NEW YORK – NEW JERSEY HARBOR AND TRIBUTARIES COASTAL STORM RISK MANAGEMENT FEASIBILITY STUDY

National Environmental Policy Act (NEPA) SCOPING MEETING

U.S. Army Corps of Engineers, New York District
New Jersey Department of Environmental Protection
New York State Department of Environmental Conservation in partnership with the New York City Office of Recovery and Resiliency

"The views, opinions and findings contained in this report are those of the authors(s) and should not be construed as an official Department of the Army position, policy or decision, unless so designated by other official documentation."

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New York-New Jersey Harbor and Tributaries Coastal Storm Risk Management Feasibility Study

AGENDA

Afternoon Session

- 3:00-3:15 Welcome/sign-in
- 3:15-3:45 Presentation by the study team
- 3:45-5:00 Comment Card Question and Answer and Poster session

Evening Session

- 6:00-6:15 Welcome/sign-in
- 6:15-6:45 Presentation by the study team
- 6:45-8:00 Comment Card Question and Answer and Poster session

*The **comment card question and answer and poster session** is time for participants to ask questions via comment card collected before and during the presentation.*

This intent is to address as many questions as possible prior to the end of the session.

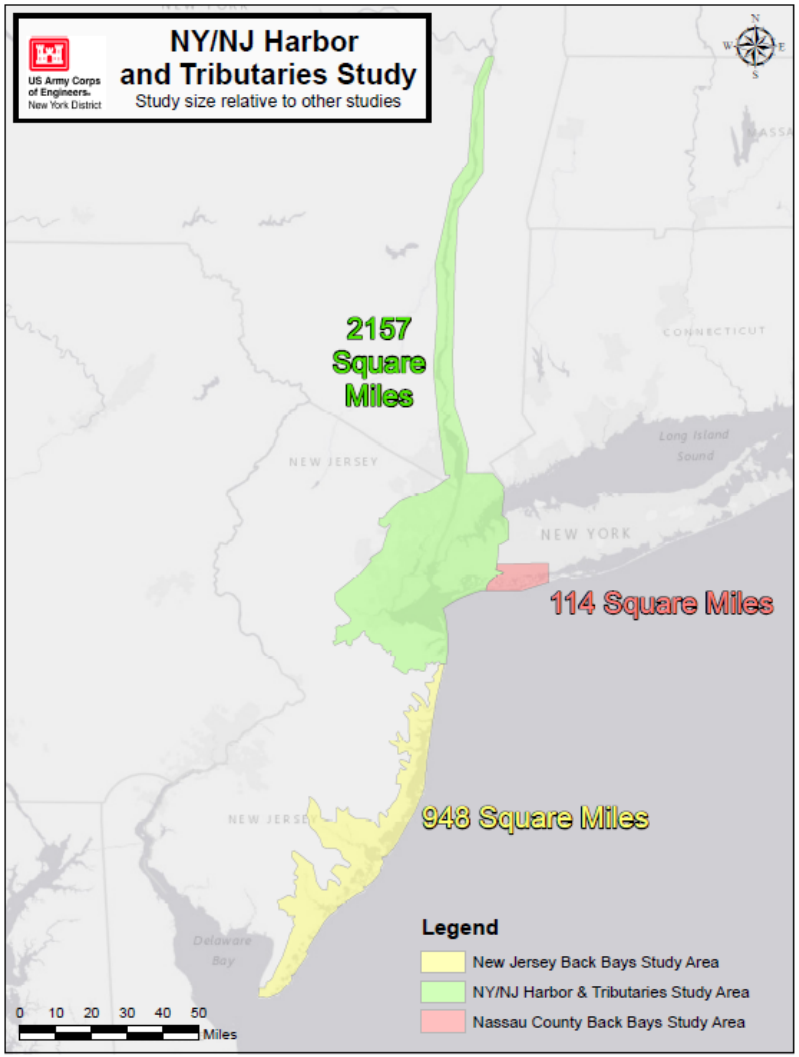
All comments received will be included in the scoping comment response document shortly following the end of the comment period.

Presentation Agenda

- Study Overview and Background
- Alternative Formulation Process
- NEPA Overview
- Next Steps
- Study Schedule
- Contact Information

Flooding in Hoboken, NJ October 2012

New York-New Jersey Harbor and Tributaries Coastal Storm Risk Management Feasibility Study



STUDY AREA (in green)

- The largest and most densely populated of the 9 high-risk focus areas identified in the North Atlantic Coast Comprehensive Study (NACCS)
- Area covers 2,150+ square miles and 900+ miles of affected shoreline
- 25 counties in New York & New Jersey
- Affected population of roughly 16 million people, including New York City and the six most populated cities in New Jersey

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STUDY INFORMATION & HISTORY

- **Objective**: Manage the risk of coastal storm damage in the study area, while contributing to the resilience of communities, critical infrastructure, and the environment
- **Study Authority**: Public Law 84-71, Chapter 140
- **Non-Federal Sponsors**: A Feasibility Cost Sharing Agreement was signed with the New Jersey Department of Environmental Protection (NJDEP) and the New York State Department of Environmental Conservation (NYSDEC) (in partnership with the City of New York) in 2016.
- **September 2017:** Identified preliminary alternatives
- **Current status:** Scoping the study and areas of analysis in order to better screen alternatives, with input from public and resource agencies. Evaluation and comparison will be used to identify the *Tentatively Selected Plan* (TSP) later in the study.

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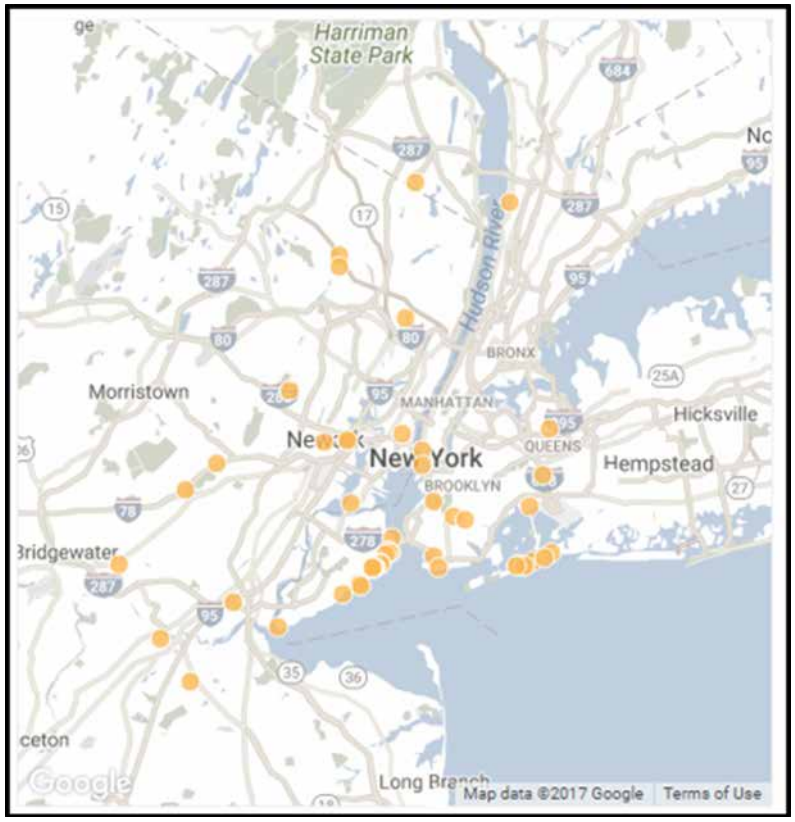
FEDERAL INTEREST AND PAST FLOODING



Location of fatalities caused by Hurricane Sandy in the study area. Source: NY Times, accessed on November 2017.

- Recurring impacts from coastal flooding has resulted in significant economic, environmental, and community impacts
- 60 Hurricane Sandy fatalities
- $15.7 billion federal investment in post-Hurricane Sandy recovery and resilience projects
- Critical infrastructure: 3 major airports, 5 major rail systems, largest port on east coast, largest refined petroleum port on U.S., hospitals, police, fire, evacuation routes, rail/subway infrastructure
- Includes New York City metropolitan area, with Gross Metropolitan Product (GMP) of over $1.66 trillion (2016)

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COASTAL STORM RISK MANAGEMENT (CSRM)

- No CSRM project can eliminate the risk of flooding.
- Given time, every design will be exceeded.
- CSRM reduces the frequency and/or severity of flooding and provides additional time to respond.
- CSRM is a shared responsibility and a collaborative approach is required to reduce damages and to save lives (USACE, FEMA, State, County, Local Gov., Emergency Personnel, Residents)
    - Physical features
    - Insurance
    - Zoning
    - Emergency Action Plan (EAP)
    - Communication

Bulldozers move sand for a USACE CSRM project in Westhampton, NY.

