

# UPDATE ON THE U.S. ARMY CORPS OF ENGINEERS FLOOD STUDIES

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# NORFOLK DISTRICT – U.S. ARMY CORPS OF ENGINEERS



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**U.S. ARMY  
CORPS OF ENGINEERS**  
NORFOLK DISTRICT

**THE TEAM**  
**356**  
CIVILIAN  
EMPLOYEES AND  
5 MILITARY  
OFFICERS

**IN FY 2018**  
District is executing  
approximately  
\$300M in Military,  
Cemetery,  
Reimbursable and  
Civil Works projects

**\$159  
MILLION**  
Awarded by Norfolk  
District USACE to  
Small Businesses  
throughout the  
Nation in FY17

**2017 REGULATORY  
PROGRAM**

*Delivering the Regulatory Program:  
4,496 Regulatory Actions in the Commonwealth  
of Virginia in 2017*

## GATHRIGHT DAM ALLEGANY COUNTY, VA



- Protects the Jackson River from flood damages
- Contributed to the creation of 1,000 jobs and \$1 Billion investments in Corvinton, VA

**NATIONAL ECONOMY**

**PORT OF  
VIRGINIA**

- Norfolk Harbor Navigation Improvements
- Elizabeth River Southern Branch Navigation Improvements
- North Landing Bridge Study

## NORFOLK COASTAL STORM RISK MANAGEMENT STUDY



**Recommended Plan:**  
\$1.9 billion risk  
reduction using  
structural, non-  
structural and natural  
and nature-based  
features

**Residual Risk:**  
The Recommended  
plan provides a 75%  
damage reduction for  
the 50-year storm  
event

**NATIONAL HERITAGE**

**CHESAPEAKE BAY  
RESTORATION**

Oyster Restoration

- Oyster Restoration in multiple areas
- Multiple efforts to protect the environment and culture

**Lynnhaven Aquatic Ecosystem  
Restoration Project**

- \$34M to restore the ecosystem
- Comprised of subaquatic vegetation, oyster reef habitat and wetland creation

**NATIONAL DEFENSE**

**Norfolk District**

**PROGRAM**

- Approximately \$350M contracts awarded/year
- \$150M construction placement a year

## ARLINGTON NATIONAL CEMETERY

### ANC PROGRAM:

- Approximately \$30M/Year
- Building Renovations, Roads, Utilities
- Amphitheater Renovations
- Admin Building Renovation

### Southern Expansion Project:

- Construction FY21-25
- First Interments: 60-80K

## DEPARTMENT OF DEFENSE EDUCATION ACTIVITY (DoDEA)

- Serve as the design center for all DoDEA projects
- Transforming new facilities to 21st century schools

## INTERAGENCY, INTERNATIONAL AND ENVIRONMENTAL SERVICES (IIES)

- Environmental Protection Agency
- National Oceanic and Atmospheric Administration
- NASA
- National Park Service
- Quantico National Cemetery



