notice

Final Notice and Public Explanation of a Proposed Activity in the 100-Year Floodplain

Revitalization y Restauración of the Urban Center PR-CRP-000720

To: All Interested Parties, Groups & Individuals

This is to give notice that the Puerto Rico Department of Housing (PRDOH) has conducted an evaluation as required by the Executive Order 11988, in accordance with HUD regulations at 24 CFR 55.20 Subpart C - Procedures for Making Determinations on Floodplain Management and Wetlands Protection. The activity is funded under the PRDOH Community Development Block Grant - Disaster Recovery (CDBG-DR) City Revitalization Program, Grant number B-17-DM-72-0001 & B-18-DP-72-0001. The proposed project, **PR-CRP-000720**, is located on throughout several streets and public facilities of the urban center of the municipality of Maricao, PR, from coordinates 18.181333, -66.980584, to coordinates 18.181121, -66.97826, to coordinates 18.180267, -66.979106 and to coordinates 18.180394, -66.980117 with dimensions of 4.095 acres. The project consists in the restoration of the public square including floors, luminaries and a new stage, the replacement of asphalt in main streets, reconstruction of sidewalks, public stairs, and handicapped ramps to comply with the Americans with Disabilities Act (ADA). Re-green of urban zone, facade improvements in four urban center buildings and the construction of a new structure subdivided into five kiosks in a commercial district. Finally, the restoration of the PR-357 and PR-120 roundabout connector, and the construction of a new small plaza on a municipal owned plot on PR-105 road. The proposed activity is situated in a diverse flood zone type, 0.759 acres located in the flood zone A, and 3.336 acres within a flood zone X. These areas are considered as functionally dependent use. The floodplains in the project area can be found in the Flood Insurance Rate Map (FIRM) 72000C1040 suffix H, revised on April 19, 2005, as indicated on the Flood Map Service Center page in <https://msc.fema.gov/portal/home>.

The PRDOH has considered the following alternatives and mitigation measures to be taken to minimize adverse impacts and to restore and preserve natural and beneficial values: (a) revitalization, restoration, and construction of urban improvements in the urban center of Maricao, (b) undertake the project at the Jurisdiction's expense and (c) no action alternative. Options (b) and (c) are not feasible since the needed improvements for revitalization, restoration, and construction of the urban center are site specific. As a result, PRDOH decided that there are no alternative options or sites that can provide accessibility and functions that the proposed improvements would. The no action alternative (c) is also impracticable because it will not satisfy the need to rehabilitate and revitalize storm-impacted communities. Furthermore, the project area is already highly developed, and the implementation of the preferred alternative (Option a) would not encourage new development within the floodplain or wetlands in the proposed project area. This activity will have no significant impact on the environment for the following reasons: PRDOH has reevaluated the "Proposed Action" and determined that the action is still practicable considering its potential exposure to flood hazards in the floodplain area. The "Proposed Action" would not aggravate current hazards to the floodplain, nor will permanently disrupt floodplain values. No significant changes are expected to occur to the current floodplain of the areas surrounding the infrastructure. Wetlands will not be impacted by the "Proposed Action".

The PRDOH has reevaluated the alternatives to building in the floodplain and has determined that it has no practicable alternative. Environmental files that document compliance with steps 3 through 6 of 24 CFR 55.20 are available for public inspection, review and copying upon request at the times and location delineated in the last paragraph of this notice for receipt of comments.

There are three primary purposes for this notice. First, people who may be affected by activities in floodplains and those who have an interest in the protection of the natural environment should be given an opportunity to express their concerns and provide information about these areas. Second, an adequate public notice program can be an important public education tool. The dissemination of information and request for public comment about floodplains can facilitate and enhance Federal efforts to reduce the risks and impacts associated with the occupancy and modification of these special areas. Third, as a matter of fairness, when the Federal government determines it will participate in actions taking place in floodplains, it must inform those who may be put at greater or continued risk.

PRDOH will consider all comments received on or before May 9, 2023 [a minimum 7 calendar day comment period will begin the day after the publication and end on the 8th day after the publication]. Written comments can be sent to the following address: Puerto Rico Department of Housing, 606 Barbosa Avenue, Juan C. Cordero Building, Río Piedras, PR 00918-8461, Attention: Janette Cambrelén, Permits and Environmental Compliance Specialist. A complete description of the project is available to the public for review from 8:30 am to 4:00 pm at the Puerto Rico Department of Housing, 606 Barbosa Avenue, Juan C. Cordero Building, Río Piedras, PR 00918. The number to get information is (787) 274-2527 ext. 6654. In the alternative, comments may also be sent to PRDOH by email at environmentcdbg@vivienda.pr.gov.

Date: May 1, 2023



DEPARTMENT OF HOUSING



Andrea Curbelo-Marty

From: Kenneth M. Garcia-De Leon
Sent: Wednesday, May 10, 2023 9:53 AM
To: environmentcdbg
Subject: RE: Comentarios PR-CRP-000720

Buenos días Andrea

Por correo postal no llegaron comentarios para mencionado proyecto.

Atentamente

Kenneth M. García De León

Oficial de Radicación de Informes
División de Administración y Operaciones
Oficina Recuperación de Desastres
Programa CDBG-DR
kgarcia@vivienda.pr.gov | 787.274.2527 Ext. 6602
Visit us: www.cdbg-dr.pr.gov
Write us: infocdbg@vivienda.pr.gov

DEPARTAMENTO DE LA
VIVIENDA



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From: environmentcdbg <environmentcdbg@vivienda.pr.gov>
Sent: Tuesday, May 9, 2023 1:52 PM
To: Kenneth M. Garcia-De Leon <kgarcia@vivienda.pr.gov>
Subject: Comentarios PR-CRP-000720

Saludos Kenneth,

Con respecto a la publicación del proyecto PR-CRP-000720 Revitalización y Restauración del Centro Urbano (Maricao) ¿habrá llegado algún comentario a través del correo postal? De ser así, por favor nos lo hace llegar.

Cordialmente,

Permits and Environmental Compliance Division

CDBG-DR/MIT Program

environmentcdbg@vivienda.pr.gov | 787.274.2527

Visit us: www.cdbg-dr.pr.gov

DEPARTAMENTO DE LA
VIVIENDA



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GOVERNMENT OF PUERTO RICO
DEPARTMENT OF HOUSING

May 10, 2023

To whom it may concern,

This letter is to validate that no comments were received in the Permits and Environmental Compliance Division e-mail: environmentcdbg@vivienda.pr.gov, for the project Revitalization and Restoration of the Urban Center (PR-CRP-000720), as part of the CDBG-DR City Revitalization Program, published in the *Primera Hora* newspaper of Puerto Rico on May 1, 2023 to May 9, 2023.

Cordially,

Permits and Environmental Compliance Division
CDBG-DR/MIT Program

Historic Preservation

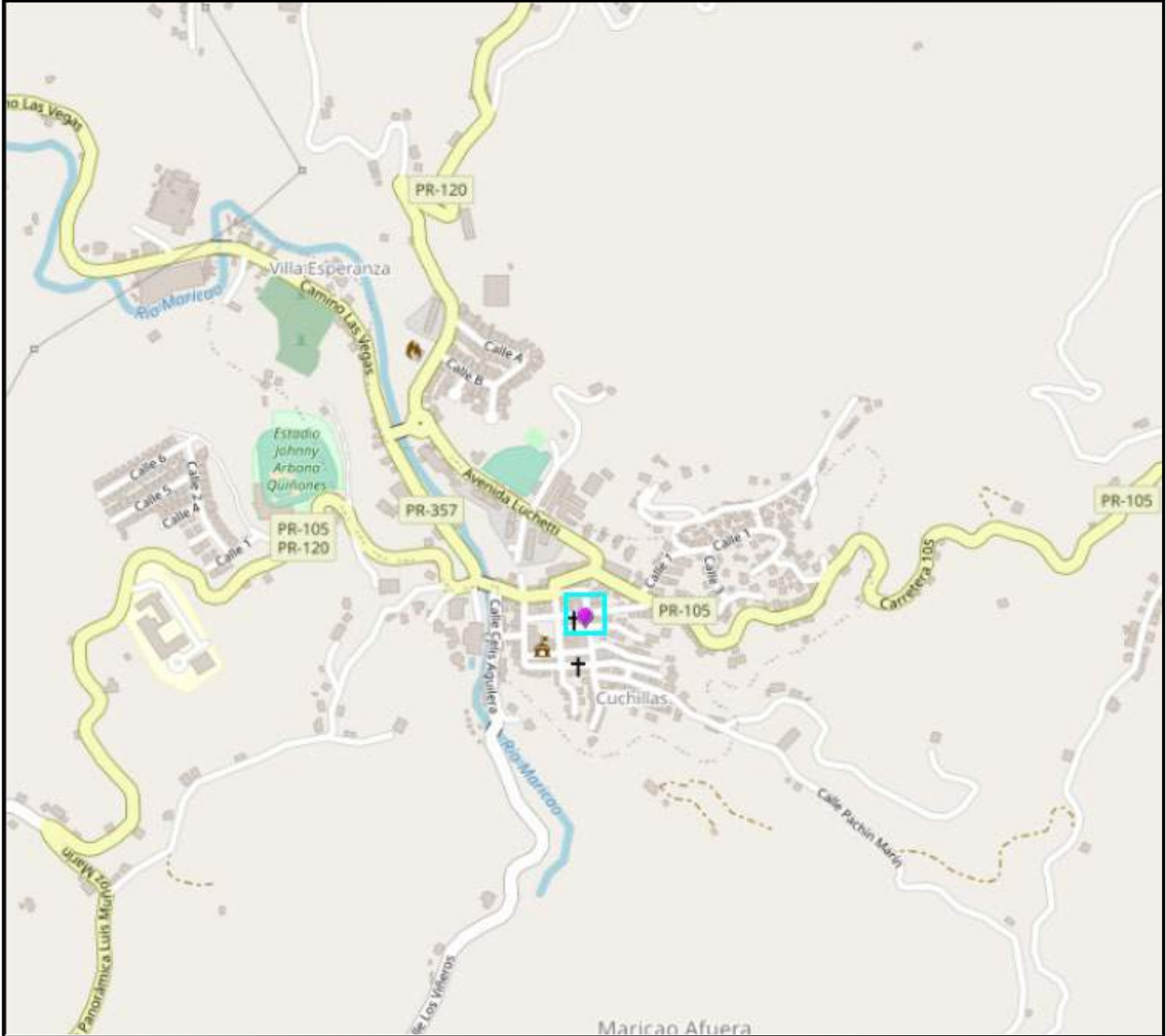
Historic Preservation – PR-CRP-000720

HERNAN JR. MACHADO TORRES P.E.
INGENIEROS CONSULTORES



Address: Calle José de Diego, BO. Pueblo, Maricao PR 00606

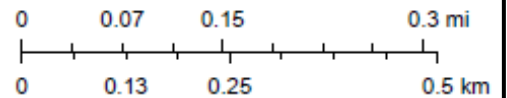
Coordinates: Public Plaza (18.180775, -66.979881); Kiosks (18.18104368, -66.97977998); Small Plaza (18.18139782, -66.98022663); Roundabout Intersection (18.183654, -66.981702)



Maricao Afuera



1:10,106



PR National Register of Historic Places
- Iglesia San Juan Bautista de Maricao

Spatial Reference: WGS_1984_Web_Mercator_Auxiliary_Sphere

Source: PR National Register of Historic Places

(<https://oech.maps.arcgis.com/apps/OnePane/basicviewer/index.html?appid=62443199488c4cbea51369978f92ae33>)

admingis_oech



GOVERNMENT OF PUERTO RICO

STATE HISTORIC PRESERVATION OFFICE

Executive Director | Carlos A. Rubio Cancela | carubio@prshpo.pr.gov

Wednesday, March 20, 2024

Lauren B Poche

269 Avenida Ponce de Leon, San Juan, PR, 00917

SHPO-CF-03-15-24-01 PR-CRP-000720 (Maricao), Revitalización y Restauración del Centro Urbano

PROPOSED ARCHAEOLOGICAL WORK PLAN FOR PR-CRP-000720, REVITALIZATION Y RESTAURACIÓN DEL CENTRO URBANO PROJECT, MARICAO, PUERTO RICO (12-21-23-01)

Dear Ms. Poche,

We have reviewed the archaeological work plan prepared for the above referenced project. We deem the plan acceptable. If you have any questions regarding our comments, please do not hesitate to contact our Office.

Sincerely,

Carlos A. Rubio Cancela

State Historic Preservation Officer

CARC/GMO/MB



Cuartel de Ballajá (Tercer Piso), Calle Norzagaray, Esq. Beneficencia, Viejo San Juan, PR 00901 | PO Box 9023935, San Juan, PR 00902-3935



October 20, 2022

Arch. Carlos A. Rubio Cancela

Executive Director

State Historic Preservation Officer

Cuartel de Ballajá Bldg.

San Juan, Puerto Rico

Re: Authorization to Submit Documents

Dear Arch. Rubio Cancela:

The U.S. Department of Housing (HUD) approved the allocations of Community Development Block Grant (CDBG-DR) funds on February 9, 2018. It also approved the allocation of Community Development Block Grant Mitigation (CDBG-MIT) funds on January 27, 2020. The purpose of these allocations is to address unsatisfied needs as a result of Hurricanes Irma and Maria in September 2017; and to carry out strategic and high-impact activities to mitigate disaster risks and reduce future losses.

To comply with the environmental requirements established by HUD, the Department of Housing of Puerto Rico (PRDOH) contracted Horne Federal LLC to provide environmental registry review services, among others, that will support the objectives of the agenda for both CDBG-DR and CDBG -MIT Programs.

In line to expedite the processes, Horne Federal LLC, is authorized to submit to the State Historic Preservation Officer, documentation of projects related to both the CDBG-DR and CDBG-MIT on behalf of PRDOH.

Cordially,

Juan C. Pérez Bofill, P.E. M.Eng

Director of Disaster Recovery

CDBG DR-MIT

March 15, 2024

Carlos A. Rubio Cancela
State Historic Preservation Officer
Puerto Rico State Historic Preservation Office
Cuartel de Ballajá (Tercer Piso)
San Juan, PR 00902-3935

Puerto Rico Disaster Recovery, CDBG-DR City Revitalization (City-Rev) Program

Proposed Archaeological Work Plan for PR-CRP-000720, Revitalización y Restauración del Centro Urbano Project, Maricao, Puerto Rico (SHPO ID: 12-21-23-01)

Dear Architect Rubio Cancela,

On behalf of Puerto Rico Department of Housing (PRDOH) and the subrecipient, the Municipality of Maricao, we thank you for your letter response dated February 2, 2024 that stated your records supported our finding of no adverse effect for the proposed undertaking pursuant that the following conditions proposed by the Agency area met:

1. Archaeological monitoring for all new construction within the Maricao Urban Center – this includes the new plaza to be constructed on PR-105 and the lot for the proposed kiosks on Calle José de Diego. Care should be taken for vibrational effects for the surrounding historic buildings to prevent damage during construction. An archaeological work plan will be prepared and submitted to the PRSHPO for review and approval.
2. All work on historic properties must be done in compliance with the Secretary of the Interior's *Standards for Rehabilitation*. Any scope changes must be evaluated by a SOI-qualified architectural historian/architect to determine if those changes meet allowances in the Programmatic Agreement or if consultation must be re-initiated.

As such, we are submitting the proposed archaeological monitoring plan, *PRDOH CDBG-DR CRP Program, Revitalización del Centro Urbano, Maricao, Puerto Rico, PR-CRP-000720/SHPO 12-21-23-01: Archaeological Monitoring Plan and Protection Plan*, prepared by Archaeologist Sharon Meléndez Ortiz of HORNE Puerto Rico. The 100% designs are included with the proposed plan. We look forward to your comments and the concurrence that this plan is appropriate for this project.

Please contact me with any questions or concerns by email at lauren.poche@horne.com or phone at 225-405-7676.

Kindest regards,



Lauren Bair Poche. M.A.
Architectural Historian, EHP Senior Manager
Attachments

PRDOH CDBG-DR CRP PROGRAM
Revitalización y Restauración del Centro Urbano
Maricao, Puerto Rico
PR-CRP-000720 / SHPO 12-21-23-01

Archaeological Monitoring and Protection Plan



Prepared by:

Sharon Meléndez Ortiz
Archaeologist – **Horne PR**

March 1, 2024

I. PREAMBLE

The Municipality of Maricao is seeking Community Development Block Grant disaster recovery funds financed by the federal Department of Housing and Urban Development due to damage received by the 2017 Hurricanes Irma and Maria. The Puerto Rico Department of Housing (PRDOH) has established an Agreement between PRDOH and the Municipality of Maricao for the City Revitalization Program as part of the Community Development Block Grant for Disaster Recovery (CDBG-DR) Program. The municipality proposes the revitalization and restoration of Maricao’s urban center, including streets, sidewalks, open spaces, and the main plaza (Figure 1).

Figure 1: Project Location in the Satellite Image
(from Hernández Miranda and Medina Carrillo 2023: 20 & 21)



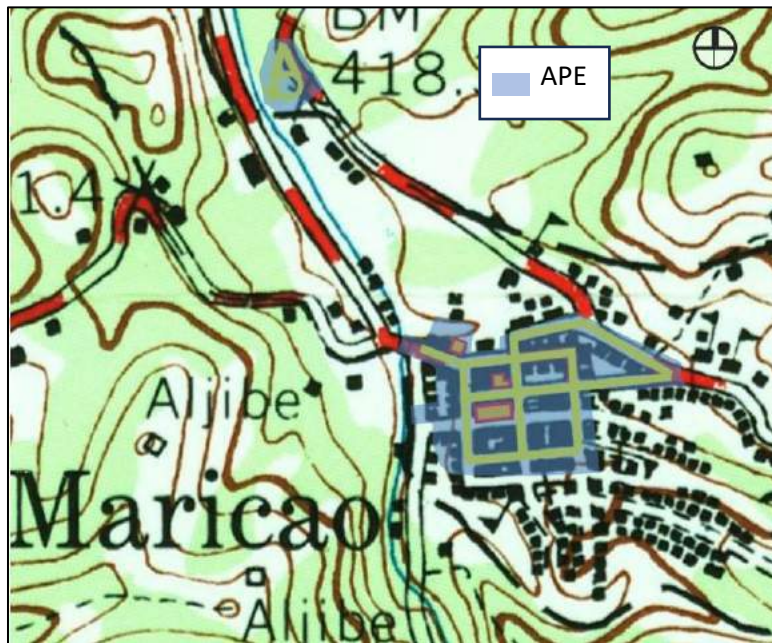
The Puerto Rico State Historic Preservation Office (PRSHPO), in a letter dated February 2, 2024, concurred with a finding of No Adverse Effect for this undertaking conditioned to the implementation of an archaeological monitoring plan for all new construction within the Maricao urban center, including the new plaza to be constructed on PR-105 and the lot for the proposed kiosks on Calle José de Diego. The SHPO also indicated that “*care should be taken for vibration effects for the surrounding historic buildings to prevent damage during construction.*”

The objectives of this archaeological monitoring and protection plan are: (1) to establish the protocol to be followed in archaeological monitoring; (2) to establish the protocol to be followed if previously unknown resources are identified; (3) to establish the protocol to be followed if there are any unexpected or previously unanticipated adverse effects; (4) to locate, evaluate and document archaeological resources during project development; (5) to recover as much archaeological information as possible during excavation and construction; (6) to conserve and enhance the value of the archaeological resources located and documented; (7) in the event that the archaeological resource cannot be conserved in situ,

to conserve it through documentation (preservation by record); and (8) to monitor the effect of the vibration caused by project activities to the surrounding historic buildings.

This document complies with applicable federal and state laws, regulations, and guidelines, and is consistent with the Secretary of the Interior's (SOI) Guidelines for Archeological Documentation, the Advisory Council on Historic Preservation's (ACHP) recommendations on the recovery of significant information from archaeological sites as updated in 2009, and Regulation #8932 of the Institute of Puerto Rican Culture (ICP). The plan was prepared by archaeologist Sharon Meléndez Ortiz, who meets the Professional Qualifications Standards set forth in 36 CFR Part 61 and is listed as an archaeologist by the Council for the Protection of Earth Archaeological Heritage (Council) to conduct Phase I, Phase II, and Phase III studies.

Figure 2: Project Location in the Topographic Quadrangle
(from Hernández Miranda and Medina Carrillo 2023: 23)



This scope of work is divided into six (6) sections and one (1) appendix. The section following this preamble includes a brief description of the project area and discusses the proposed construction works. In the third section the archaeological potential of the project area is discussed. The fourth section provides a detailed description of the archaeological monitoring procedure to be carried out before, during and after the construction works. Section V includes the professional qualifications of the team that will implement this monitoring plan and the last section includes the references cited. The plan closes with an appendix with a model of a monitoring daily activity sheet.

II. PROJECT DESCRIPTION

The proposed project includes several areas of the urban center of Maricao (Figure 3). The main tasks are:

- Restore, improve, and modernize main and local roads affected by the Hurricanes (Figure 3- in blue and orange) (Area 1). This task includes replacement of asphalt in the streets, reconstruction of sidewalks, ramps, and public stairs, and reconditioning of the stormwater runoff management system and utilities. This task entails demolition and clearing of sidewalks; removal and replacement of catch basins; and the removal, relocation, and replacement of water meters. Anticipated maximum depths of ground disturbance, including utilities, is 3 feet. The roads included are PR-105, Zuzu Arregui St., José de Diego St., Ruis Belvis St, Betances St., Baldorioty de Castro St., and Corchado St.

Photo 1: Views of the stairs that connect the Public Square with the Sports Complex (from Hernández Miranda and Medina Carrillo 2023: 5 and 24)



- Remodeling the town square (Figure 3-in purple) (Area 2). This task includes the elimination of architectural barriers, replacement of the flooring and seats, addition of a new stage platform. The new stage will be 30 ft by 20 ft and will require excavations between 2 and 4 ft deep.

Photo 2: General views of the Town Square (from Hernández Miranda and Medina Carrillo 2023: 30)



- Construction of new commercial area in a lot located northeast of the town square, south of PR-105, west of Baldorioty de Castro St. and north of José de Diego St. (Figure 3- in turquoise) (Area 3). The commercial area will be subdivided into five kiosks, ranging from 164 S.F. to 187 S.F. and will include two bathrooms and an eating area. The anticipated maximum depth of ground

disturbance, including utilities, will range from 2'-0" to 4'-0". The new structures will not adhere to the existing historical structures that bound the site proposed for intervention.

Photo 3: General view of lot for the new commercial area (left) and detail of the NRHP-eligible building that bounds the lot (right) (from Hernández Miranda and Medina Carrillo 2023: 32)



- Construction of a small new plaza for public recreation on a municipal-owned plot in the northwest part of the urban center, between PR-105 and creek (Figure 3-in salmon) (Area 4). The new construction of the small plaza will be approximately 1,173.39 sq. ft. and will include a sundial, a curved seating area under pergolas, and two concrete chess sets. The anticipated maximum depths of ground disturbance for the plaza will range from 2'-0" to 4'-0".

Photo 4: View of the lot for the small plaza (from Hernández Miranda and Medina Carrillo 2023: 33)



- Improve the intersection of PR-357 with PR-120 (Figure 3-in red) (Area 5). The existing roundabout will be demolished, and a three-way intersection will be built in its place, along with parking spaces for the surrounding recreational public areas, and new eco-friendly lighting.
- New green areas and gardens. This project also contemplates spaces for green areas and gardens. The anticipated maximum depths of ground disturbance for grubbing of areas destined for trees and vegetation will range from 1.5' to 2'-0".
- Replacement of lighting. Eco-friendly lighting will replace the current lighting throughout the project's urban area. The anticipated maximum depths of ground disturbance for the bases of the new lighting poles will range from 6'-0" to 7'-6".