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CORPS OF ENGINEERS PLAN FORMULATION PROCESS

- Identify problems and opportunities
- Inventory and forecast conditions
- Formulate alternatives to manage the risk of flooding from coastal storms
- Evaluate alternatives
  - Plans are screened for *completeness, effectiveness, efficiency, and acceptability*
  - Compare reduced damages of proposed alternatives against without project conditions to *determine benefits*
  - Perform an initial evaluation of *environmental impacts*
  - *Compare* benefits to costs for each alternative
    - To be economically justified a plan must have a *benefit-to-cost ratio* (BCR) greater than one
- Compare alternatives
- Select alternative

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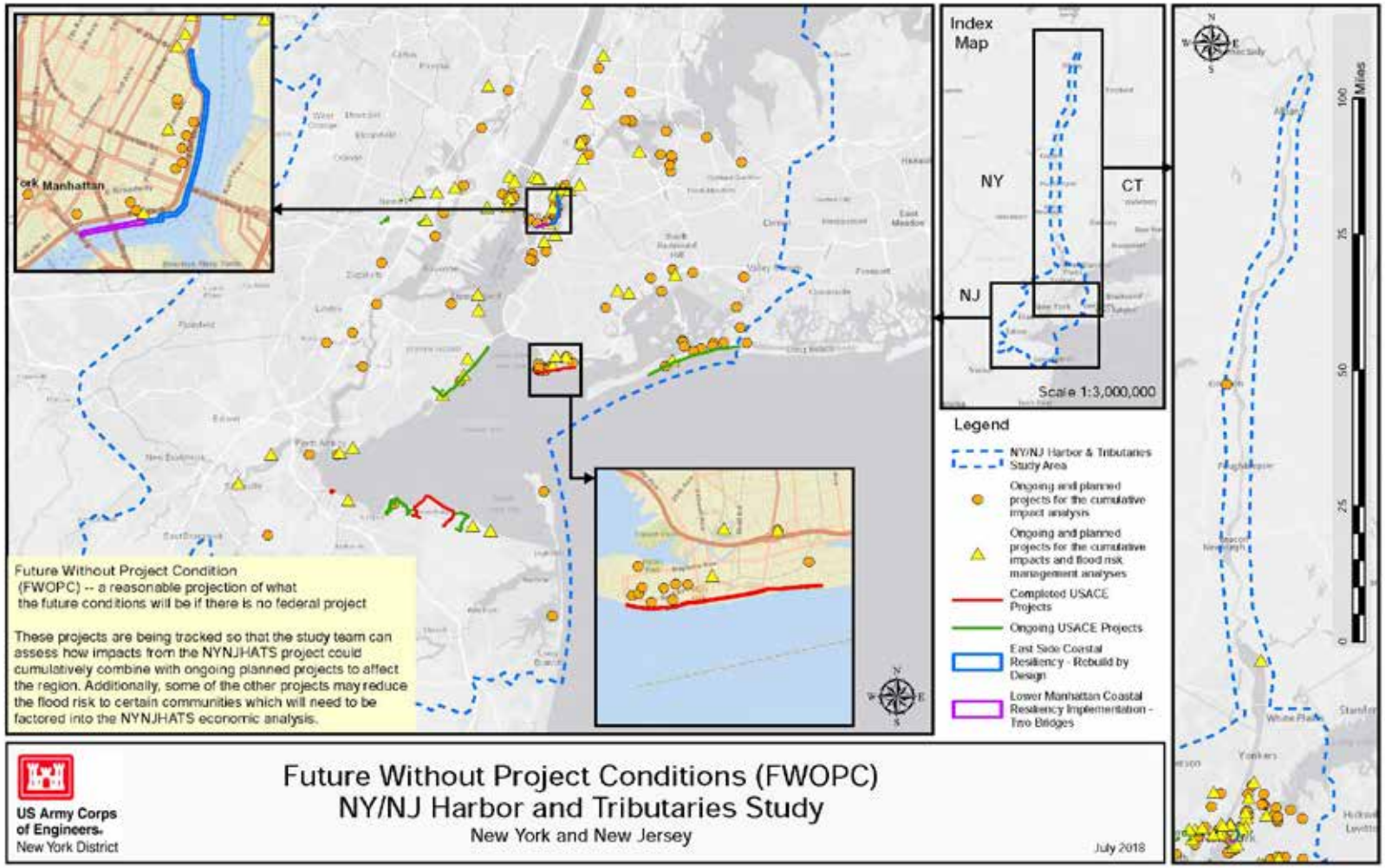
ALTERNATIVES OVERVIEW

- Alternative 1: No Action
- Alternative 2: Harbor Wide Gate and Beach Restoration
- Alternative 3A/3B: Multiple Bay/Basin Gate and Floodwalls & Levee Systems
- Alternative 4: Individual Waterbody Gate and Floodwalls & Levees
- Alternative 5: Perimeter Only

New York Harbor.

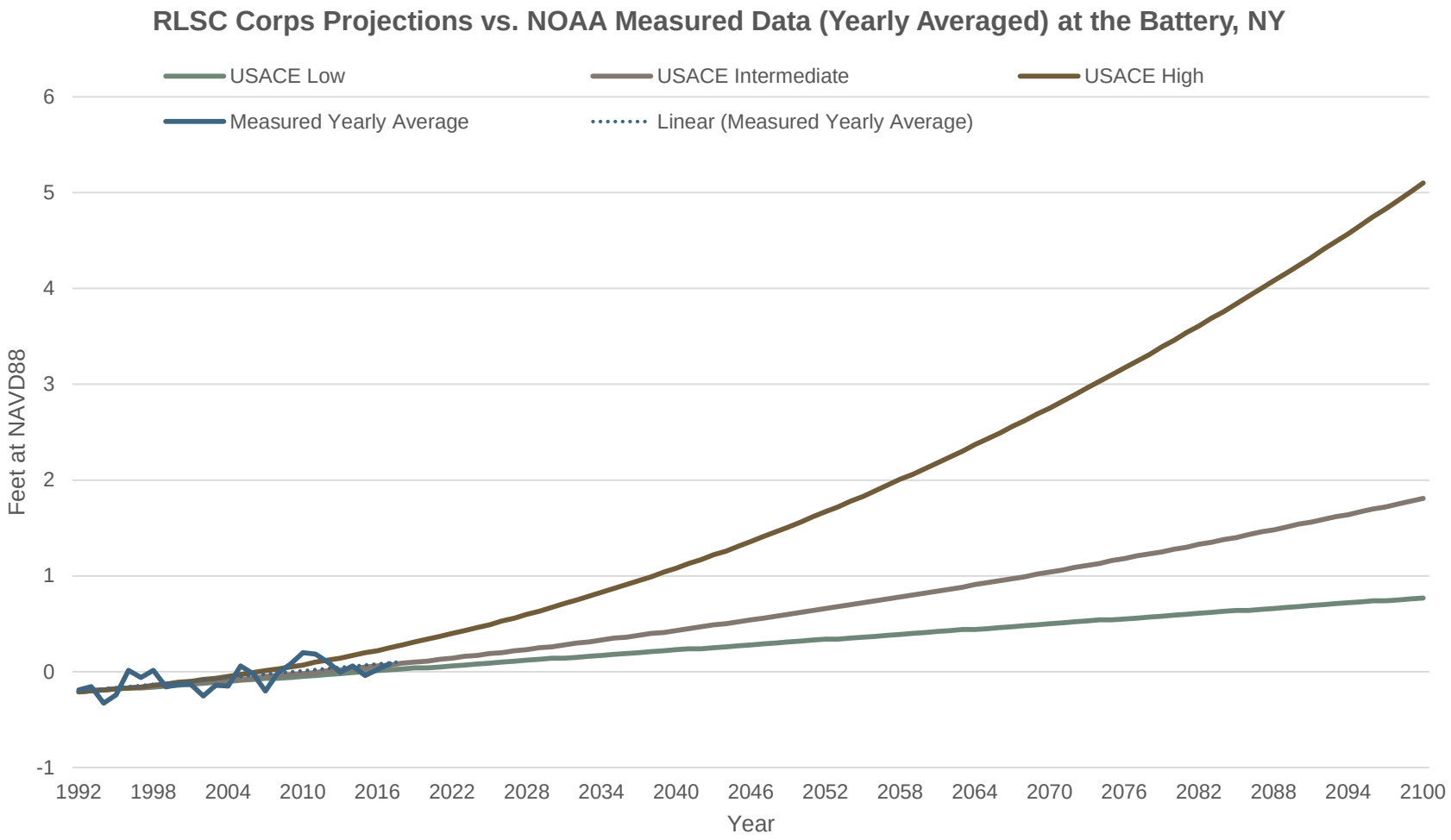
ALTERNATIVE 1: NO ACTION (FUTURE WITHOUT PROJECT CONDITIONS)



ADDRESSING SEA LEVEL RISE

- Adapting to sea level rise is NOT optional and it is a shared responsibility.
- This study incorporates the most recent, sound science analyses of how to adapt coastal storm risk measures to increased future sea level in their design and analyses.
- This includes assessing risk and uncertainty based on an uncertain future.

