

# US ARMY CORPS OF ENGINEERS NEW ENGLAND DISTRICT OVERVIEW

College Career Fairs, November 2020  
USACE 101 Briefing

David Margolis, P.E.  
Chief, Engineering Division

Sean C. Dolan, P.E.  
Chief, Construction Division

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



**US Army Corps  
of Engineers.**





US Army Corps of Engineers

# The U.S. Army Corps of Engineers:

## A Brief History

- Civil Works
- Military Missions
- Environmental
- Emergency Operations
- Research & Development
- Sustainability

Formation of Continental Army June 14 1775; George Washington appointed the first Chief Engineer for the Army June 16



1812 Ft McHenry

1824 Congress passed act to improve the Mississippi and Ohio rivers

1899 Section 10 Rivers & Harbors Act

1928 Flood Control Act in response to major floods; 1936 Flood Control Act – declares flood control is an appropriate Federal Action

USACE civilian toxic waste removal assist EPA

1980 – EPA Superfund Program



Emergency Response



1750

1800

1850

1900

1950

2000

2018

Future

July 4, 1776 Happy Birthday USA



The Army established the Corps of Engineers as a separate, permanent branch on March 16, 1802

Continental Army disbanded 1783; The US Army formed 1796

1862 Act

Transcontinental Railroad



1986 WRDA– non-Federal Responsibility

1970 – Passage of NEPA

1972 - Section 404 of the Federal Water Pollution Control Act

2008 Continuing Budget Constraints leading Corps to examine Public-Private Partnerships

2018 – \$3.7B in Emergency Supplemental Funding



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# USACE DIVISIONS AND DISTRICTS



Division HQ



District HQ

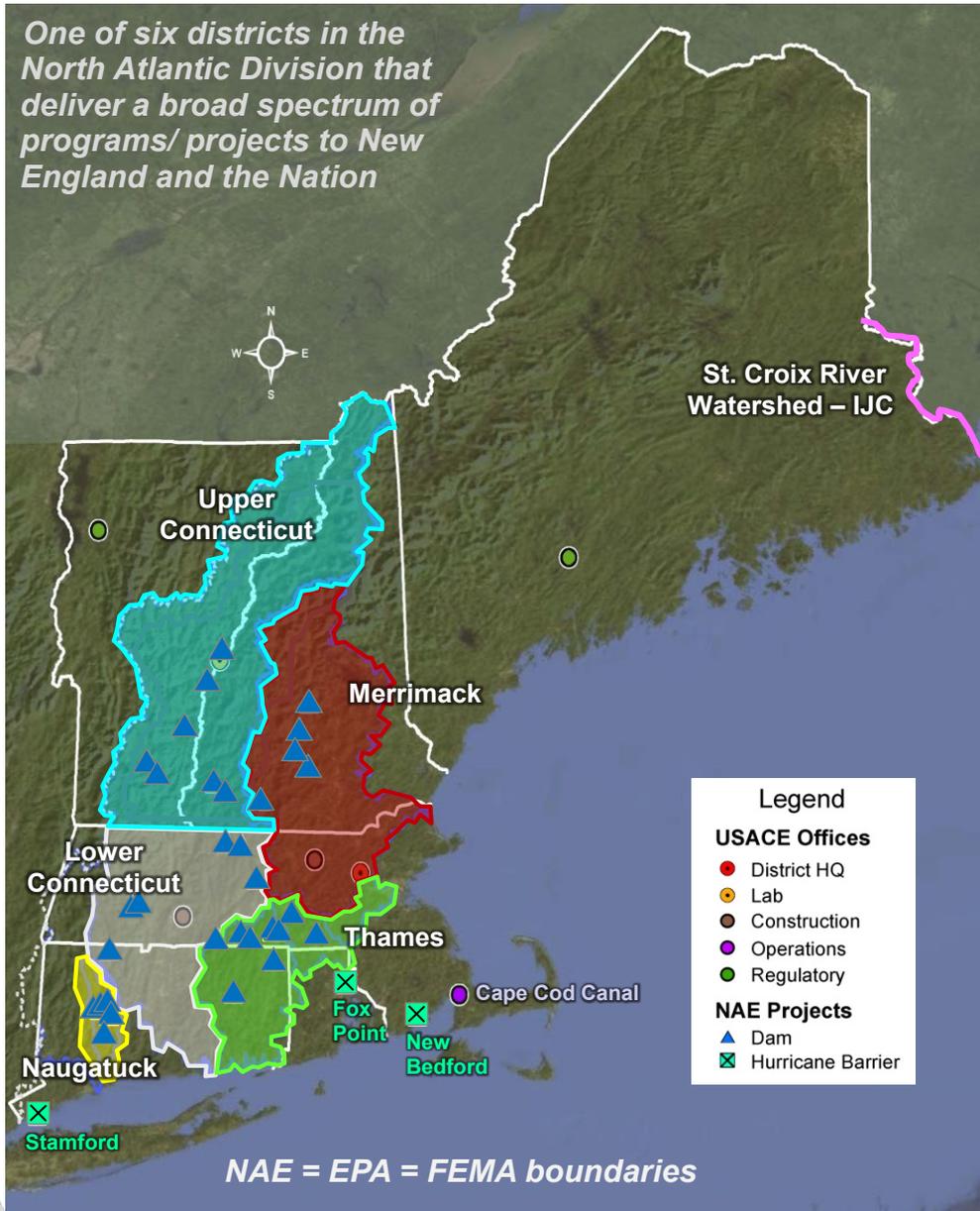


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# New England District Overview

One of six districts in the North Atlantic Division that deliver a broad spectrum of programs/ projects to New England and the Nation



- 6 Governors
- 12 Senators
- 21 Congressional Districts
- 13 million people
- 66,000 square miles
- 6,100 miles of coastline
- 11 deep draft commercial waterways
- 13 major river basins
- 171 Federal harbors
- 5 Military Bases
- 490 Employees
- 31 Dams; 5 Basin Offices
- 2 Area Engrs, 5 Resident Engr,
- 2 Regulatory Offices
- 3 Hurricane Barriers
- Cape Cod Canal
- ~ 6,000 Permits issued annually