## CIVIL WORKS PROJECTS



Craney Island  
Eastward Expansion  
(CIEE) - Norfolk  
Harbor, VA



Norfolk  
Comprehensive  
Flood Risk  
Management Study



ANW Deep Creek  
Bridge  
Replacement  
Project



Elizabeth R. &  
Southern Br.  
Navigation  
Improvements-VA



Norfolk Harbor  
Deepening,  
Hampton Roads, VA



North Landing  
Bridge



Continuing  
Authorities Program

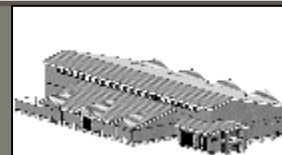
## MILITARY PROJECTS



Ft Lee - AIT Barracks Complex Phase II



DLA Operations Center PH I

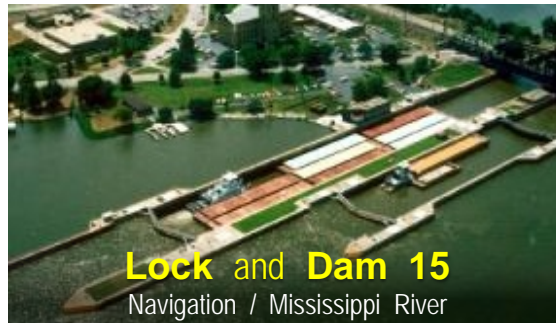


Langley AFB - Targeting Center



Ft Eustis - AIT Barracks - PH II +III





**Lock and Dam 15**

Navigation / Mississippi River



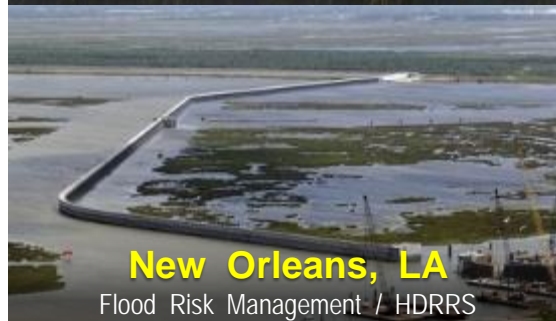
**Flood Wall**

Flood Risk Management / Williamson, KY



**Florida Everglades**

Ecosystem Restoration / South Florida



**New Orleans, LA**

Flood Risk Management / HDRRS

**Deliver enduring and essential water resource solutions using effective transformation strategies.**

## Navigation

## Flood Risk Management

## Ecosystem Restoration and Infrastructure

## Recreation and Natural Resource Management

## Hydropower

## Regulatory Wetlands and Waterways

## Water Supply

## Expenses

Includes ASA(CW)



**Dredge ESSAYONS**

Navigation / Coos Bay, OR



**Lake Seminole, GA**

Recreation / Mobile District



**Bonneville II Powerhouse**

Hydropower / Columbia River



**Washington Aqueduct**

Water Supply / Washington, DC



# USACE CLIMATE CHANGE ADAPTATION



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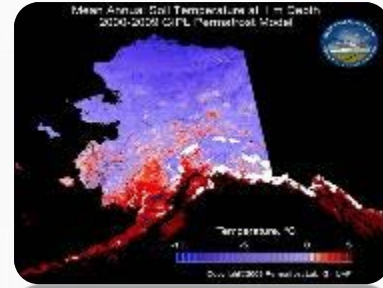
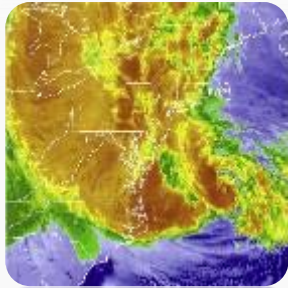


**Objective:** Improve the resilience and decrease the vulnerability of our missions, operations, programs, projects, and systems of projects to the effects of climate change and variability.

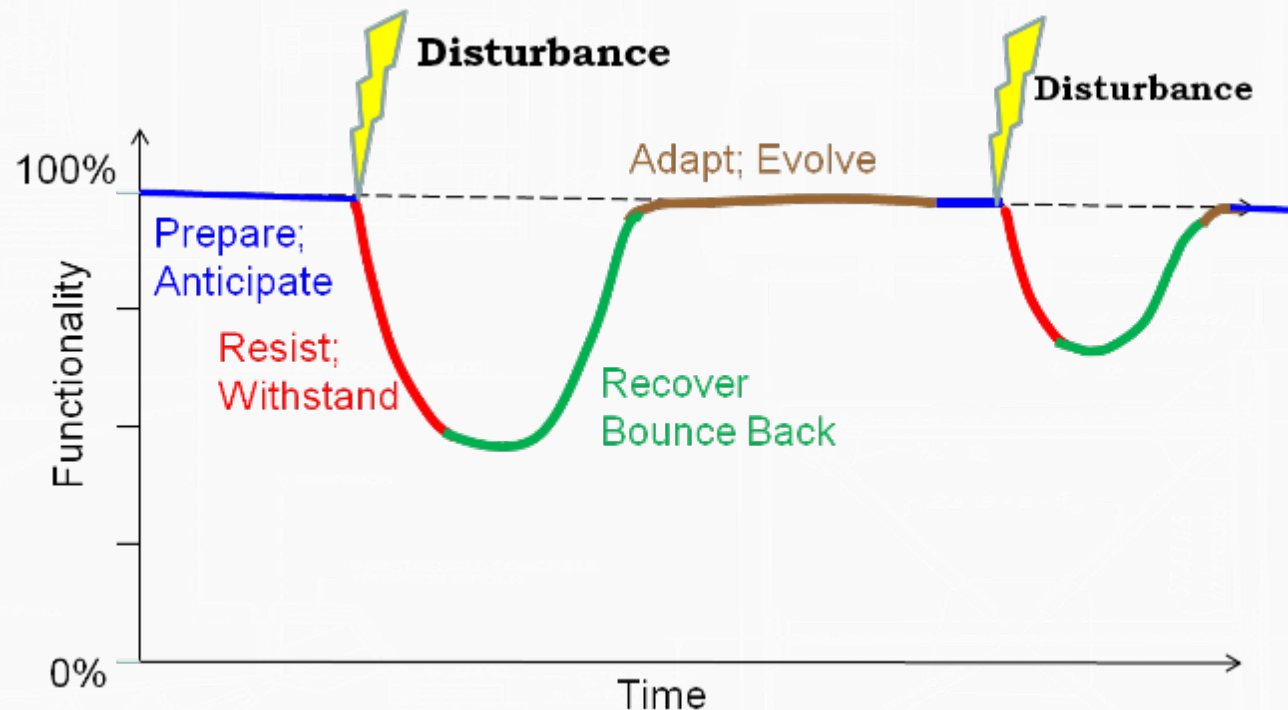
## Priorities:

