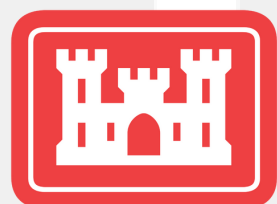


Building Resiliency

Brig. Gen. John P. Lloyd
Commander
USACE North Atlantic Division

December 12, 2024



**US Army Corps
of Engineers®**

North Atlantic Division

WHO WE ARE

The U.S. Army Corps of Engineers North Atlantic Division (NAD) is a robust team executing diverse missions in 13 states in the Northeast U.S. plus D.C. and throughout Europe, Africa, and anywhere in the world we are needed. Our missions are executed through six District offices, located in Concord, Mass.; New York City; Philadelphia; Baltimore; Norfolk, Va.; and Wiesbaden, Germany.



MISSION

To deliver vital engineering solutions, in collaboration with our partners, to secure the Nation, energize the economy, and reduce disaster risk.


VISION

Engineering solutions for the Nation's toughest challenges.

NAD BY THE NUMBERS

A team of

3,600
employees


Supports

23%
of U.S. population
(72 million)

Conducts work on

3
Continents with 3
Combatant Commands

Executed

\$5.8B
In projects for
FY24


22.5%
Federal Congressional
representation

Manages a
combined total of

\$4.54B
In supplemental
work

Resilience Cycle



USACE Flood & Coastal Storm Risk Management Resilience Cycle



- ✓ **Prepare**
 - USACE helps communities prepare through efforts that focus on protecting themselves against and lowering the impacts of flood and coastal storm events.
- ✓ **Absorb**
 - USACE helps communities absorb flood and coastal storm impacts through efforts that focus on weathering storms and reducing the potential for loss of life, property damage, and disruption to essential services.
- ✓ **Recover**
 - USACE supports recovery efforts that help communities recuperate from flood and coastal storm events quicker and stronger.
- ✓ **Adapt**
 - USACE supports adaptation efforts that help communities learn from previous flood and coastal storm events and build/rebuild in a way that lessens the risks and impacts to life, property and essential services from future flooding and coastal storms.

North Atlantic Division Water Resources



- 55 Dams (average age: >62 years)
- 250+ miles of levees and channels (average age: 53 years)
- 3 Hurricane Barriers
- All but one provide FRM, some also provide water supply



- 132,173 acres of land
- 25,042 acres of water/wetlands
- 140 special status species
- Five sites listed on the National Register



- 117 deep, 368 shallow-draft projects
- 2,685 miles of channels; three 50-foot ports
- Eight high-level bridges
- Four Navigation Locks
- One sea-going hopper dredge



- Supports commerce, environment
- Permits allow project construction
- 180 regulators in NAD
- More than 10,000 actions/year
- Epicenter of Offshore Wind Projects



- 10 million visitors annually
- 225 Recreation Areas, 47 projects in 9 states
- \$ visitors spent w/in 30 miles: \$577M
- 470 miles of shoreline, 72 boat ramps
- 125,400 acres used for recreation; 763 miles of trails



- Home to National Coastal Storm Risk Management (Planning) CX
- 20 projects & hurricane barriers
- Projects reduce upland damage