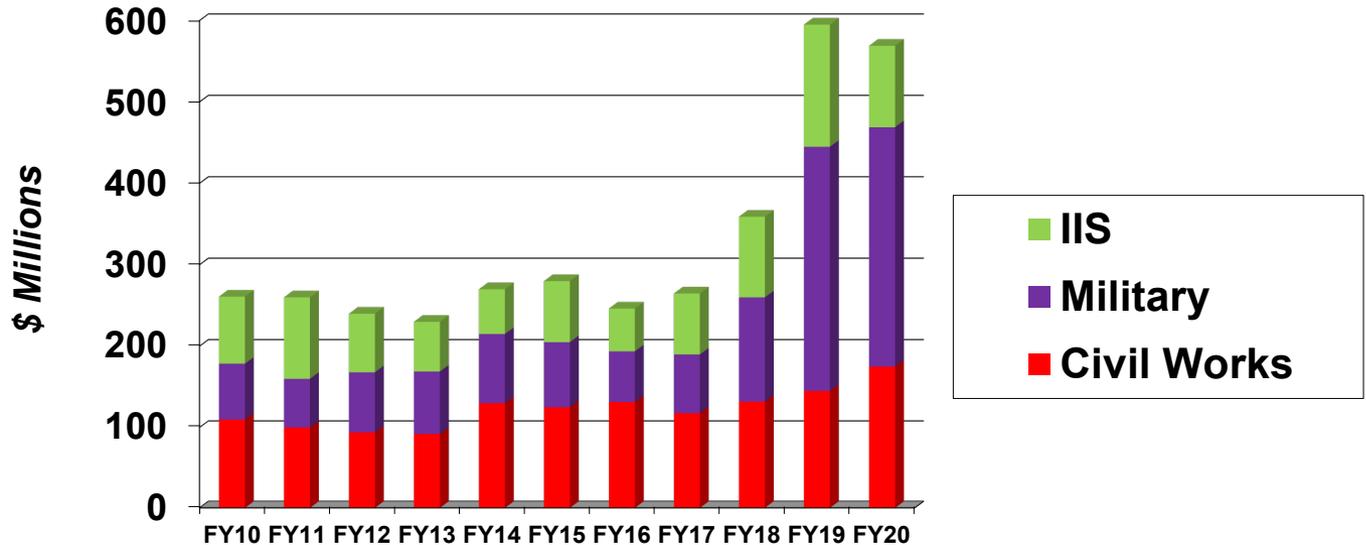


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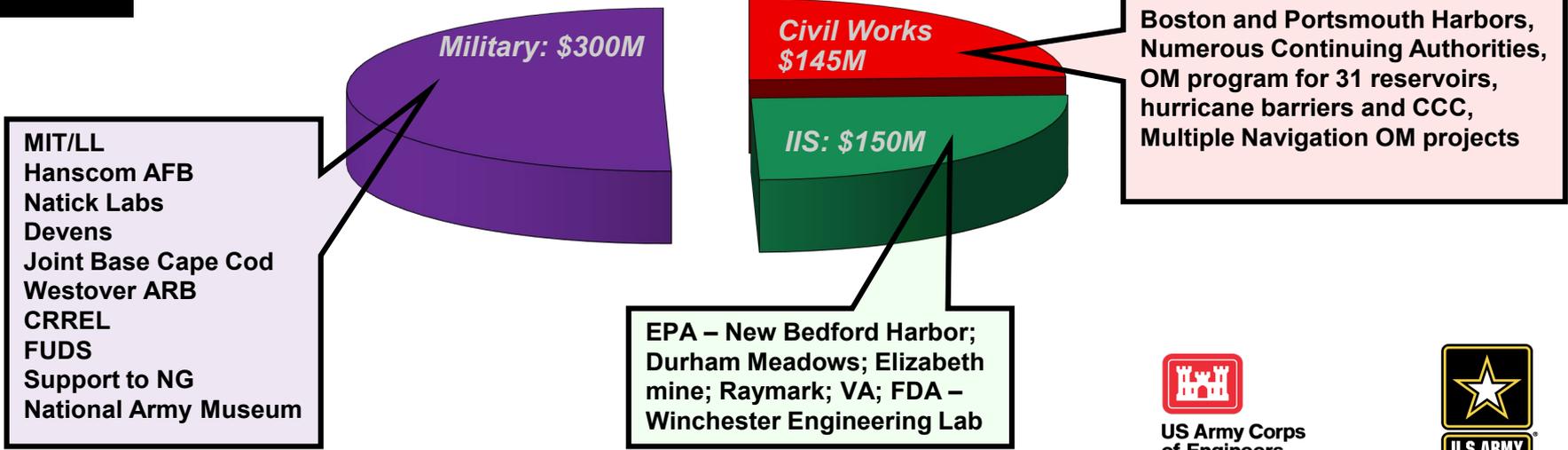


# PROGRAM TRENDS

**FY09 – FY20**



**FY 19**



# USACE MISSION AREAS

## Military Missions



Navigation, Flood Control,  
Disaster Response, Shore  
Protection, Hydropower, Water  
Supply,  
Regulatory, Recreation,  
Environmental Restoration

## Contingency Operations



“Whole of Government”  
Disaster Response and Recovery  
Life-Cycle Flood Risk Management  
Critical Infrastructure

Federal / State / Local  
“Whole of USACE” Capabilities  
Capacity Development



Military Construction  
COCOM Support, Overseas  
Contingency Operations (OCO)  
Installation Support, Environmental,  
Energy and Sustainability



## Civil Works

## International and Interagency

**Real Estate** — Acquire, Manage and Dispose / DoD Recruiting Facilities / Contingency Operations

**USACE Has a Diverse Mission Set Driven by Diverse Customers**



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The background of the slide is a close-up of the American flag, showing the stars and stripes. A cutout of a golden castle with two towers and a central archway is positioned on the right side of the slide. A grey, rounded rectangular box with a slight shadow is centered on the left side, containing the text 'Civil Works' in white, bold, sans-serif font.