ALTERNATIVE 1: NO ACTION (FUTURE WITHOUT PROJECT CONDITIONS)



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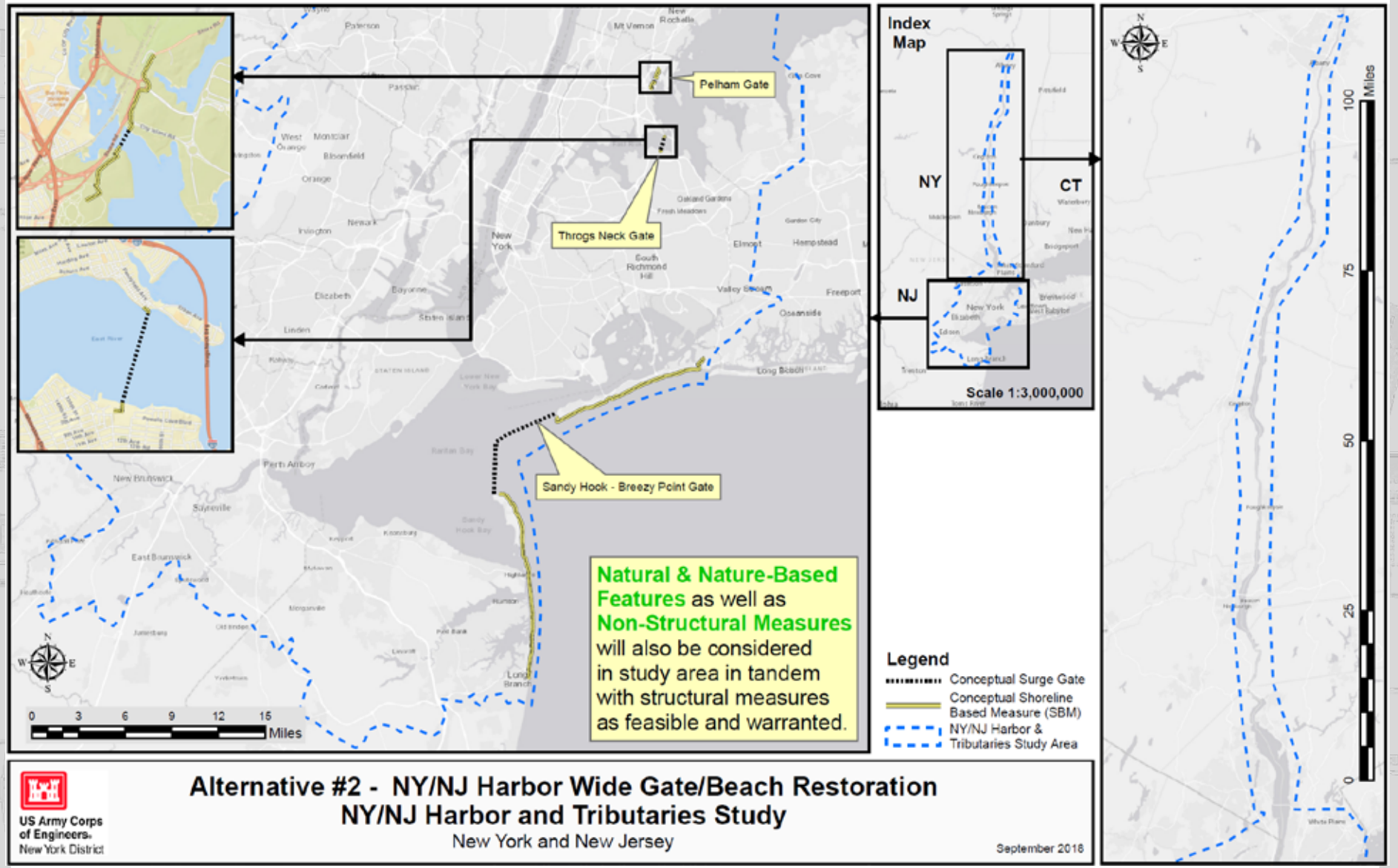

Alternative #2 - NY/NJ Harbor Wide Gate/Beach Restoration
NY/NJ Harbor and Tributaries Study

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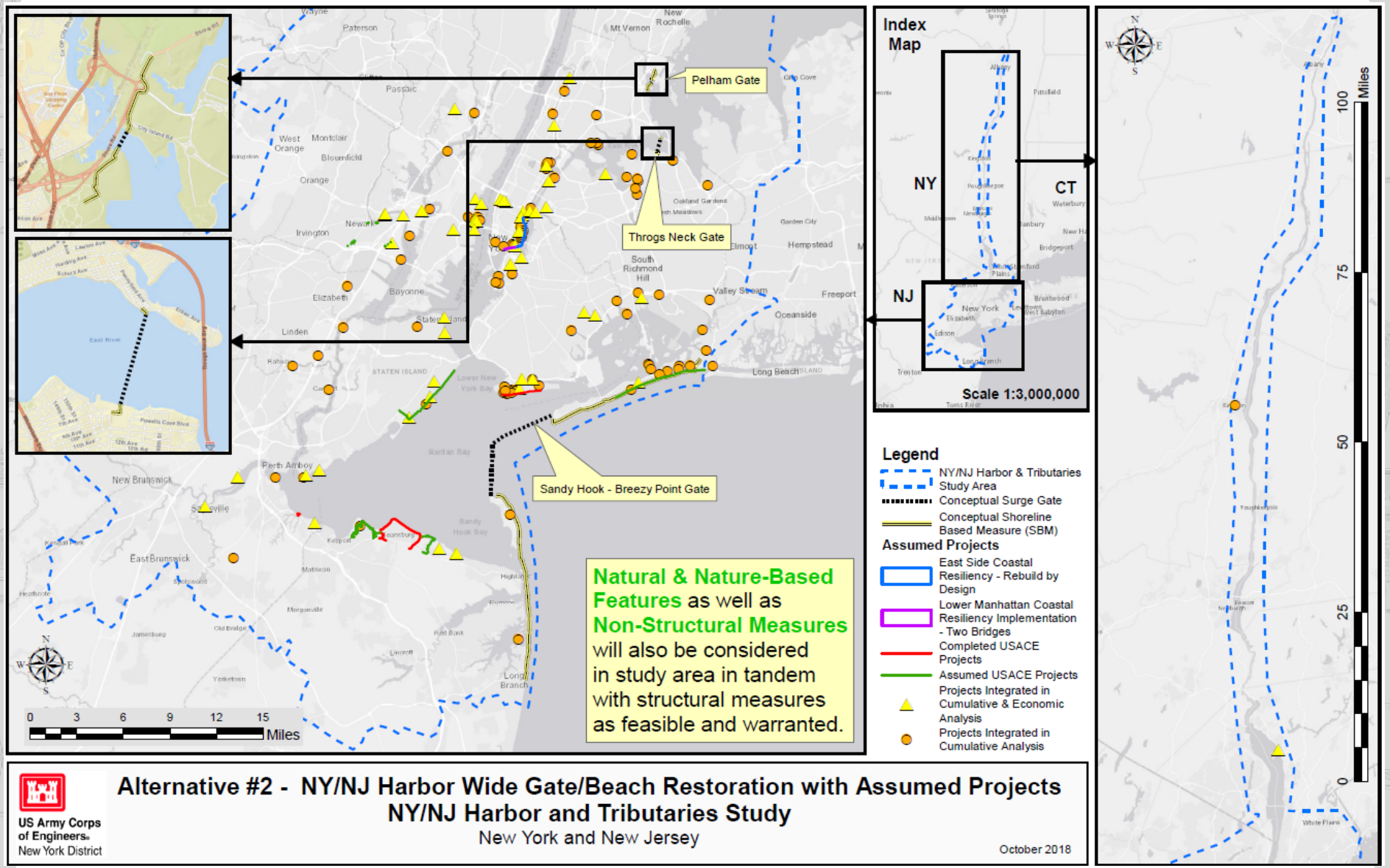

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Alternative #2 - NY/NJ Harbor Wide Gate/Beach Restoration with Assumed Projects
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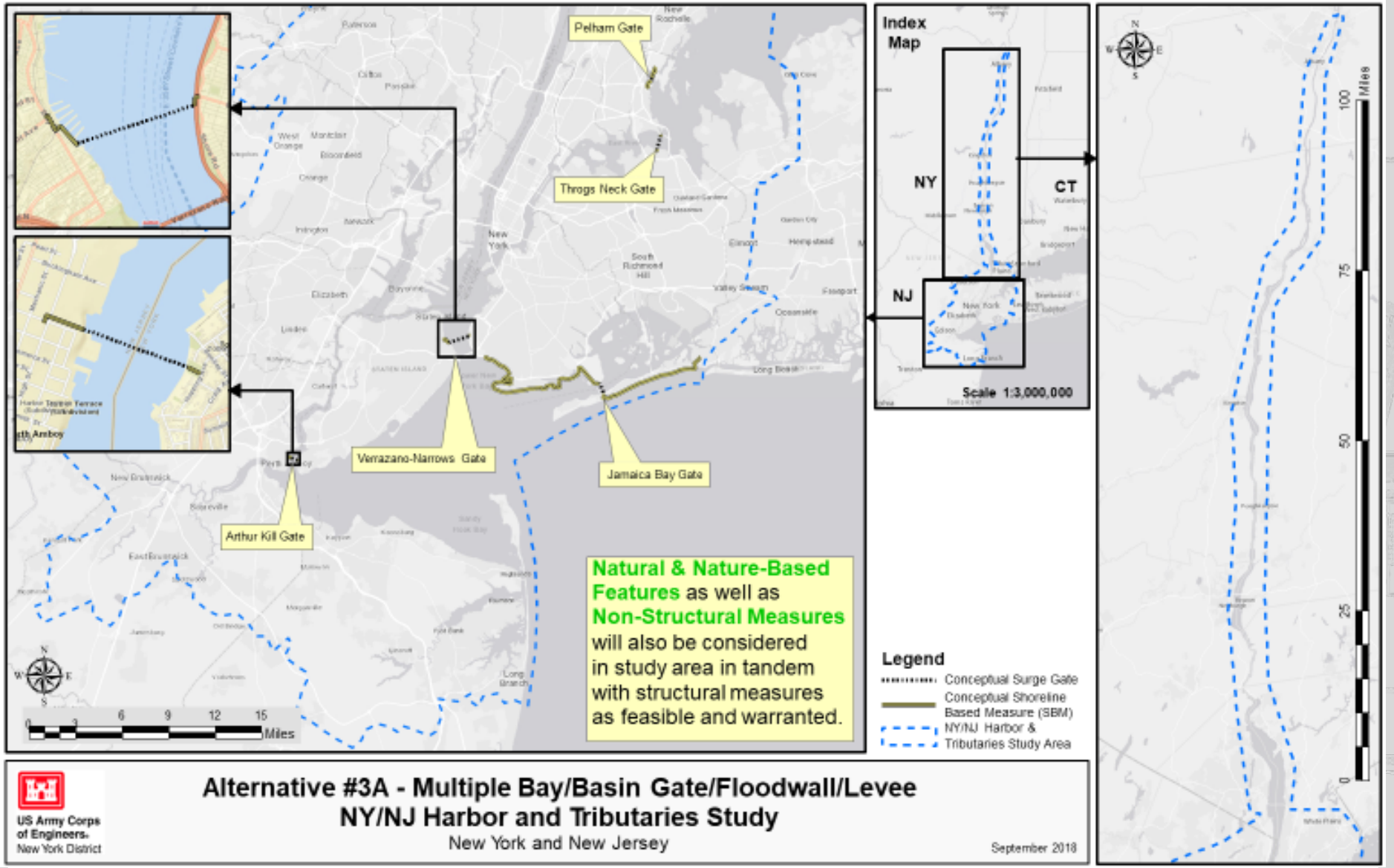

