

PLANES DE MITIGACIÓN CONTRA PELIGROS NATURALES

Resiliencia Planificada



JUNTA DE PLANIFICACIÓN

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Municipality of Guaynabo

Natural Hazard Mitigation Plan

Executive Summary

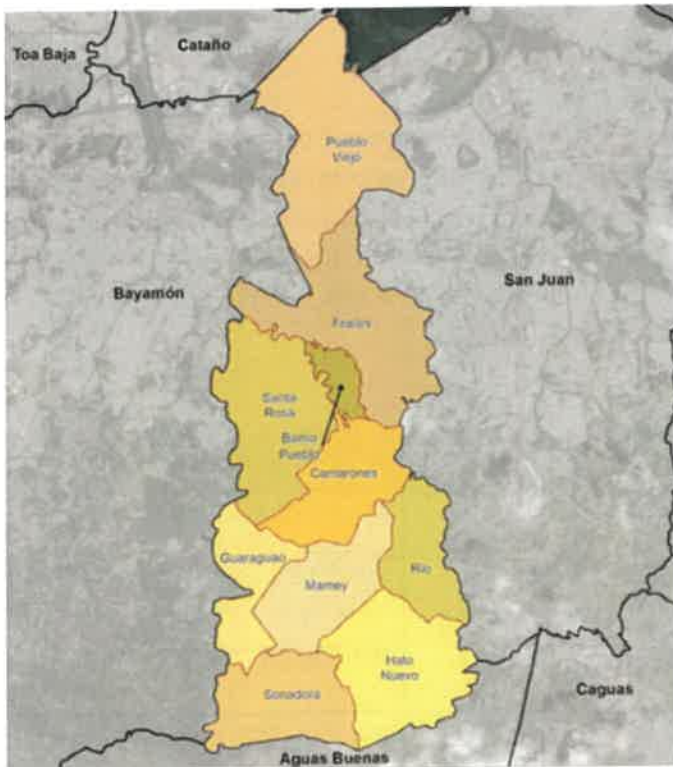


This Executive Summary will provide an overview on:

- Guaynabo's population characteristics;
- The public participation and outreach efforts with the community during the LHMP planning process;
- Guaynabo's risk assessment;
- A review of the mitigation strategies, goals and LHMPs action plan; and
- Plan maintenance, and how to keep the Plan current.

2 Guaynabo's Profile: Main Population Characteristics

Figure 2: Guaynabo and its wards



The Municipality of Guaynabo is one of the thirteen (13) municipalities comprising the Metropolitan area and is located in the northern region of Puerto Rico. To the north, it is adjacent to the Municipality of Cataño and the San Juan Bay, to the east, with the Municipality of San Juan, to the south, with the Municipality of Aguas Buenas, and to the west, with the Municipality of Bayamón. The territorial extension for Guaynabo is approximately 27.1 square miles (70.2 square kilometers). The Puerto Rico Planning Board, according to the most recent area delimitation, divides the island into eleven areas, grouping the different municipalities by their demographic trends and human settlements, infrastructure endowment, socioeconomic variables, sociodemographic characteristics, internal cohesion, and the resources and development potential of each. The Municipality of Guaynabo belongs to the Functional Area of San Juan, which is

composed of the municipalities of San Juan, Guaynabo, Bayamón, Cataño, Trujillo Alto, Carolina, Loíza, Canóvanas, Toa Baja, Toa Alta, Dorado, Naranjito, Vega Alta and Corozal.

The municipality has ten (10) official wards or “barrios”: Camarones, Frayles, Guaraguao, Pueblo, Hato Nuevo, Mamey, Pueblo Viejo, Río, Santa Rosa and Sonadora.

According to the 2010 Census, Guaynabo has a total population of 97,924 people. The American Community Survey (ACS) of 2018 estimated that Guaynabo's population had decreased by 9,261 individuals. This represents a reduction of 9.46%. The only ward that reflected an increase during this period was Hato Nuevo, reflecting a growth of 4.52% in their population for 2018.

The Planning Committee activities included: (1) updating the list of the municipality assets and local critical facilities; (2) updating the status of the previous LHMP mitigation strategies; (3) determine possible new mitigation strategies for the 2022 LHMP; (4) development and implementation of public participation and outreach activities and stakeholders at large such as neighboring municipalities, governmental agencies; (5) announce the municipality's LHMP efforts to agencies, stakeholders and public feedback for Guaynabo's LHMP 2022 draft version and incorporate such comments on the Plan.

It is essential to highlight that the public participation process for the development of the LHMP was impacted by the COVID-19 pandemic. Consequently, and in order to guarantee the continuity of this effort to develop the 2022 LHMP, the public participation process in Guaynabo was allowed to be made more flexible, without tarnishing its importance to avoid further delays in the plan update and approval process. Thus, in order to provide access to as many citizens as possible and promote public participation, given the challenges that arose with the pandemic, an alternative citizen participation process was allowed to be held virtually, as approved by the State Elections Commission and endorsed by the Municipality of Guaynabo.

