APPENDIX B

Environmental Justice Analysis

Environmental Assessment
Rio Culebrinas, Puerto Rico Study

US Army Corps of Engineers
JACKSONVILLE DISTRICT

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Rio Culebrinas, Puerto Rico Study

ENVIRONMENTAL JUSTICE ANALYSIS
FEBRUARY 2019

On February 11, 1994, the President of the U.S. issued Executive Order (E.O.) 12898, Federal Actions to Address Environmental Justice in Minority Populations and Low-Income Populations. This E.O. mandates that each Federal agency make environmental justice (EJ) part of the agency mission and to address, as appropriate, disproportionately high and adverse human health or environmental effects of the programs and policies on minority and low-income populations. Significance thresholds that may be used to evaluate the effects of a proposed action related to EJ are not specifically outlined. However, Council on Environmental Quality (CEQ) guidance requires an evaluation of a proposed action's effect on the human environment and the Corps must comply with Executive Order 12898. The Corps has determined that a proposed action or its alternatives would result in significant effects related to EJ if the proposed action or an alternative would disproportionately adversely affect an EJ community through its effects on:

- Environmental conditions such as quality of air, water, and other environmental media; degradation of aesthetics, loss of open space, and nuisance concerns such as odor, noise, and dust;
- Human health such as exposure of EJ populations to pathogens;
- Public welfare in terms of social conditions such as reduced access to certain amenities like hospitals, safe drinking water, public transportation, etc.; and
- Public welfare in terms of economic conditions such as changes in employment, income, and the cost of housing, etc.

The Corps conducted an evaluation of EJ impacts using a two-step process: as a first step, the study area was evaluated to determine whether it contains a concentration of minority and/or low-income populations. The second step includes evaluation to determine whether the proposed action would result in a disproportionately, high adverse effect on these populations.

As defined in Executive Order 12898 and the CEQ guidance, a minority population occurs where one or both of the following conditions are met within a given geographic area:

- The American Indian, Alaskan Native, Asian, Pacific Islander, Black, or Hispanic population of the affected area exceeds 50 percent; or
- The minority population percentage of the affected area is meaningfully greater than the minority population percentage in the general population or other appropriate unit of geographic analysis.

An affected geographic area is considered to consist of a low-income population (i.e. below the poverty level for purposes of this analysis) where the percentage of low-income persons:

- is at least 50 percent of the total population; or
- is meaningfully greater than the low-income population percentage in the general population or other appropriate unit of geographic analysis.

Step 1: Study Area's Minority and Low-Income Population Average Percentages

Using the USEPA EJAssist Tool, the project area was identified and the average percentage for the EJ criteria are compared in **Table 1** for the project area and Puerto Rico. (No data was available to compare to overall U.S. averages.)

Table 1. USEPA EJAssist environmental justice criteria percentages.

	User-Defined Project Area %	Puerto Rico Average %
Minority Population	99%	99%
Low Income Population	82%	73%

Based on the information provided by the USEPA EJAssist tool, the average minority population is approximately 99% of the total population and approximately 82% of the individuals in the project area are considered below the poverty level. Therefore, the study area which comprises Rio Culebrinas constitutes an EJ community because the population percentages exceed 50 percent, indicating that the study area does contain a high concentration of minority and low-income population.

Step 2: Recommended Plan's Effect on EJ Community

The project will result in temporary impacts related to noise, air quality, water quality, and use of the project staging area during construction of the project. These temporary effects would cease with construction completion and are expected to quickly return to pre-construction levels. The Recommended Plan would eliminate approximately 11.7 acres of farmland, of which 5.43 are in pasture production and approximately 1.5 acres are wet pasturelands. The project is being coordinated with NRCS and the public.

The project will result in long-term positive effects to the project area. Benefits of the project include the reduction of existing and future flood damages to the nearby neighborhoods. In summary, this project will not cause any disproportionate and long-term adverse effects to minority or low income populations. The project is expected to result in reduced flooding to the EJ communities, which would be a long-term benefit.

REFERENCES

U.S. Environmental Protection Agency (USEPA). 2019. EPA EJScreen EPA'S Environmental Justice Screening and Mapping Tool (Version 2018). https://ejscreen.epa.gov/mapper/. Website accessed February 13, 2019.