- Modernizing USACE programs and policies to support climate-resilient investment
- Managing USACE lands and waters for climate preparedness and resilience
- Supporting State, local, and tribal preparedness
- Providing actionable climate information, tools, and projections
- International leadership provided by USACE supporting climate preparedness





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**Resilience:** the ability of a *system* to **Prepare for**, **Resist**, **Recover**, and **Adapt** to achieve functional performance under the stress of disturbances through time.





# HOW TO ACCESS USACE CONSTRUCTION FUNDING

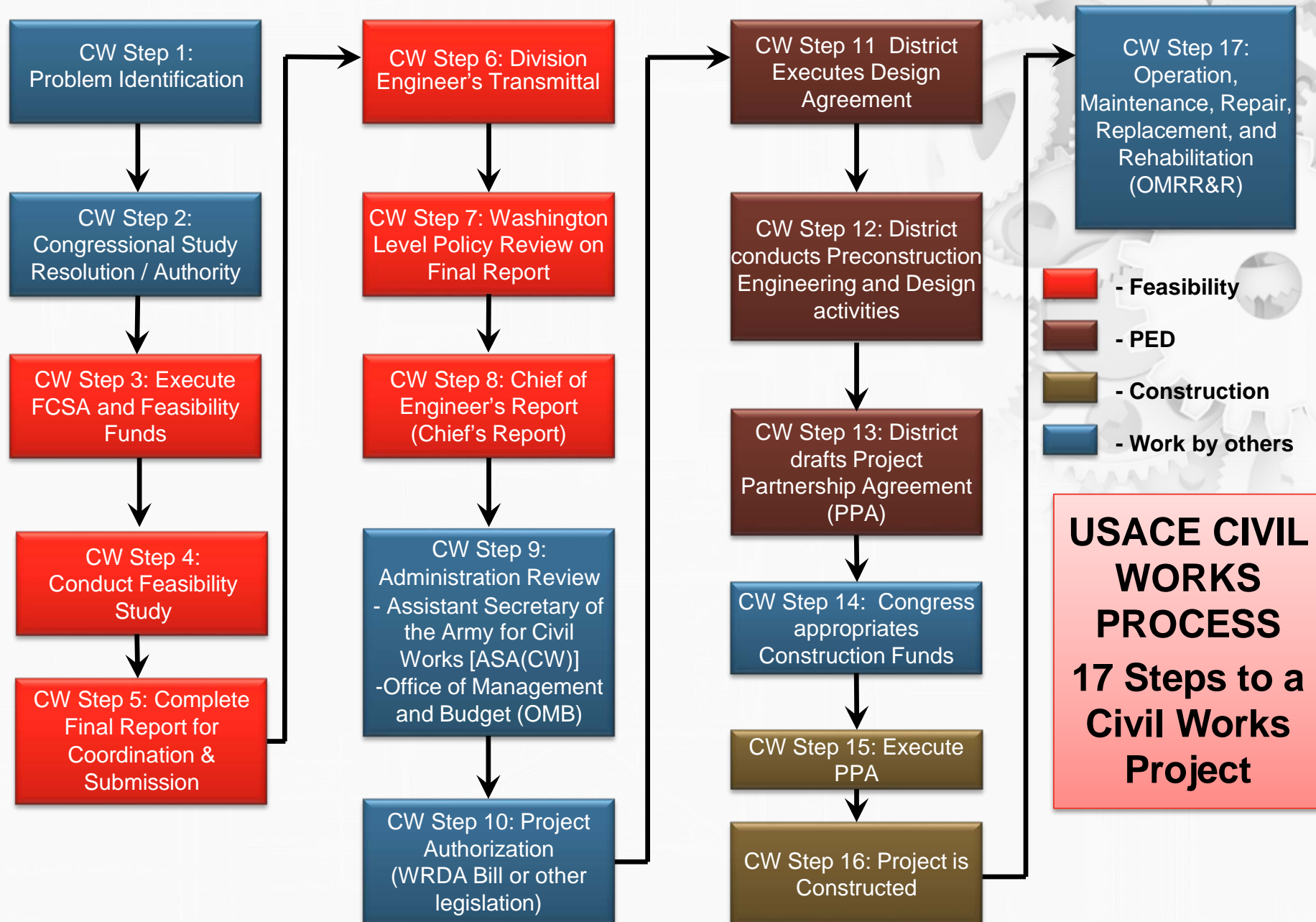


- Must have:
  - Authorization (Study, then Construction)
  - Appropriations (Study, then Construction)
- Conduct studies, which:
  - Identify a Federal Interest in investment
  - Inform the Report of the Chief of Engineers to Congress
- Favorable Reports result in Construction Authorization from Congress
- Construction authorizations most often in Water Resource Development Acts (WRDA)
- WRDA 2018 anticipated later this year





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# USACE STUDIES



- Focused Portfolio of Priority Feasibility Studies