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Alternative #3A - Multiple Bay/Basin Gate/Floodwall/Levee
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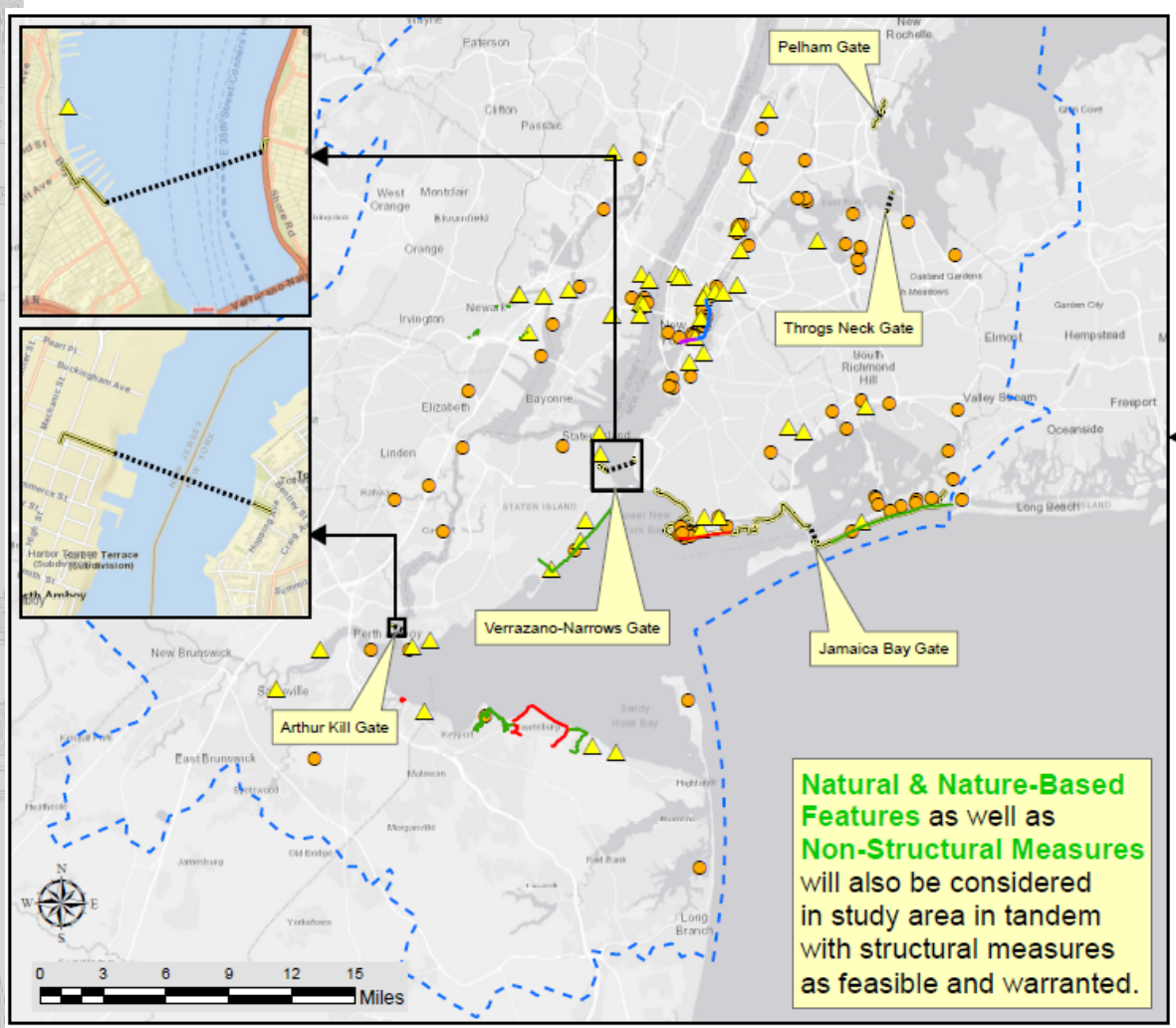
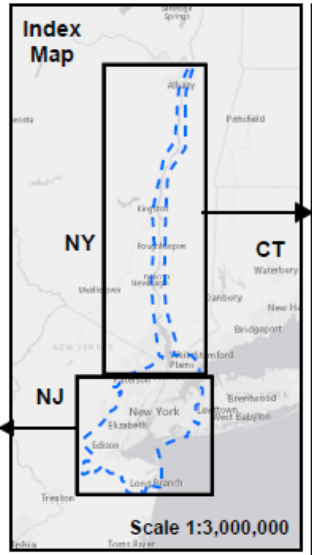


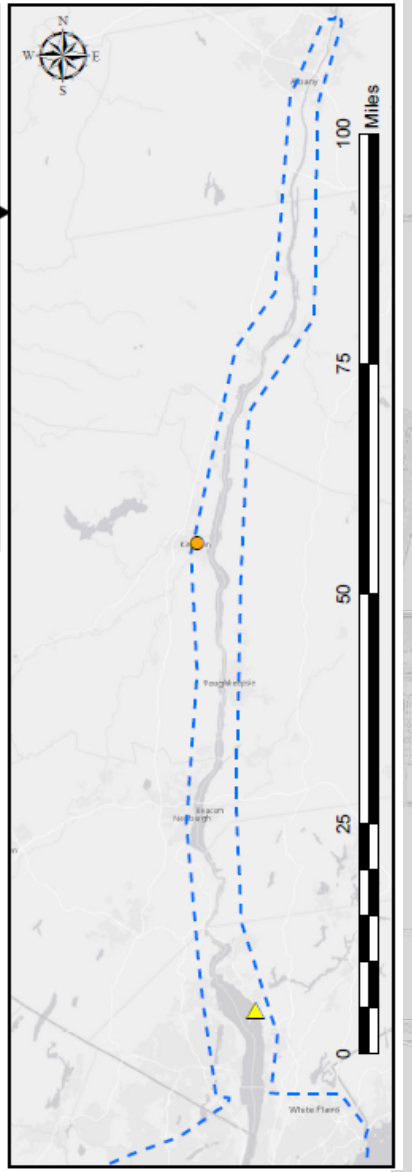


Legend

- NY/NJ Harbor & Tributaries Study Area
- Conceptual Surge Gate
- Conceptual Shoreline Based Measure (SBM)

Assumed Projects

- East Side Coastal Resiliency - Rebuild by Design
- Lower Manhattan Coastal Resiliency Implementation - Two Bridges
- Completed USACE Projects
- Assumed USACE Projects
- Projects Integrated in Cumulative & Economic Analysis
- Projects Integrated in Cumulative Analysis



