Flood Risk Reduction
Levee Accreditation Case Study

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Discussion Topics

- System Overview
- Existing Conditions
- Planning
- Rehabilitation
- Sustainability
LEVEE SYSTEM OVERVIEW
Anacostia Levee System

Constructed in the 1950s, the levee includes:

- More than five miles of earthen levees
- Twin 8x4 pressure conduits 2500 feet long
- Four flood control pumping stations
- Gravity outfall
Ongoing Investment in Levee System

- Construction of new screw pumps
- Replacement of flapper valves
- Installation of automatic bar screen cleaners
- Emergency generator installations at each pumping station

- No levee failures, overtopping or breaches
Levee owner was advised that the levee system would not meet the standards for FEMA accreditation.

What do we do now?
2 EVALUATE EXISTING CONDITIONS
Evaluation

- H&H Analysis to establish WSEL
- Field Inspection
  - Penetrations
  - Structures
- Concrete Testing
- Utility Coordination
- Review of Historical Records
Subsurface Investigation
Concept Design Report

- Summarized alternatives
- Cost Benefit Analysis
- Property and community impacts
Typical Section

STANDARD LEVEE RAISING

RIVERSIDE

3' Raise
2' Raise
1' Raise

Existing Ground

Bike Trail

New Fill

LANDWARD SIDE

Topsoil

Easement Line

ANACOSTIA LEVEE
Stakeholders Outreach

- Public Outreach
- Elected Officials
- Property Owners
- Maintenance Division
Outreach Methods

- Briefings to elected officials
- Community meetings, press releases and website updates
Permitting Requirements

- Tidal and Non-Tidal Wetland
- Dam Safety and Waterway Construction
- Critical Area Commission, Natural Resources and Historic Trust
- Stormwater management and erosion and sediment control
COMPLETE REHABILITATION
4 Separate Contracts to Address Deficiencies

- Levee Rehabilitation
- Flood Control Pumping Stations Repair and Upgrades
- Pressure Conduit Access Vaults, Cleaning and Evaluation
- Steep Slope Improvements to allow for Maintenance
5 SUSTAINABILITY
Checklists were developed:

- Maintenance Personnel
- Electrical and Mechanical Contractors