Coastal Storm Risk Management National Planning Center of Expertise

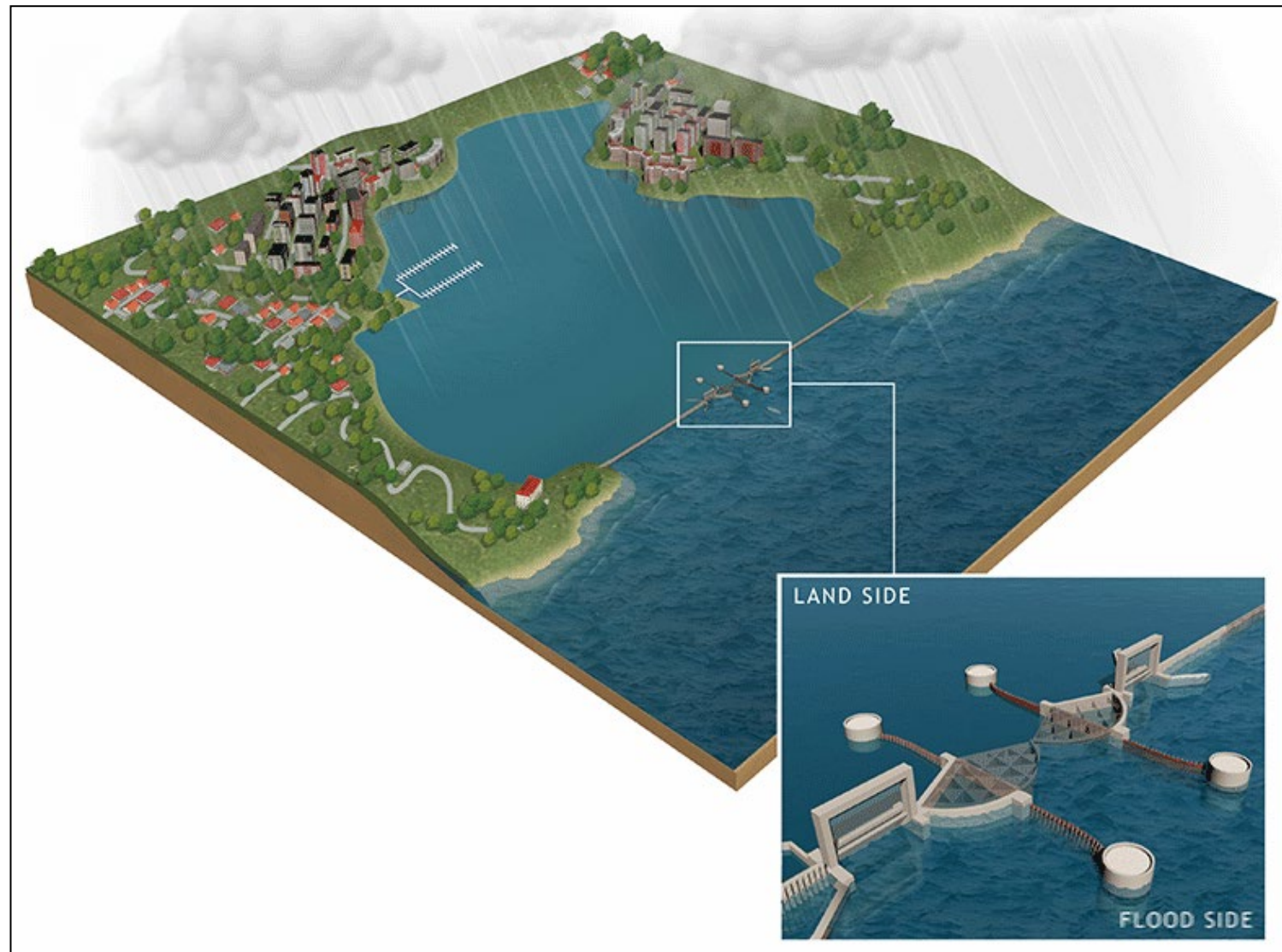
The CSRM Center's goal is to develop, maintain and apply expertise in science and engineering technology in order to manage the risk of coastal storm damages and provide for resilience of the national shoreline.

Snapshot

- Lead peer and agency technical reviews, including independent external peer reviews and model certifications
- Assist in establishing USACE research and development priorities
- Manage USACE's role in FEMA's National Hurricane Program
- Provide technical assistance to study teams nationwide



North Atlantic Division Coastal Portfolio



Example of storm surge barriers under consideration in the New Jersey Back Bays CSRM study.