- All Feasibility Studies expected to follow 3-3-3 Rule
  - ▶ 3 Year study duration
  - ▶ \$3 Million maximum per study cost
  - ▶ Vertical team integration at 3 command levels (District, Division, HQUSACE)
  - ▶ Exemption process for very large, complex studies that cannot meet the 3- year and/or \$3 million policy
- Feasibility Cost Sharing Agreement (FCSA) is first step
- Goal of Study: USACE Recommendation based on Benefit Cost Ratio (BCR)



# NORFOLK FLOOD RISK MANAGEMENT STUDY



Hyunsoo Leo Kim / The Virginian-Pilot







## NORFOLK IS A GLOBAL LEADER IN URBAN RESILIENCE

- One of the first Rockefeller Foundation Resilient Cities
  - 3<sup>rd</sup> City to Launch a citywide resilience strategy—Oct. 2015
- Adopted Citywide Green Infrastructure Master Plan
- Adopted Zoning Code to support Resilience
- Retain Your Rain program to incentivize private property stormwater retention

POC Niklas Hallberg 757- 201-7728

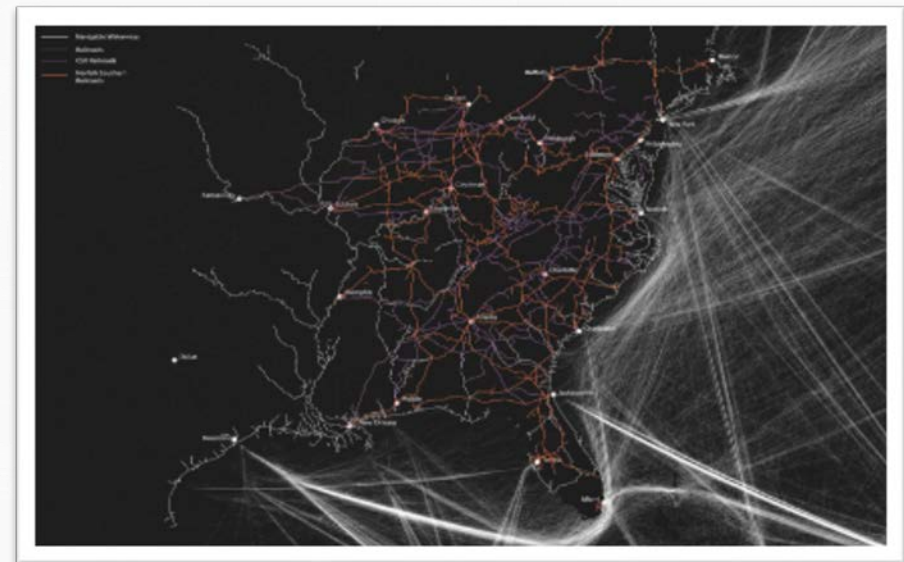
## GLOBAL SECURITY HUB

- Home to Naval Station Norfolk (World's Largest Naval Station)
- NATO's North American Headquarters
- 12.4 miles of waterfront
- 6,200 acres with special areas
- 46,000 military assigned on ships and ashore
- 21,000 civilian government employees and contractors