# Civil Works

***ENGINEERS ON POINT FOR THE ARMY AND THE NATION!***

# CIVIL WORKS



Navigation



Flood Risk Management/Recreation

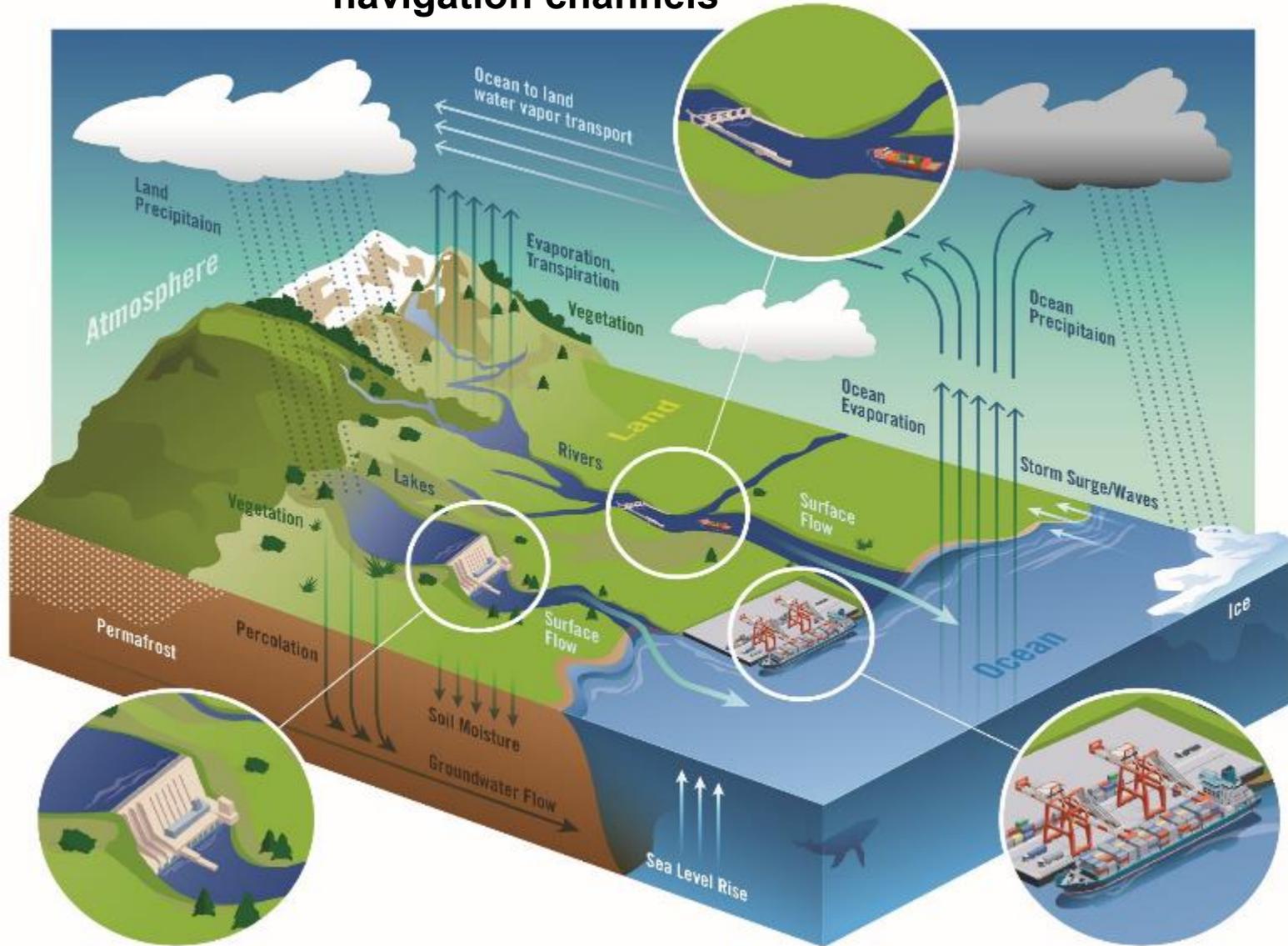


Cape Cod Canal



Environmental Restoration

**239 locks at 193 locations, 12K miles inland navigation channels**



**556 reservoirs, 136 with water supply contracts, 75 with hydropower (25% US capacity) + 68 non-Federal hydropower**

**1067 harbors maintained, 13K miles deep draft channels**

# CIVIL WORKS

**1/4 of Nation's Hydropower**  
**\$500 M + in power sales**



**299 Deep Draft Harbors**



**11,000 miles of Commercial Inland Waterways:**  
**1/2 the cost of rail - 1/10 the cost of trucks**

**627 Shallow Draft Harbors**

**8500 Miles of Levees**



**Emergency Operations**



**Recreation Areas**  
**376M Visitors Annually**  
**\$15 B in economic activity**  
**500,000 jobs**



**Environmental Restoration**



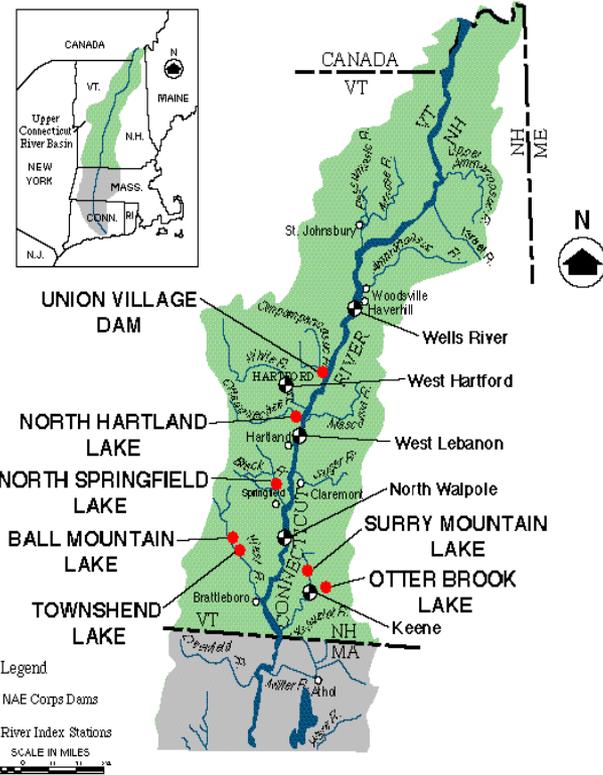
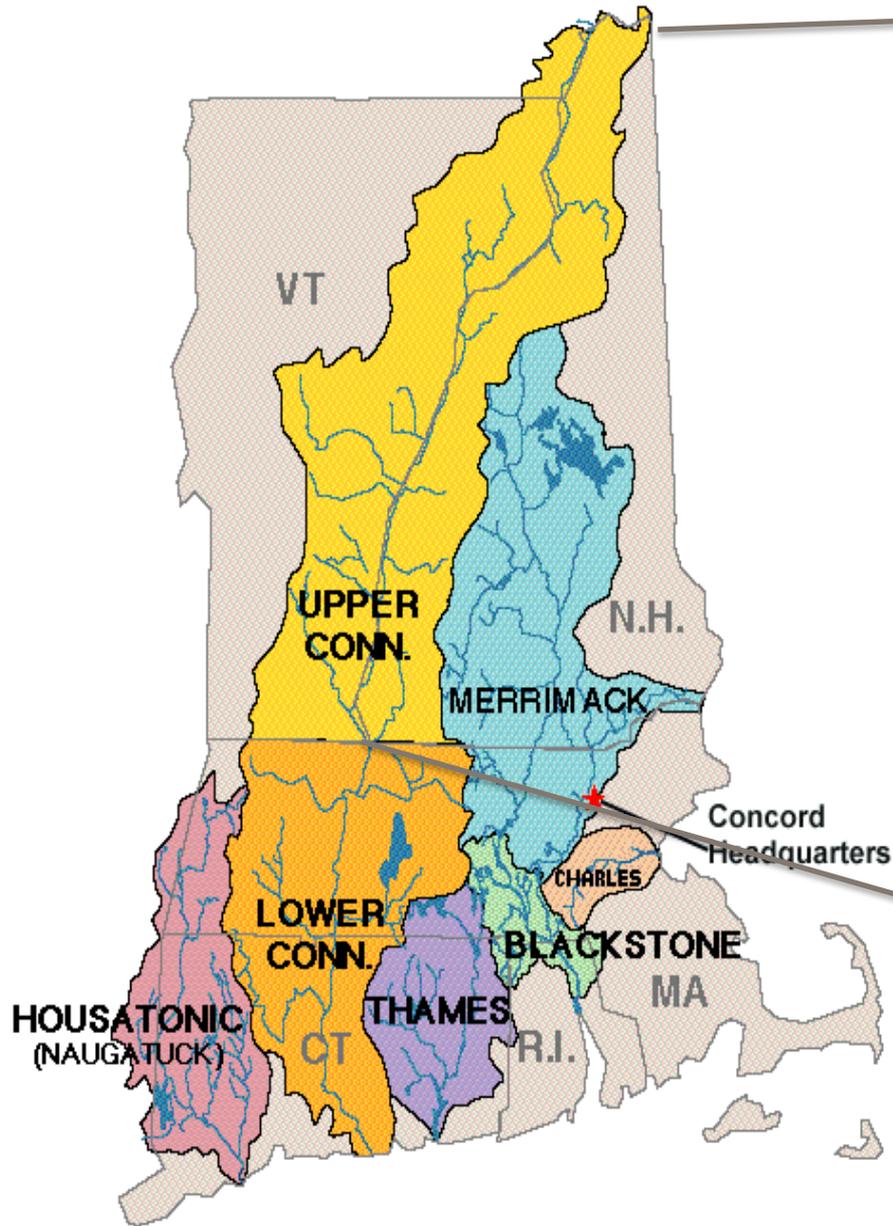
**Stewardship of 11.7 Million Acres of Public Lands**



