

Chelsea Heights, Atlantic City Flood Risk Management Feasibility Study Public Workshop

U.S. Army Corps of Engineers, Philadelphia District
New Jersey Department of Environmental Protection



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Public Workshop Overview

- Introduce Study
- Introduce Study Team
- Describe USACE Planning Process
- Early Public Participation
- Collect Data from Stakeholders
- Answer Stakeholder Questions



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Study Description

- 50/50 cost-shared study between USACE and NJDEP
- Primary goal is Flood Risk Management (FRM)
- Continuing Authorities Program (CAP)
- Typical study timeline is 18 to 24 months
- Estimated study completion in Summer 2017



Study Team

■ USACE

- Adrian Leary, Project Manager
- Regina Kukola, Planner
- Jake Helminiak, Hydraulic Engineer
- Preston Oakley, Economist
- Steve Allen, Biologist
- Steve Rochette, Public Affairs



■ NJDEP

- David Rosenblatt, Assistant Commissioner, Engineering & Construction
- Megan Rutkowski, Bureau of Coastal Engineering



Feasibility Study Process



Identify *Problems* and *Opportunities*

Inventory and **Forecast** Conditions

Formulate Alternative Plans

Evaluate Alternative Plans

Compare Alternative Plans

Select a Plan



Study Goal and Objectives

- Goal: Improve flood risk management in ways that are technically feasible and financially prudent for the safety of the citizens of Chelsea Heights.
- Objectives
 - Incorporates needs/desires of Chelsea Heights (Atlantic City) for FRM as much as possible
 - Examine a full suite of alternatives
 - Minimize risk to the community
 - Minimize environmental impacts



Considerations of Study

- Benefits and Costs of Potential FRM Plans
- Environmental and Cultural Impacts of Plans
- Social Effects (health and safety, recreation)
- Real estate requirements
- Applicable regulatory requirements
- Sea Level Rise
- Planning by other agencies (NJDOT)

Note: This is not a comprehensive list



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Measures and Plans

- Measures are single features or activities which address the planning objectives.
- Plans are combinations of one or more measures functioning together to address one or more objectives.



Standard Categories for Measures

- USACE Policy and Guidance dictates that the project team consider measures under two specific categories as defined below:
 - **Structural Measures:** Plan features physically limit flooding of the flood prone area (levee, floodwall, etc.).
 - **Non-Structural Measures:** Reduce flood damages without significantly altering the nature or extent of flooding (elevation of structures, floodproofing, etc.).



Array of Measures

Structural

- Bulkhead
- Floodwall
- Deployable Floodwall
- Levee
- Seawall
- Revetment
- Storm Surge Barrier
- Breakwater

Natural and Nature-Based

- Beach fill
- Living Shoreline
- Reefs
- Submerged Aquatic Vegetation
- Wetland

Non-Structural

- Building retrofit (elevate)
- Acquisition/relocation
- Flood warning/evacuation
- Land use/zoning



Public Input and Information Gathering

Description of flooding problem

- Frequency
- Severity
- Duration
- Where is water coming from?
- Damages
- Most recent events (Sandy, 2016 Nor'easter)

Other Concerns/Thoughts

- Environmental Concerns
- Public Safety
- Recreation

Thoughts on potential solutions

- Structural (i.e. bulkheads)
- Non-structural (raising structures)



Next Steps

- Utilize data gathered from public input to clarify problems and opportunities
- Fill in the data gaps for establishment of existing conditions (survey work, structure inventory)
- Modeling
- Screen measures
- 6-Step Planning Process
- Future public engagement
 - Tentatively selected plan (meeting?)
 - Feasibility Report Public Review and Comment



Questions



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