## INTERNATIONAL TRADING NEXUS

- Port of Virginia supplies the eastern third of the nation

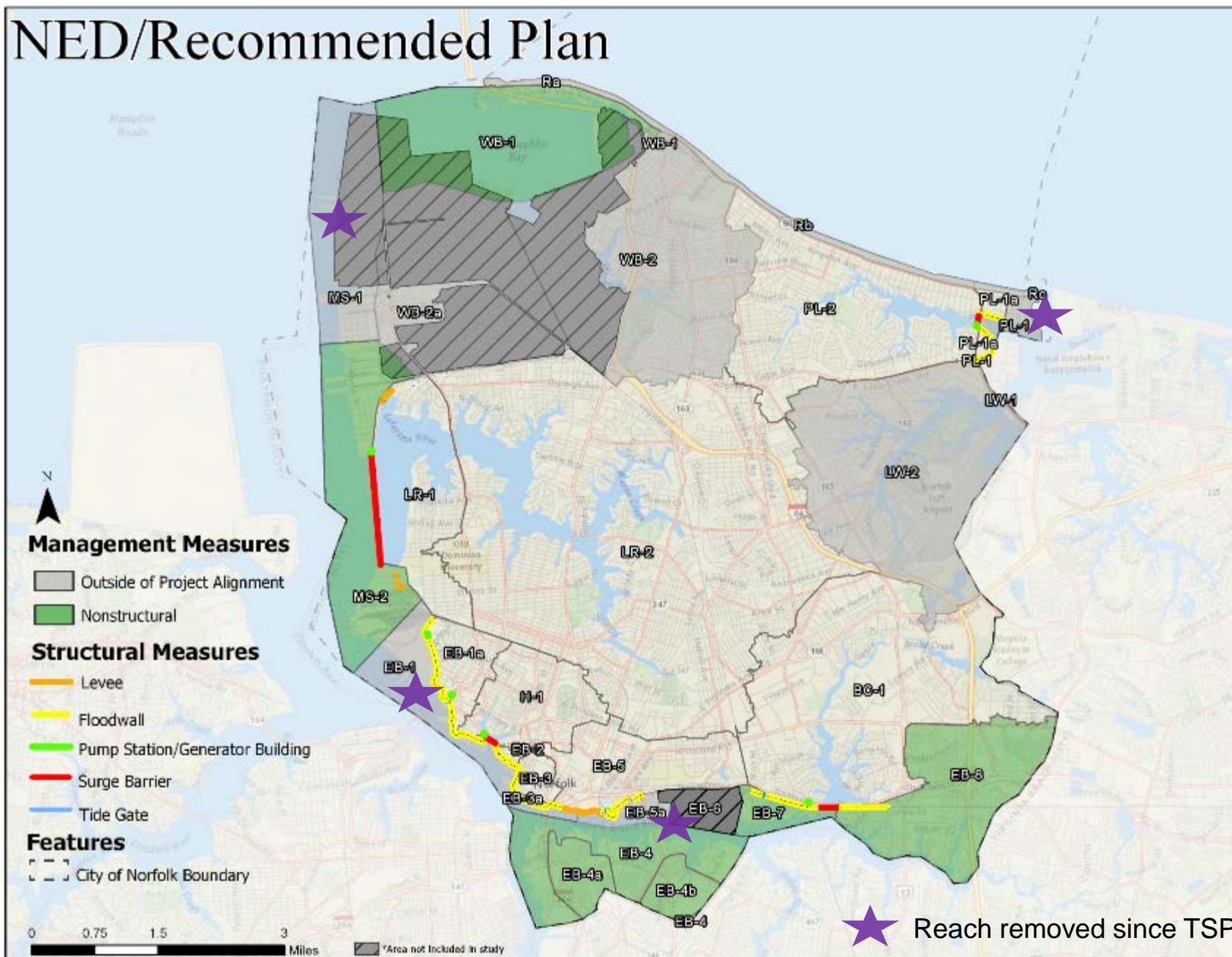




# NED/Recommended Plan



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