**Regulatory Responsibility**

- **US Ports & Waterways convey > 2B Tons Commerce**
- **Foreign Trade alone creates > \$160 B Tax Revenues**

# REGULATED RIVER BASINS



7 Flood Control Projects  
 9,256 acres  
 Basin Office at North  
 Springfield Lake in  
 Perkinsville, VT



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# FLOOD RISK MANAGEMENT PROJECTS



Hodges Village, MA



North Hartland, VT



Colebrook, CT



Hurricane Barrier  
New Bedford, MA

# OPERATIONS AND MAINTENANCE

## Cape Cod Canal



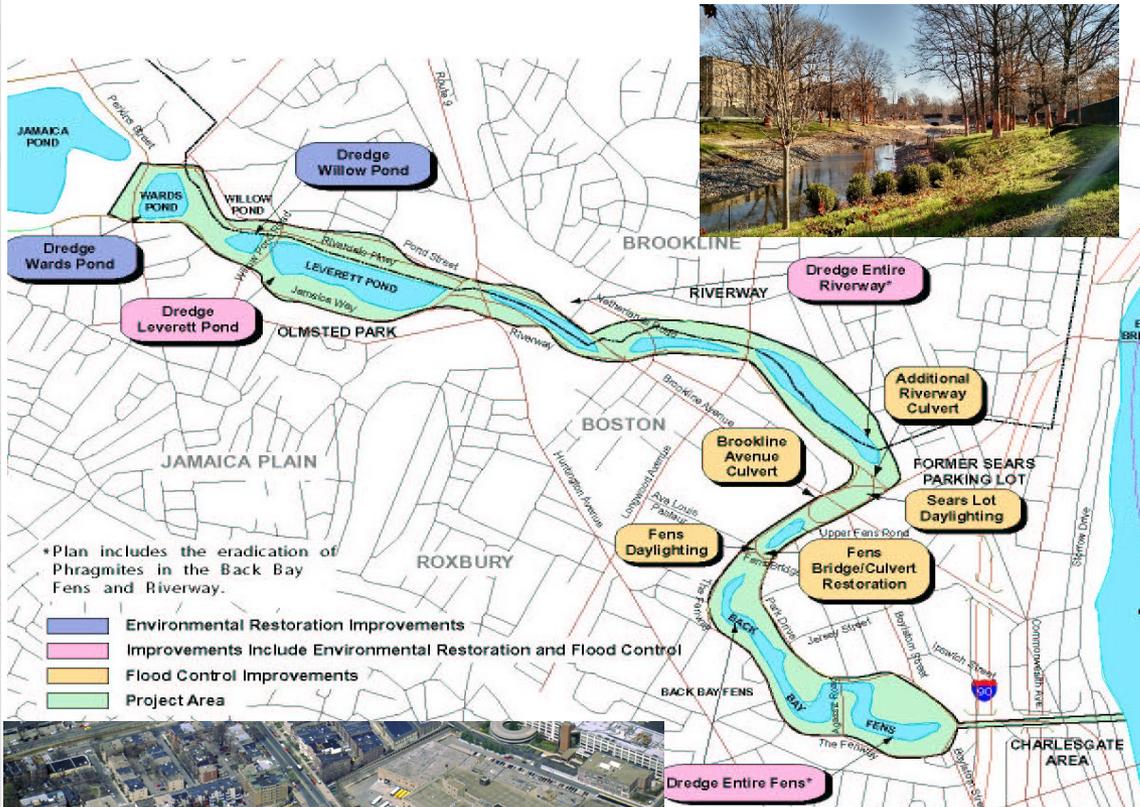
- Cape Cod Canal is the widest sea-level canal in world
- 17.5 miles long, with 7.5-mile-long land cut
- Using canal saves 65 to 150 miles, depending on point of origin.
- Constructed by private interests and opened in 1914
- Commandeered by US during WWI and purchased in 1928
- Three bridges (two highway, one railroad)



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# FLOOD RISK MANAGEMENT MUDDY RIVER, BOSTON, MA



**Construction  
\$64 Million**

## ▪ Flood Damage Reduction

- Protects against recurrence of Oct 1996 Flood (20-Year Event)
- Significantly reduces flood stages for all events including tributaries

## ▪ Environmental Restoration

- Restores over 40 acres of scarce urban aquatic habitat
- Restores anadromous fish spawning habitat (Fed. Significant Resource)
- Enhances diversity & productivity of benthic and warm water fish communities
- Enhances biodiversity by eradicating extensive stands of *Phragmites*.