Figure 3: Project Parcels Location
(from Hernández Miranda and Medina Carrillo 2023: 22)



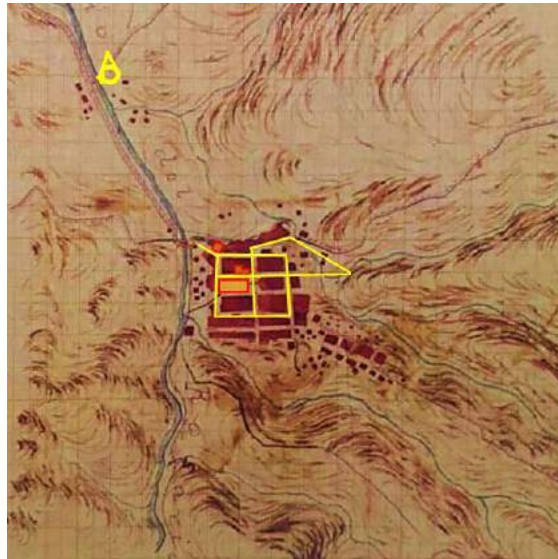
- | | |
|---|---|
|  Public Stairs Improvements |  Construction of Small Plaza for Public Recreation |
|  Street and Sidewalks Improvements |  Town Hall |
|  Construction of 5 New Kiosks |  San Juan Bautista Church |
|  Public Square Renovation |  Improvements to the PR-357 & PR-120 Connector |

III. ARCHAEOLOGICAL POTENTIAL AND HISTORIC PROPERTIES

The information below is taken from the Section 106 NHPA Effect Determination Form completed by architect Zuleika Hernández Miranda and archaeologist Norma Medina Carrillo in 2023.

Maricao was a neighborhood of San Germán until its foundation in 1874. Maricao has been consistently recognized as a town dedicated to coffee planting and harvesting since the 18th century, so much so that by 1871 there were sixty-one coffee plantations, thirty-six coffee trading houses and fifteen supply stores. Cartographic sources show that the urban fabric of the town has changed little since the 19th century (Figures 4 and 5). Only the easternmost segments of Calle de Diego and PR-105 date from the 20th century, having been built between 1910 and 1946.

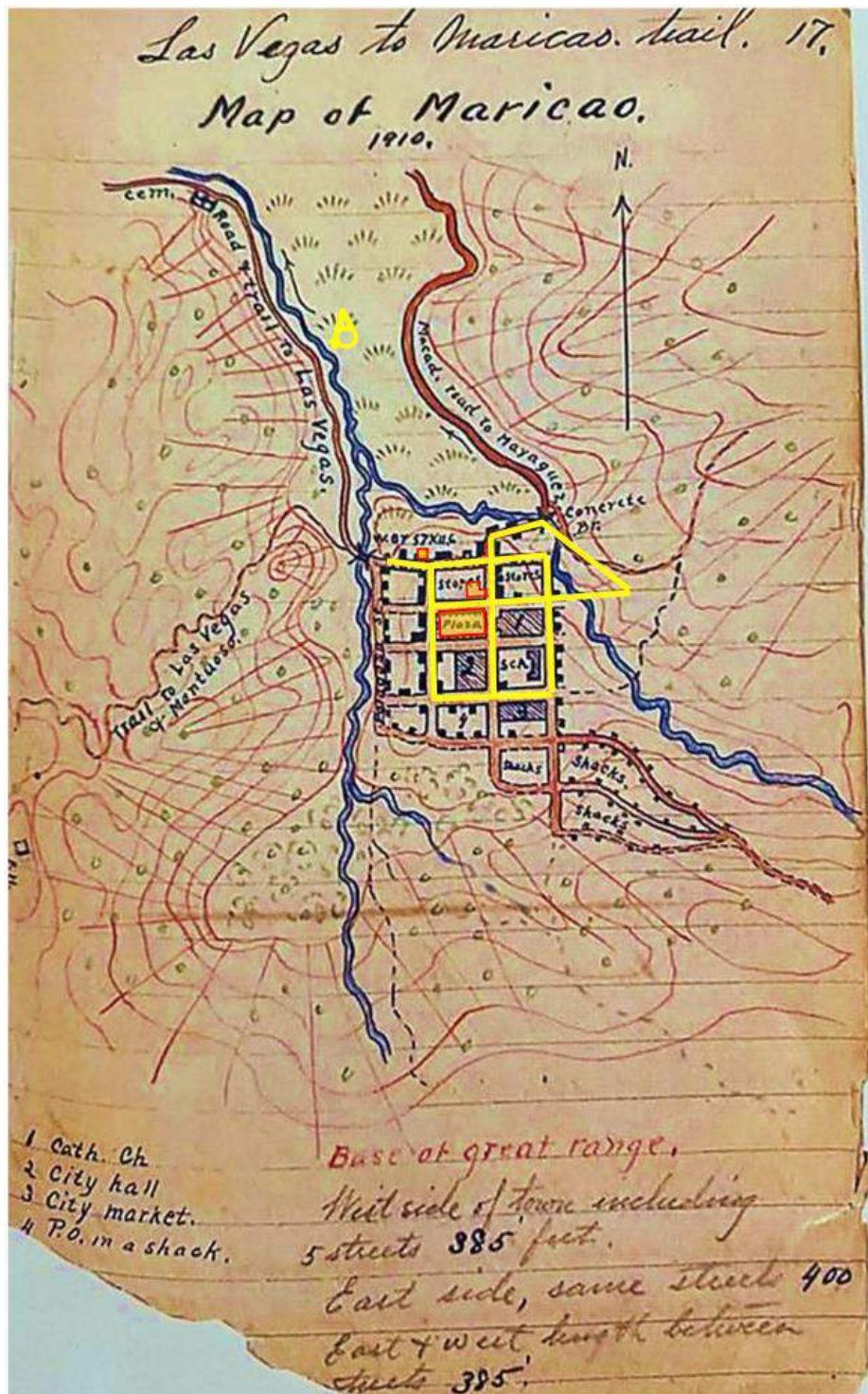
Figure 4: Croquis de Maricao 1888-1892 (from Hernández Miranda and Medina Carrillo 2023)



The potential for intact pre-Columbian cultural deposits appears to be very low; no evidence of precolonial materials appears to have been detected near or within the Maricao Traditional Urban Center. In contrast, the project's APE has potential for the presence of archaeological resources from colonial times, associated with the urban development of the town of Maricao during the last two centuries. Excavations on the plaza, sidewalks, and streets (Areas 1 and 2), could potentially expose historic cultural resources such as historic pavements, drainage systems, lighting systems, and other utilities. Previous cultural layers associated with demolition and reconstruction due to disasters such as fires, earthquakes, and hurricanes, or urban realignment could also be exposed.

In the lots where the new commercial area and the new plaza will be constructed (Areas 3 and 4), there used to be wooden residential buildings that were demolished by the municipality in 2013 and 2014 respectively. In these lots there is the potential to find architectural remains of the residences that existed at the sites and associated infrastructure, such as cisterns and latrines, as well as domestic secondary deposits and activity areas. In addition, some of the properties adjacent to these lots are of historic character, so project activities have the potential to indirectly affect them. Heavy equipment handling and the effects of vibration on these properties should be monitored.

Figure 5: Map of Maricao by Lieutenant William H. Armstrong, 1910 (from Hernández Miranda and Medina Carrillo 2023)



Finally, the roundabout area (Area 5) has a very low archaeological potential. It is an area outside the traditional urban center that has been recently impacted by the construction of the road and the roundabout itself. Construction activities in this area do not require archaeological monitoring.

According to the *Section 106 NHPA Effect Determination Form*, there are at least ten historic properties within the APE, only one listed in the NRHP (Figure 6). These are:

- (1) Iglesia San Juan Bautista (built ca. 1890, listed),
- (2) Court of First Instance and Jail, currently Migrant Health Center (built 1890),
- (3) Plaza Pública de Maricao Luis Muñoz Rivera (originally built in 1874),
- (4) Private property north of the plaza, at José de Diego with Baldorioty Streets (ca. 1870s),
- (5) Centro de Servicios Integrados de Maricao (ca. 1930s),
- (6) Convento de las Hermanas de Fátima (ca. 1950),
- (7) Iglesia Presbiteriana El Buen Pastor,
- (8) Private property at José de Diego with Corchado Streets,
- (9) Private property at José de Diego with Baldorioty Streets, and
- (10) Private property at Rafael Janer Street.

Figure 6: Location of Listed and Eligible Historic Properties within the APE



IV. ARCHAEOLOGICAL MONITORING PROCEDURE

The monitoring activities can be divided into three groups: activities before the project begins, activities during construction, and post-construction activities. Monitoring is limited to activities that entail demolition and excavations. Those construction activities that do not entail excavations or earth movements do not require an archaeological monitor.

A. Before Construction Begins

1. The Construction Manager (CM) will notify the Project Manager (PM), Grant Manager (GM), and Monitor of the proposed activities' start date. The PM is responsible for coordination between the CM and the SOI-qualified archaeologist who will oversee the monitoring (Monitor).
2. Before any demolition or construction begins, the PM, CM, GM, and Monitor will have a kickoff meeting to discuss the procedure for archaeological monitoring, including the coordination protocol between the Monitor and the Contractor. The Monitor will provide an orientation on the area's cultural resources and potential resources and their proper treatment. The Monitor will also explain which project activities require archaeological monitoring.
3. The CM, PM, and construction crew will complete and sign a statement outlining the activities that may not be performed without the Monitor's presence, demonstrating their understanding and commitment to following the archaeological monitoring procedures.
4. The Monitor will document the historic properties (NRHP-listed and eligible) located within the project's area of potential effects by means of verbal descriptions and photographs. This documentation shall be included as an appendix to the first weekly report.

B. During Demolition and Construction

1. The Monitor shall be in the field during all project activities involving demolition and ground disturbance; access and clear sightlines to all demolition and excavation activities and debris removal will be provided to the Monitor.
2. Vibration monitoring shall be conducted during all activities that require use of heavy machinery equipment adjacent to vulnerable historic properties. These include but are not limited to Areas 3 and 4 (new commercial area and new plaza).
3. The Monitor shall provide instructions directly to the construction field personnel concerning how to proceed when there is a potential to impact an archaeological resource. The construction field personnel will abide by these requests: excavate slowly, stop the excavation work to evaluate a finding, etc.
4. The Monitor shall keep a record of monitored activities. The Monitor shall fill out the Daily Record of Activities Form (see **Error! Reference source not found.**). These Forms will be attached to the final report as an appendix. These forms should be send weekly to the GM for review.
5. The Monitor shall document all archaeological remains identified during construction activities, except for previously unidentified historically significant findings (refer to B-7 below). The documentation shall include a detailed description of the discovery, context, horizontal and vertical provenience, photos, and a plan drawing. This documentation shall be done within a reasonable amount of time, trying as much as possible, not to impact on the project schedule.
6. Any subsurface feature may be demolished and removed after being documented by the Monitor and approved by the GM. The information recorded will be included in the final report.

7. If the identified archaeological remains are considered historically significant– i.e., complex structures, precolonial remains or stratified deposits – the Monitor shall instruct the construction crew to (1) immediately cease work in the vicinity of the discovery, (2) take all reasonable measures to avoid or minimize harm to the property, and (3) notify the PM, CM, and GM. The GM shall immediately notify the SHPO, as per stipulation III.B.1.b. of the PA. The following protocol shall be followed:
 - a. The Monitor shall make a preliminary assessment of the finding. The assessment shall include a description of the discovery, location, horizontal and vertical extent (if known), context, photographs, and drawings, as deemed necessary. The assessment shall also include a work plan for implementing a National Register of Historic Places' eligibility evaluation of the exceptional remains.
 - b. The assessment and NRHP-eligibility evaluation work plan shall be submitted via email to the PM and GM within 24 hours of the discovery. The GM will comment on the work plan within 24 hours of receiving it.
 - c. The Monitor shall implement the work plan after receiving the GM's authorization to proceed. After completing the fieldwork, the Monitor shall prepare an End of Field Report, summarizing the results. Said report should include an NRHP-eligibility determination. The End of Field Report shall be submitted via email to the PM and GM within 48 hours after completing the fieldwork.
 - d. The GM shall notify the SHPO of the NRHP-eligibility determination.
 - i. If the finding is **not eligible** to the NRHP, the GM shall notify the SHPO and provide supporting documentation. Construction activities may resume under archaeological monitoring unless the SHPO disagrees with the NRHP determination and makes a timely objection within 48 hours of the notification.
 - ii. If the finding is **eligible** to the NRHP, the criteria of adverse effect shall be applied. If the project activities do not adversely affect the finding, the GM shall notify the SHPO and provide supporting documentation. Construction activities may resume under archaeological monitoring unless the SHPO makes a timely objection within 48 hours of the notification.
 - iii. If the project activities have an **adverse effect** on the NRHP-eligible finding, a Data Recovery will be implemented as a Treatment Measure per Appendix F of the PA. The Monitor shall develop a data recovery plan with a research design consistent with the Secretary of the Interior's Guidelines for Archeological Documentation (http://www.nps.gov/history/locallaw/arch_stnds_7.htm) and the Advisory Council on Historic Preservation's (ACHP) recommendations on the recovery of significant information from archaeological sites as updated in 2009, at [https://www.achp.gov/protectinghistoricproperties/Section_106 Archaeology Guidance](https://www.achp.gov/protectinghistoricproperties/Section_106_Archaeology_Guidance). The data recovery plan shall be submitted via email to the GM for comments. The GM shall be responsible for submitting the data recovery plan to the SHPO for comments and approval. This treatment measure does not apply to burials or human remains (refer to IV.D of this work plan).
8. If any additional construction activities are added or design changes are made after the project has begun, the CM and PM, prior to performing the work, shall inform the GM and the Monitor. The Monitor, in conjunction with GM, shall evaluate these activities and apply the adverse effect criteria. If it is determined that the effect is adverse, the archaeologist will provide recommendations on how to avoid, minimize, or mitigate the adverse effect. These recommendations will be consulted with the SHPO prior to implementation. The SHPO will have

15 days to comment on the recommendations. If no communication is received within that time frame it will be assumed that the SHPO has no objection and concurs with the recommendations outlined.

9. If during construction activities a historic property is affected in an unanticipated manner, the CM shall stop work immediately, and inform the PM, GM, and Monitor. The Monitor, in conjunction with GM, shall evaluate the unanticipated effects and apply the adverse effect criteria within no more than 24 hours. If the effect is determined to be adverse, the Monitor and GM will provide recommendations on how to avoid, minimize, or mitigate such adverse effects. The GM shall consult with the SHPO on the recommendations prior to implementation. The SHPO will have 48 hours to comment on the recommendations. If no communication is received within that timeframe, it will be understood that the SHPO has no objection and concurs with the recommendations outlined.

C. After Construction Ends

1. Upon the completion of archaeological monitoring, the PM and GM shall be notified. The estimated date of delivery of the final report shall be indicated in the said notification.
2. The Monitor shall again document the historic properties located within the project's area of potential effects. The condition of the properties should be compared with those documented at the beginning of the project. This documentation shall be included in the final technical report.
3. A technical report shall be prepared detailing monitored construction activities, documentary research (if any), documentation archaeological features and other findings, and analysis and interpretation of the results. The report must include visual information, such as drawings and photos, and a sketch plan of all the documented findings. The report shall be submitted to the GM no later than two (2) weeks after completing the archaeological monitoring work. The GM shall submit the report to the SHPO no later than one (1) week after receiving it.

D. Human Remains

If human remains are discovered, the protocol established in Stipulation III.B.1.c. of the PA must be followed:

1. Stop work immediately.
2. Notify the local law enforcement office and coroner/medical examiner following applicable Commonwealth statute(s).
3. Protect the remains from any harm.
4. The GM shall be responsible for notifying the SHPO within twenty-four (24) hours of identifying human remains.

V. PROFESSIONAL QUALIFICATIONS

The Monitor must meet the minimum Secretary of the Interior Professional Qualifications Standards for Archaeology established in 36CFR Part 61. These are: a graduate degree in archaeology, anthropology, or closely related field, plus at least one (1) year of full-time professional experience or equivalent specialized training in archaeological research, administration, or management; at least four (4) months of supervised field and analytic experience in general Puerto Rican archaeology; the demonstrated ability to carry research to completion; and at least one (1) year of full-time professional experience at a supervisory level in the study of archaeological resources of the pre-Columbian and colonial periods. Please see https://www.nps.gov/history/local-law/arch_stnds_9.htm for more information.

The SOI-qualified archaeologist shall not defer their monitoring responsibilities to any other person who does not meet the minimum professional qualifications. Any additional personnel to intervene in monitoring efforts shall have vast experience in historic archaeology, in working in evaluation (Phase II), documentation (Phase III), and monitoring projects dealing with colonial period properties.

The Principal Investigator may not transfer his or her duties, obligations, and responsibilities to subordinates or other technicians who are not professionally trained in archaeology. In the case of hiring archaeologists and trained technicians to assist in archaeological monitoring, the Principal Investigator must be present for at least 25 percent of the duration of the fieldwork to supervise them.

VI. CITED REFERENCES

Advisory Council on Historic Preservation

2009 ACHP recommendations on the recovery of significant information from archaeological sites
https://www.achp.gov/protectinghistoricproperties/Section_106_Archaeology_Guidance.

Consejo para la Protección del Patrimonio Arqueológico Terrestre de Puerto Rico.

2017 *Reglamento para la radicación y evaluación arqueológica de proyectos de construcción y desarrollo*. San Juan: ICP. Reglamento #8932 del 8 de febrero de 2017.

Hernández Miranda, Zuleika and Medina Carrillo Norma

2023 Puerto Rico 2017 Disaster Recovery, CDBG-DR Program. City Revitalization Program (City-Rev). Section 106 NHPA Effect Determination.

Marchado Torres, Hernán Jr.

2023 100% Design Plans. Maricao Urban Center Improvements, Pueblo Ward, Municipality of Maricao, Puerto Rico.

National Park Service

s/f "Archeology and Historic Preservation: Secretary of the Interior's Standards and Guidelines [As Amended and Annotated] Professional Qualification Standards".
https://www.nps.gov/history/local-law/arch_stnds_9.htm

s/f "Archeology and Historic Preservation: Secretary of the Interior's Standards and Guidelines for Archeological Documentation". http://www.cr.nps.gov/local-law/arch_stnds_7.htm

APPENDIX A: MONITORING DAILY ACTIVITY SHEET

	PUERTO RICO 2017 DISASTER RECOVERY City Revitalization Program ARCHAEOLOGICAL MONITORING DAILY RECORD OF ACTIVITIES
Case ID:	Project Location:
Municipality:	Project Coordinates (lat/long):

SOI Qualified-Archaeologist:
Date of Monitoring: Click or tap to enter a date.
Work Hours:

Description of work performed by contractor and supervised by the Monitor:

	YES	NO
Are the project activities conforming to the LIDRS? If not, explain below.	<input type="checkbox"/>	<input type="checkbox"/>
Was an archaeological remain documented during the day. If yes, include required information below.	<input type="checkbox"/>	<input type="checkbox"/>
Was an exceptional archaeological remain identified during the day? If yes, explain below.	<input type="checkbox"/>	<input type="checkbox"/>
Have the construction activities affected a previously unidentified property or a known historic property in an unanticipated manner? If yes, explain below.	<input type="checkbox"/>	<input type="checkbox"/>
Has there been a change in the scope of work of the project? If yes, explain below.	<input type="checkbox"/>	<input type="checkbox"/>

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 <p>GOVERNMENT OF PUERTO RICO GOBIERNO DE PUERTO RICO</p>	<p>PUERTO RICO 2017 DISASTER RECOVERY City Revitalization Program ARCHAEOLOGICAL MONITORING DAILY RECORD OF ACTIVITIES</p>
<p>Case ID:</p>	<p>Project Location:</p>
<p>Municipality:</p>	<p>Project Coordinates (lat/long):</p>

Site Photos	
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GOVERNMENT OF PUERTO RICO
STATE HISTORIC PRESERVATION OFFICE

Executive Director | Carlos A. Rubio-Cancela | carubio@prshpo.pr.gov

Friday, February 2, 2024

Lauren Bair Poche

Historic Preservation Senior Manager
HORNE Puerto Rico
10000 Perkins Rowe, Suite 610 Bldg G
Baton Rouge, LA 70810

SHPO: 12-21-23-01 PR-CRP-000720 REVITALIZACIÓN Y RESTAURACIÓN DEL CENTRO URBANO (PUBLIC PLAZA, KIOSKS, SMALL PLAZA, ROUNDABOUT INTERSECTION), MARICAO, PUERTO RICO

Dear Ms. Poche,

The SHPO has received and reviewed the above referenced project in accordance with 54 USC 306108 (commonly known as Section 106 of the National Historic Preservation Act, as amended) and 36 CFR Part 800: *Protection of Historic Properties*. The State Historic Preservation Officer (SHPO) is to advise and assist federal agencies and other responsible entities when identifying historic properties, assessing effects upon them, and considering alternatives to avoid or reduce the project's effects.

Our records support your finding of **no adverse effect** for the proposed undertaking pursuant that the following conditions proposed by the Agency are met:

1. Archaeological monitoring is recommended for all new construction within the Maricao urban center – this includes the new plaza to be constructed on PR-105 and the lot for the proposed kiosks on Calle José de Diego. Care should be taken for vibration effects for the surrounding historic buildings to prevent damage during construction. An archaeological work plan will be prepared and submitted to the PRSHPO for review and approval.
2. All work on historic properties must be done in compliance with the Secretary of the Interior's *Standards for Rehabilitation*. Any scope changes must be evaluated by SOI-qualified architectural historian/architect to determine if those changes meet allowances in the Programmatic Agreement or if consultation must be re-initiated.



Lauren Bair Poche
SHPO: T2-21-23-01 PR-CRP-000720 REVITALIZACIÓN Y RESTAURACIÓN DEL CENTRO
URBANO (PUBLIC PLAZA, KIOSKS, SMALL PLAZA, ROUNDABOUT INTERSECTION),
MARICAO, PUERTO RICO
Page 2

If you have any questions or comments regarding this matter or require our
further assistance, do not hesitate to contact our Office.

Sincerely,



Carlos A. Rubio-Cancela
State Historic Preservation Officer

CARC/GMO/SC





October 20, 2022

Arch. Carlos A. Rubio Cancela

Executive Director

State Historic Preservation Officer

Cuartel de Ballajá Bldg.

San Juan, Puerto Rico

Re: Authorization to Submit Documents

Dear Arch. Rubio Cancela:

The U.S. Department of Housing (HUD) approved the allocations of Community Development Block Grant (CDBG-DR) funds on February 9, 2018. It also approved the allocation of Community Development Block Grant Mitigation (CDBG-MIT) funds on January 27, 2020. The purpose of these allocations is to address unsatisfied needs as a result of Hurricanes Irma and Maria in September 2017; and to carry out strategic and high-impact activities to mitigate disaster risks and reduce future losses.

To comply with the environmental requirements established by HUD, the Department of Housing of Puerto Rico (PRDOH) contracted Horne Federal LLC to provide environmental registry review services, among others, that will support the objectives of the agenda for both CDBG-DR and CDBG -MIT Programs.

In line to expedite the processes, Horne Federal LLC, is authorized to submit to the State Historic Preservation Officer, documentation of projects related to both the CDBG-DR and CDBG-MIT on behalf of PRDOH.

Cordially,

Juan C. Pérez Bofill, P.E. M.Eng

Director of Disaster Recovery

CDBG DR-MIT

December 21, 2023

Carlos A. Rubio Cancela
State Historic Preservation Officer
Puerto Rico State Historic Preservation Office
Cuartel de Ballajá (Tercer Piso)
San Juan, PR 00902-3935

Puerto Rico Disaster Recovery, CDBG-DR City Revitalization (City-Rev) Program

Section 106 NHPA Effect Determination Submittal for PR-CRP-000720: Revitalización y Restauración del Centro Urbano Project, Maricao, Puerto Rico – *No Adverse Effect, Conditioned*

Dear Architect Rubio Cancela,

On February 9, 2018, an allocation of Community Development Block Grant - Disaster Recovery (CDBG-DR) funds was approved by the United States Department of Housing and Urban Development (HUD) under the Federal Register Volume 83, No. 28, 83 FR 5844, to assist the Commonwealth of Puerto Rico in meeting unmet needs in the wake of Hurricanes Irma and Maria. On August 14, 2018, an additional \$8.22 billion recovery allocation was allocated to Puerto Rico under the Federal Register Volume 83, No. 157, 83 FR 40314. With these funding allocations, the Puerto Rico Department of Housing (PRDOH) aims to lead a comprehensive and transparent recovery for the benefit of Puerto Rico residents. To faithfully comply with HUD's environmental requirements, the Puerto Rico Department of Housing contracted Horne Federal, LLC (HORNE) to provide environmental records review services that will support the Department's objectives Puerto Rico Housing (PRDOH) for CDBG-DR.