Sandy Program Completion

- More than 155 projects and studies from Virginia to Maine
- North Atlantic Coast Comprehensive Study (NACCS)



FY18 Supplemental Appropriation Studies

- Collier County CSRM, Florida
- Miami-Dade Back Bay CSRM, Florida
- Nassau County Back Bays CSR, New York



FY22 Supplemental Appropriations Acts

- Bipartisan Infrastructure Law
- Disaster Relief Supplemental Appropriations Act



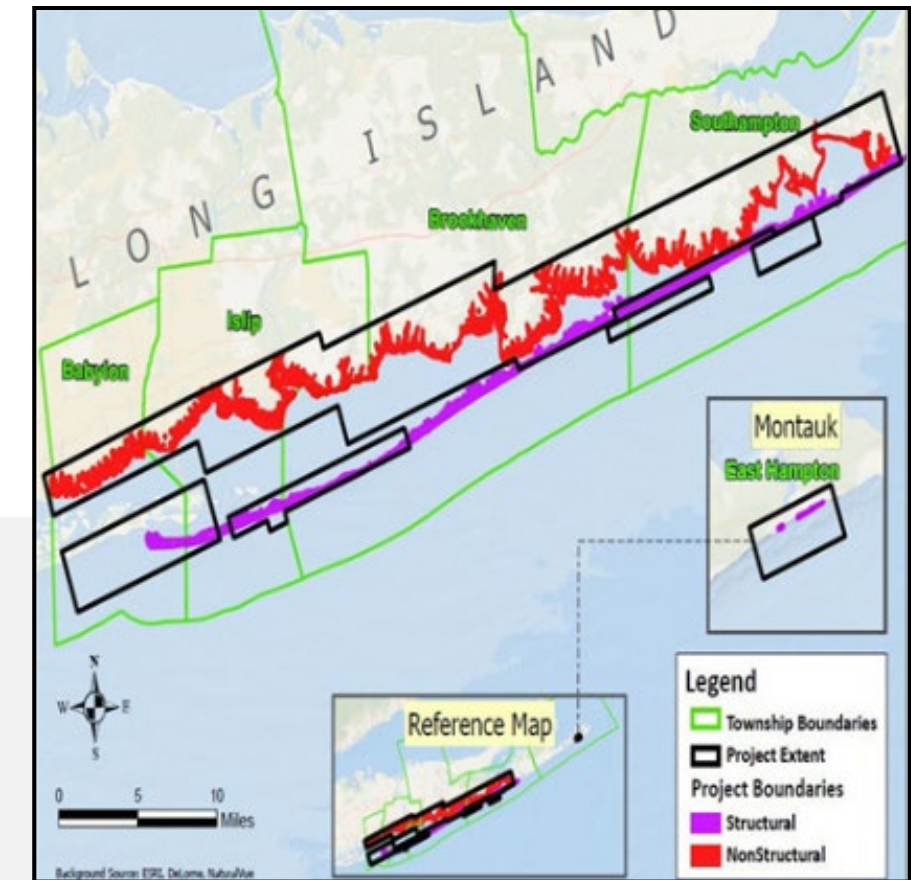
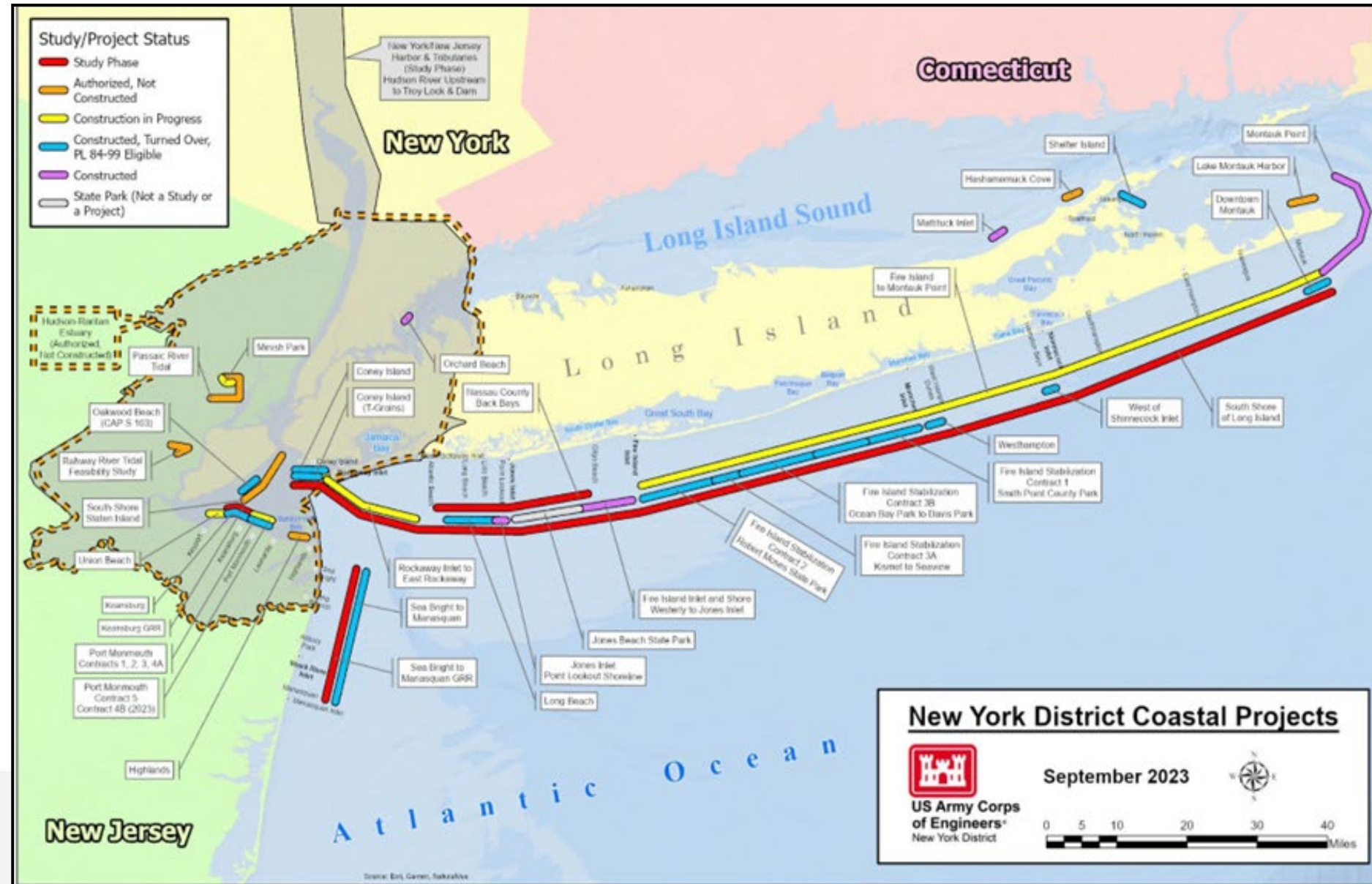
Mega Study Designations