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# STREAMBANK RESTORATION



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# Coastal Storm Damage Reduction



Revere Beach, MA



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# BREAKWATER RECONSTRUCTION



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# ECOSYSTEM RESTORATION

*Broad Meadows Salt Marsh Restoration  
Section 1135 Project in Quincy, MA*



**Dam Removal and Marsh Restoration  
Stamford, CT**



**Eelgrass Restoration  
Charlestown, RI**



**Town Pond Salt Marsh Restoration  
Portsmouth, RI**

# NAVIGATION

Deep Draft Harbors



Shallow Draft Harbors



Navigation Improvement Dredging

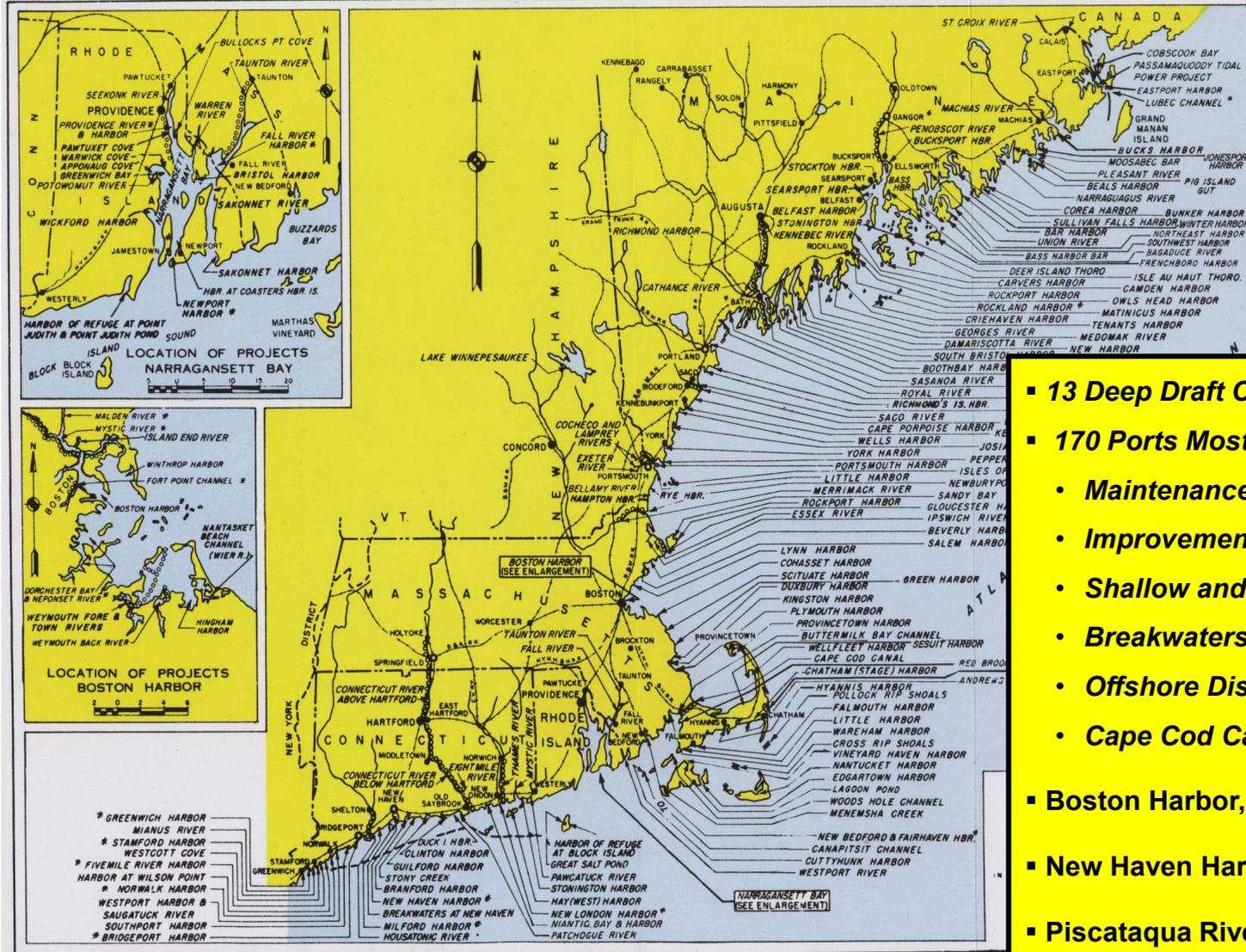


Cape Cod Canal

# NEW ENGLAND NAVIGATION

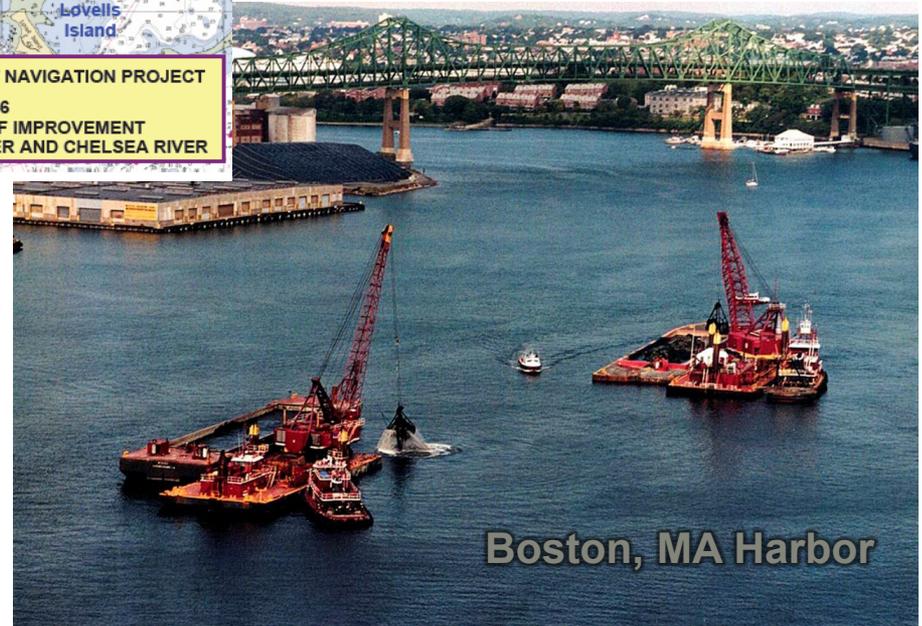
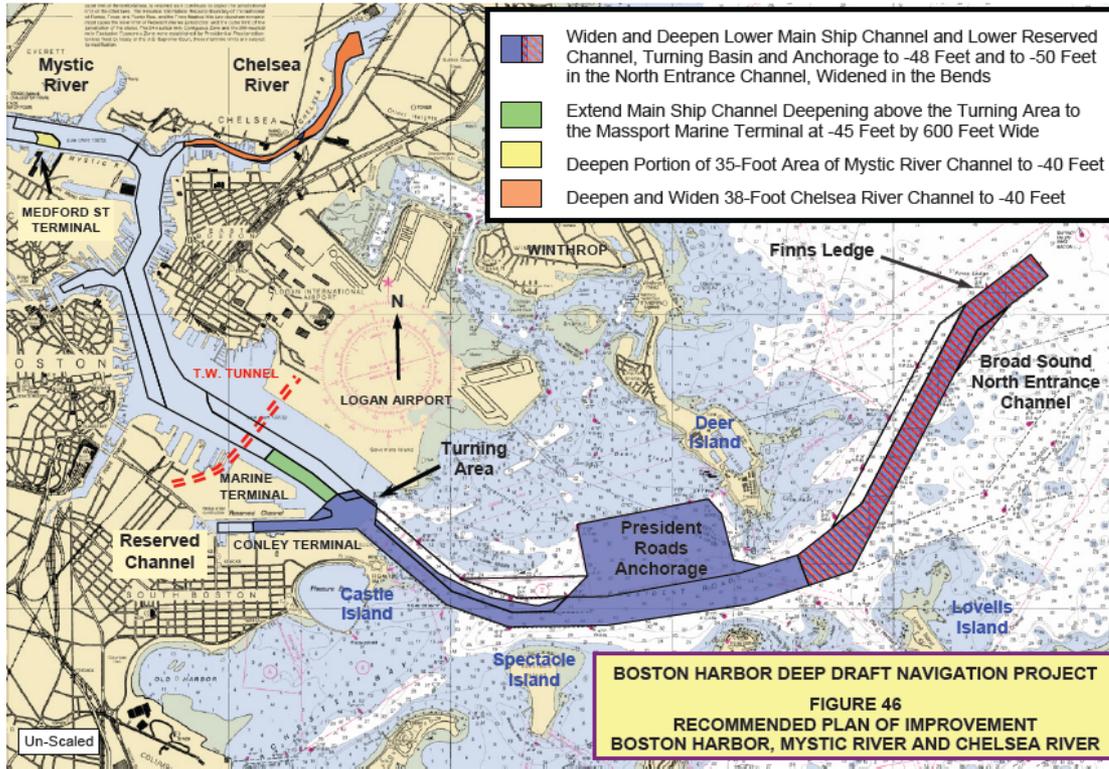
CORPS OF ENGINEERS