On behalf of PRDOH and the subrecipient, the Municipality of Maricao, we are submitting documentation for the proposed Revitalización y Restauración del Centro Urbano Project in the municipality of Maricao. A majority of the project area is within the National Register of Historic Places eligible Maricao Traditional Urban Center. The proposed project consists of the following: (1) improvement and modernization of roads, sidewalks, and public stairs; (2) renovations to the town plaza; (3) the construction of new kiosks in a vacant lot directly north of the plaza; (4) construction of a new, small plaza in the northwest section of the traditional urban center along PR-105 on a lot that is currently vacant; and (5) the conversion of the roundabout currently located at the intersection of PR-357 and PR-120 northwest of town to a three-way intersection.

The full scope of the project is described in detail within the submitted documentation, which includes mapping, photographs, and the 100% design plans. Based on the provided documentation, the Program requests a concurrence with a determination that no adverse effect to historic properties is appropriate for this undertaking. This recommendation is conditioned to the following items: (1) Archaeological monitoring is recommended for all


new construction within the Maricao Traditional Urban Center – this includes the new plaza to be constructed on PR105 and the lot with the proposed kiosks on Calle José de Diego. Care should be taken for vibration effects for the surrounding historic buildings to prevent damage during construction. An archaeological work plan will be prepared and submitted to the PRSHPO for review and approval; and (2) all work on historic properties must be done in compliance with the Secretary of the Interior's Standards for Rehabilitation (<https://www.nps.gov/articles/000/treatment-standards-rehabilitation.htm>). Any scope changes must be evaluated by SOI-qualified architectural historian/architect to determine if those changes meet allowances in the Programmatic Agreement or if consultation must be re-initiated.

Please contact me with any questions or concerns by email at lauren.poche@horne.com or phone at 225-405-7676.

Kindest regards,

A handwritten signature in cursive script that reads 'Lauren B. Poche'.

Lauren Bair Poche. M.A.
Architectural Historian, EHP Senior Manager
Attachments

PUERTO RICO 2017 DISASTER RECOVERY, CDBG-DR PROGRAM		
CITY REVITALIZATION PROGRAM (CITY-REV)		
Section 106 NHPA Effect Determination		
Subrecipient: Municipality of Maricao, PR		
Project Name: Revitalización y Restauración del Centro Urbano	Project ID: PR-CRP-000720	

Project Location: Maricao Urban Center, Maricao PR	
Project Coordinates: Public Plaza (18.180775, -66.979881); Kiosks (18.18104368, -66.97977998); Small Plaza (18.18139782, -66.98022663); Roundabout Intersection (18.183654, -66.981702)	
TPID (Cadastral Number): 262-014-012-01 (Public Plaza), 262-014-007-03, 262-014-007-04 (Kiosks), 262-014-032-03 (Small Plaza), no cadastral for roundabout intersection.	
Type of Undertaking: <input checked="" type="checkbox"/> Substantial Repair <input checked="" type="checkbox"/> New Construction	
Construction Date (AH est.): c. 1874 for Public Square and 2001 for roundabout	Property Size (acres): 4.44 acres


SOI-Qualified Architect/Architectural Historian: Arch. Zuleika Hernández Miranda
Date Reviewed: January- May, 2023
SOI-Qualified Archaeologist: Arc. Norma Medina-Carrillo
Date Reviewed: April-May, 2023

In compliance with Section 106 of the National Historic Preservation Act (NHPA), the Program is responsible for identifying historic properties listed in the NRHP and any properties not listed that would be considered eligible for listing that are located within the geographic area of potential effects (APE) of the proposed project and assessing the potential effects of its undertakings on these historic properties.

Project Description (Undertaking)

The main purpose of this project is to revitalize and restore the Maricao Urban Center; including streets, sidewalks, open spaces, luminaries, main plaza, and commercial areas damaged by Hurricanes Irma and Maria. Objectives in the project include but are not limited to:

- Restore, improve, and modernize main and local roads affected by the Hurricanes. The replacement of asphalt in the streets, and the reconstruction of sidewalks, ramps, and public stairs will provide safe road and pedestrian access to residents, merchants, and visitors to and from the Urban Center in the Municipality of Maricao. There are two separate public stairs that will be reconstructed. One of the public stairs is located west of the public plaza and the City Hall (18.180676, -66.980207); these stairs connect pedestrians between Corchado Street and the PR-357 road. The other stairs are located northeast of the public plaza (18.181269, -66.979160); these stairs connect pedestrians between Betances Street and the PR-105 road. Currently the public stairs do not comply with standard rise and run dimensions. Improvements to streets and sidewalks will also provide adequate stormwater runoff management and reconditioned utilities. The following ground-disturbing activities will be held: demolition and clearing of sidewalks; removal and replacement of catch basins; and the removal, relocation, and replacement of water meters. Anticipated maximum depths of ground disturbance, including utilities, is 3 feet.

PUERTO RICO 2017 DISASTER RECOVERY, CDBG-DR PROGRAM CITY REVITALIZATION PROGRAM (CITY-REV) Section 106 NHPA Effect Determination		
Subrecipient: Municipality of Maricao, PR		
Project Name: Revitalización y Restauración del Centro Urbano		Project ID: PR-CRP-000720

- Remodeling the Town Square will eliminate architectural barriers that affect people with disabilities and replace the flooring, and seating, and adding a new Stage Platform area will create spaces that encourage residents and visitors to use the public area. The new stage will be located on the east corner of the plaza next to the city hall and will be approximately 30 ft by 20 ft. Anticipated maximum depths of ground disturbance for the new stage will range from 2ft and 4 ft.


- Provide five new commercial spaces (262-014-007-03) such as kiosks for local commerce following the Neoclassical style on a municipal owned lot located northeast of the Town Square. The new construction of the kiosks will be approximately 1,598.8 sq. ft. and will include two bathrooms and an eating area. The commercial area will be subdivided into five kiosks, ranging from 164 S.F. to 187 S.F. The kiosks will be equipped with a smoke extractor, one doorway and a window opening with a service counter to allow a point of contact between customers and the vendors. All the doors will be aluminum and the window area will have an aluminum roll-up door for security. The bathrooms will be located to the east of the kiosks. The facade style chosen for the kiosks matches the Town Hall building facade, incorporating similar roof tiles, and compliments the surrounding historic properties. On this lot there used to be a wooden residential structure. The Municipality of Maricao purchased the property in 2013 and demolished what was left of the structure for future development such as the proposed project. The anticipated maximum depth of ground disturbance, including utilities, will range from 2'-0" to 4'-0".

Nonetheless, according to the SOI's Standards for Rehabilitation:

"New additions, exterior alterations, or related new construction shall not destroy historic materials that characterize the property. The new work shall be differentiated from the old and shall be compatible with the massing, size, scale, and architectural features to protect the historic integrity of the property and its environment."

Consequently, the design must be differentiated from the Architectural Style, materials, and character of the TUC structures to evade historical confusion, but it will still complement the surrounding historic properties. Likewise, the new structures must not adhere to the existing historical structures that bound the site proposed for intervention.

- Construction of a new small plaza (262-014-032-03) on a municipal-owned plot in the northwest part of the urban center on PR-105 for public recreation where people can gather that encourages a diversity of opportunities for everyday social interaction and activities, that provides relief and relaxation, that expands and reinforces the public realm, and that contributes to the livability and general amenity of the downtown and other developing parts of the urban center. On this lot there used to be a wood residence. The Municipality of Maricao purchased the property in 2014 and demolished the residence since its poor state represented a public nuisance. The new construction of the small plaza will be approximately

PUERTO RICO 2017 DISASTER RECOVERY, CDBG-DR PROGRAM CITY REVITALIZATION PROGRAM (CITY-REV) Section 106 NHPA Effect Determination		
Subrecipient: Municipality of Maricao, PR		
Project Name: Revitalización y Restauración del Centro Urbano		Project ID: PR-CRP-000720

1,173.39 sq. ft. and will include a sundial, a curved seating area under pergolas, and two concrete chess sets. The anticipated maximum depths of ground disturbance for the new small plaza will range from 2'-0" to 4'-0".

- Improve the PR-357 and PR-120 intersection to provide safety, maximum operational performance, and ample vehicle accommodation for residents, merchants, and visitors to and from the Urban Center in the Municipality of Maricao. The existing roundabout will be demolished, and a three-way intersection will be built in its place, along with parking spaces for the surrounding recreational public areas.

The original project, built in 2001 (Please refer to Attachment 3) consisted of a fountain and roundabout. Its roads are bounded by food kiosks and gazebos meant to be used as a recreational area. They were built between the roads and the river below. The sidewalks are wider in this area and have different patterns and materials. There is urban furniture, but from the photos provided, there is evidence of no usage and lack of people. It is built in a circulation area that is somehow not protected from vehicles. Sidewalk and road pavement unevenness encourage water puddles. There was no survey conducted for the 2001 roundabout construction.


The properties that bound the sidewalks are not seen in USGS maps from the 40s, 50s, 60s. According to their style and being on the outskirts of the Traditional Urban Center, they were probably built in the 1970s.

- This project also contemplates spaces for green areas and gardens, when possible, to restore part of the flora devastated by hurricanes Irma and Maria. The anticipated maximum depths of ground disturbance for grubbing of areas destined for trees and vegetation will range from 1.5'-2'-0". Eco-friendly lighting will replace the current lighting throughout the project's urban area. The anticipated maximum depths of ground disturbance for the bases of the new lighting poles will range from 6'-0" to 7'-6".

Area of Potential Effects

As defined in 36 CFR §800.16(d), the area of potential effects (APE) is the geographic area or areas within which an undertaking may directly or indirectly cause changes in the character or use of historic properties if any such properties exist. Based on this definition and the nature and scope of the Undertaking, the Program has determined that the direct APE for this project is **4.44 acres**, and the visual APE is the viewshed of the proposed project.

For the rehabilitation of the Public Square Luis Muñoz Rivera, the construction of the five kiosks and the small square, the APE extends north through the north and east of the PR-105 road to the junction with the José de Diego Street, one block east of Betances Street, one block

PUERTO RICO 2017 DISASTER RECOVERY, CDBG-DR PROGRAM CITY REVITALIZATION PROGRAM (CITY-REV) Section 106 NHPA Effect Determination	 <small>GOVERNMENT OF PUERTO RICO DEPARTMENT OF HOUSING</small>
Subrecipient: Municipality of Maricao, PR	
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south of Ruiz Belvis Street, one block west of Corchado Street and sides of the stairs that lead to the Complejo Deportivo to the west. That is equivalent to 3.22 acres.

For the renovation of the roundabout, the APE consists of approximately 1.22 acres. It comprehends an offset to the existing fountain bound with the San Juan Bautista housing development (urbanización) and other structures at the perimeter, including the recreational area.

Analysis of Historic Context

The origin of its name is indigenous, “Maricao” is the name of a native tree abundant in this region of the Island. The history of Maricao is intimately linked to the history of coffee in Puerto Rico.¹ The region of Maricao is excellent for the cultivation of coffee, the haciendas and coffee farms proliferate in this region and because of the agricultural economic activity, the first urban nucleus is established prior to 1870, with 36 Commercial Houses and 15 Supply Stores in 1870.² The Amil coffee company, the oldest in Puerto Rico, was established in 1747 near the town of Maricao³.

At the beginning of the 1870s, several residents of the area decided to request the Provincial Council to segregate Maricao and its neighborhoods from the town of San Germán. Maricao was officially founded in 1874. Three years later it was constituted as a City Council. The rise of the town of Maricao was such that, by the early 1880s, it already had a population of 6,752 inhabitants, 257 houses, and 561 bohíos. In 1971, Maricao had 61 coffee farms and 247 coffee and minor fruit “Estancias”. Currently, in the 1880’s the town of Maricao has 50 private buildings, 90 houses and 40 “ranchos” (wooden and palm houses), and 15 stores of certain importance⁴ (Figure 1, Please refer to Attachment 1).


Maricao continued to distinguish itself as a farming community, especially in coffee and citrus. By the early twentieth century, its population had increased to 8,312. However, in the 1940 census, its population decreased to 7,724 inhabitants. To the present, the economy of this municipality is still based on agriculture. Its main product is coffee, so it is recognized as the best producer and the best quality coffee on the Island. It’s quality and distinction date back to the late nineteenth century when Succession Espinosa participated in an agricultural

¹ <https://docplayer.es/11216923-Plan-territorial-del-municipio-de-maricao.html>. Section 36.

² Sepúlveda Rivera, Aníbal, Puerto Rico Urbano, Vol. II. Page. 116.

³ <http://maricaopr.blogspot.com/2010/01/sabias-esto.html>

⁴ Ibid. Page 116.

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event at the Feria de Barcelona in 1899. The Espinosa family, from the Bucarabones neighborhood, won the gold medal for the first prize in the contest.

In 1891 the Secretary of Government of the Island of Puerto Rico requested a brief description of the Municipality of Maricao. The person in charge of providing that description described Maricao as follows: It is essentially agricultural, harvesting the most exquisite coffee in Puerto Rico. It is located west of Mayagüez, 450 meters above sea level, surrounded by mountains in the form of an amphitheater, its average temperature is cool throughout the year, 22 Celsius, abundantly provided with drinking and healthy water, because its climate is the most delicious that man can want, there are good trading houses, schools, churches and hospitals, good roads inland and an unfinished road that leads to Mayagüez and whose city is five leagues and three from those of San Germán, being its communication route a magnificent summer resort for those families who want a sample of coffee of the best quality".⁵ A census developed by the Spanish Government in 1871 identified 61 coffee farms in the Municipality of Maricao. According to the historian of Maricao, Mr. Luis Felipe Ramos (1980), he said that the coffee produced in the haciendas of Maricao has had a reputation for excellence. The fame of this fruit spread to European markets when in 1889 the Espinosa family came to exhibit our cotyledonous grain at the Barcelona World's Fair. After the rigorous tests, Maricao's coffee won the first prize in the exhibition consisting of a gold medal. Twenty countries participated in this international competition. At the end of the 19th Century, with the fall in coffee prices in the international market, coffee activity in the Municipality began to decline.

In 1878, Manuel Ubeda y Delgado describes the condition of the municipality of Maricao and calculates its agricultural wealth at 151,243 Spanish pesos and, its urban wealth at 7,940 pesos. Ubeda also describes the commercial wealth in the village of Maricao: 3 capitalist merchants, 3 storekeepers, 1 "botica" (pharmacy), 2 mixed shops, and 10 "pulperías". In 1878, in the town of Maricao, there were 58 houses, 43 "ranchos" or bohíos, and 105 families. Ubeda describes the town of Maricao as follows; It has a square, five streets, and four crossings. Its public buildings are a wooden church, a rented wooden town hall of two floors, a wooden butcher shop, and the Civil Guard Barracks in the square.⁶ (Figure 2, Please refer to Attachment 1). Part of this lot where once stood the Civil Guard Barracks corresponds to the new proposed commercial facilities.


⁵ <http://nuestropuertorico.com/municipios/maricao/>

⁶ Sepúlveda Rivera, Aníbal, Puerto Rico Urbano, Vol. III. Page. 240.

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In the description that Lieutenant William H. Armstrong realizes of the town of Maricao in the early twentieth century, we can highlight as a summary the following aspects (Figures 3 to 7, Please refer to Attachment 1).

- The population in 1910 is 7,158 inhabitants belonging to all social classes.
- Most are illiterate blacks and mixed races.
- The commercial assets of this area are the Spanish and one or two Germans.
- Many of these people are unlikely to serve in wartime for either side.
- The cry of "War" is very unpleasant to a Puerto Rican when he thinks he could be part of it.
- There is not much appreciation for Americans, even though they treat them well as visitors.
- The village has a modern two-room school.
- Classes for primary grades are given in other buildings.
- There is an unfinished brick Catholic church, with a 200-300 people capacity.
- Protestants are about to begin the construction of a concrete chapel for 200 people.
- The main industry of Maricao is the cultivation of coffee. Some tobacco is also sown.
- Merchants control almost everything. They are moneylenders to the landowners. They buy and sell coffee wholesale, while poor farmers and laborers get what they can.
- A certain number of laborers always work on the road.
- Most of the buildings in the village are made of wood.
- The new and unfinished mayor's office is made of masonry, as is the Catholic Church.
- Very few buildings are one-story and masonry, the others are half masonry and half wood.
- The streets are 20-25 feet wide, uneven, rugged, and in poor condition.
- The square, 147.6 X 59.4 feet, is the only suitable place in the village to camp.
- The square is covered with concrete and gets very hot at noon.
- The lighting used in the village is limited to the use of ordinary kerosene lamps Dietz brand.
- Water abounds everywhere, but so far, no system has been hosted. It is collected from the roofs for drinking.

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- Hygienic conditions in Maricao are bad. There is no sewage system. Latrines consist of old septic tanks, barrels, boxes, and containers that are emptied into nearby fields or wastelands.
- Kitchens and bathrooms are built side by side.
- Streets and courtyards are cleaned only by frequent rains. There is no hospital in the village.
- The police consist of 1 chief and 3-foot soldiers.
- There is only one road that reaches the village.⁷

Already in 1894, four years before the U.S. invasion of the island of Puerto Rico, there were in Maricao 95 “Haciendas”, 153 coffee rooms, 3 doctors, 1 pharmacist, 4 food stores, 19 convenience stores, 28 grocery stores, 4 bakeries, 3 butchers, 1 horse rental business, 1 brick business, 2 tailor shops, 1 hat shop, 4 shoe stores, 1 hardware store, 2 carpenters and a blacksmith shop.

Due to the topography of the lands of Maricao, it is extremely difficult to replace coffee crops with another type of planting, which is why agricultural efforts have been directed to improve existing coffee plantations. Annually, over 20,000 quintals of coffee are produced in Maricao, which represents approximately 15.0 percent of the national production. Although coffee is the main crop, bananas, and citrus fruits are also planted.⁸ In 1970 Maricao had a population of 5,991 inhabitants. According to the Federal Census of Agriculture in 2007 has 301 farms of land in agricultural use; 301 farmers; 1,201 agricultural workers and employees in the main crops: coffee, bananas, oranges, “plátanos” and grapefruits. According to the 2000 census, Maricao has a population of 6,449.⁹


Identification of Historic Properties: Archaeology

In the USGS topographic map quadrangles of 1946, 1952, and 1960 very few changes can be observed in the configuration of the urban center of Maricao (Figures 8, 9, 10; Please refer to Attachment 1). Aerial photographs from 1936 and 1993 (Figures 11 and 12; Please refer to Attachment 1) show that over this 50-year period, the urban center of Maricao remained relatively the same extension. The aerial photo of 2018 (Figure 13; Please refer to Attachment

⁷ Armstrong, William H., *The Cartographic Journey of Lieutenant William H. Armstrong, 1908-1912*, Vol 2, FPH y CIH, Ediciones Puerto, 2020. Pages. 424-428.

⁸ Ibid.

⁹ <https://es-academic.com/dic.nsf/eswiki/777703>

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1) shows that between 1993 and 2018 (a 20-year period), the urban area of Maricao has extended in virtually all directions.

The largest number of cultural resources in the municipality of Maricao correspond to the Coffee Plantations name "Hacienda de café". There are 22 known historical-archaeological sites. More than 20 coffee Haciendas have been inventoried in this Municipality. The coffee Haciendas closest to the APE of the project is Hacienda Santa Rita, to the south, and Hacienda Baleares to the north. These two coffee Haciendas are more than 0.5 miles from Project APE. The closest cultural resource to the historic center of Maricao is identified as MI0100005, a brick kiln. This resource is located 0.60 miles southwest of the Historic Center of Maricao.

Maricao also has several pre-Columbian identify archaeological sites. Five Pre-Columbian sites show evidence of human occupation by Agro-pottery cultures. Evidence of the Agro-pottery periods II a (Pre-Taíno/Ostionide, 600 to 1200AD) and III (Taíno/Chicoide, 1200 to 1500AD) have been identified. The most important pre-Columbian archaeological site is MI0100001 (Guabá 1), located in the Maricao Afuera neighborhood. This important pre-Columbian site is located 1.5 miles to the Northeast direction. None of the pre-Columbian sites are in or near Project APE.

The urban center of Maricao preserves colonial archaeological sites from the Spanish and American colonial periods, mainly of the nineteenth and early twentieth centuries. It is well-recognized by historians that the town of Maricao begins as a small village in the early nineteenth century. Because of agricultural economic activity, **the first urban nucleus was established prior to 1870**, with 36 Coffee Trading Houses and 15 supply stores sustaining the coffee economy of the municipality in 1870. In 1874 the town of Maricao was officially established. The urban development process of Maricao is associated with the coffee economy. Maricao is a town that emerged and developed based on an economy dedicated to the cultivation of coffee through production units identified as Haciendas. Until now, Maricao is a town representing the Puerto Rican coffee society. The urban center of Maricao contains a historical coffee cultural legacy.

Since the first urban nucleus of Maricao was established prior to 1870, the urban center of Maricao conserved cultural evidence of about 200 years of continuous occupation. In PR-SHPO the records identified only one cultural historical resource in the urban area of Maricao; **MI020000 the Church of San Juan Bautista del Maricao**. It would be necessary to conduct an Inventory of the Cultural Resources of the Urban Center of Maricao to evaluate the number of historical-architectural resources that qualify as a historical cultural resource to the NRHP.

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However, we can point out the following two resources in the Urban Center of Maricao: The Maricao Public Square Luis Muñoz Rivera and, the Parroquia San Juan Bautista (listed in the National Register of Historic Places in 1984).

Maricao Catholic church (Figure 16, Please refer to Attachment 1) was founded when the region was detached from Villa de San Germán de Auxerre in 1864. According to the baptismal archives, until 1867 the Parish was known as "Parroquia San Juan Bautista de Maricao, Auxiliary of San Germán". Already from 1867, it begins to register simply as 'Parroquia San Juan Bautista de Maricao'. The church was built between 1890-c.1898. It was listed on the National Register of Historic Places in 1984. Its facade, facing onto the plaza of Maricao, is dominated by a three-level square bell tower, whose first level is a portico and which is capped by a pyramidal concrete roof. Its exterior has Gothic-style pointed arches; its interior has more traditional rounded arches. It has a nave and two aisles. The church's original roof was replaced in 1965 by a metal joist structure supporting corrugated asbestos sheets. It was designed by engineer Jerónimo Jiménez Coronado. It is one of 31 churches reviewed for listing on the National Register.

The urban center of Maricao presents a high probability of still preserving archaeological remnants corresponding to the first stages of its urban development in the nineteenth and early twentieth centuries. The main square, sidewalks, streets, and buildings of the Spanish colonial period and the early period of the American colonial period have high archaeological sensitivity.

Based on the above we recommend that all proposed excavations to a depth greater than 6 inches be conducted under selective archaeological monitoring limited to deep excavations in the main square area and areas surrounding the square, the sidewalks, and all the urban center streets (the Public Square Luis Muñoz Rivera, the construction of the five kiosks and the small square), the APE extends north through the north and east of the PR-105 road to the junction with the José de Diego Street, one block east of Betances Street, one block south of Ruiz Belvis Street, one block west of Corchado Street and sides of the stairs that lead to the Complejo Deportivo to the west, equivalent to 3.22 acres.

On the other hand, the section of the project that includes the removal of the roundabout has already been impacted by the construction of the roundabout and the existing road, so we do not expect archaeological impacts to occur in that area.



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Table 1: Areas of Ground Disturbing Activities, Archaeological Sensitivity, and Archaeological Recommendation for these specific Areas

Project Area	Archaeological Sensitivity	Recommendation for the Area
1. Demolition of Sidewalks/ Reconstruction of Sidewalks (3 ft. deep excavations)	Moderate to High archaeological potential	Archaeological Monitory
2. Construction of Ramps (3 ft. deep excavations)	Moderate to High archaeological potential	Archaeological Monitory
3. Construction of Public Stairs (3 ft. deep excavations)	Moderate to High archaeological potential	Archaeological Monitory
4. Improve of the PR-357 and PR-120 intersection	Low archaeological potential	No additional archaeological study is considered.
5. Replacement of catch basins (3 ft. deep excavations)	Moderate to low archaeological potential	Archaeological Monitory
6. Replacement of Water Meters (3 ft. deep excavations)	Moderate to low archaeological potential	Archaeological Monitory
7. Replace of the Town Square flooring and seating (6 inches deep excavations)	Low archaeological potential	No additional archaeological study is considered.
8. Construction of a New Stage Platform 30 by 20 ft. (2-4 ft. deep excavations)	Moderate archaeological potential	Archaeological Monitory
9. Construction of New Commercial Spaces, 1,598.8 ft. (2-4 ft. deep excavations)	Moderate to High archaeological potential	Archaeological Monitory
10. Construction of a New Small Plaza, 1,173.39 sq. ft. (2-4 ft. deep excavations)	Moderate to low archaeological potential	Archaeological Monitory

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Identification of Historic Properties – Architecture

Maricao is limited to the north by the town of Las Marías, to the east and south by Sabana Grande and San Germán, and to the west by Mayagüez and Hormigueros.