Accordingly, an initial notice was published in a local newspaper (Primera Hora) and the municipality's official Facebook page. Said notice informed the public about the first Public Participation meeting/presentation to be held virtually via YouTube (<https://youtu.be/k5r3-aKhDqQ>) on April 13, 2021. A second notice was published regarding the publication of the 2022 LHMP draft version providing a 25-day period for reviewal, submitting comments, and the opportunity to participate in a second community meeting/presentation to be held virtually via YouTube (https://youtu.be/o0Ow3FK_SsU) on September 30, 2021. A draft version of the 2022 LHMP was made available on the Puerto Rico Planning Board's (PRPB) website (jp.pr.gov). A third and final community meeting was held in-person on December 14, 2021, at request, to allow for further community engagement and participation, likewise allowing for additional time to receive comments which was extended until January 17, 2022.

4 Guaynabo's Risk Assessment

After reviewing the natural hazards identified as priorities on the previous Guaynabo's 2016 LHMP, the Municipal Emergency Response Plan, the municipality's disaster history, and other literature related to potential future hazards, the Planning Committee identified the following hazards in the 2022 LHMP; (1) Sea Level Rise, (2) Drought, (3) Earthquakes, (4) Flooding, (5) Landslides, (6) Strong Winds (Tropical Cyclones), (7) Tsunami (8) Coastal Erosion, (9) Storm Surge, and (10) Wildfire. Discussion of these natural hazards are included in the 2022 LHMP's Chapter 4. In addition, the 2022 LHMP includes a quantitative vulnerability analysis based on the best available data for Guaynabo and Puerto Rico accounting for future development to assess mitigation strategies to prevent repetitive and severe property loss.

This assessment served as a key tool for the Planning Committee and the public to identify and prioritize potential mitigation strategies by focusing attention on areas that present the greatest risk of damages to people, critical facilities, and normal municipality operations. The analysis for earthquakes, flooding, landslides, and high winds was performed by assessing the potential impacts from each hazard using geographic information system data (GIS).

By ranking each section, the municipality was in position to determine an overall risk classification. It is important to mention that this classification exercise resulted from the municipality's 2022 LHMP technical risk assessment along with a capability gap analysis and the local community input, which is

term and immediate actions that will guide the daily local decision-making process and project implementation.

Mitigation goals consist of general guidelines that explain what the Municipality of Guaynabo wants to achieve in terms of hazards and mitigation. Thus, the goals included in the 2022 LHMP, offer the Planning Committee and the communities a framework for identifying, prioritizing, and implementing actions to reduce the risks associated to natural hazards in Guaynabo.

Mitigation strategies are activities, projects, measures, or processes that Guaynabo will adopt in order to reduce or eliminate risk to people and property from hazards. Consequently, Guaynabo reviewed and revised the criteria adopted in the 2016 LHMP to analyze and prioritize potential mitigation strategies for the municipality. To develop the actions, the Planning Committee used the following criteria: (1) the potential of the strategy to reduce expected future damages and/or losses; (2) the capacity of the municipality to implement the action within the 5-year cycle of the Plan; (3) support from the public, agencies, municipal departments, amongst others; and (4) the potential of the action to increase resiliency of Guaynabo and its residents. Accordingly, the Planning Committee adopted these criteria, the results from the risk assessment, and the feedback from local and neighboring communities to prioritize each mitigation strategy that was contained in this LHMP.

The following summarizes some of the strategies intended to mitigate these hazards:

The following summarizes some of the strategies intended to mitigate these hazards:

- Promoting the purchase of NFIP insurance in flood prone areas.
- Establishing a program for the acquisition of structures in areas of high risk against flooding.
- Creating and keeping up to date a digital, georeferenced inventory using a geographic information system (GIS) of the critical and governmental infrastructure, as well as identified vulnerable areas.
- Continue evaluating the need for structural and non-structural mitigation actions to protect critical and governmental facilities from the threat of strong winds and rain (storm surge).

6 Maintenance to Keep the Plan Current

Chapter 7 details the revision and monitoring process in great extent. The formal maintenance process, identified by the Planning Committee, aims to keep the document viable and current, as it is a living document that shall reflect the hazards and realities affecting its community, and how to plan and prepare ahead in the event of a natural disaster. The Plan maintenance process provides the procedures for evaluation and review every year during its 5-year life cycle. Evaluation will include a review of the mitigation action plan implementation, continued public involvement through the Plan's life cycle, as required by federal legislation. As part of the review process, the members of the Planning Committee. In the event of a major natural disaster affecting the island and/or municipality, an emergency meeting must be scheduled, and the Plan should be updated or amended, as necessary, bypassing the 5-year term. The Planning Office of the municipality will coordinate with other municipal dependencies, as needed, to achieve the goals and objectives stated in this LHMP.

Finally, the municipality will promote continued public participation during the plan maintenance by, including, but not limited to (Refer to Section 7.4 of the LHMP):