

CODORUS CREEK FLOOD RISK MANAGEMENT PROJECT - STAKEHOLDERS MEETING

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10 April 2018

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LEVEE SAFETY PROGRAM

Working to better understand, prioritize and manage flood risks associated with levees



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LEVEE SAFETY PROGRAM

Assessing the integrity and viability of levees and recommend actions to assure that levee systems do not present unacceptable risks to the public, property, and the environment



Three goals:

- (1) Reduce risk and **increase public safety** through an informed public
- (2) Develop clear national levee safety **policy and standards**
- (3) Maintain sustainable flood risk management systems that meet public safety needs



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INSPECTION OF LEVEES AND CHANNELS

*Civil Works structures are **inspected** and evaluated to ensure their **structural stability, safety and operational condition.***

Inspections

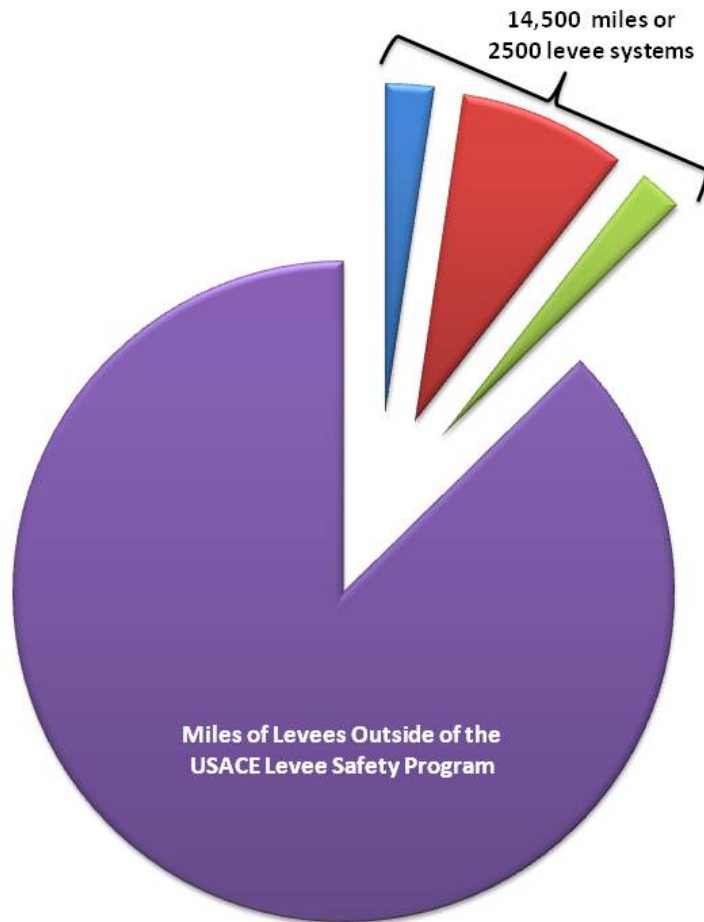
- Annual routine inspections
- Periodic comprehensive inspections – every 5 years
- Special circumstances (major flooding)