Maricao was a neighborhood of San Germán until its foundation in 1874. Maricao has consistently been recognized as a town dedicated to coffee planting and harvesting since the 18th century. Its mountains and vegetation are conducive to its cultivation, making Maricao part of the towns in the western interior of the island dedicated to this fruit. The demand for the product resulted in its sales and exports. Such was its impact that merchants established coffee shops in the urban center of Maricao.


Maricao borders to the north with the towns of Las Marías and Lares, east with Yauco, south with Sabana Grande and San Germán, and west with Mayagüez.

Maricao has always been a coffee town, and the sources consulted constantly allude to coffee production and the influence of this as part of its independence from San Germán. The planting of coffee in Maricao began around 1755 and, by 1776, was its main product. This induced the immigration of people to the area in search of work and economic development. Consequently, Maricao population grew fast.

In 1871 there were sixty-one coffee plantations in Maricao. Eventually, with world prices falling, coffee began to decline. Likewise, the arrival of several hurricanes and the Spanish-American War affected its production between destroying and seizing farms.

Maricao has three structures of historical and cultural value listed in the National Register of Historic Places (NRHP), such as the Puente del Treinta (Bridge No. 261) registered on July 19, 1995, Vivero de Peces de Maricao, listed on February 21, 2017, and the Iglesia San Juan Bautista de Maricao listed on September 18, 1984.

For the project's purposes, it is the San Juan Bautista Church that is within the APE of the project. According to its NRHP nomination, The Iglesia San Juan Bautista de Maricao (18.180896, -66.979463) was built c. 1898. Its designer was the Engineer Jerónimo Jiménez Coronado. It was built to replace the original church, which was built of wood. The structure is mainly characterized by its three-story high bell tower and its gothic arches on its exterior and rounded in its interior. Nonetheless, the interiors are more traditional, except for the wood paneling covered ceilings. (Please refer to the NRHP Nomination for a detailed description). It is located within the APE in the Maricao Traditional Urban Center. Its relation to the Plaza del Recreo is maintained, and no significant alterations have been made. Additionally, there

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are no plans to remodel or rehabilitate the church. Although under the PRSHPO and the NRHP the Iglesia San Juan Bautista de Maricao, c. 1890, is the only structure in the traditional urban center to be officially part of this registry, it is also a designated historic site by the PR Planning Board.

Additionally, various properties delimit the streets that border the main square and maintain their fabrication according to the Spanish Colonial era. These structures may be eligible for inclusion since they exhibit distinctive characteristics and construction of the Spanish Colonial style and are estimated to be more than 50 yrs old. Nonetheless, several of these properties show the course of time and poorly executed renovations or rehabilitations. Evidence of this is the failure of the cement plaster used to coat the brick masonry originally built in an opus mixtum manner.


Likewise, many properties along the core of Maricao's urban center, maintain their Spanish colonial era style, even though they have been intervened by owners. Most of these structures lack maintenance and evidence of the damages of wrongful rehabilitation. Nonetheless, these buildings could be eligible as part of the urban center and are within the APE, but these buildings are not part of the project's scope. Eventually, if intervened, they must follow the SOI's Standards for Rehabilitation and be monitored by a specialist.

Existing information on previously identified historic properties has been reviewed to determine if any such properties are located within the APE of this undertaking. The review of this existing information by a Program contracted Historic Preservation Specialist meeting the Secretary of the Interior's Professional Qualification Standards (36 CFR Part 61), shows that the project area is within the boundaries of the National Register of Historic Places (NRHP)-eligible Maricao Traditional Urban Center.

Several properties in the APE maintain characteristics of the Neoclassical style of the Spanish colonization. Some battered properties also require repairing according to their original construction technique. The following properties are considered eligible for inclusion:

- Court of First Instance and jail, Actual Migrant Health Center, 1890, 18.181314, - 66.980001

Now the Maricao Migrant Health Center, it was built in 1890. A marble plaque identifies the building with the name: Pablo N. Berenguer. According to the Municipality of Maricao, this building originally housed the Court of First Instance. The consulted: Benefactores y Hombre Notables de Puerto Rico Volumen II (1896) p394-395, states that the Berenguer's were benefactors of Corchado, for whom one of the TUC (west) roads were named. The

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Berenguer's received Corchado in Barcelona and patronized him. The building portrays Neoclassical characteristics and those of the Catalan Modern style. This may be the reason for its aesthetics. Its particular curve turns at the corner flowing through the street slope. Likewise, a stair runs parallel to it. The main façade arches were closed to install jealousy windows. Still, the building character is strong and elegant.

Several structures bordering the plaza, and the San Juan Bautista Church, are NRHP-eligible properties. Most of the properties maintain a glimpse of what the Neoclassical style is, mainly the Spanish colonization. Other buildings were or are still private residences, built of wood and displaying the Creole Style.

Other buildings may be eligible for inclusion, for their age, and characteristics and because they border the plaza or are part of the Traditional Urban Center. However, several, most of these, are intervened, and their integrity is compromised. Most have been altered because of their actual uses and incorrect "repairing."

Even though the town was founded in 1874, it is said that the Town Hall was established three years later c.1877. It was originally designed by the German architect Henry Klumb with a modern language, although it was altered with a contemporary addition ca. 1944. The actual Maricao's Town Hall underwent renovations in 2007-2011. It is located south of the plaza. It is "L" shaped.


- Plaza Pública de Maricao Luis Muñoz Rivera, c.1874, 18.180787, -66.979836

The plaza's floor pattern changes around the main design. In that change in the limit, there are some terrazzo-built benches. The plaza is bordered by concrete balusters and adorned by various floor materials, brick, mortar, and low vegetation. An oversized wooden chair was recently added. It bears the Maricao town shield and is meant to be a tourist attraction.

The plaza is raised above the main streets by approximately 6'-0" to 8'-0".

- Structure located to the north of the plaza, bordering an empty lot, c.1870s, 18.181099, -66.979726

To the church's northwest and north of the plaza is a vacant lot framed by part of an existing structure, built of bricks laid as an *opus mixtum* with grooved zinc marks that appear to have been placed long after the original construction. This structure has on its back some windows with lintels that appear to have been covered with cement plaster. It is likely that it would have been completely covered and that the organic and living characteristics of the brick and mortar have displaced the concrete or plaster mix. It has a door bricked up with cement.

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The project proposes to use the empty lot between this structure and the one to the west to convert it into a space with food kiosks. It should be emphasized that this initiative must comply with the rehabilitation standards of the Secretary of the Interior, specifically regarding the treatment of masonry.

- Centro de Servicios Integrados de Maricao, c. 1930s, 18.180680, -66.979273

According to Google Maps this structure houses the Centro de Servicios Integrados de Maricao, (aka CSI Maricao). It was the Rafael Janer Calle Janer School (c.1930s-1940s). This and other structures are located south of the church. At the west of the CSI are two structures and the Iglesia Presbiteriana El Buen Pastor (18.180541, -66.979509). These buildings are evident in the earliest map available through USGS's Topoviewer (1946). The Presbyterian Church style is Spanish Revival, possibly from ca. 1946. The buildings to the north of the Presbyterian church and at the west of the CSI, display the Neoclassical Style and Creole Style. They were probably built circa the 1890s.

Also, per SHPO Inventory:

- (1) Cementerio Municipal - 18.185359, -66.983515, ca.1885-1946
- (2) Escuela Mariana Bracetti - 18.181446, -66.978052, ca. 1946
- (3) Escuela Raúl Ybarra - 18.182506, -66.979653, modern language design, ca. 1970
- (4) Convento de las Hermanas de Fátima - 18.180431, -66.978980, It has volumetry similar to other convents on the island, with large balconies, ca. 1950.


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Determination

Archaeological pre-Columbian cultural resources are more than half a mile from the project's APE in the Urban Center of Maricao. The following historic properties have been identified within the APE:


1. The San Juan Bautista Parish, c. 1890, 18.180896, -66.979463, NRHP listed in 1984.
 2. Court of First Instance and jail, Actual Migrant Health Center, 1890, 18.181314, -66.980001
 3. Plaza Pública de Maricao Luis Muñoz Rivera, c.1874, 18.180787, -66.979836
 4. Centro de Servicios Integrados de Maricao, c. 1930s, 18.180680, -66.979273
 5. Iglesia Presbiteriana El Buen Pastor (18.180541, -66.979509)
- Direct Effect:
 - The proposed project will directly affect the Plaza Publica de Maricao. The Plaza Luis Muñoz Rivera site is part of project APE.
 - The proposed project will directly affect the site designated for the construction of the new structure subdivided into 5 kiosks and the properties that bound this lot at its east, north and west.
 - The proposed project will directly affect the site designated for the Construction of a small new plaza on a municipal-owned plot on PR-105 road.
 - For all the **new construction areas**, we strongly recommend the Archaeological Monitory. For the reconstruction and improvement of the PR-357 and PR-120 roundabout connector intersection, we do not recommend archaeological monitoring since this area was previously impacted during the roundabout construction process.
 - Indirect Effect:
 - The proposed project will indirectly affect the Traditional Urban Center of Maricao's aspect and atmosphere.

Based on our historic property identification efforts, the Program has determined that project actions **will affect** the historic properties that compose the Area of Potential Effect, however, it will not be a negative effect. The project will not impact on the property's use, character, location, and setting; it will not endanger qualities that make the property eligible for inclusion in the National Register.

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The Luis Muñoz Rivera Recreation Plaza is considered an eligible site for inclusion in the NRHP. The stage to be built must be light and not alter the square's character. Effective planning and protective measures initiated before construction takes place can prevent most of the damage that may occur to adjacent historic buildings and or to the Town Hall. Protective measures may be limited to documenting and monitoring the adjoining structures or may encompass a broader plan that includes encasing windows, independent review of excavation procedures and a range of other precautions. Cooperation between all parties can help to ensure that construction activity continues without interruption and that the neighboring buildings are preserved unharmed. Both the plaza and the properties that border the vacant lot, where the construction of the five kiosks is projected, must comply with SOI's Standards for Rehabilitation:


1. A property shall be used for its historic purpose or be placed in a new use that requires minimal change to the defining characteristics of the building and its site and environment.
2. The historic character of a property shall be retained and preserved. The removal of historic materials or alteration of features and spaces that characterize a property shall be avoided.
3. Each property shall be recognized as a physical record of its time, place, and use. Changes that create a false sense of historical development, such as adding conjectural features or architectural elements from other buildings, shall not be undertaken.
4. Most properties change over time; those changes that have acquired historic significance in their own right shall be retained and preserved.
5. Distinctive features, finishes, and construction techniques or examples of craftsmanship that characterize a property shall be preserved.
6. Deteriorated historic features shall be repaired rather than replaced. Where the severity of deterioration requires replacement of a distinctive feature, the new feature shall match the old in design, color, texture, and other visual qualities and, where possible, materials. Replacement of missing features shall be substantiated by documentary, physical, or pictorial evidence.
7. Chemical or physical treatments, such as sandblasting, that cause damage to historic materials shall not be used. The surface cleaning of structures, if appropriate, shall be undertaken using the gentlest means possible.
8. Significant archeological resources affected by a project shall be protected and preserved. If such resources must be disturbed, mitigation measures shall be undertaken.

PUERTO RICO 2017 DISASTER RECOVERY, CDBG-DR PROGRAM CITY REVITALIZATION PROGRAM (CITY-REV) Section 106 NHPA Effect Determination	 <small>GOVERNMENT OF PUERTO RICO DEPARTMENT OF HOUSING</small>
Subrecipient: Municipality of Maricao, PR	
Project Name: Revitalización y Restauración del Centro Urbano	Project ID: PR-CRP-000720

9. New additions, exterior alterations, or related new construction shall not destroy historic materials that characterize the property. The new work shall be differentiated from the old and shall be compatible with the massing, size, scale, and architectural features to protect the historic integrity of the property and its environment.

10. New additions and adjacent or related new construction shall be undertaken in such a manner that if removed in the future, the essential form, and integrity of the historic property and its environment would be unimpaired.

Correspondingly, the lot (18.18104368, -66.97977998) intended to house the five kiosks must comply with the permit requirements established regarding the patios and easements. This will decrease the effect on the adjacent eligible properties and their construction materials.

PUERTO RICO 2017 DISASTER RECOVERY, CDBG-DR PROGRAM CITY REVITALIZATION PROGRAM (CITY-REV) Section 106 NHPA Effect Determination		
Subrecipient: Municipality of Maricao, PR		
Project Name: Revitalización y Restauración del Centro Urbano		Project ID: PR-CRP-000720

Recommendation (Please keep on the same page as SHPO Staff Section)

The Puerto Rico Department of Housing requests that the Puerto Rico SHPO concur that the following determination is appropriate for the undertaking (Choose One):

- No Historic Properties Affected
- No Adverse Effect

Condition (if applicable): Archaeological Resources - Archaeological monitoring is recommended for all new construction within the Maricao Traditional Urban Center - this includes the new plaza to be constructed on PR105 and the lot with the proposed kiosks on Calle José de Diego. Care should be taken for vibration effects for the surrounding historic buildings to prevent damage during construction. An archaeological work plan will be prepared and submitted to the PRSHPO for review and approval.

Architectural Resources - All work on historic properties must be done in compliance with the Secretary of the Interior's Standards for Rehabilitation (<https://www.nps.gov/articles/000/treatment-standards-rehabilitation.htm>). Any scope changes must be evaluated by SOI-qualified architectural historian/architect to determine if those changes meet allowances in the Programmatic Agreement or if consultation must be re-initiated.

- Adverse Effect

Proposed Resolution (if applicable):

This Section is to be completed by SHPO Staff Only

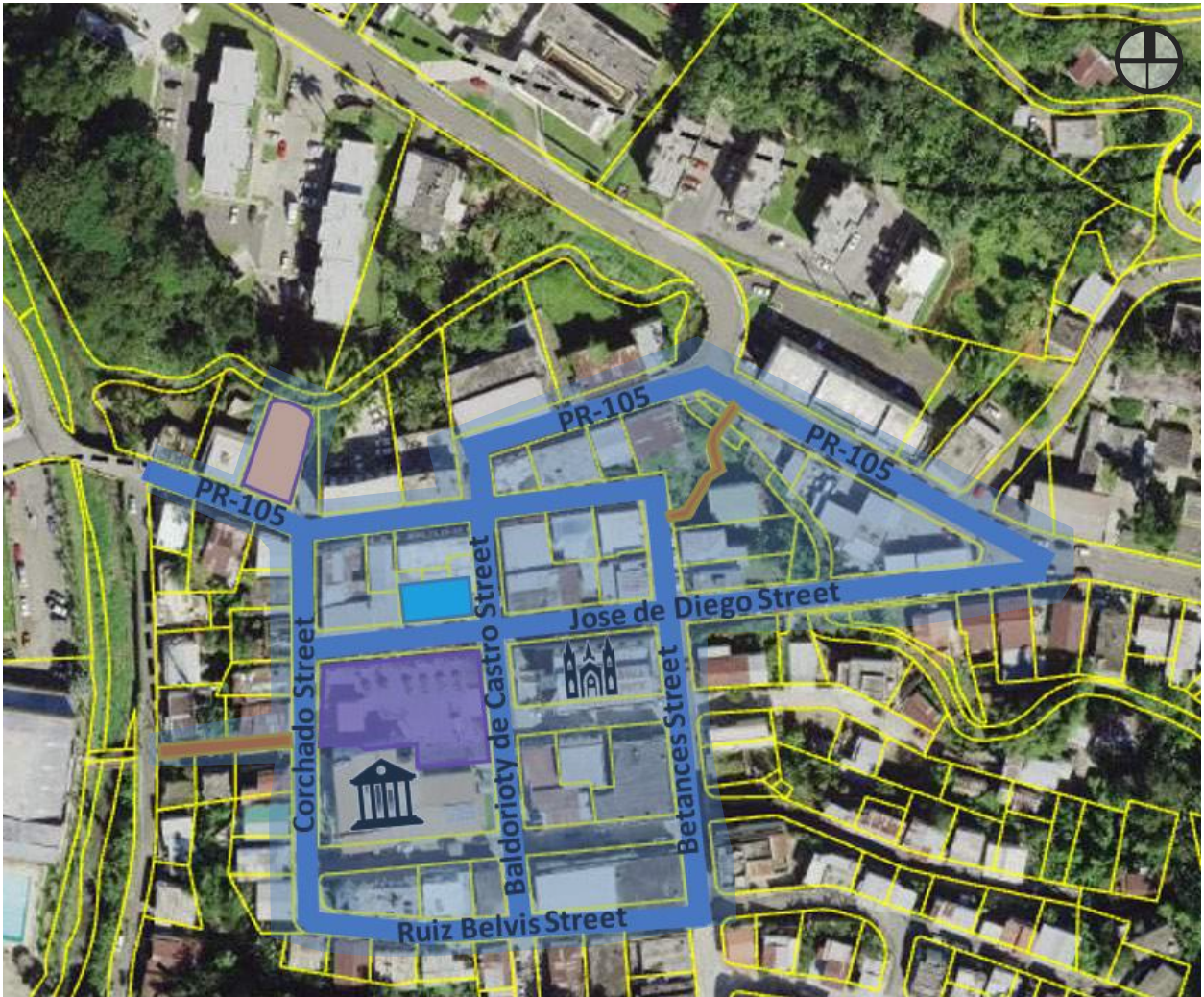
The Puerto Rico State Historic Preservation Office has reviewed the above information and:	
<input type="checkbox"/> Concurs with the information provided. <input type="checkbox"/> Does not concur with the information provided.	
Comments: 	
Carlos Rubio-Cancela State Historic Preservation Officer	Date:



Traditional Urban Center



Project (Parcel) Location – Area of Potential Effect Map (Aerial)



APE

Public Stairs Improvements

Street and Sidewalks Improvements

Construction of 5 New Kiosks

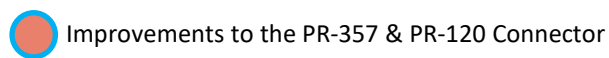
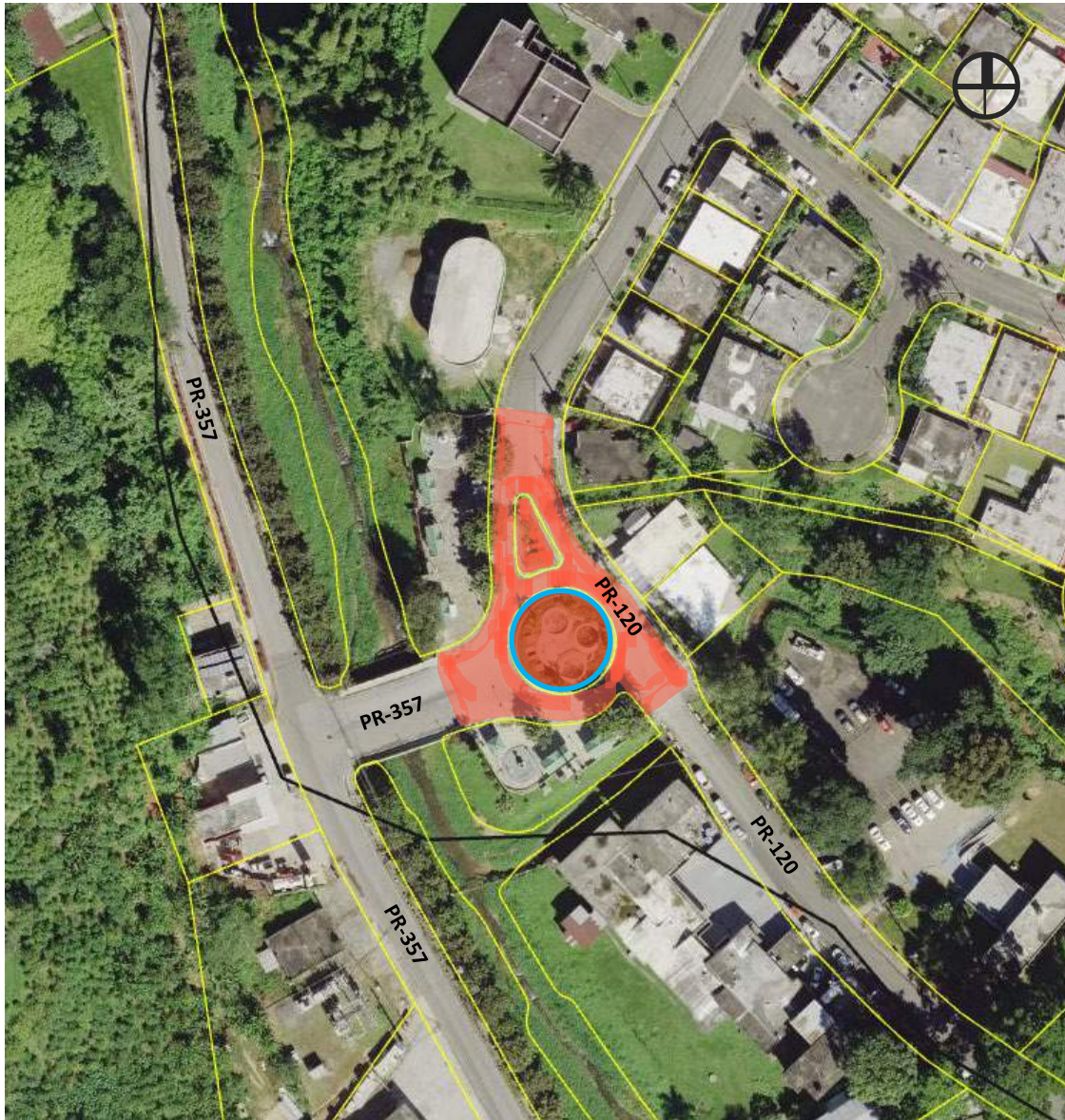
Public Square Renovation

Construction of Small Plaza for Public Recreation

Town Hall





San Juan Bautista Church





Project (Parcel) Location – Area of Potential Effect Map (Aerial)