U. S. ARMY



- 13 Deep Draft Commercial Waterways
- 170 Ports Mostly Recreational
- Maintenance Dredging
- Improvement Dredging
- Shallow and Deep Draft
- Breakwaters and Jetties
- Offshore Disposal Sites
- Cape Cod Canal
- Boston Harbor, MA
- New Haven Harbor, CT
- Piscataqua River, NH

# BOSTON HARBOR DEEPENING

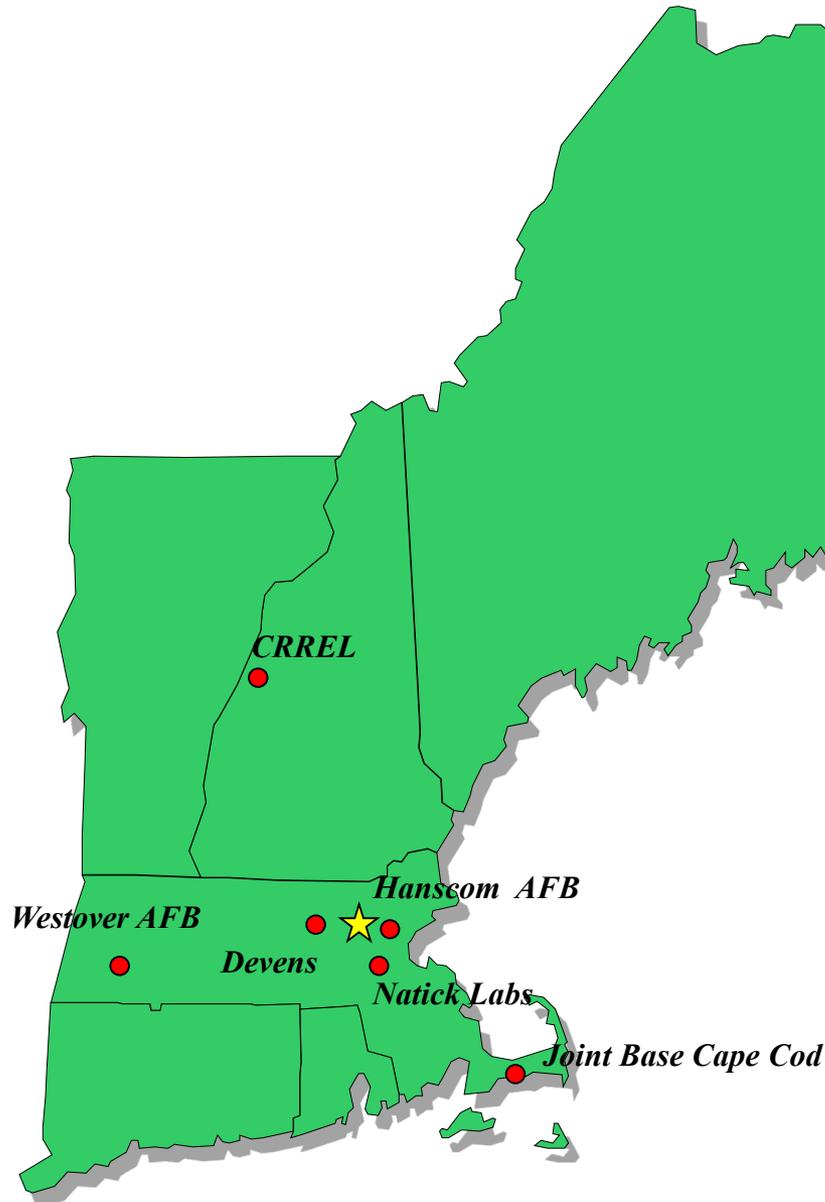


The background of the slide is a close-up, slightly blurred image of the American flag, showing the stars and stripes. In the lower right quadrant, there is a small, golden, illuminated icon of a castle or fortress with two towers and a central archway.