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Alternative #3A - Multiple Bay/Basin Gate/Floodwall/Levee with Assumed Projects
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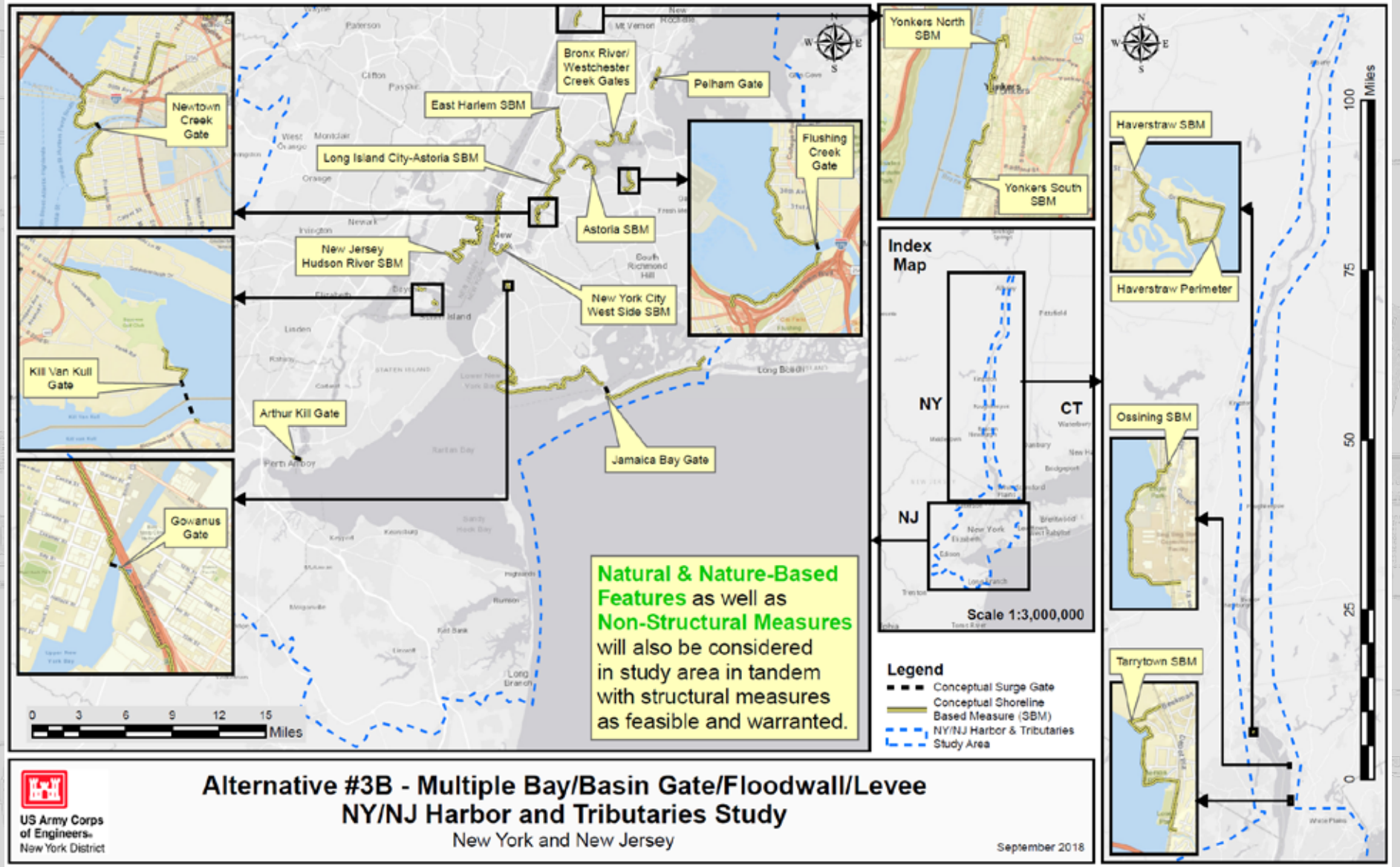

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Alternative #3B - Multiple Bay/Basin Gate/Floodwall/Levee
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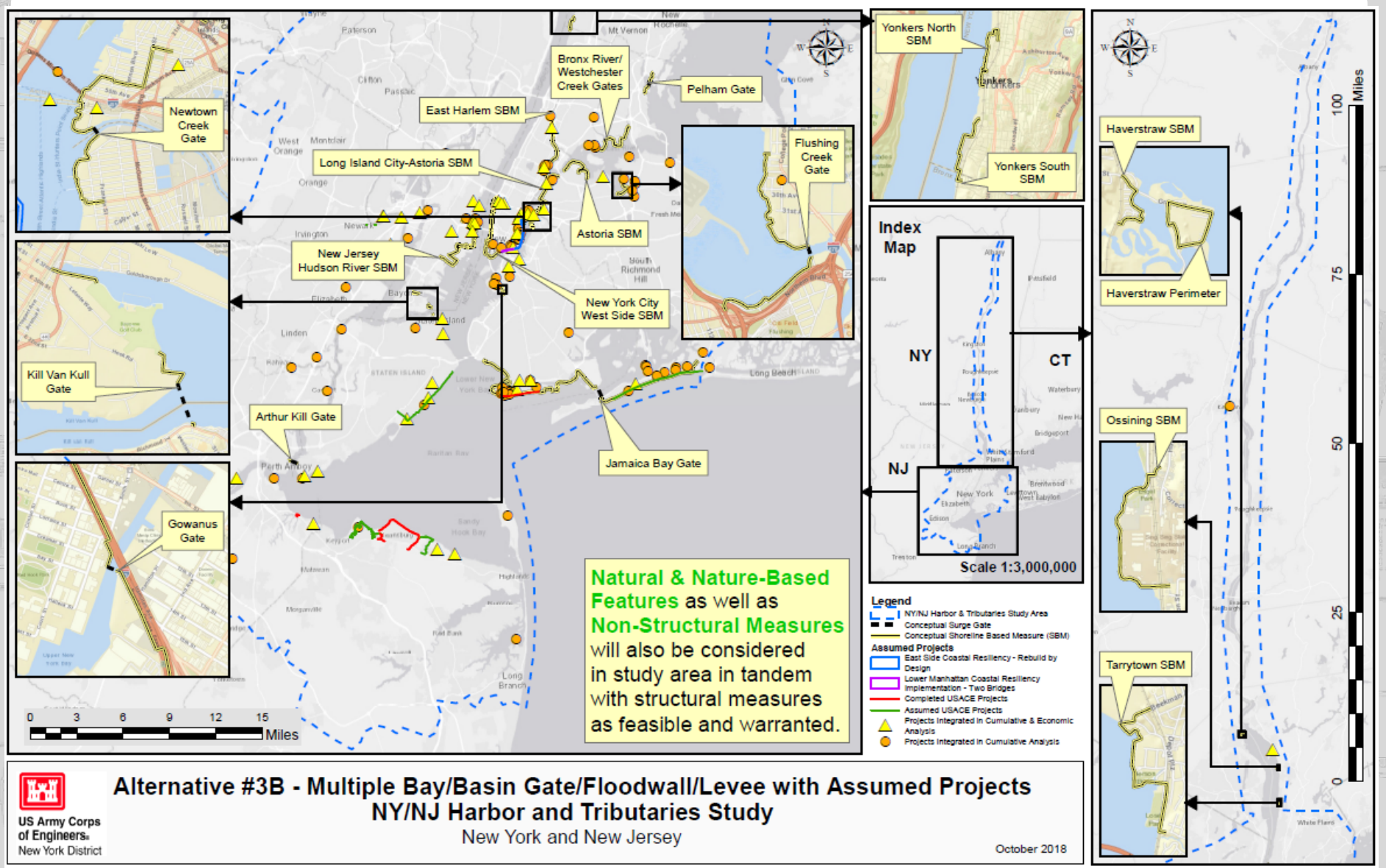

Alternative #3B - Multiple Bay/Basin Gate/Floodwall/Levee with Assumed Projects
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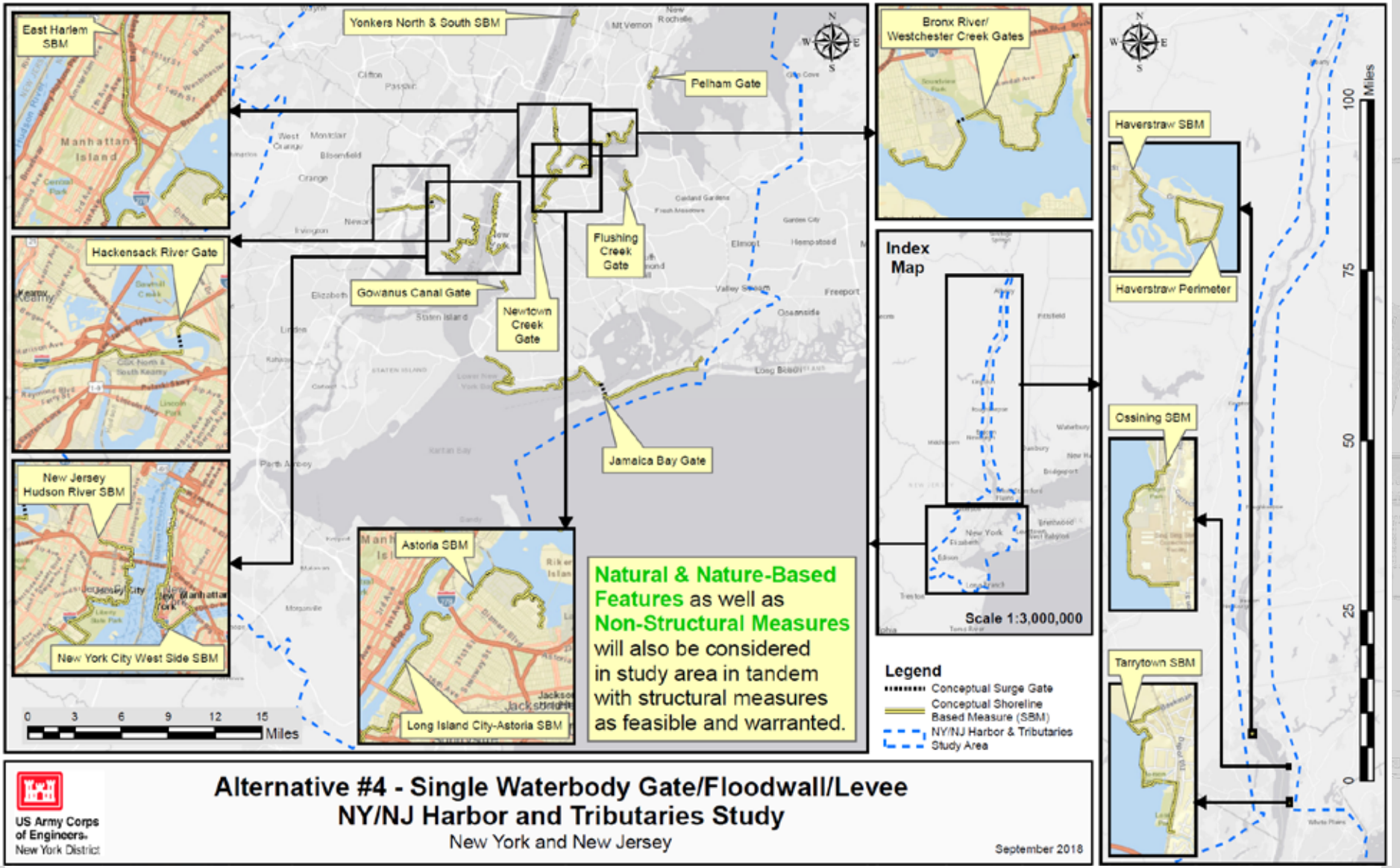