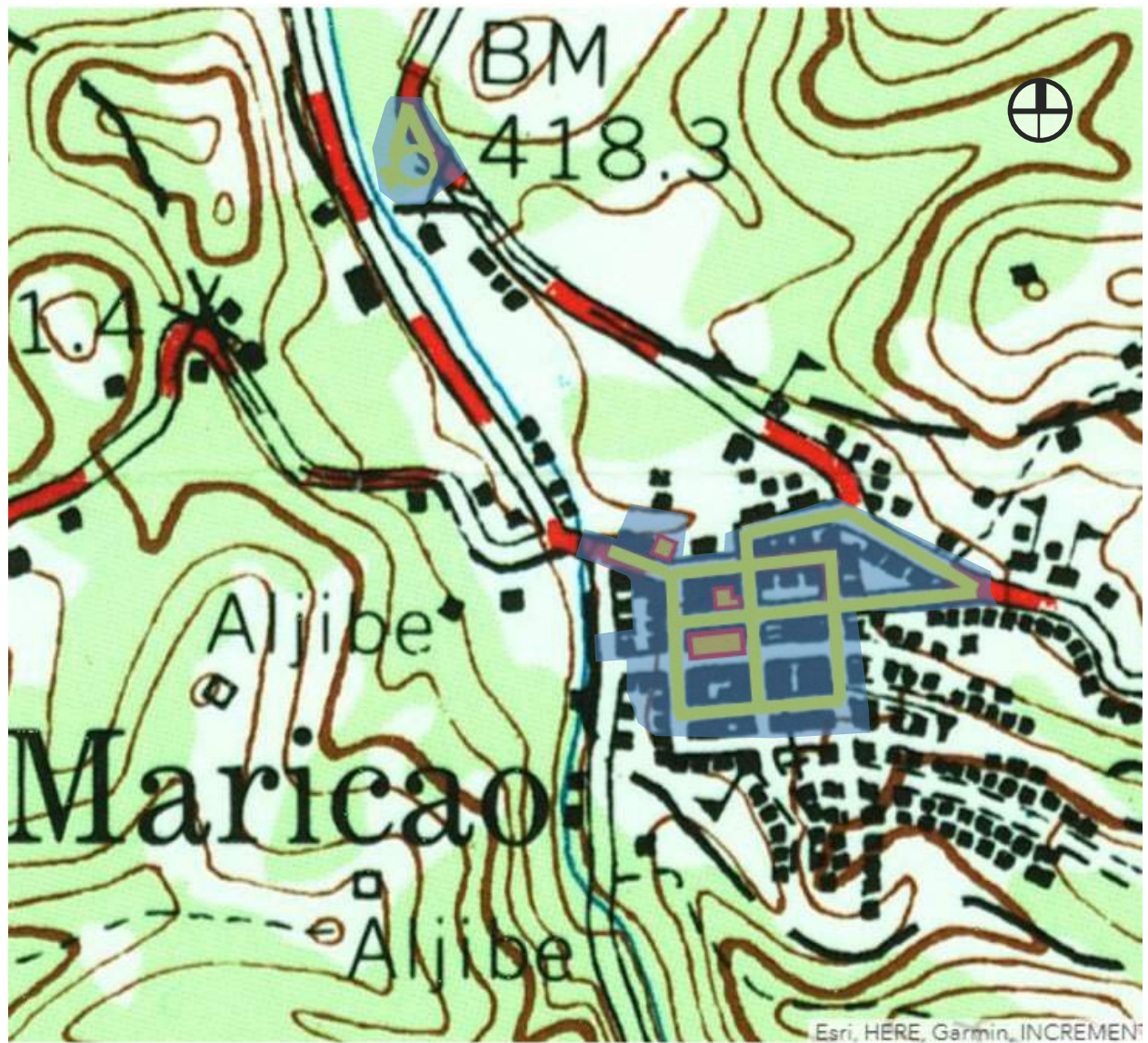
Project Parcels Location - Aerial Map



-  Public Stairs Improvements
-  Street and Sidewalks Improvements
-  Construction of 5 New Kiosks
-  Public Square Renovation

-  Construction of Small Plaza for Public Recreation
-  Town Hall
-  San Juan Bautista Church
-  Improvements to the PR-357 & PR-120 Connector

Project (Parcel) Location - USGS Topographic Map



Project (Parcel) Location with Previous Investigations - Aerial Map

(ICP/CAT/PAE Digital Records)

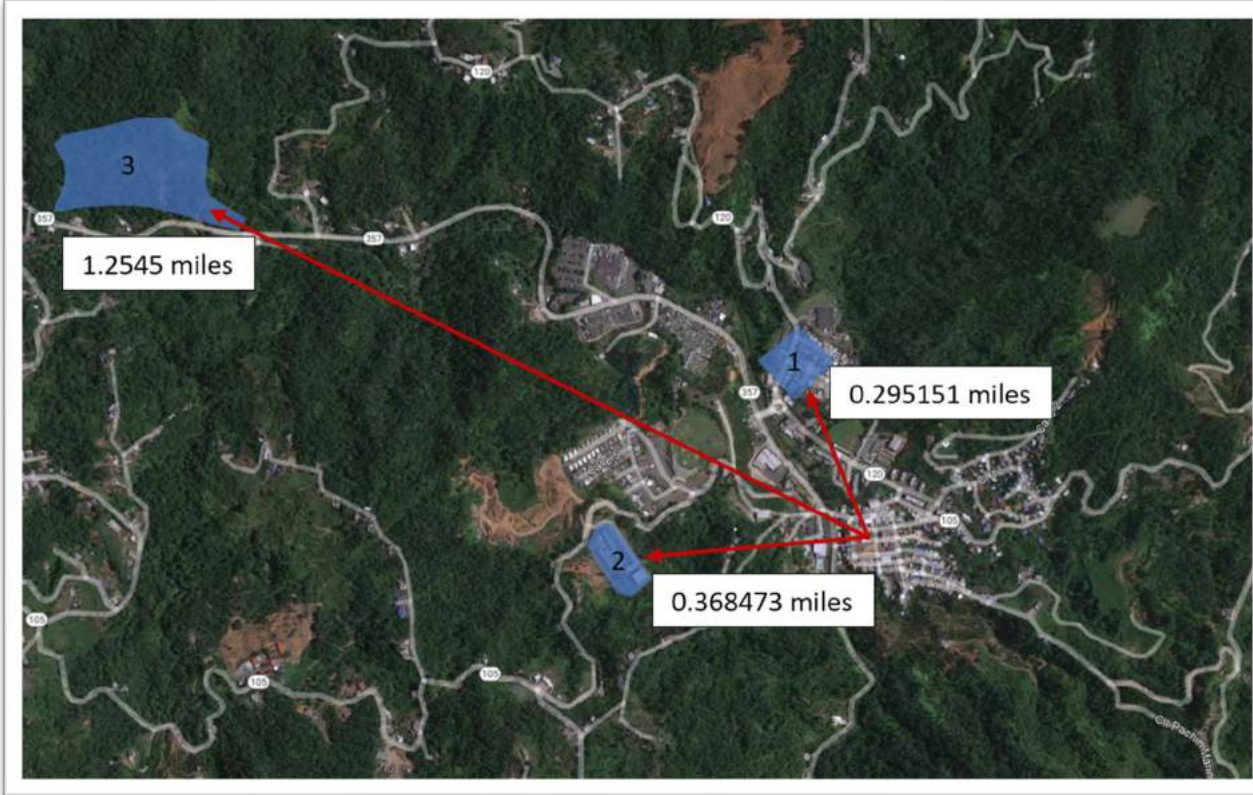


Table 1: Archaeological Studies near the Urban Center of Maricao.

Project Name	Phase	Archaeologist	Results	Distance to the APE
1. Emergency Project Inspection Report ICP/CAT/AD-06-04-08	Archaeological Inspection	J. López Melendez	Negative	0.295151 miles (475 meters)
2. Urban High School Construction PR-10 ICP/CAT/-MR-94-01-02	Phase IA/IB	J. López Melendez	Negative	0.368473 (593 meters)
3. Lomas del Rio Housing Apartments ICP/CAT/-MR-00-01-03	Phase IA-IB	N. Medina-Carrillo	Negative	1.2545484 miles (2,019 meters)

Project (Parcel) Location with Previous Investigations - Aerial Map



north



TUC



Properties registered in the NRHP

1

0 miles

2

.89 miles

3

7.81 miles

Iglesia San Juan Bautista de Maricao

Fecha de inclusión en el RNLH: 9/18/1984
 Número en el RNLH: 84003125
 Enlace a la ficha del recurso: [More info](#)
 Enlace a la nominación: [More info](#)

Toque la imagen para ampliar



Vivero de Peces

Fecha de inclusión en el RNLH: 2/21/2017
 Número en el RNLH: MP10000667
 Enlace a la ficha del recurso: [Fase de Diseño](#)
 Enlace a la nominación: [More info](#)

Toque la imagen para ampliar



Puente del Treinta

Fecha de inclusión en el RNLH: 7/19/1995
 Número en el RNLH: 95000846
 Enlace a la ficha del recurso: [More info](#)
 Enlace a la nominación: [More info](#)

Toque la imagen para ampliar



Project (Parcel) Location with Registered and Eligible Properties within APE- Aerial Map



1	Private Property (262-014-032-04-001), Eligible
2	Private Property (262-014-007-01-001), Eligible
3	Private Property (262-014-007-06-001), Eligible
4	Private Property (262-014-008-01-901), Eligible
5	Maricao Traditional Center Square, Eligible Site
6	Catholic Church, Registered Property
7	Private Property (262-014-018-02-001), Eligible
8	Presbyterian Church, Eligible

Project location with Previously Recorded Cultural Resources (PR-SHPO FILES) on a radius of 0.25 miles.





Subrecipient: Municipality of Maricao, PR

Project Name: Revitalización y Restauración del Centro Urbano

Project ID: PR-CRP-000720



Photo #: 01

Description (include direction): looking southwest.

Date: Oct 2022

Public Square



Photo #:02

Description (include direction): southeast.

Date: Oct 2022

Maricao's Town Hall

Subrecipient: Municipality of Maricao, PR

Project Name: Revitalización y Restauración del Centro Urbano

Project ID: PR-CRP-000720



Photo #: 03

Description (include direction): towards east.

Date: Oct 2022

San Juan Bautista Parish



Photo #:04

Description (include direction): towards southeast.

Date: Oct 2022

Public Square pavement pattern detail.

Subrecipient: Municipality of Maricao, PR

Project Name: Revitalización y Restauración del Centro Urbano

Project ID: PR-CRP-000720



Photo #: 05

Description (include direction): towards west.

Date: Oct 2022

Stairs that connect the Public Square and TUC with the Sports Complex.



Photo #:06

Description (include direction): towards northeast.

Date:Oct 2022

The church is seen at the center and an eligible property on the left.

Subrecipient: Municipality of Maricao, PR

Project Name: Revitalización y Restauración del Centro Urbano

Project ID: PR-CRP-000720



Photo #: 07

Description (include direction): towards north.

Date: Oct 2022

Lot destined for the 5 kiosks construction.



Photo #:08

Description (include direction): towards northwest.

Date: Oct 2022

Detail of construction of eligible property that bounds the lot destined for the 5 kiosks.

Subrecipient: Municipality of Maricao, PR

Project Name: Revitalización y Restauración del Centro Urbano

Project ID: PR-CRP-000720



Photo #: 09

Description (include direction):

Date: Oct 2022

Overall sidewalks conditions detail.



Photo #:010

Description (include direction): towards northwest.

Date: Oct 2022

Lot destined for the small plaza construction.

Subrecipient: Municipality of Maricao, PR

Project Name: Revitalización y Restauración del Centro Urbano

Project ID: PR-CRP-000720



Photo #: 011

Description (include direction):

Date: Oct 2022

Public Square pavement condition



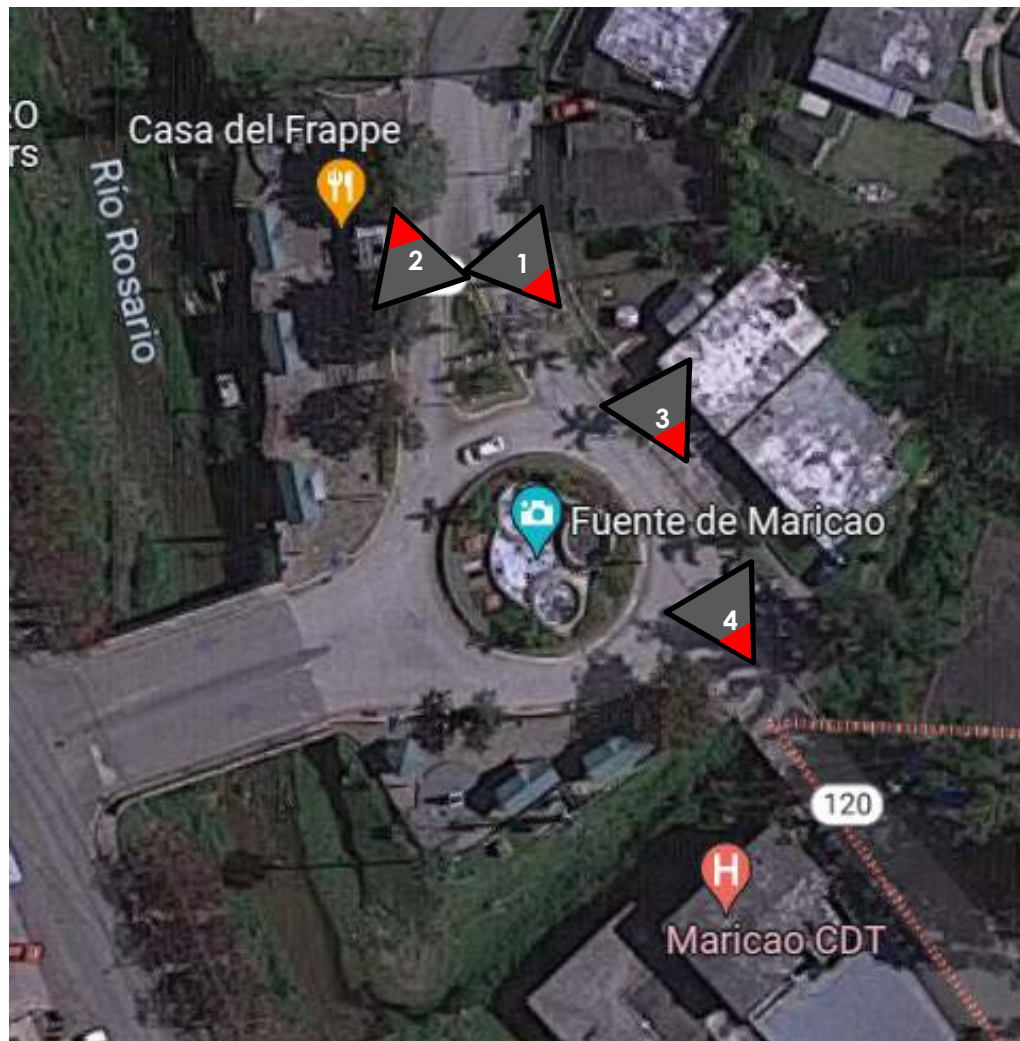
Photo #: 012

Description (include direction): towards east.

Date: Oct 2022

Stairs that connect the Sports Complex with the Public Square.

Photo Key



PUERTO RICO 2017 DISASTER RECOVERY, CDBG-DR PROGRAM

CITY REVITALIZATION PROGRAM (CITY-REV)

Section 106 NHPA Effect Determination



Subrecipient: Municipality of Maricao, PR

Project Name: Revitalización y Restauración del Centro Urbano

Project ID: PR-CRP-000720



Photo #:001

Description (include direction): PR-357 and PR-120 roundabout connector intersection looking West.

Date: Nov 2022

Subrecipient: Municipality of Maricao, PR

Project Name: Revitalización y Restauración del Centro Urbano

Project ID: PR-CRP-000720



Photo #:02

Description (include direction): towards north.

Date: Nov 2022

Small space for sitting and a gazebo on the left.

Subrecipient: Municipality of Maricao, PR

Project Name: Revitalización y Restauración del Centro Urbano

Project ID: PR-CRP-000720



Photo #: 03

Description (include direction): towards south.

Date: Nov 2022

Gazebos are seen at the background on the right.



Photo #:04

Description (include direction): towards south.

Date: Nov 2022

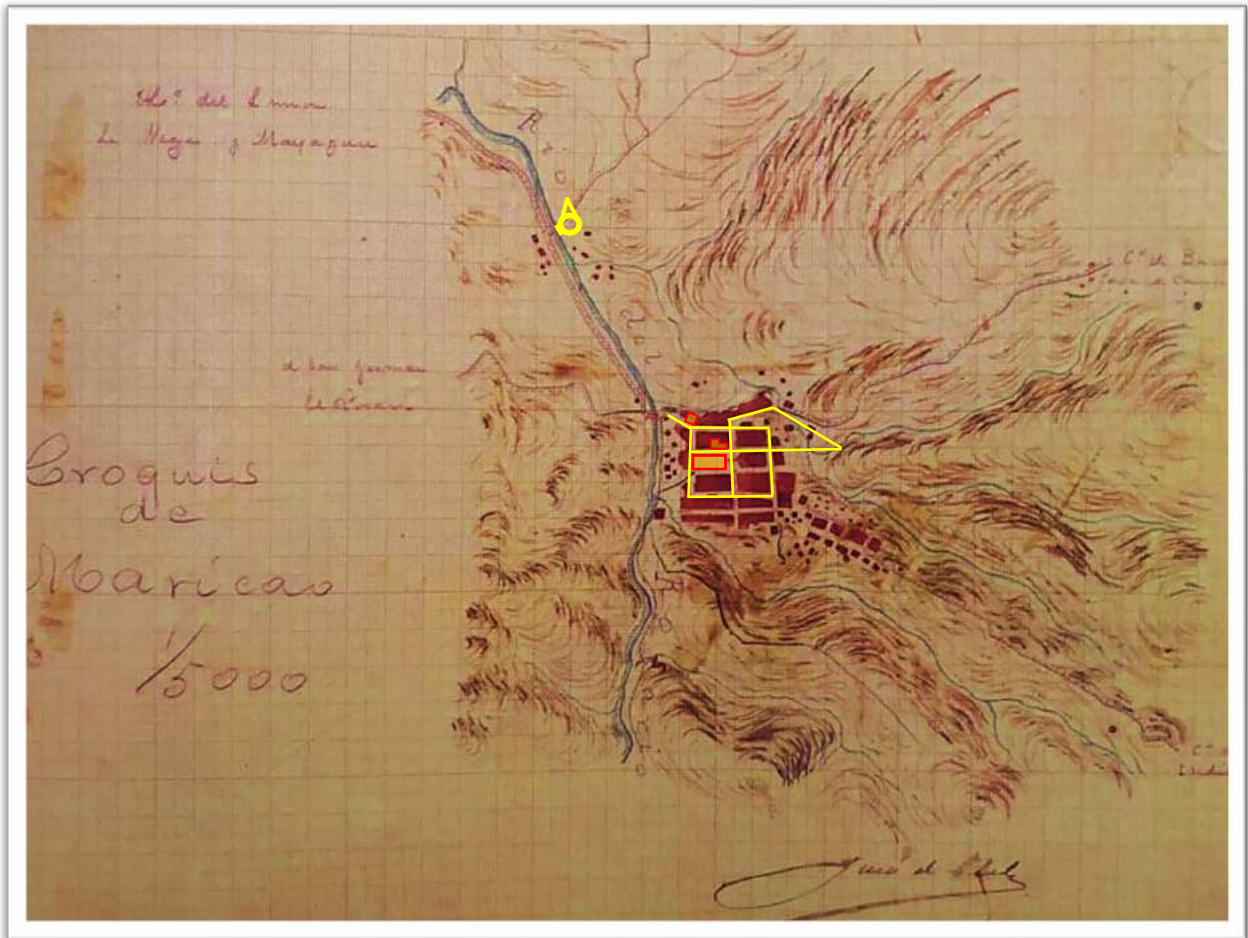
The building in the center is the Maricao CDT.

Add additional photo pages as needed.

Supporting Documents

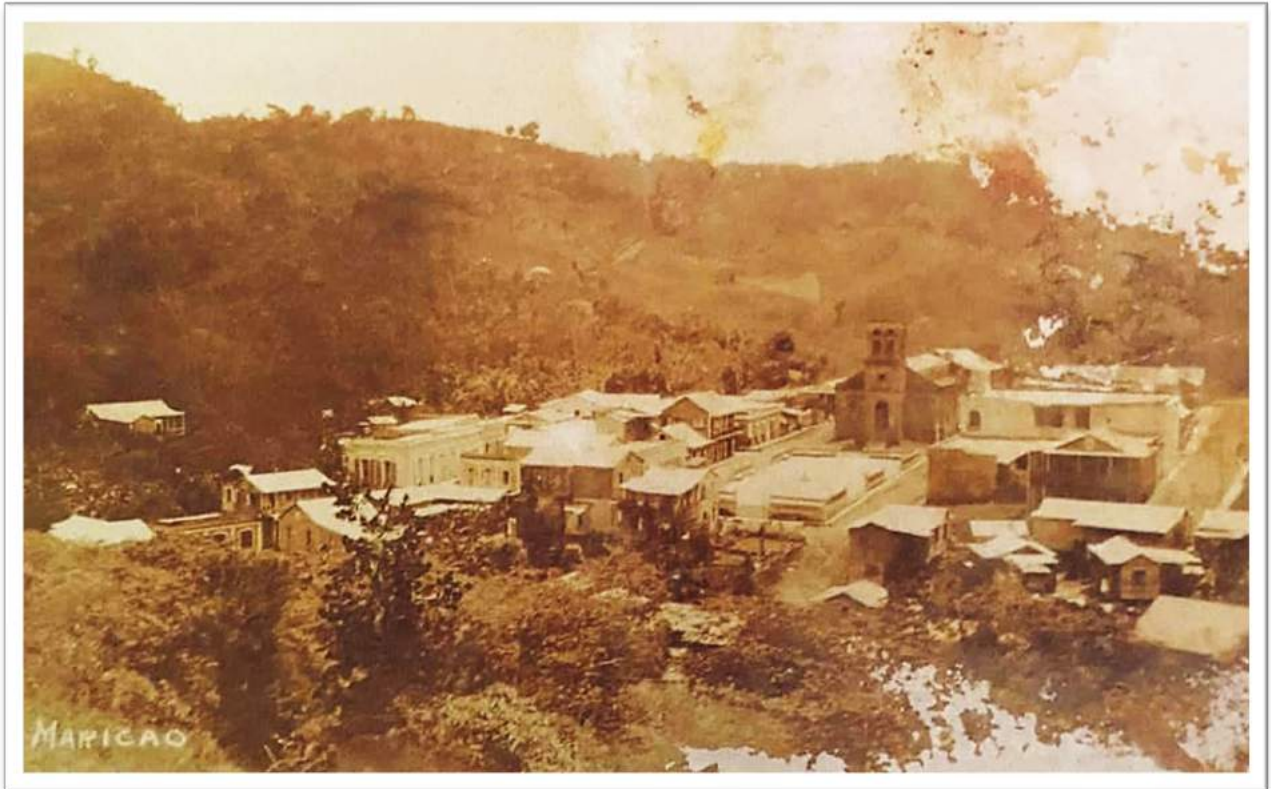
Attachment 1: Historical Images, Historical Topographic Quadrangles, and Historical Aerial Photos of Maricao, PR.

Figure 1: Croquis de Maricao 1888-1892, José Elola y Gutiérrez, Cuerpo de Ingenieros militares españoles.¹



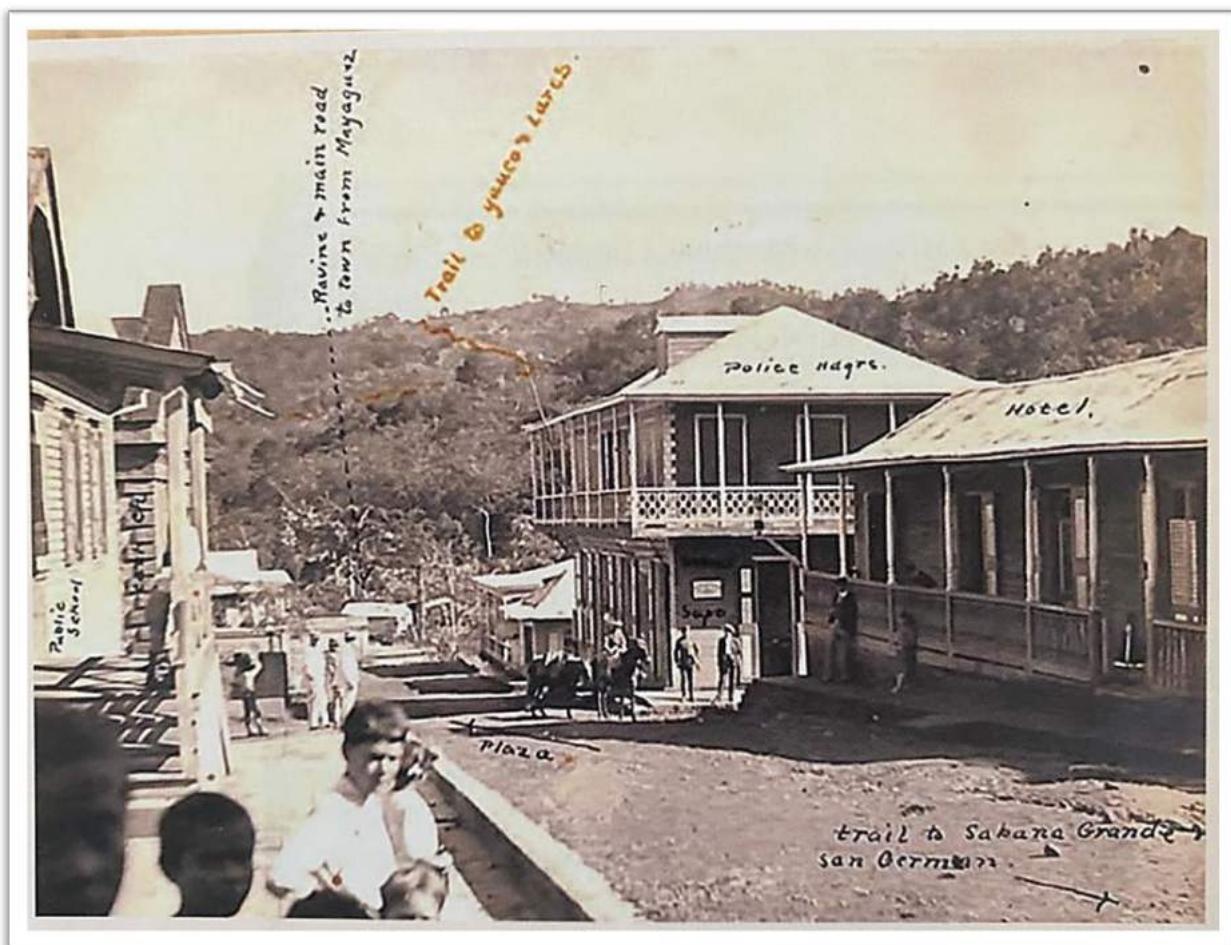
¹ Sepúlveda Rivera, Aníbal, Puerto Rico Urbano, Vol. III. Page. 241.