- City of Boston CSRM, Massachusetts
- Collier County CSRM, Florida
- Miami-Dade Back Bay CSRM, Florida
- New Jersey Back Bays CSRM
- New York/New Jersey Harbor & Tributaries CSRM

Coastal Storm Risk Management following Hurricane Sandy



Union Beach, NJ
Groin Construction



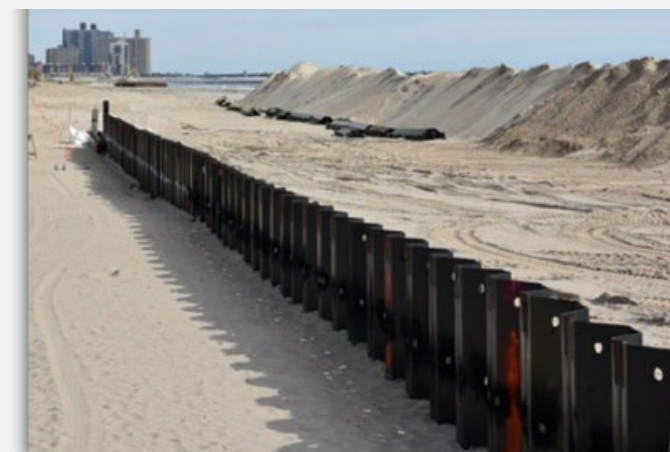
Fire Island to
Montauk Point, NY



Sea Bright, NJ
Renourishment



Port Monmouth, NJ
Completed Tidal Gate



Rockaway, NY
Dune with Sheet Pile



Montauk Point, NY

Providing Coastal Resilience



Case Study: Rhode Island Coastline



Purpose

The Rhode Island CSRM study was conducted due to frequent flooding from high tides, spring tides, and coastal storms in the study area.