# **Military Support**

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# OUR MILITARY CUSTOMERS



## 2 Active Duty Bases:

- Hanscom Air Force Base
- Natick Soldier Systems Center

## Support to other military:

- Westover Air Reserve Base
- Joint Base Cape Cod
- Devens RFTA
- CRREL



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# MILCON



**Medical Clinic, Hanscom Air Force Base, MA**



**Middle School, Hanscom Air Force Base, MA**



**Fort Devens, MA**



**MIT/LL, Hanscom Air Force Base, MA**

# ARMED FORCES RESERVE CENTERS



Rutland, VT



White River Junction, VT



Rutland, VT

- **Multi-Service Consolidated Facilities**
- **Cutting-edge Training and OCO Prep**
- **Integrated Vehicle Maintenance**



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# VT – MILITARY (OMA)



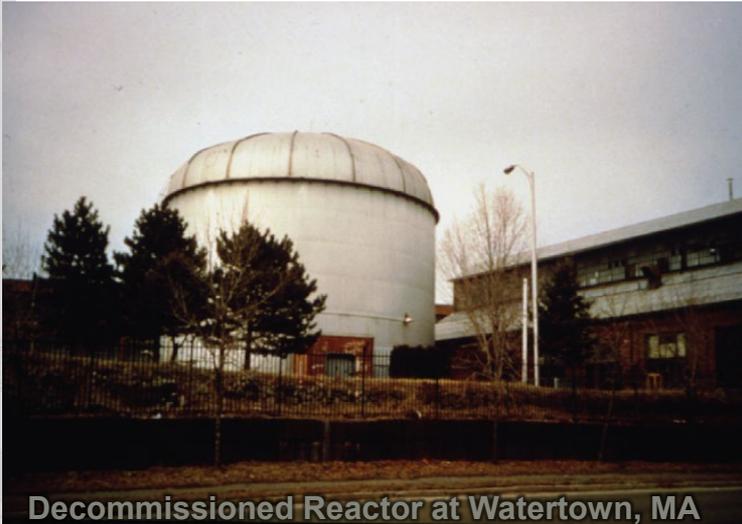
- F-35 Arrival – September 2019 (2), November 2019 (2), December 2019 (2), January 2020 (8), February 2020 (4), March 2020 (2)
- Building 130 – Eight (8) Positions
- Building 131 – One (1) Position
- Building 132 – One (1) Position
- Building 160 (Corrosion Mitigation) – One (1) Position
- Building 360 (Weapons) – Three (3) Positions



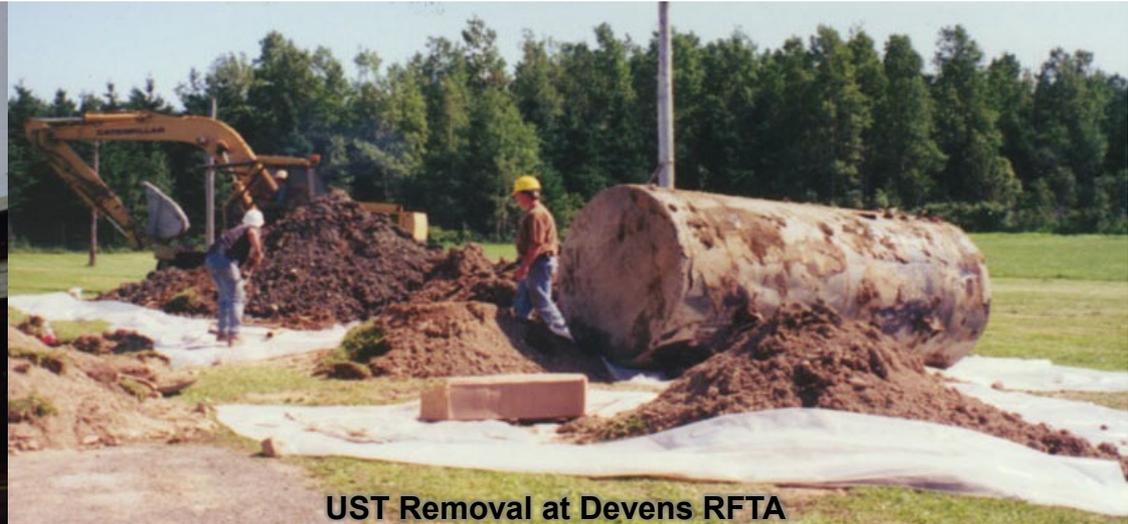
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# MILITARY ENVIRONMENTAL HAZARDOUS TOXIC & RADIOLOGICAL WASTE



Decommissioned Reactor at Watertown, MA



UST Removal at Devens RFTA



UXO

- Operation and Maintenance (Environmental)
- Defense Environmental Restoration Program (DERP)
- Formerly Used Defense Sites (FUDS)
- Underground Storage Tank (UST) Removal
- Soil and Groundwater Remediation
- Emergency Response
- Weapons Range Clean-Up



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**Interagency,  
International, and  
Environmental  
Support**

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# INTERAGENCY, INTERNATIONAL, AND ENVIRONMENTAL SUPPORT



Elizabeth Mine – Strafford Vermont



VA Hospital - Providence, RI



Nacala Dam - Mozambique, Africa



Border Patrol Station - Swanton, VT

# ELIZABETH MINE SUPERFUND SITE



- One of the largest, most intact historic mining sites in New England
- GPS-controlled heavy machinery with uploaded CAD design
- Over 10M gallons of water treated with lime amendment Rotating Cylinder Treatment System (RCTS)
- Complied with the National Historic Preservation Act
- Overcame Tropical Storm Irene



# NEW BEDFORD HARBOR SUPERFUND SITE



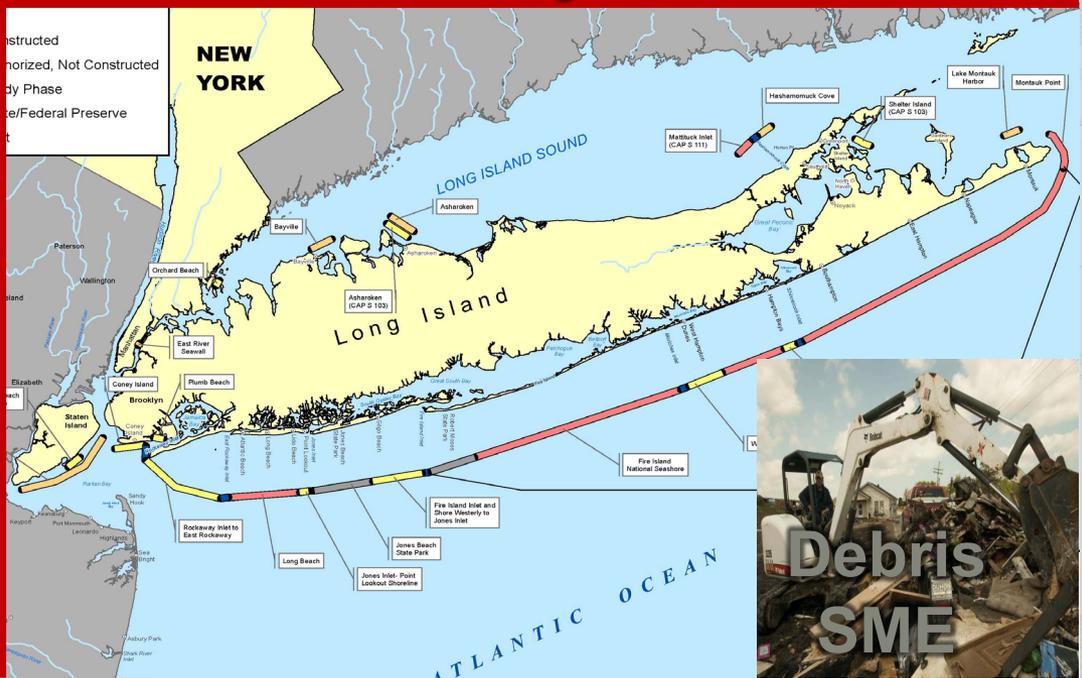
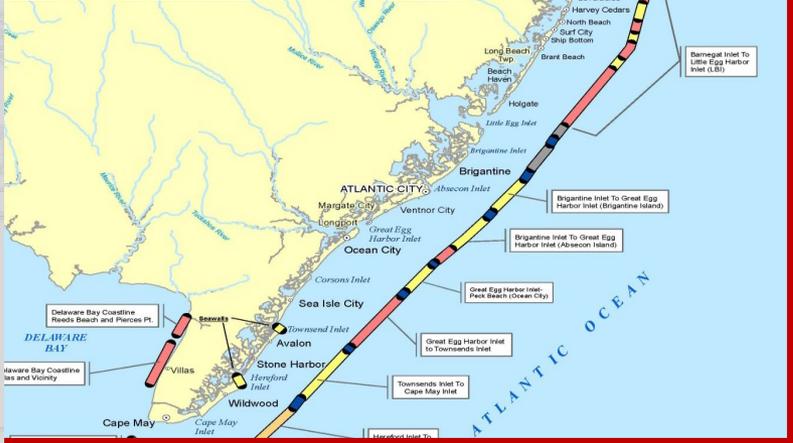
- > \$250 Million to date
- > \$300 Million Remaining
- PCBs in sediments