Figure 2: View of the town of Maricao. Postcard ©1900.²



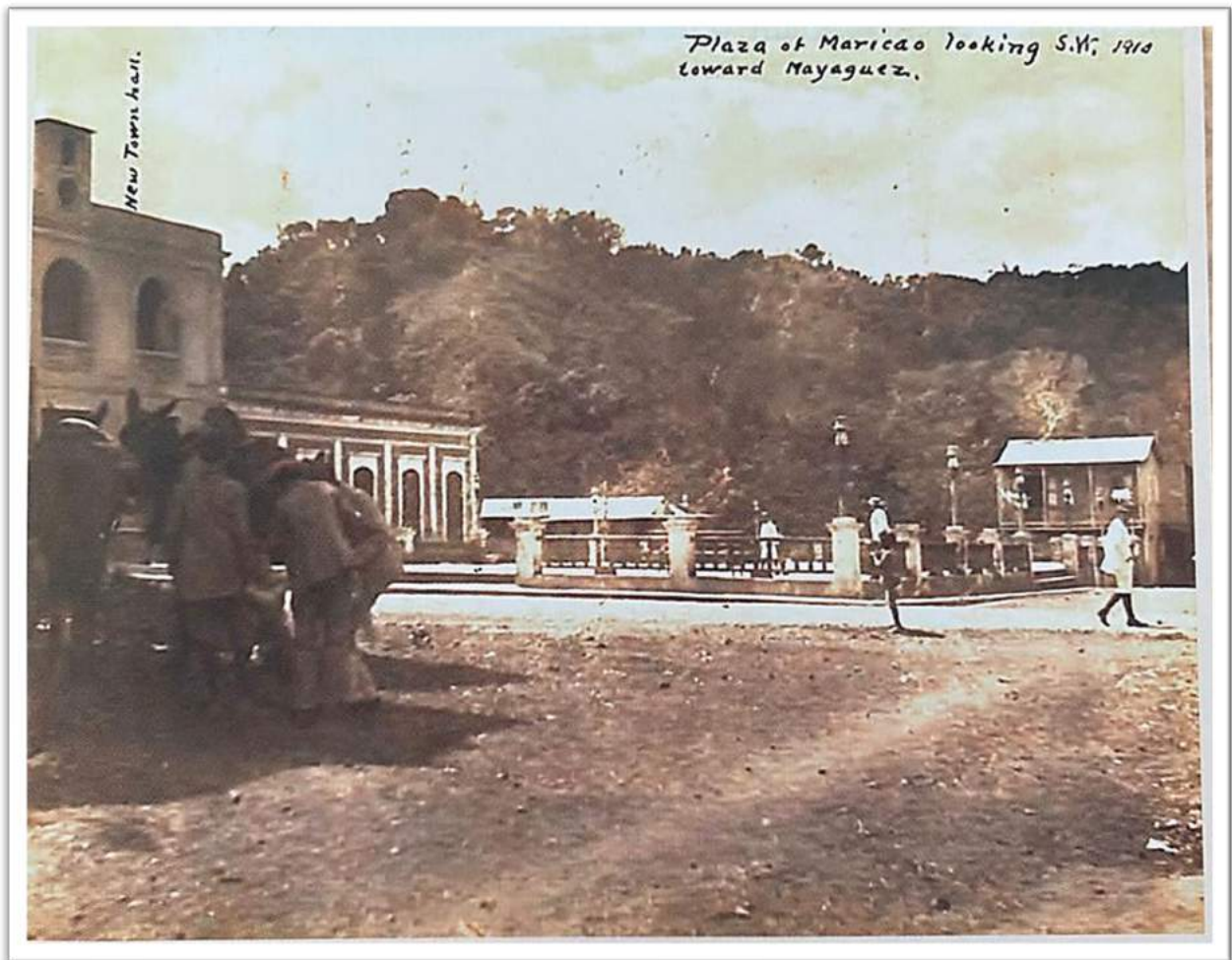
² Ibid. Page. 243.

Figure 3: View of Maricao 1910. Lieutenant William H. Armstrong.³



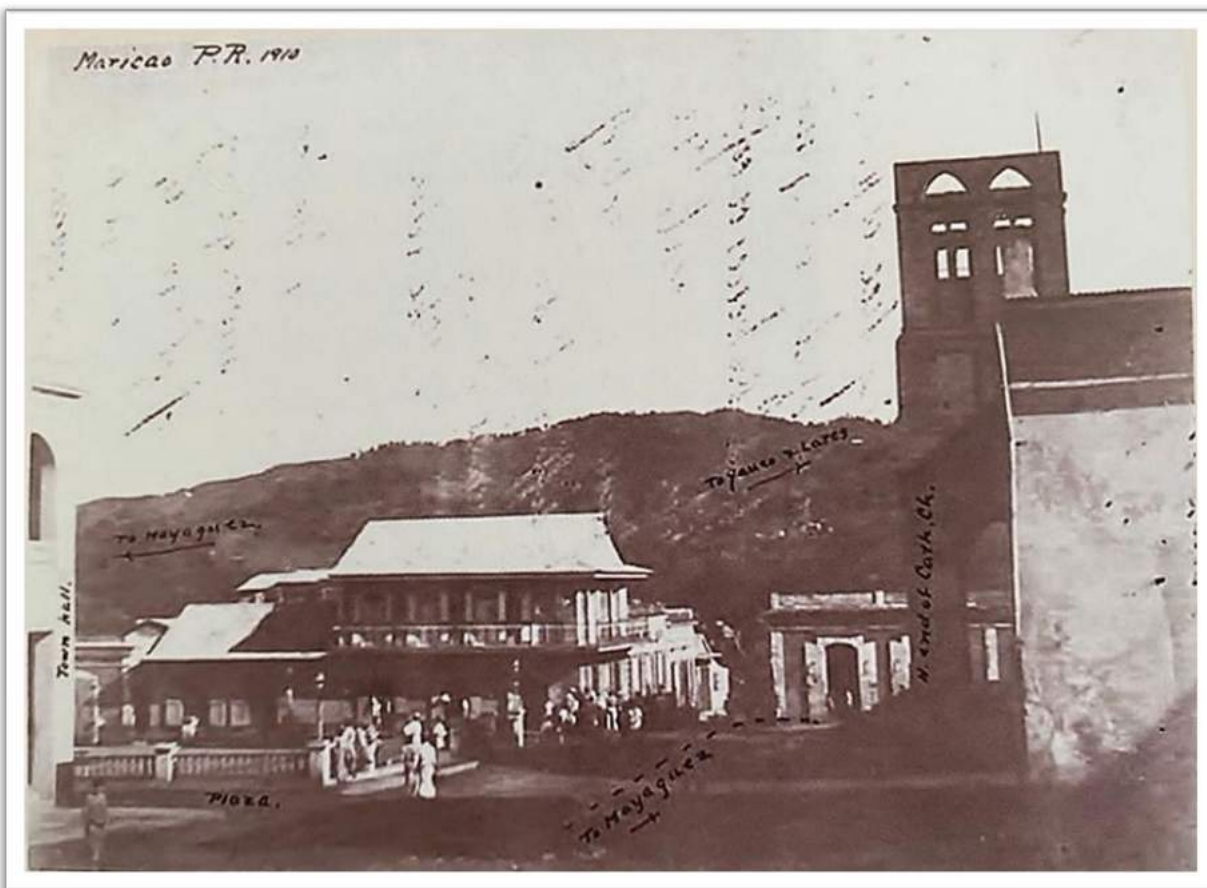
³ Ibid. Page. 424.

Figure 4: View of the Plaza de Maricao 1910. Lieutenant William H. Armstrong⁴



⁴ Ibid. Page 427.

Figure 5: View of the Plaza de Maricao and Church, 1910. Lieutenant William H. Armstrong.⁵



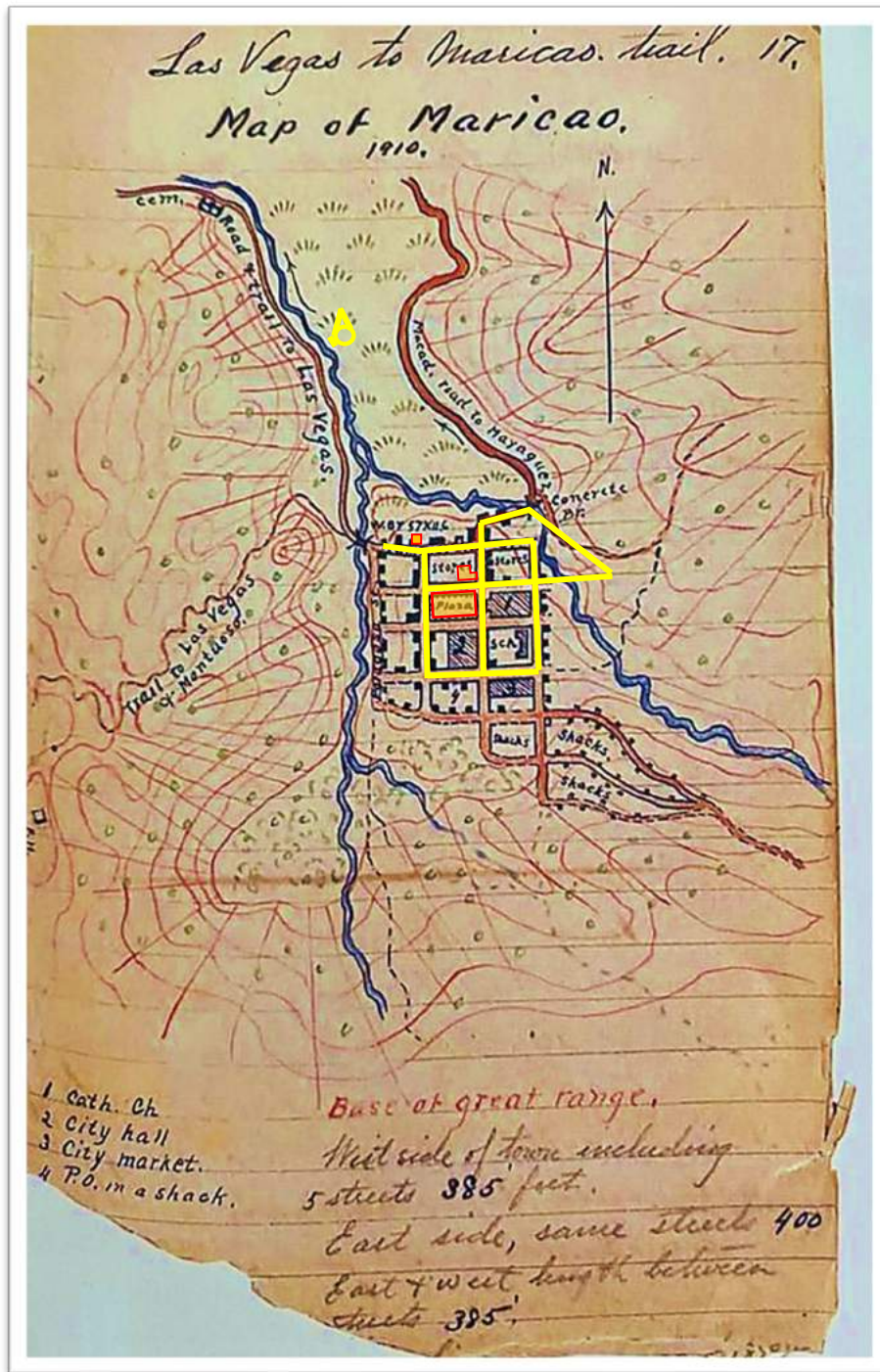
⁵ Ibid. 427.

Figure 6: View of the S.W. corner Roman Catholic Church of Maricao 1910. Lieutenant William H. Armstrong.⁶



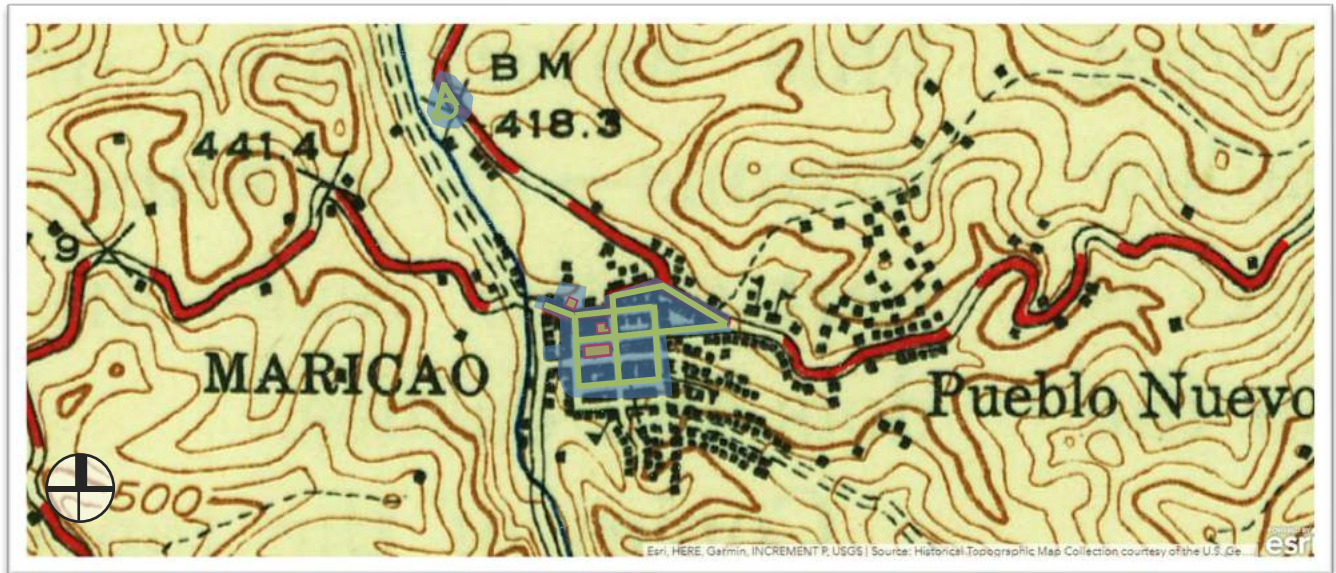
⁶ Ibid. 427.

Figure 7: Mapa de Maricao, 1910. Lieutenant William H. Armstrong.⁷



⁷ Ibid. Page. 423.

Figure 8: Maricao USGS Topographic Quadrangle, 1946.

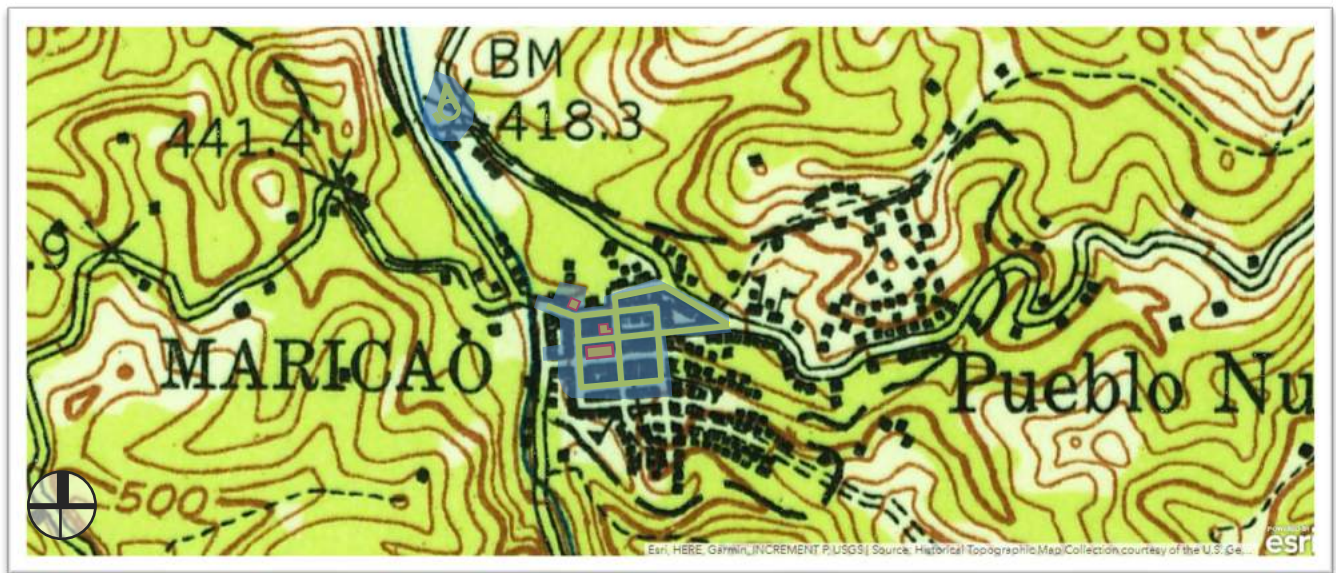


north



APE

Figure 9: Maricao USGS Topographic Quadrangle, 1952.

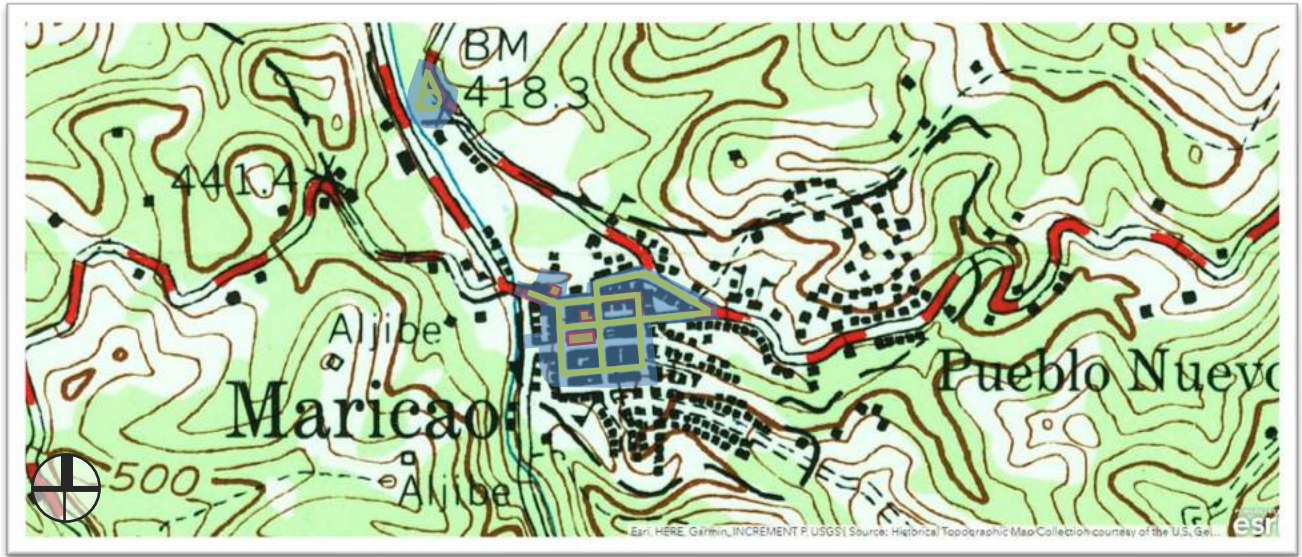


north



APE

Figure 10: Maricao USGS Topographic Quadrangle, 1960.



north



APE

Figure 11: Aerial photo of Maricao Urban Center in 1936.



north



APE

Figure 12: Aerial photo of Maricao Urban Center in 1993.



 north

 APE

Figure 13: Aerial photo of Maricao Urban Center in 2018.



Figure 14: Oblique Aerial view of the Urban Center of Maricao.⁸



⁸ <https://www.noticel.com/ahora/20210116/el-municipio-de-maricao-alega-no-tener-fondos-para-renovar-contrato-de-empleados/>

Figure 15: Public Plaza Luis Muñoz Rivera.



Figure 16: Catholic Church of San Juan Bautista de Maricao



[Maricao Church](#)

Photo: Jose Caraballo

Noise Abatement and Control

Noise Abatement & Control

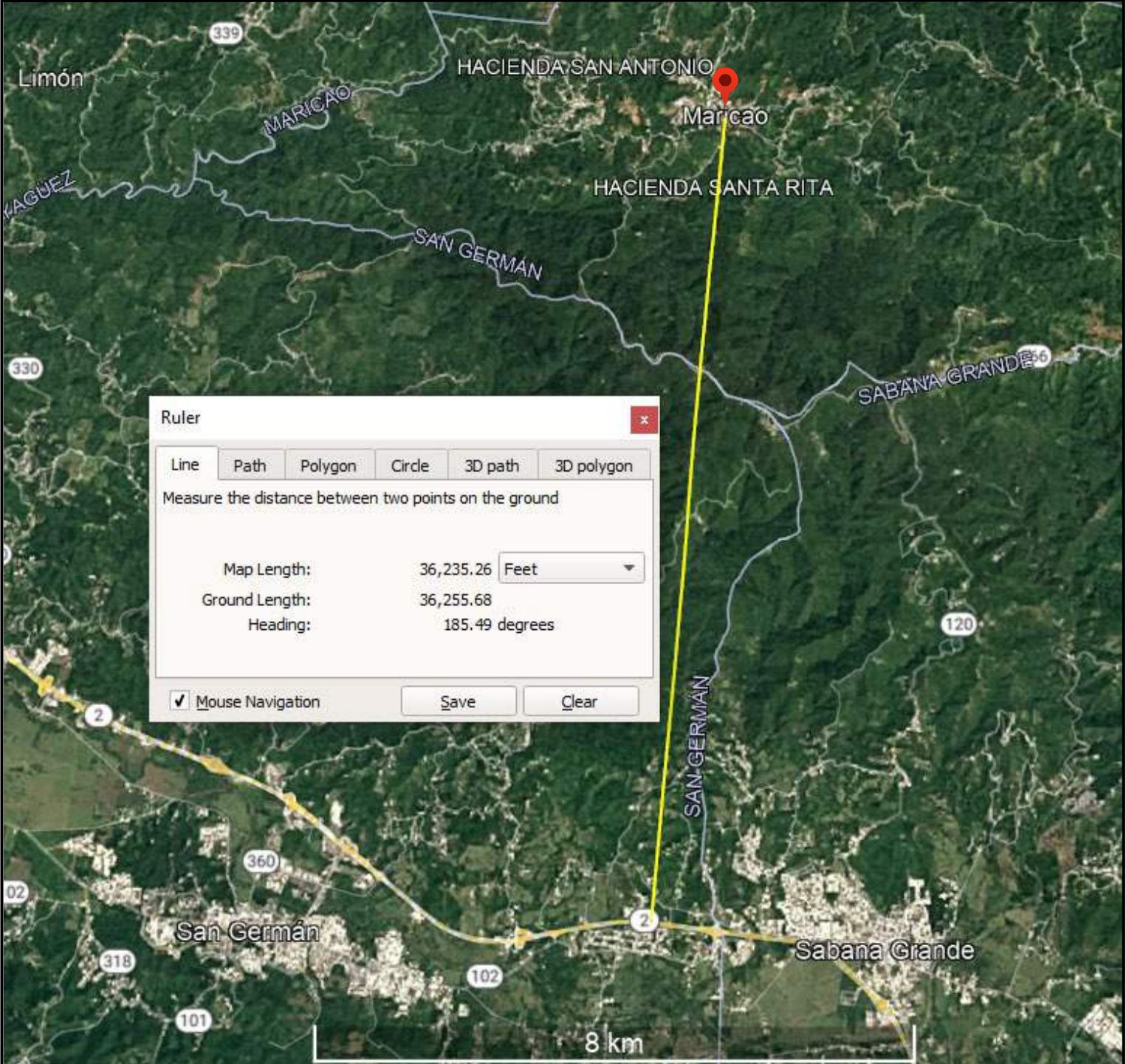
PR-CRP-000720

HERNAN JR. MACHADO TORRES P.E.
INGENIEROS CONSULTORES

Address: Calle José de Diego, BO. Pueblo, Maricao PR 00606

Coordinates: Public Plaza (18.180775, -66.979881); Kiosks (18.18104368, -66.97977998);

Small Plaza (18.18139782, -66.98022663); Roundabout Intersection (18.183654, -66.981702)



Ruler

Line Path Polygon Circle 3D path 3D polygon

Measure the distance between two points on the ground

Map Length:	36,235.26	Feet
Ground Length:	36,255.68	
Heading:	185.49	degrees

Mouse Navigation Save Clear

Distance to nearest major road is 36,235.26 feet from the project site.