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Alternative #4 - Single Waterbody Gate/Floodwall/Levee
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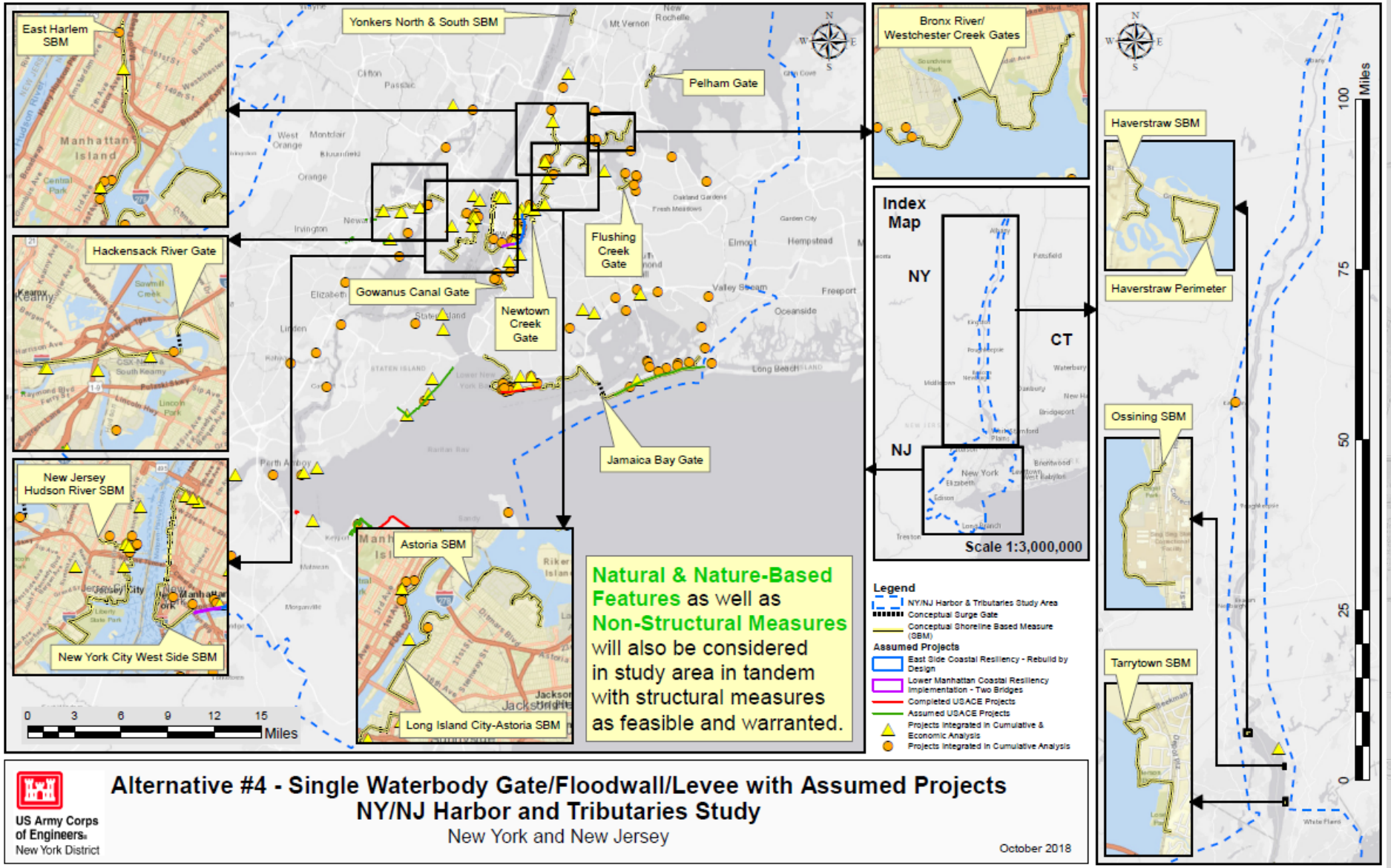

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Alternative #4 - Single Waterbody Gate/Floodwall/Levee with Assumed Projects
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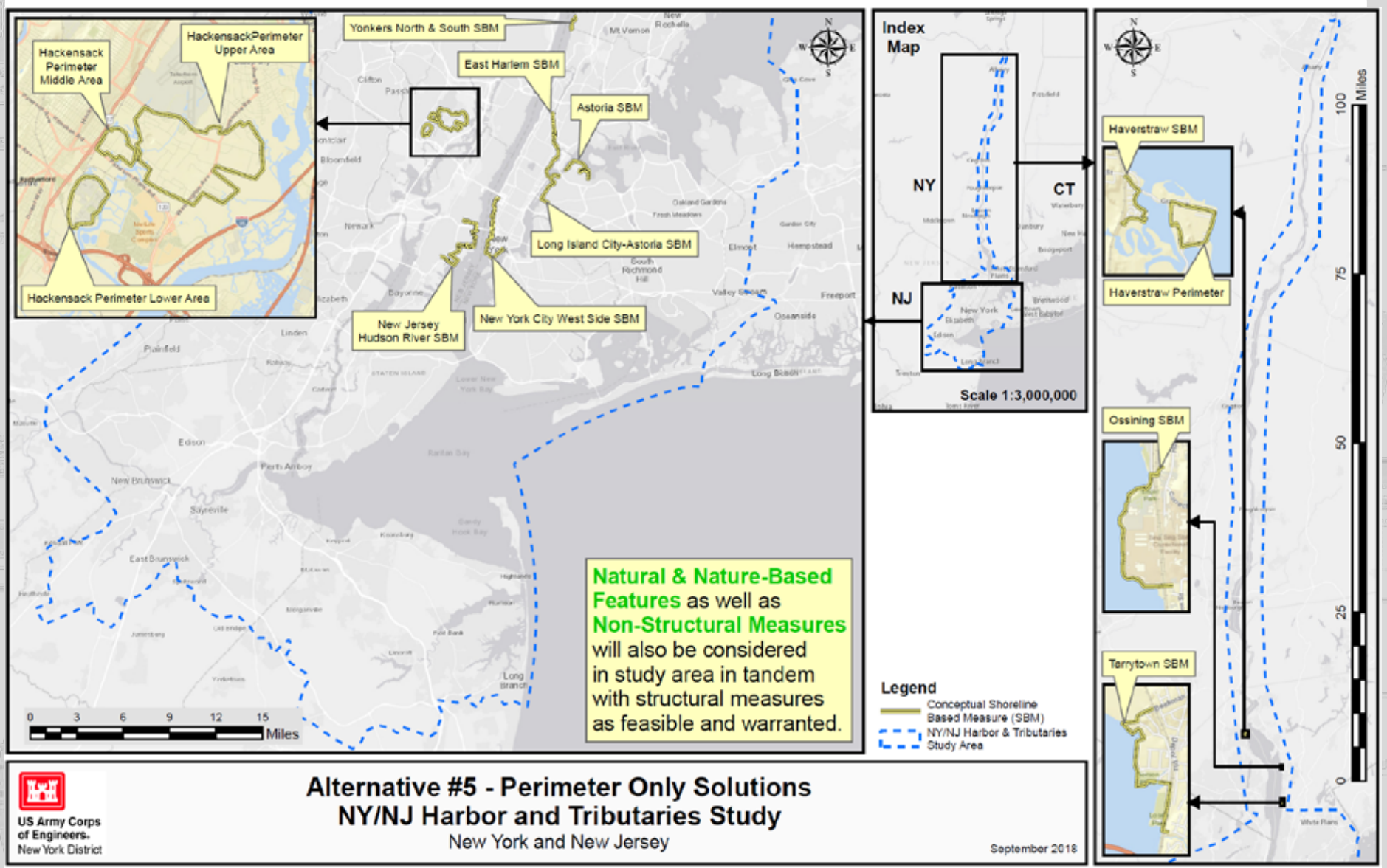