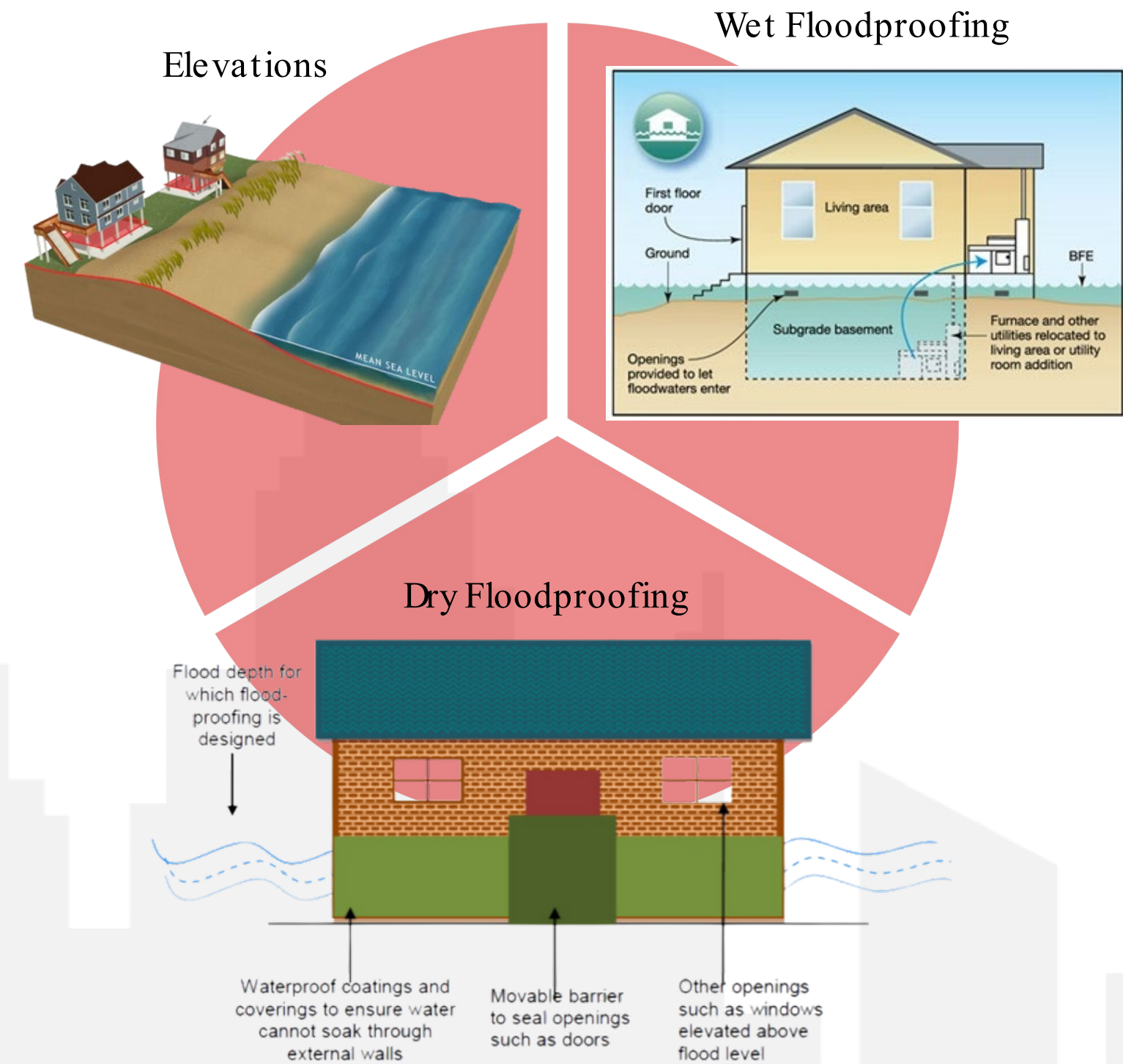
Diversity

- Communities
- Coastal Landscapes/Ecosystems
- Policy exceptions to include Environmental Justice communities and historic structures



Non-Structural Measures

As in this study, non-structural measures are broadly employed across the nation to reduce the consequences of flood risk.



Consideration and Implementation of Nonstructural CSRM Measures throughout NAD

Types of Nonstructural Measures

Physical

- Elevation
- Wet Floodproofing
- Dry Floodproofing
- Acquisition
- Relocation

Nonphysical**

- Evacuation plans
- Flood Emergency Preparation
- Floodplain Mapping
- Land Use Regulations
- Risk Communication
- Zoning
- Flood Insurance
- Flood Warning Systems



Projects

- City of Norfolk, VA
- Pawcatuck, CT
- RI Coastline, RI
- Fire Island to Montauk Point, NY