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LEVEE SAFETY PROGRAM BACKGROUND - NATIONAL



USACE Program Levees

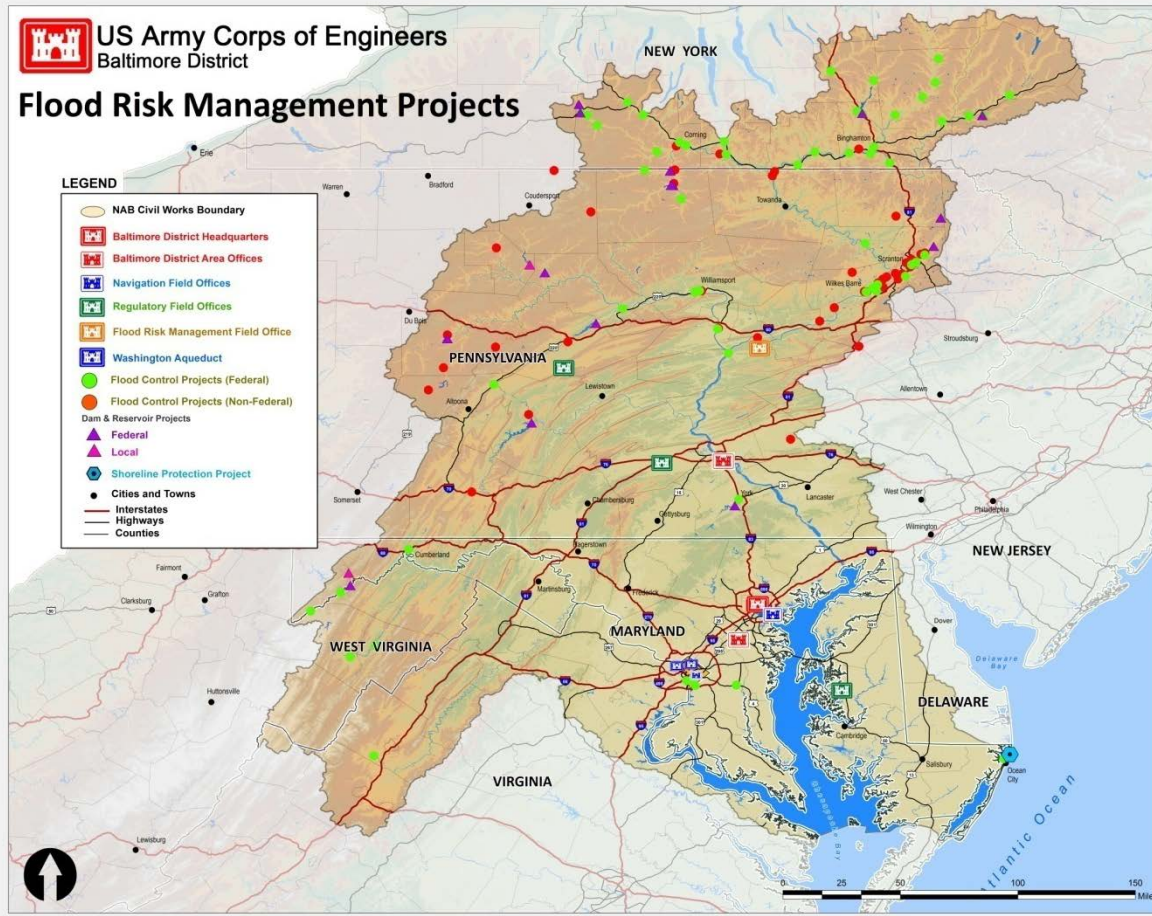
- USACE Maintained (2800 miles)
- USACE Constructed/Locally Maintained (9500 miles)
- Nonfederally Constructed/Locally Maintained in USACE Rehabilitation Program (2200 miles)



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BALTIMORE DISTRICT FLOOD RISK MANAGEMENT PROJECTS



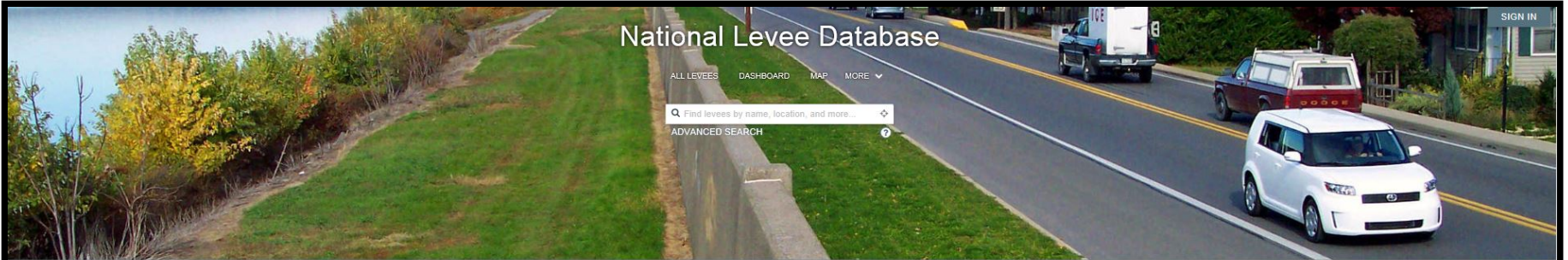
- Projects located in:
- ▶ Maryland
 - ▶ New York
 - ▶ Pennsylvania
 - ▶ Virginia
 - ▶ West Virginia
 - ▶ District of Columbia