 Project Site

Spatial Reference: WGS_1984_Web_Mercator_Auxiliary_Sphere

Source: Google Earth Pro

Noise Abatement & Control

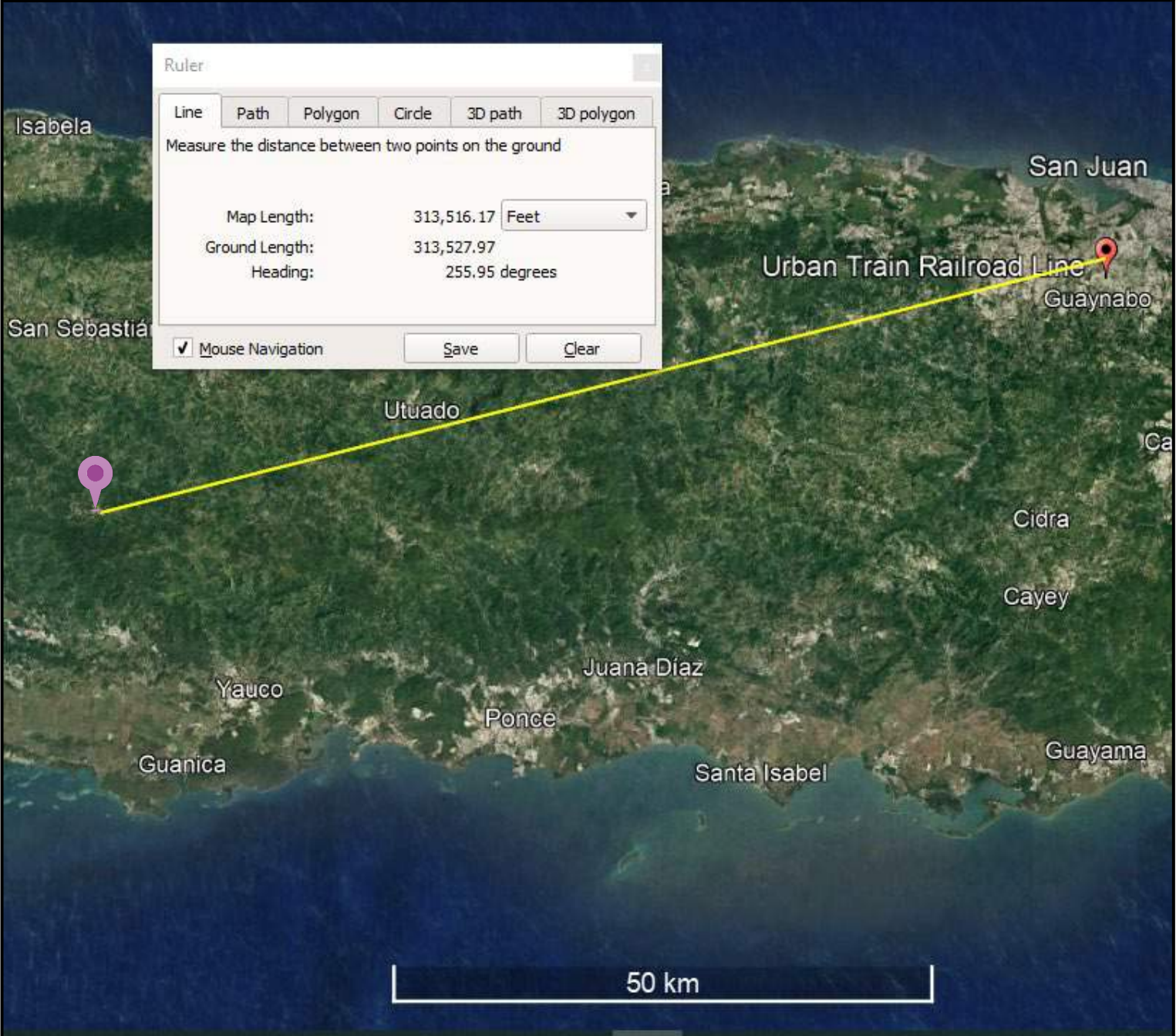
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Distance to nearest railroad is 313,516.17 feet from the project site.



Legend

-  Urban Train Railroad Line
-  Project Site

Spatial Reference: WGS_1984_Web_Mercator_Auxiliary_Sphere

Source: Google Earth Pro

Noise Abatement & Control

PR-CRP-000720

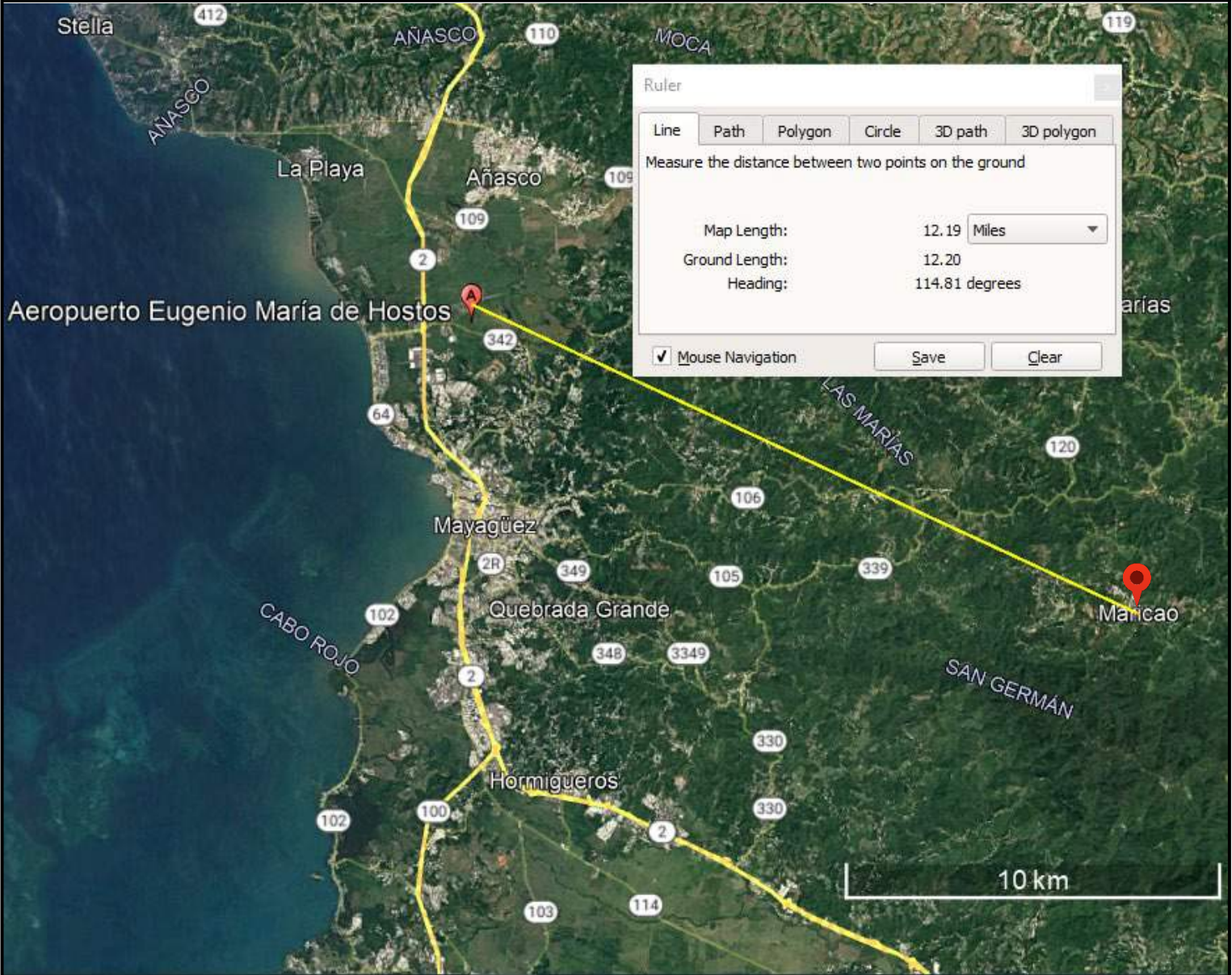
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INGENIEROS CONSULTORES



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Small Plaza (18.18139782, -66.98022663); Roundabout Intersection (18.183654, -66.981702)



Distance to nearest civilian airport is 13.19 miles from the project site.



Legend

Aeropuerto Eugenio María de Hostos

Project Site

Spatial Reference: WGS_1984_Web_Mercator_Auxiliary_Sphere

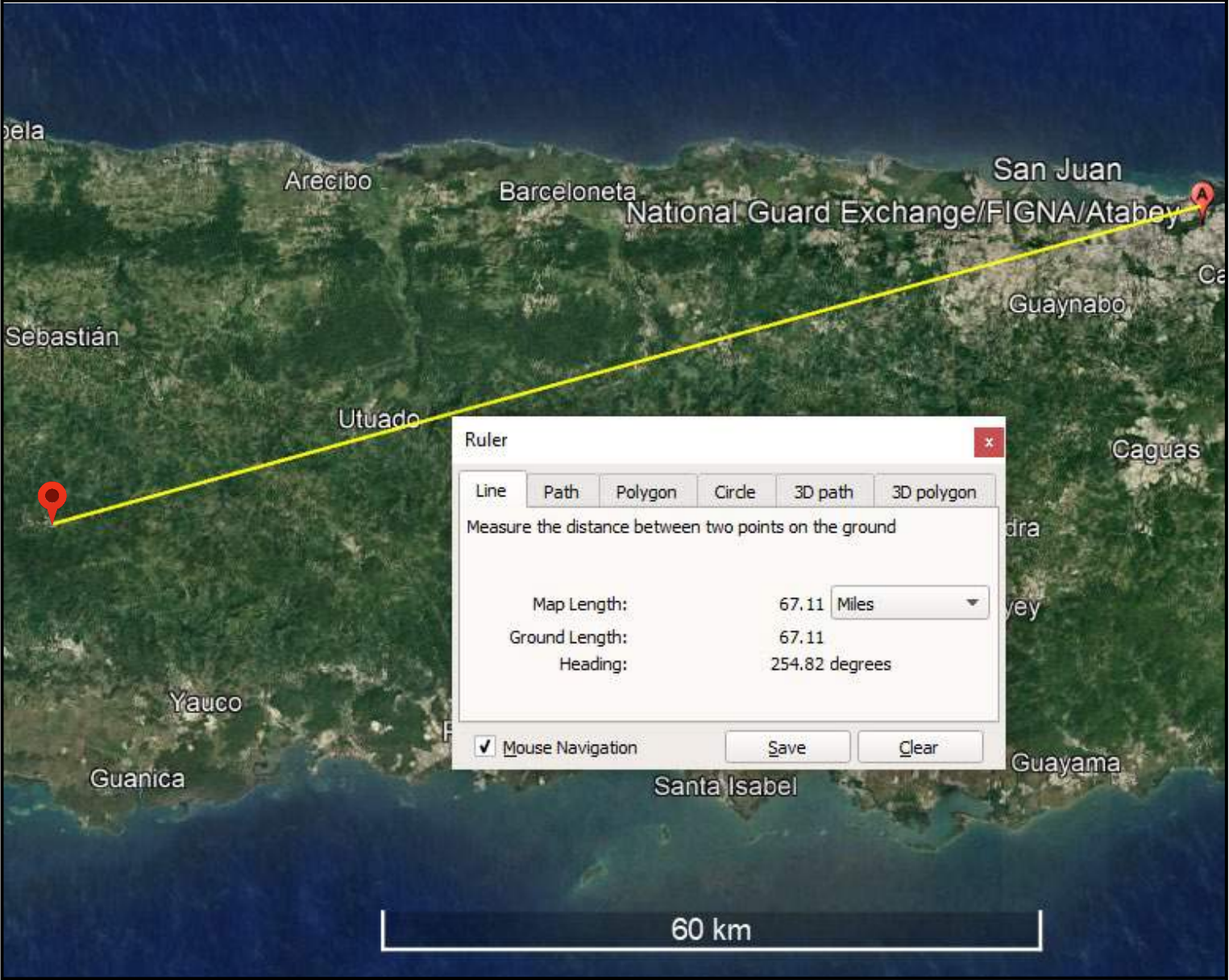
Source: Google Earth Pro

Noise Abatement & Control

PR-CRP-000720

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Small Plaza (18.18139782, -66.98022663); Roundabout Intersection (18.183654, -66.981702)



Ruler

Line Path Polygon Circle 3D path 3D polygon

Measure the distance between two points on the ground

Map Length:	67.11	Miles
Ground Length:	67.11	
Heading:	254.82	degrees

Mouse Navigation Save Clear

Distance to nearest military airport is 67.11 miles from the project site.



Legend

National Guard Exchange/FIGNA/Atabey

Project Site

Spatial Reference: WGS_1984_Web_Mercator_Auxiliary_Sphere

Source: Google Earth Pro

Sole Source Aquifers

Sole Source Aquifers - PR-CRP-000720

HERNAN JR. MACHADO TORRES P.E.
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Address: Calle José de Diego, BO. Pueblo, Maricao PR 00606

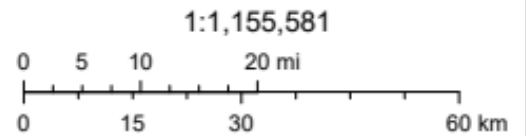
Coordinates: Public Plaza (18.180775, -66.979881); Kiosks (18.18104368, -66.97977998);
Small Plaza (18.18139782, -66.98022663); Roundabout Intersection (18.183654, -66.981702)



Project Site



Sole Source Aquifers



There are no sole source aquifers in Puerto Rico.

[Jump to main content.](#)



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- You are here: [EPA Home](#)
- [Region 2](#)
- [Water](#)
- [Aquifers](#)

Sole Source Aquifers

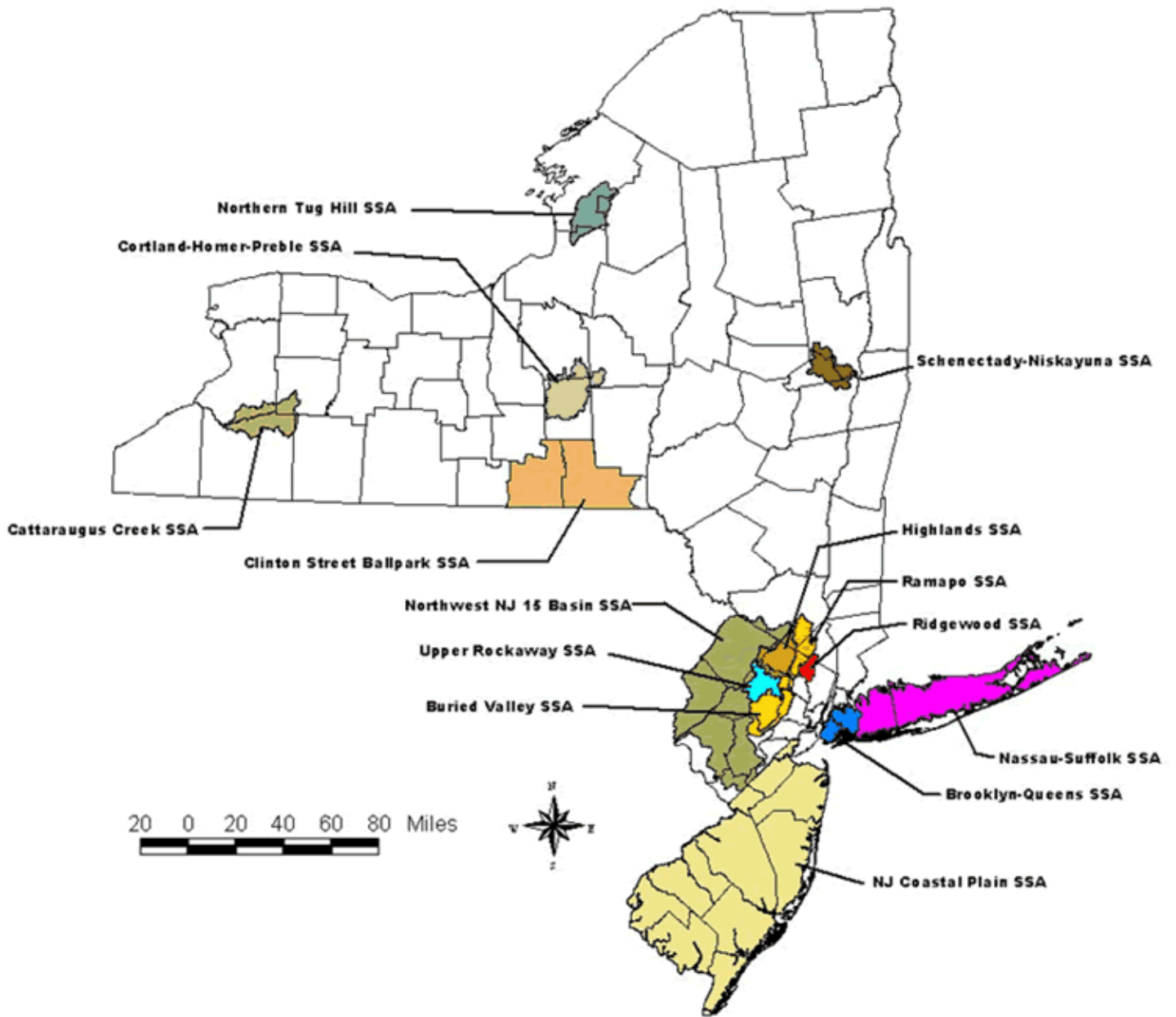
Related Information

- [Sole Source Aquifer Program](#)
- [Petitioner Guidance](#)
- [FAQs \[PDF 14 KB, 2 pp\]](#)
- [40 CFR 149](#)
- [Section 1424\(e\) and NEPA](#)

Sole Source Aquifer designation is one tool to protect drinking water supplies in areas with few or no alternative sources to the ground water resource, and where if contamination occurred, using an alternative source would be extremely expensive. The designation protects an area's ground water resource by requiring EPA to review all proposed projects within the designated area that will receive federal financial assistance. All proposed projects receiving federal funds are subject to review to ensure they do not endanger the ground water source.

EPA defines a sole or principal source aquifer as one which supplies at least fifty percent (50%) of the drinking water consumed in the area overlying the aquifer. These areas can have no alternative drinking water source(s) which could physically, legally, and economically supply all those who depend upon the aquifer for drinking water. For convenience, all designated sole or principal source aquifers are referred to as "sole source aquifers" (SSA).

If you are interested in petitioning the EPA to make a designation, please consult the [Sole Source Aquifer Program Petitioner's Guidance](#) or contact EPA for assistance.



DESIGNATED SOLE SOURCE AQUIFERS

State	Name	Federal Register	Date	GIS Map	Information
NJ	Buried Valley Aquifers, Central Basin, Essex and Morris Counties	45 FR 30537	05/08/80	Yes	Yes
NJ	Upper Rockaway River Basin	49 FR 2946	01/24/84	Yes	Yes
NJ	Ridgewood Area Aquifers	49 FR 2943	01/24/84	Yes	Yes
NJ/NY	Highlands Aquifer System Passaic, Morris & Essex Co's NJ; Orange Co. NY	52 FR 37213	10/05/87	Yes	Yes
NJ/DE/PA	New Jersey Coastal Plain Aquifer System	53 FR 23791	06/24/88	Yes	Yes
NJ/NY	New Jersey Fifteen Basin Aquifers	53 FR 23685	06/23/88	Yes	Yes
NJ/NY	Ramapo River Basin Aquifer Systems	57 FR 39201	08/28/92	Yes	Yes
NY	Nassau/Suffolk Co., Long Island	43 FR 26611	06/21/78	Yes	Yes
NY	Kings/Queens Counties	49 FR 2950	01/24/84	Yes	Yes
NY	Schenectady/Niskayuna	50 FR 2022	01/14/85	Yes	Yes
NY	Clinton Street-Ballpark Valley Aquifer System, Broome and Tioga Co's	50 FR 2025	01/14/85	Yes	Yes
NY	Cattaraugus Creek Basin Aquifer, WY & Allegany Cos.	52 FR 36100	09/25/87	Yes	Yes
NY	Cortland-Homer-Preble Aquifer System	53 FR 22045	06/13/88	Yes	Yes
NY	Northern Tug Hill Glacial Aquifer	71 FR 64524	11/02/06	Yes	Yes

Wetlands Protection

Wetlands Protection - PR-CRP-000720

HERNAN JR. MACHADO TORRES P.E.
INGENIEROS CONSULTORES












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Wetlands

-  Estuarine and Marine Deepwater
 -  Estuarine and Marine Wetland
 -  Freshwater Emergent Wetland
 -  Freshwater Forested/Shrub Wetland
 -  Freshwater Pond
 -  Lake
 -  Other
 -  Riverine
-  Project Site



U.S. Fish and Wildlife Service

National Wetlands Inventory

Source: USFWS National Wetlands Inventory (NWI)
NWI mapper

Spatial Reference: WGS_1984_Web_Mercator_Auxiliary_Sphere

Wetlands Protection

PR-CRP-000720

HERNAN JR. MACHADO TORRES P.E.
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Wetlands

- Estuarine and Marine Deepwater
- Estuarine and Marine Wetland
- Freshwater Emergent Wetland
- Freshwater Forested/Shrub Wetland
- Freshwater Pond
- Lake
- Other
- Riverine



Distance to nearest freshwater emergent wetland is 52,500 feet from the project site.