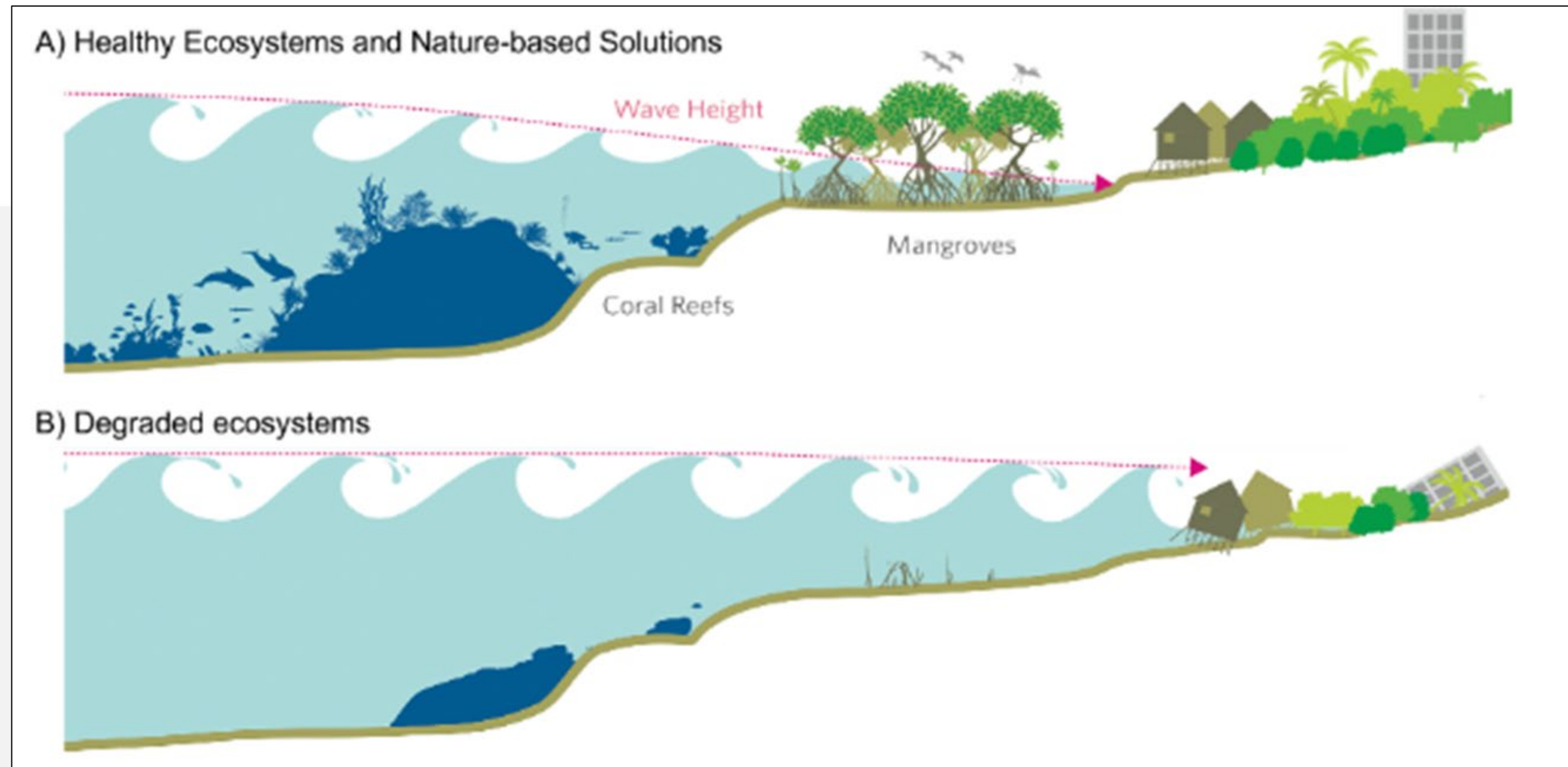
Studies

- Nassau County Back Bays
- New York and New Jersey Harbor and Tributaries
- New Jersey Back Bays
- South Shore of Long Island
- Virginia Beach, VA
- Virginia Peninsula, VA
- Raritan Bay and Sandy Hook Bay, NJ
- Delaware Inland Bays and Delaware Bay Coast
- Hoosic River, MA
- Rahway River Basin (Fluvial), NJ
- Green Brook, NJ GRR
- Denville, NJ (CAP)

**** Typically the responsibility of non-Federal sponsor or local partner, but should be described and included in recommended plans.**

Natural and Nature-Based Features Functionality

- Think in terms of cross-shore profile
 - Elevation
 - Roughness
- Resilience
 - Functional robustness
 - Recovery
 - Sustainability
 - Practical limits
- NNBF Types
 - Beaches & dunes
 - Coastal wetlands
 - Islands
 - Reefs
 - Plant systems



Beneficial Use of Dredged Material (BUDM)

Command Philosophy Goal: 70% by 2030

Section 204 - Beneficial Use of Dredged Material

- \$10 million federal per-project limit
- Requires a Non-Federal Cost Sharing Sponsor
- Non-Federal sponsor pays 35% of total project costs, with a minimum of 5% in cash
- Authorizes beneficial use of sediments from constructions, operations or maintenance of authorized civil works projects

Federal Agency Coordination

- Interagency meetings with U.S. Geological Survey, the U.S. Fish and Wildlife Service, and National Marine Fisheries Service
- Formal collaboration letter (USF&WS)
- Division and districts holding quarterly BUDM meetings

