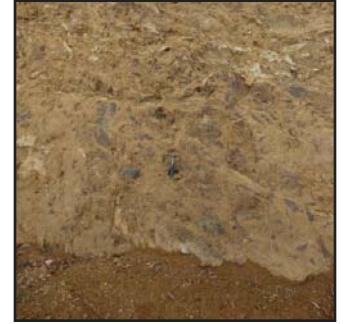


Bioretention for Stormwater Management

San Juan, Puerto Rico



Services Provided

- Geotechnical Survey
- Stormwater Design
- Construction Administration
- On-Site Maintenance

Project Details

Project Address:

Martin Pea Watershed
San Juan, Puerto Rico

Date of Contract:

2014-2015

Contract Cost:

\$108,750.00

Date of Completion:

Ongoing

Economically Disadvantaged Community Receives Green Infrastructure to Manage Stormwater

The eight communities surrounding the Martín Peña channel, situated in the San Juan Watershed, lack adequate stormwater and sewer systems that has led to flooding, exposing residents to polluted waters and sediments. In an effort to improve water quality, a green infrastructure (GI) stormwater facility is to be constructed to accept and treat stormwater to mitigate combined sewer overflow discharge.

Due to the variability of soils encountered, it was imperative to conduct a survey to supply engineers and stakeholders with relevant information about the hydraulic and renovative capacity of the soils. The data collected during the study assisted in the design of a GI bioretention facility that uses soil infiltration, plant uptake, and evapotranspiration to improve stormwater management. The construction of the facility is expected to be monitored, documented, and observed in an effort to protect surface and source systems.

This project is a major step towards a larger scale project that includes restoring the socioeconomic issues surrounding the environmental situation of the area. The construction of this facility is the first of many infrastructure designs planned for the island to aid in improving water quality. Several engineering publications are pending the results of this infrastructure to assist with improvements to stormwater discharge throughout the San Juan.

Environmental Management



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Sustaining Communities by Design