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# DISASTER/EMERGENCY RESPONSE AND RECOVERY



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# **Regulatory Program**

***ENGINEERS ON POINT FOR THE ARMY AND THE NATION!***

# REGULATORY PROGRAM

## Regulatory Authorities

- Rivers and Harbors Act of 1899.
- Clean Water Act of 1972
- Marine Protection, Research and Sanctuaries Act of 1978
- Dedicated State Teams
- Technical support - wetland delineations and jurisdictional determinations.



## Regulatory Actions

- 6,000 +/- Final Actions per Year
  - 5,700 General Permits
  - 100 Individual Permits
  - 100 Enforcement Actions
  - 100 Compliance Actions
- 25 +/- “Hot” Projects:
  - Highways
  - Interstate Pipelines and Cables
  - Wind Farm
  - Golf Courses
  - Subdivisions
  - Large Marinas
  - South Coast Rail...

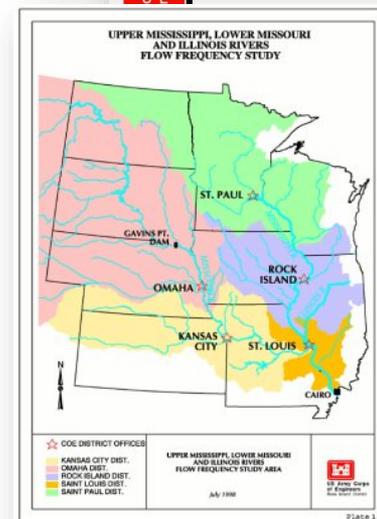
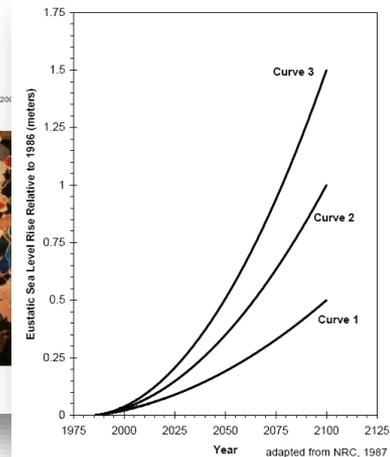
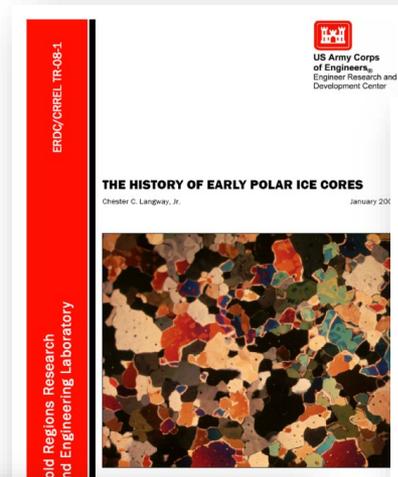


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# BACKGROUND: USACE CLIMATE CHANGE EXPERIENCE

- USACE has a long history in climate change:
  - 1950s – present ice core drilling Greenland and Antarctica
  - 1970s led White House drought commission
  - 1980s addressed changing sea level
  - 1990s economics of climate change
  - 2000s effects on water resources, updated policy/guidance
  - 2010s planning and implementing climate resilience measures



## Proceedings of the First National Conference on Climate Change and Water Resources Management

ADA 281 172

Editors:  
Thomas M. Ballentine and  
Eugene Z. Sukhiv  
U.S. Army Corps of Engineers

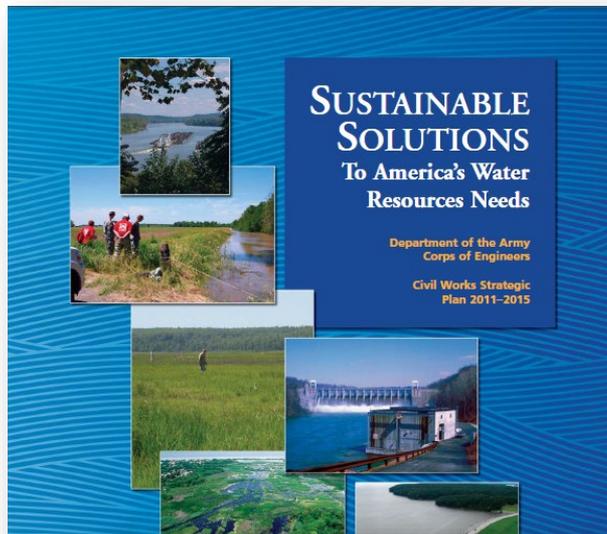
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SPONSORS:

- U.S. Army Corps of Engineers DTIC QUALITY ASSURED 5
- U.S. Environmental Protection Agency
- U.S. Department of the Interior, Geological Survey
- U.S. Department of the Interior, Bureau of Reclamation
- U.S. Department of Commerce, National Oceanic and Atmospheric Administration

94 7 5 082

# MAKE SUSTAINABILITY & RESILIENCE FACTOR IN RISK-INFORMED DECISIONS



# Questions?

If interested, apply to the current announcement on USAJOBS. Candidates who are selected for interviews will receive additional information on USACE, our missions and the benefits of working for the Federal Government



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