Map Legend:

- Federal Project
- Non-federal Project

150 miles of federally constructed levees

NEW NATIONAL LEVEE DATABASE



Levees of The Nation

11,622 Levee Systems 29,755 Miles of Levees 50,289 Levee Structures 54 years Average Levee Age

[BROWSE THESE LEVEES](#)

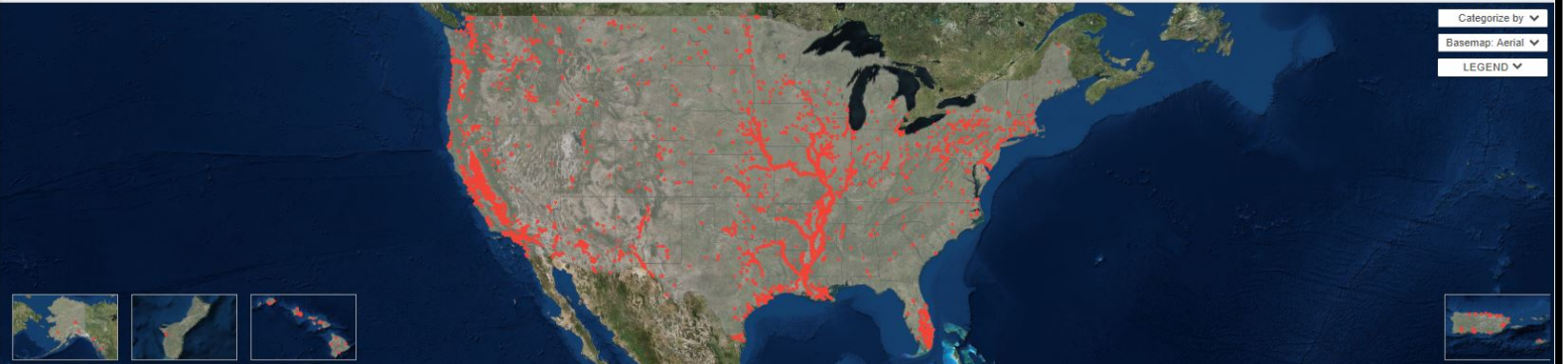
The Nation

Click on a state below or on the map to zoom in.

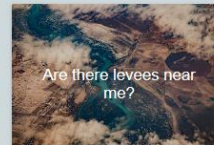
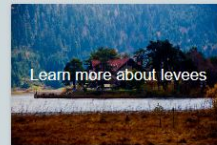
States and Counties

Search this list

- Alabama
- Alaska
- American Samoa
- Arizona
- Arkansas
- California
- Colorado
- Commonwealth of the Northern Mariana Islands
- Connecticut
- Delaware
- District of Columbia
- Florida
- Georgia
- Guam
- Hawaii
- Idaho
- Illinois



Explore



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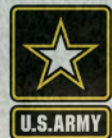
WHY ENGAGE IN RISK COMMUNICATION?

Levees help manage risk. They do not eliminate risk.

- Residual Risk is Real
- Reduce damages and losses
- Ethical obligation to share information
- Empower people to make informed decisions
- Responsible use of resources



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CODORUS CREEK COMPREHENSIVE PLAN

The purpose is to identify potential work items in an effort to further our goal of improving operation and maintenance of the Codorus Creek Project.