National Sediment Management Framework

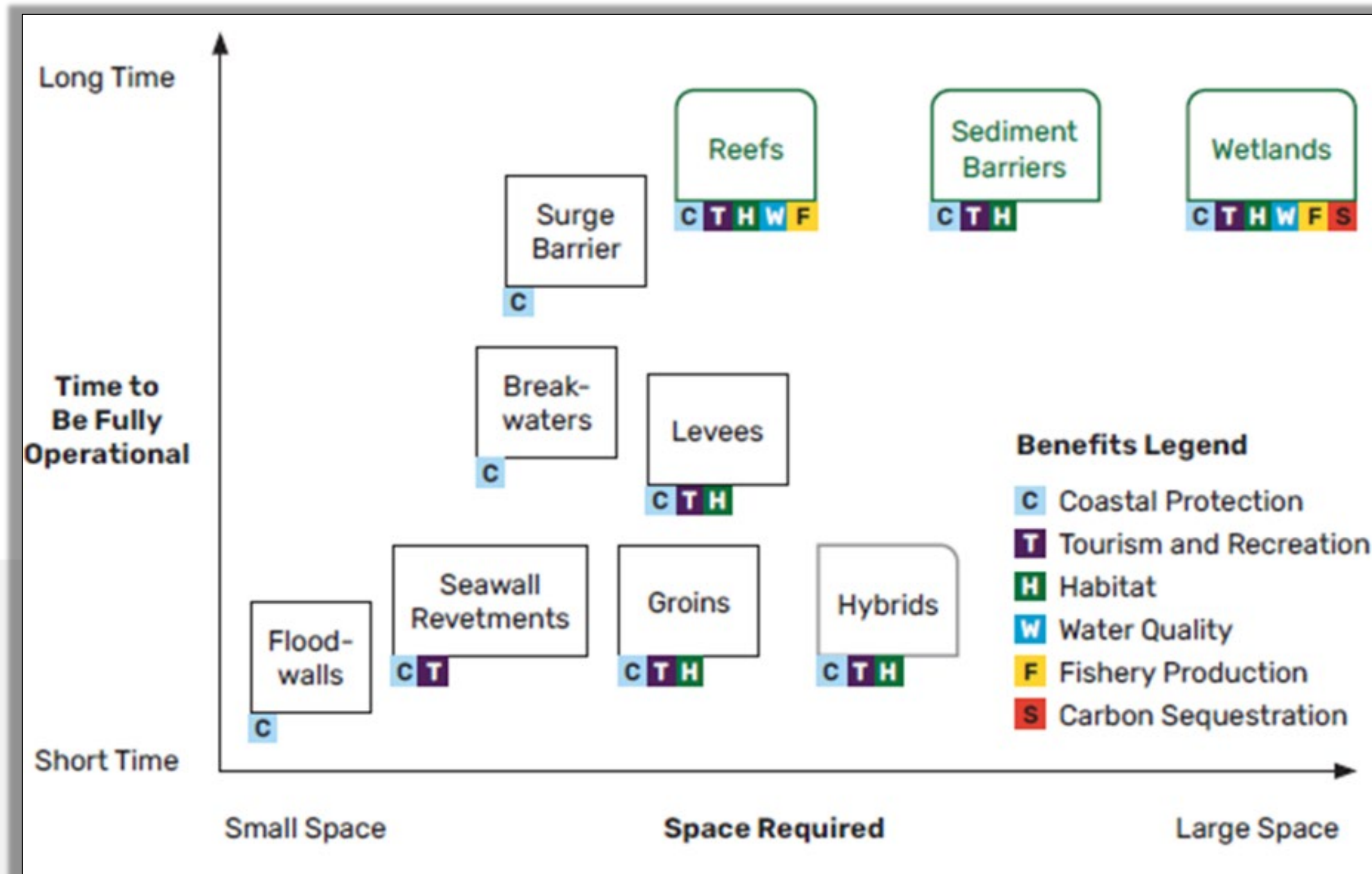
- Includes borrow sites for beach nourishment
- BUDM Viewer

USACE Evaluation of Beneficial Use

- WRDA 2020 Section 125 (a) included provisions for including BU into the Federal Standard evaluation; this guidance is currently under review.
- Section 125(d) provided for regional dredged material management plans (DMMPs); each district will participate once the effort is funded.



Appropriate Environments for Protection Measures

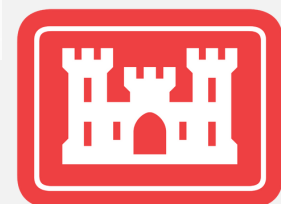




Q & A



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