Spatial Reference: WGS_1984_Web_Mercator_Auxiliary_Sphere

Source: USFWS National Wetlands Inventory (NWI)
NWI mapper

Wild and Scenic Rivers

Wild and Scenic Rivers

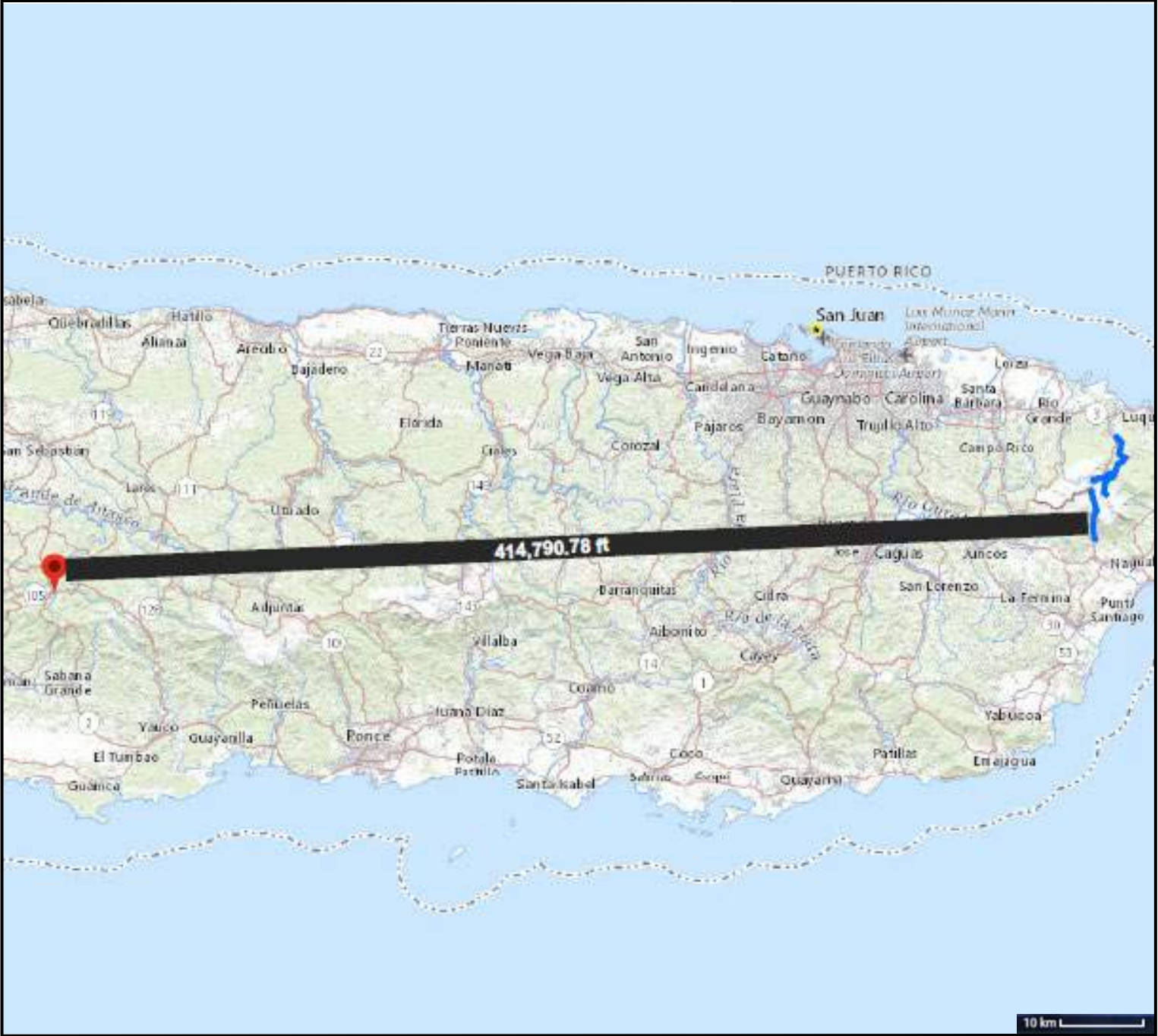
HERNAN JR. MACHADO TORRES P.E.
INGENIEROS CONSULTORES

PR-CRP-000720

Address: Calle José de Diego, BO. Pueblo, Maricao PR 00606


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Small Plaza (18.18139782, -66.98022663); Roundabout Intersection (18.183654, -66.981702)



Distance to nearest wild and scenic river is 414,790.78 feet (78.56 miles) from the project site.

Legend

 Wild and Scenic Rivers

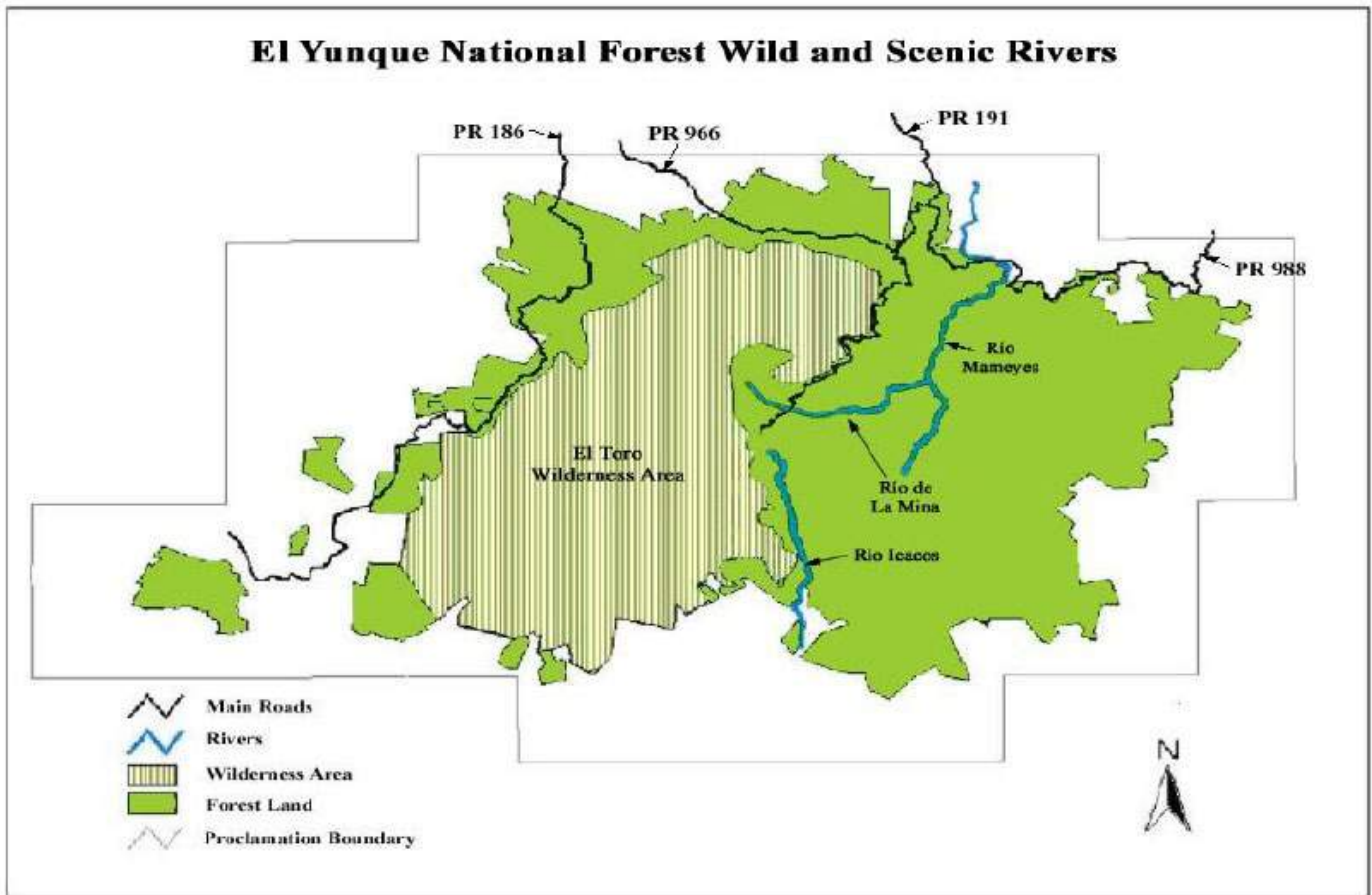
 Project Location

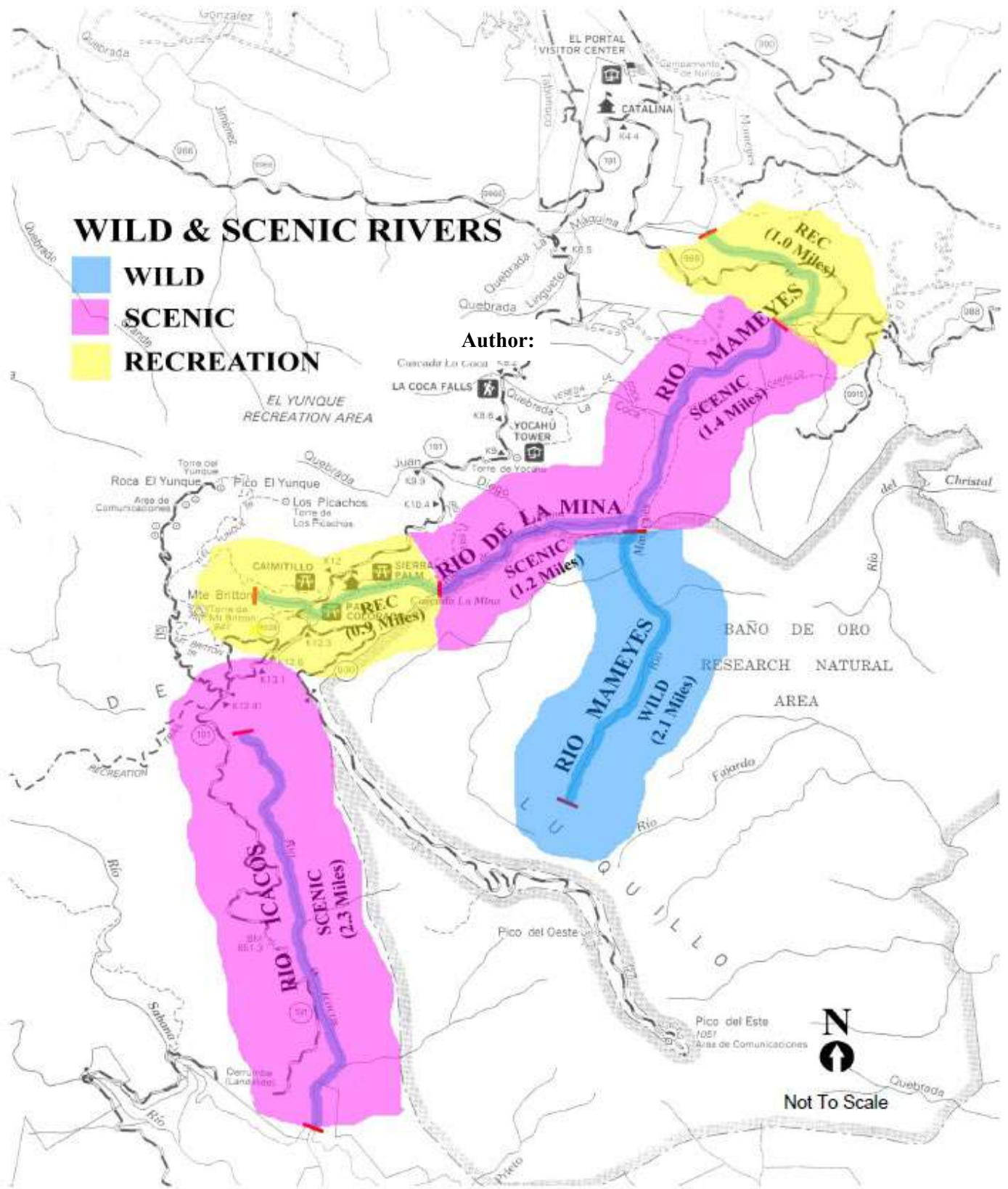
Spatial Reference: WGS_1984_Web_Mercator_Auxiliary_Sphere

Source: National Wild and Acenic Rivers System
(<https://www.rivers.gov/river-app/index.html?state=PR>)



El Yunque National Forest Wild and Scenic Rivers





Author:



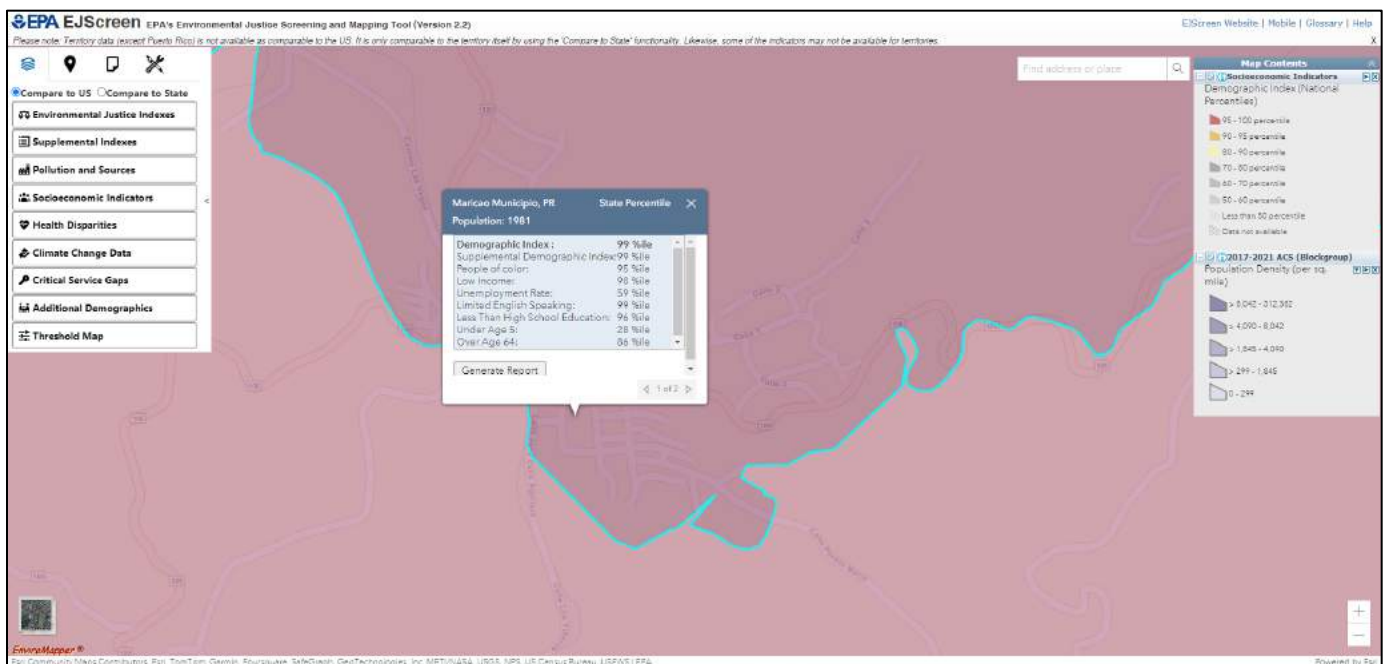
Not To Scale

Environmental Justice

ENVIRONMENTAL JUSTICE

This site is located at Jose de Diego Steet, Pueblo Ward, in Maricao PR, 00606. The Puerto Rico Department of Housing has several proposed activities to take place at the Urban Center of the Maricao Municipality (PR-CRP-000720):

- Restoration of Public Square, main streets, sidewalks, and commercial districts.
- Re-green of urban zone.
- Luminaries and poles improvements.
- Sidewalks & handicapped ramps improvements to comply with (ADA).
- Enable an area for the construction of a new stage.
- Public square floor renovation, concrete benches and stairs improvements.
- Construction of a new structure subdivided into kiosks.



Based on this data report, it appears there is a high minority concentration in this area. However, no disproportionate environmental impact to minority or poor population are anticipated with the proposed activities.

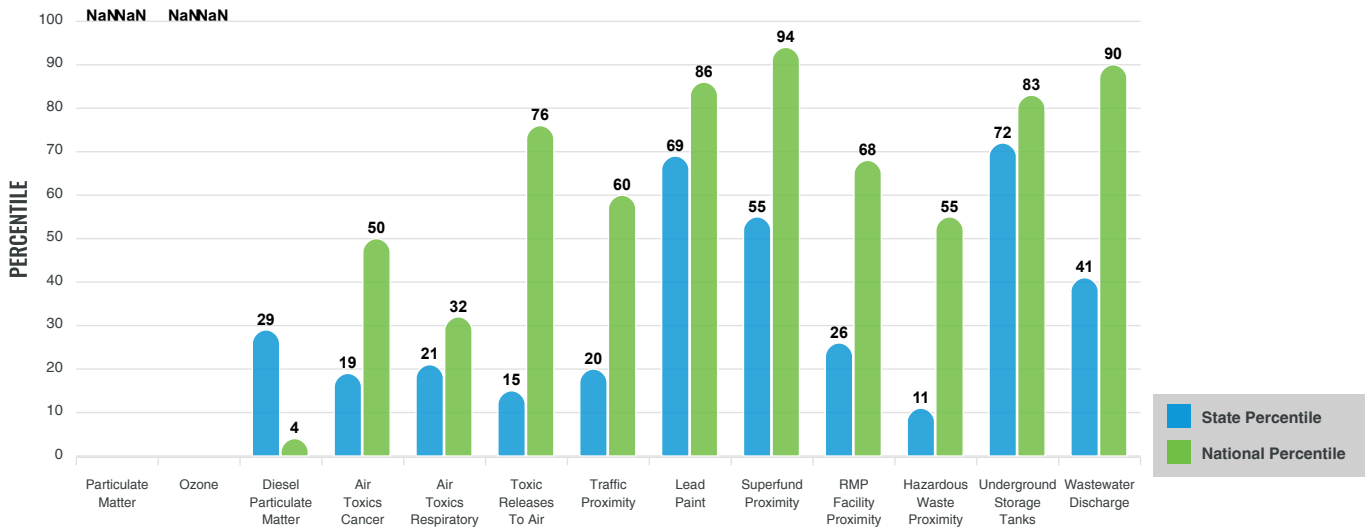
Environmental Justice & Supplemental Indexes

The environmental justice and supplemental indexes are a combination of environmental and socioeconomic information. There are thirteen EJ indexes and supplemental indexes in EJScreen reflecting the 13 environmental indicators. The indexes for a selected area are compared to those for all other locations in the state or nation. For more information and calculation details on the EJ and supplemental indexes, please visit the [EJScreen website](#).

EJ INDEXES

The EJ indexes help users screen for potential EJ concerns. To do this, the EJ index combines data on low income and people of color populations with a single environmental indicator.

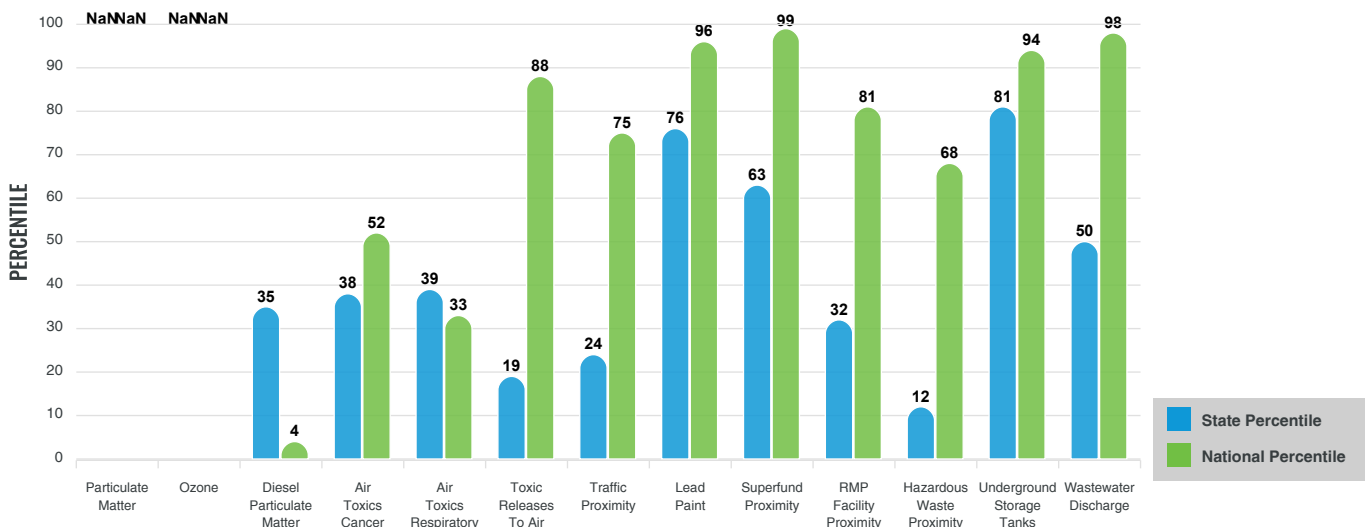
EJ INDEXES FOR THE SELECTED LOCATION



SUPPLEMENTAL INDEXES

The supplemental indexes offer a different perspective on community-level vulnerability. They combine data on percent low-income, percent linguistically isolated, percent less than high school education, percent unemployed, and low life expectancy with a single environmental indicator.

SUPPLEMENTAL INDEXES FOR THE SELECTED LOCATION



These percentiles provide perspective on how the selected block group or buffer area compares to the entire state or nation.

Report for 1 mile Ring Centered at 18.180792,-66.979926

EJScreen Environmental and Socioeconomic Indicators Data

SELECTED VARIABLES	VALUE	STATE AVERAGE	PERCENTILE IN STATE	USA AVERAGE	PERCENTILE IN USA
POLLUTION AND SOURCES					
Particulate Matter ($\mu\text{g}/\text{m}^3$)	N/A	N/A	N/A	8.08	N/A
Ozone (ppb)	N/A	N/A	N/A	61.6	N/A
Diesel Particulate Matter ($\mu\text{g}/\text{m}^3$)	0.0212	0.0667	27	0.261	1
Air Toxics Cancer Risk* (lifetime risk per million)	17	20	0	25	1
Air Toxics Respiratory HI*	0.17	0.19	0	0.31	1
Toxic Releases to Air	150	4,300	14	4,600	28
Traffic Proximity (daily traffic count/distance to road)	15	180	18	210	20
Lead Paint (% Pre-1960 Housing)	0.17	0.16	69	0.3	44
Superfund Proximity (site count/km distance)	0.083	0.15	51	0.13	60
RMP Facility Proximity (facility count/km distance)	0.088	0.47	24	0.43	25
Hazardous Waste Proximity (facility count/km distance)	0.081	0.76	10	1.9	16
Underground Storage Tanks (count/km ²)	0.65	1.7	64	3.9	42
Wastewater Discharge (toxicity-weighted concentration/m distance)	0.0014	2.3	39	22	51
SOCIOECONOMIC INDICATORS					
Demographic Index	92%	83%	70	35%	99
Supplemental Demographic Index	53%	43%	76	14%	99
People of Color	99%	96%	20	39%	95
Low Income	85%	70%	71	31%	98
Unemployment Rate	4%	15%	24	6%	53
Limited English Speaking Households	87%	67%	89	5%	99
Less Than High School Education	35%	21%	85	12%	94
Under Age 5	3%	4%	52	6%	31
Over Age 64	24%	22%	61	17%	79
Low Life Expectancy	N/A	N/A%	N/A	20%	N/A

*Diesel particulate matter, air toxics cancer risk, and air toxics respiratory hazard index are from the EPA's Air Toxics Data Update, which is the Agency's ongoing, comprehensive evaluation of air toxics in the United States. This effort aims to prioritize air toxics, emission sources, and locations of interest for further study. It is important to remember that the air toxics data presented here provide broad estimates of health risks over geographic areas of the country, not definitive risks to specific individuals or locations. Cancer risks and hazard indices from the Air Toxics Data Update are reported to one significant figure and any additional significant figures here are due to rounding. More information on the Air Toxics Data Update can be found at: <https://www.epa.gov/haps/air-toxics-data-update>.

Sites reporting to EPA within defined area:

Superfund	0
Hazardous Waste, Treatment, Storage, and Disposal Facilities	0
Water Dischargers	4
Air Pollution	1
Brownfields	0
Toxic Release Inventory	1

Other community features within defined area:

Schools	3
Hospitals	0
Places of Worship	1

Other environmental data:

Air Non-attainment	No
Impaired Waters	Yes

Selected location contains American Indian Reservation Lands*	No
Selected location contains a "Justice40 (CEJST)" disadvantaged community	Yes
Selected location contains an EPA IRA disadvantaged community	Yes

Report for 1 mile Ring Centered at 18.180792,-66.979926

EJScreen Environmental and Socioeconomic Indicators Data

HEALTH INDICATORS

INDICATOR	VALUE	STATE AVERAGE	STATE PERCENTILE	US AVERAGE	US PERCENTILE
Low Life Expectancy	N/A	N/A	N/A	20%	N/A
Heart Disease	N/A	N/A	N/A	6.1	N/A
Asthma	N/A	N/A	N/A	10	N/A
Cancer	N/A	N/A	N/A	6.1	N/A
Persons with Disabilities	9.3%	21.6%	5	13.4%	27

CLIMATE INDICATORS

INDICATOR	VALUE	STATE AVERAGE	STATE PERCENTILE	US AVERAGE	US PERCENTILE
Flood Risk	N/A	N/A	N/A	12%	N/A
Wildfire Risk	N/A	N/A	N/A	14%	N/A

CRITICAL SERVICE GAPS

INDICATOR	VALUE	STATE AVERAGE	STATE PERCENTILE	US AVERAGE	US PERCENTILE
Broadband Internet	59%	32%	90	14%	99
Lack of Health Insurance	4%	7%	18	9%	26
Housing Burden	No	N/A	N/A	N/A	N/A
Transportation Access	No	N/A	N/A	N/A	N/A
Food Desert	No	N/A	N/A	N/A	N/A

Report for 1 mile Ring Centered at 18.180792,-66.979926