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Alternative #5 - Perimeter Only Solutions
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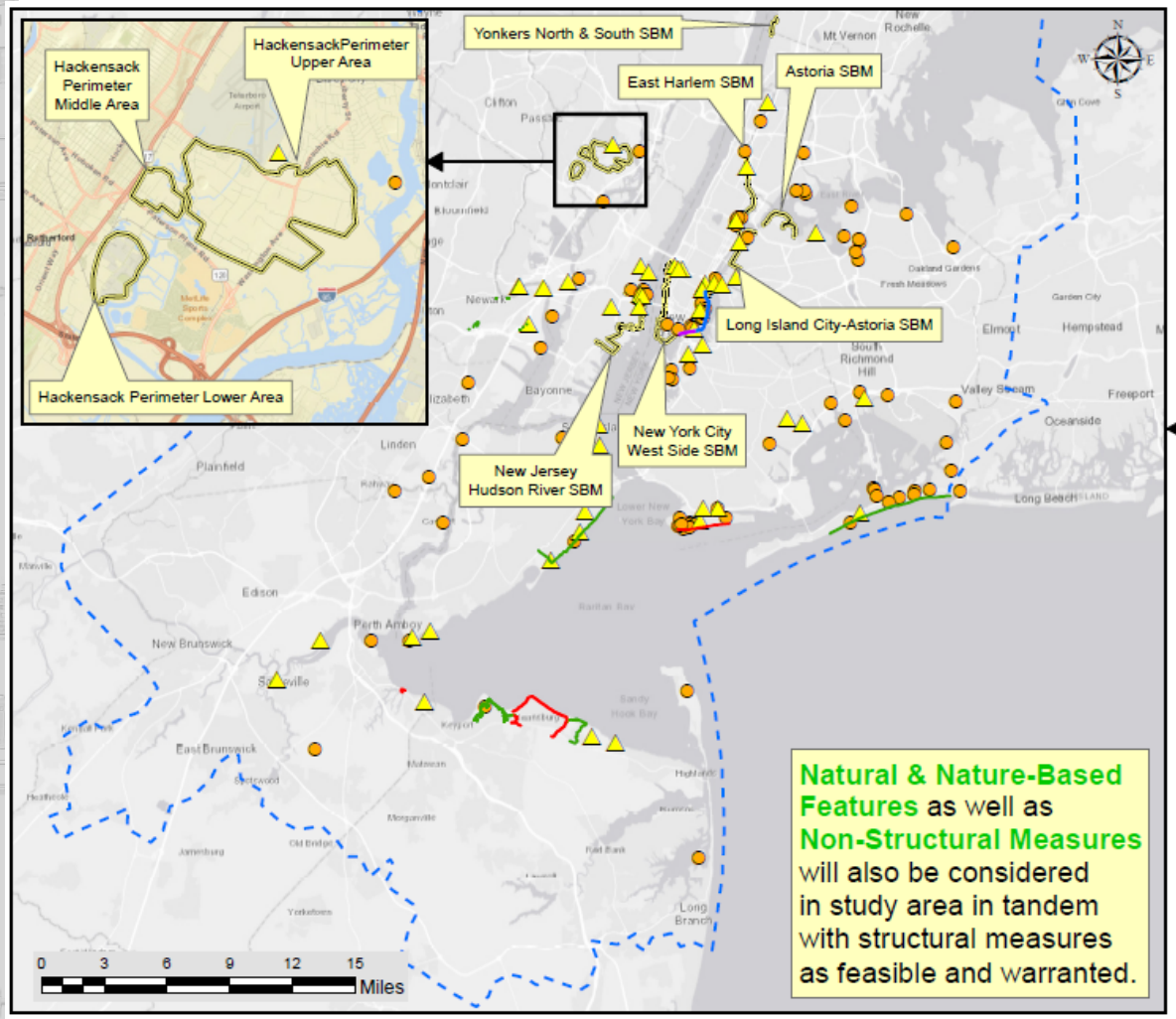

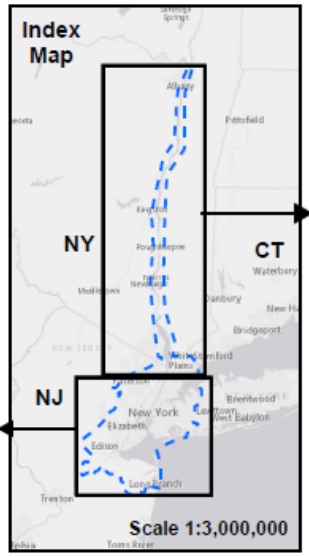

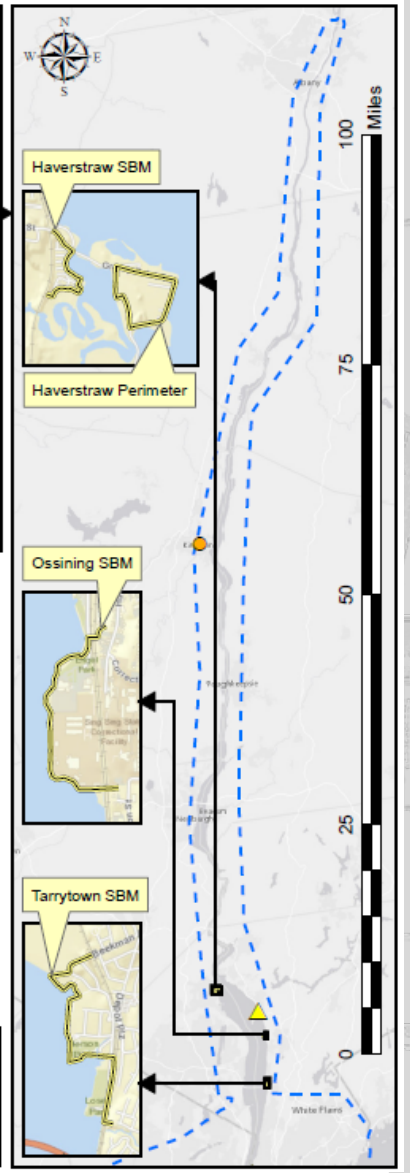

Legend

- NY/NJ Harbor & Tributaries Study Area
- East Side Coastal Resiliency - Rebuild by Design
- Lower Manhattan Coastal Resiliency Implementation - Two Bridges
- Completed USACE Projects
- Assumed USACE Projects
- Projects Integrated in Cumulative & Economic Analysis
- Projects Integrated in Cumulative Analysis
- Conceptual Shoreline Based Measure (SBM)

Alternative #5 - Perimeter Only Solutions with Assumed Projects
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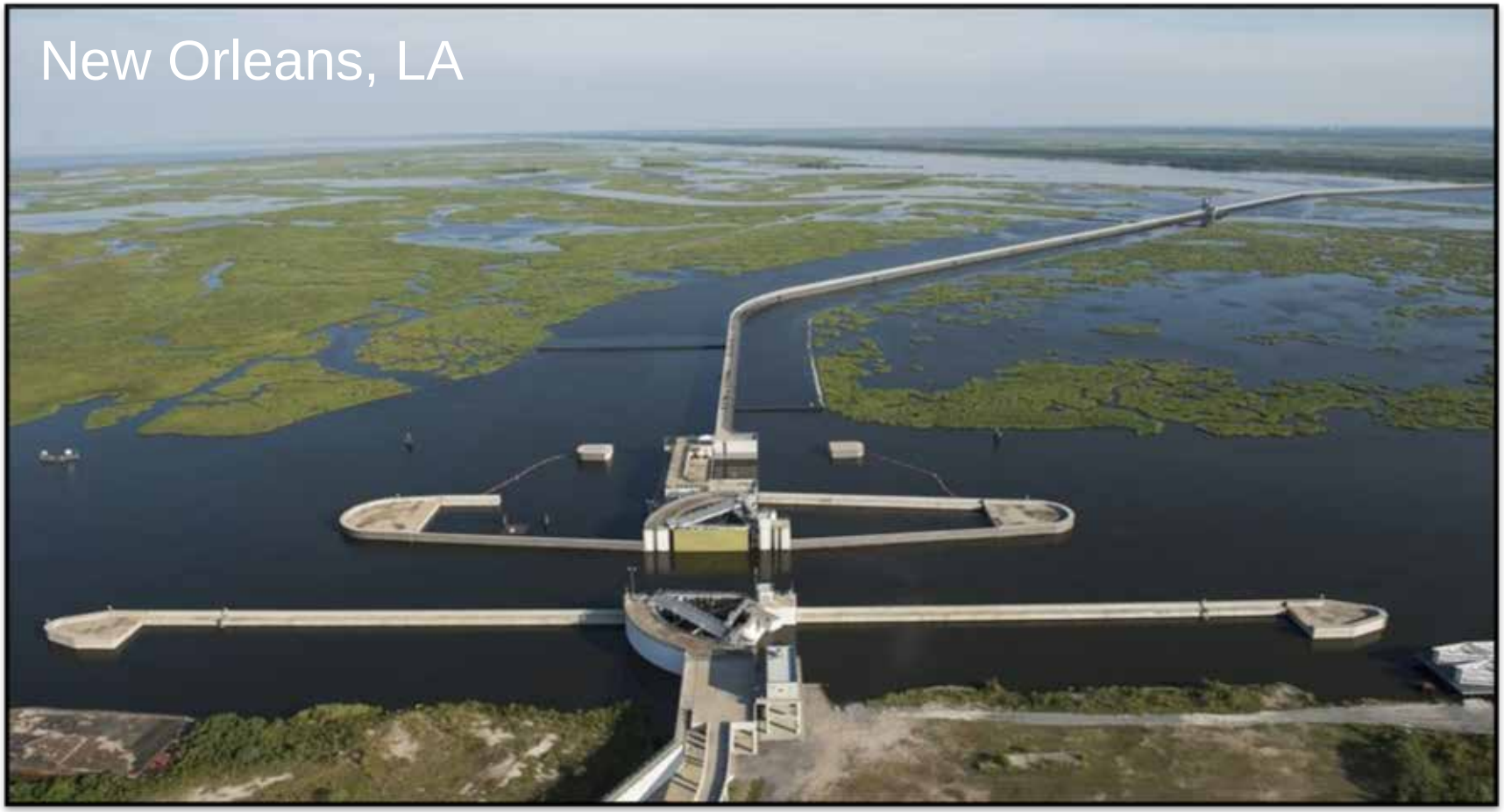
STRUCTURAL MEASURE EXAMPLES Gates