Potential work items include:

- Repair masonry floodwalls
- Remove shoaling and vegetation from Codorus Creek channel
- Repair or replace riprap
- Rehabilitate Loucks Mill levee at downstream tie-in to railroad embankment
- Monitor floodwall near bascule dam and repair if needed
- Rehabilitate Southeast levee between Grantley Road and Tyler Run
- Rehabilitate Willis Run levee and floodwall
- Abandon conduit that runs parallel to the levee at upstream end of the West Downtown levee
- Remove rubble fill from West Downtown levee at former public housing site

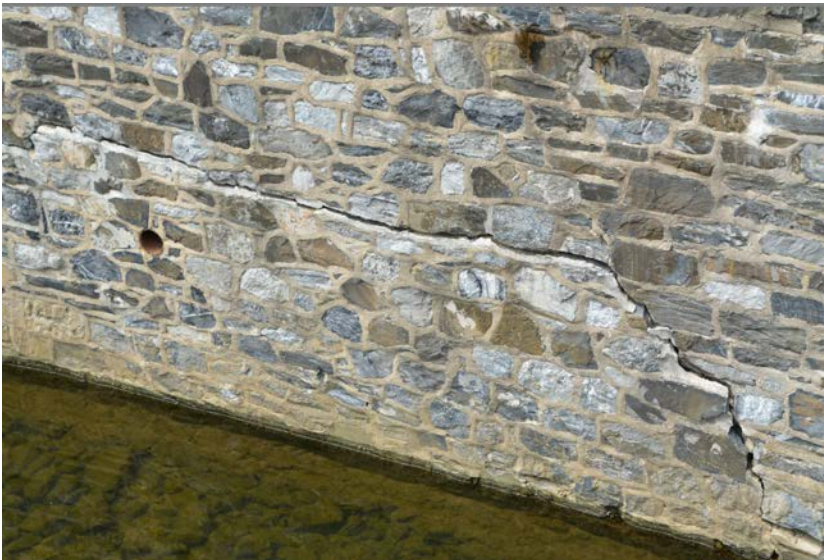


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CODORUS CREEK COMPREHENSIVE PLAN

Repair masonry floodwalls – repoint, repair or replace stone masonry walls as needed



CODORUS CREEK COMPREHENSIVE PLAN

Remove shoaling and vegetation from Codorus Creek to restore the channel to its original design



CODORUS CREEK COMPREHENSIVE PLAN

Repair or replace riprap along levee embankments



CODORUS CREEK COMPREHENSIVE PLAN

Rehabilitate Loucks Mill levee at downstream tie-in to railroad embankment



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CODORUS CREEK COMPREHENSIVE PLAN

Monitor floodwall near bascule dam and repair if needed



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CODORUS CREEK COMPREHENSIVE PLAN

Rehabilitate Southeast levee between Grantley Road and Tyler Run



CODORUS CREEK COMPREHENSIVE PLAN

Rehabilitate Willis Run levee and floodwall



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CODORUS CREEK COMPREHENSIVE PLAN

Abandon conduit that runs parallel to the levee at upstream end of the West Downtown levee



CODORUS CREEK COMPREHENSIVE PLAN

Remove rubble fill from West Downtown levee at former public housing site



QUESTIONS?