STRUCTURAL MEASURE EXAMPLES Gates

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STRUCTURAL MEASURE EXAMPLES Gates

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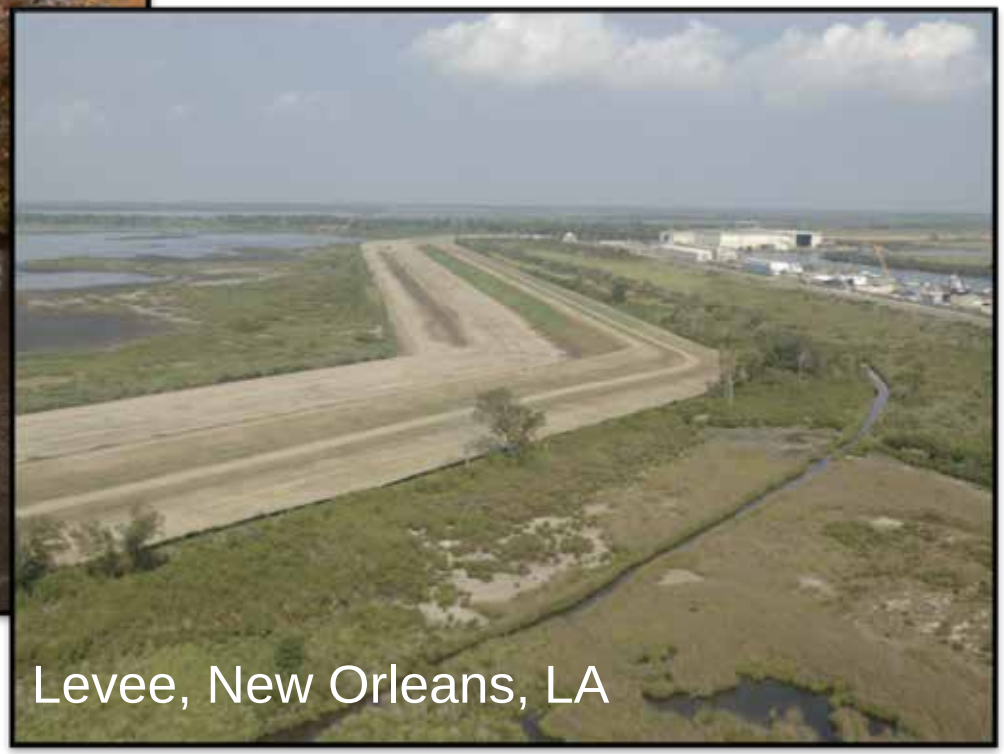
STRUCTURAL MEASURE EXAMPLES

Shoreline Features

Floodwall, Green Brook, NJ



Levee, New Orleans, LA

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STRUCTURAL MEASURE EXAMPLES
Shoreline Features

Seawall, Martha's Vineyard, MA

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NONSTRUCTURAL MEASURE EXAMPLES

Structure Elevation

Dry Floodproofing

Wet Floodproofing

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NATURAL AND NATURE-BASED FEATURE EXAMPLES

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NATIONAL ENVIRONMENTAL POLICY ACT (NEPA)

- Federal agencies are required to determine and consider the "effect of their actions on the human environment" during planning and decision making.
- Federal Actions that can trigger NEPA:
  - Funding
  - Permits
  - Construction
- NEPA is about <u>disclosure</u>
- Consequences to:
  - Social
  - Economic
  - Natural Resources
  - Historic Properties
- Responsibility to <u>avoid, minimize, and mitigate for any impacts</u>

NATIONAL ENVIRONMENTAL POLICY ACT (NEPA)

Multiple laws, executive orders and regulations are considered as part of the NEPA process.

Piping Plover.

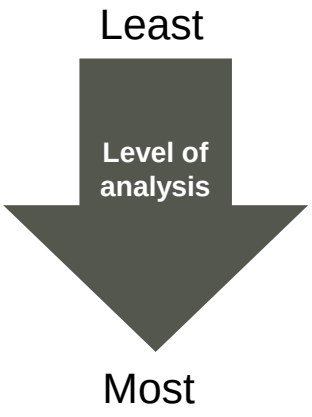
Atlantic Sturgeon.

- National Historic Preservation Act, as amended
  - *Preserves historic and archaeological sites*
- Clean Water Act
  - *Prevents water pollution*
- Endangered Species Act
  - *Protects plants and animals from extinction*
- Clean Air Act
  - *Prevents air pollution*
- Environmental Justice
  - *Addressing the disproportionately high adverse environmental effects on minority and low-income populations as well as disproportionate concentration of environmental goods, like parks or open space, in affluent or mostly white communities*
- State laws

TYPES OF NEPA ANALYSIS

Council on Environmental Quality (CEQ) regulations provide three types of NEPA analysis based upon potential for significant impact:

- § Categorical Exclusion
- § Environmental Assessment (EA)
- § Environmental Impact Statement (EIS)
- § Tiered Environmental Impact Statement (EIS)



Given the complexity and scale of this study, the timeline for design details to be known once a *Tentatively Selected Plan* is identified is expected to be longer than the typical Corps of Engineers study. Therefore, due to the large scope and scale of this study and the significance of potential impacts, the study team will be preparing a Tier 1 EIS, with a Tier 2 EIS to be developed once design details are better known. The Tier 1 EIS will assess potential impacts more broadly, using all available information, and the Tier 2 EIS will include the site-specific detailed design information. No plan can be constructed until the full Tier 2 EIS has been completed and all permits have been obtained.

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ENVIRONMENTAL CONSIDERATIONS

- Changes to tidal range/regime, flow velocity, salinity concentrations, sedimentation rates, scour, and elevation
- Water quality, dissolved oxygen, nutrients, and phytoplankton biomass (i.e. eutrophication), and pathogenic bacteria
- Anadromous/catadromous fish migration and aquatic species
- Marsh inundation
- Air quality
- Transportation (marine vessels, etc.)
- Aesthetics and recreation
- National Historic Landmarks and Historic Properties
- Listed species and critical habitat
- Noise and vibration
- Bay bottom impacts, as well as landside impacts
- Location of Superfund, National Priority List, and other contaminated sites

Jamaica Bay, New York City

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NEPA SCOPING PROCESS

- Required when preparing an EIS
- Identify people or organizations who are interested in the proposed action
- Identifies any information sources that might be available to analyze and evaluate impacts
- Assists with plan formulation process
- Identifies significant resources to be evaluated
- Local communities and stakeholders have valuable local knowledge and expertise and the scoping process is intended to help gather that for inclusion in the analysis

NEPA Scoping Document: http://www.nan.usace.army.mil/Missions/Civil-Works/Projects-in-New-York/New-York-New-Jersey-Harbor-Tributaries-Focus-Area-Feasibility-Study/

Citizens Guide to NEPA: Having Your Voice Heard: http://energy.gov/nepa/public-participation

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NEXT STEPS & FURTHER OPPORTUNITY FOR PUBLIC INVOLVEMENT

- § Scoping Period through November 5th
- § Release of the Draft Interim Report – Winter 2019
- § Public/ Agency Reviews with Public Meetings
- § Draft Feasibility Report and Tier 1 EIS – Spring 2020
- § Public/ Agency Reviews with Public Meetings
- § Optimization of the Selected Plan
- § Final Feasibility Report and Tier 1 EIS – Spring 2021
- § Chief's Report – Summer 2022
- § Public Involvement during Pre-Construction Engineering and Design Phase –Tier 2 EIS

*The red boxes indicate the best opportunities for the public to provide input to the study.

The scoping period extends until **November 5, 2018.** Comments and input submitted by this deadline will be used to develop the Draft Interim Report. Comments received after the deadline are welcome and will be used to help identify the Tentatively Selected Plan (TSP) in 2020.

Once the Draft Interim Report is released, the public and agencies will have a chance to review and submit comments and public meetings will be held as part of the public review period. The comments are used to inform the agency as it moves to identifying the TSP.

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STUDY SCHEDULE

Milestones	
Milestones	**Dates***
Draft Interim Report	Winter 2019
Draft Feasibility Report and Tier 1 EIS	Spring 2020
Final Feasibility Report and Tier 1 EIS	Spring 2021
Chief's Report (for Congress)	Summer 2022

* The schedule is contingent upon available funding, non-federal partner support, and concurrence by Corps higher-authority offices.

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HOW TO STAY INVOLVED

Scoping Comments

Send any questions and/or comments to NYNJHarbor.TribStudy@usace.army.mil

OR

Fill out and submit a comment card at a scoping meeting

Scoping Comment Period open through **November 5, 2018**

Project Webpage

http://www.nan.usace.army.mil/Missions/Civil-Works/Projects-in-New-York/New-York-New-Jersey-Harbor-Tributaries-Focus-Area-Feasibility-Study/

Stakeholder Mailing List

Email NYNJHarbor.TribStudy@usace.army.mil if you would like to join our mailing list and receive periodic updates.

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