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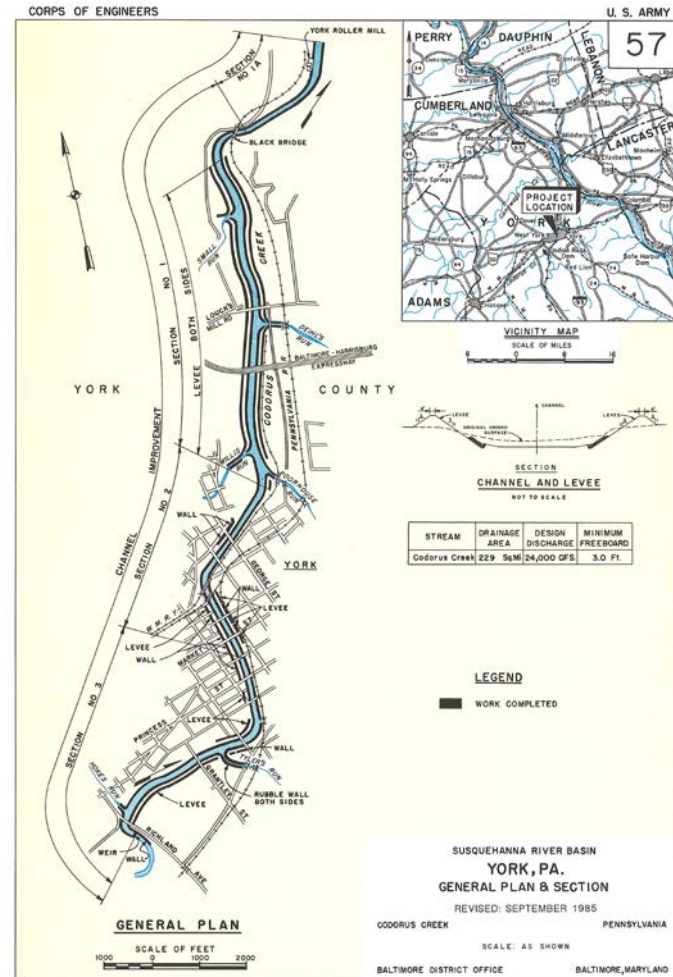


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INDIAN ROCK DAM- CODORUS CREEK REHABILITATION PROJECT YORK, PA

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20 April 2018



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TASK 1 – REPLACE PENN STREET FLOODWALL

- Project to replace current failing concrete floodwall
 - 30% design complete
 - Award design contract (April 2018)
 - Award construction contract (June 2019)
- Coordination requirements
 - York College building encroachment (demolition)
 - Construction and access easements
 - Future Operations & Maintenance easements



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Penn Street floodwall



Looking downstream



Looking upstream



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TASK 2 – REPAIR FLOODWALL BULGE AND INSTABILITY ISSUES NEAR MARKET STREET BRIDGE

- Largest bulging area collapsed and was repaired 26-28 February 2018 (approx. 6ft X 5ft)
- Project to repair other bulging areas and provide overall stabilization
 - Award design contract (April 2018)
 - Award construction contract (September 2018)
- Other issues at project site
 - Encroachment (buildings, trees, etc.)
 - No Operations and Maintenance easements



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Bulge near Market St. bridge



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Instability issues near Market St. bridge



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TASK 3 – INSTALL RIPRAP

- Install riprap and/or stabilize levee embankment at the upstream end of the southeast levee system near the South Richland Avenue Bridge
 - Award design contract (April 2018)
 - Award construction contract (September 2018)
- Coordination requirements
 - Construction and access right of entry/easements
 - Future Operations & Maintenance easements



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Riprap repair near Richland Ave.



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TASK 4 – CLEAN, INSPECT, REPAIR AND REPLACE DRAINAGE PIPES

- 170 of 270 levee system drainage pipes have been inspected
- Award a contract to clean and inspect the remaining 100 pipes
 - Contract award (April 2018)
- Award a contract to repair, replace or abandon drainage pipes based on inspection results
 - Contract award (May 2019)
- Other issues
 - Determination of pipe ownership and need



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Drain pipes along the project



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TASK 5 – COMPREHENSIVE PLAN

- Conduct stakeholder meeting (10 April)
- Develop long-term comprehensive plan for the levee system
 - Will capture federal and non-federal requirements in and around the levee system
 - Periodic inspections, 8 system screenings, shoaling, overgrowth, levee dams, development, dumping, etc.
 - The plan will be used for USACE prioritization and budgeting
 - Final plan completion (October 2018)



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QUESTIONS?

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