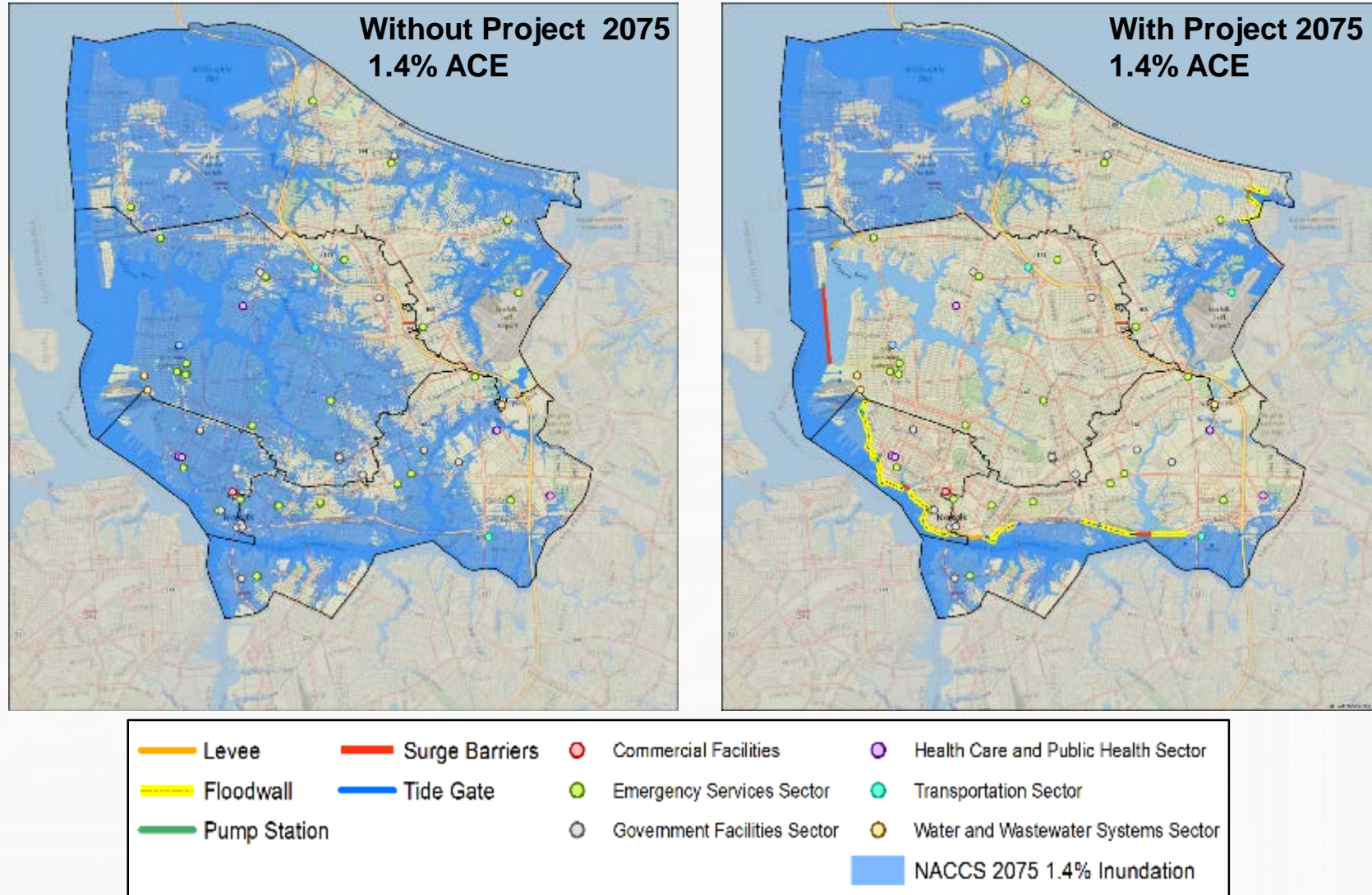




# CRITICAL INFRASTRUCTURE



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Note: Assumes USACE Intermediate RSLR increase of 1.45 ft from 2016

POC Niklas Hallberg 757- 201-7728







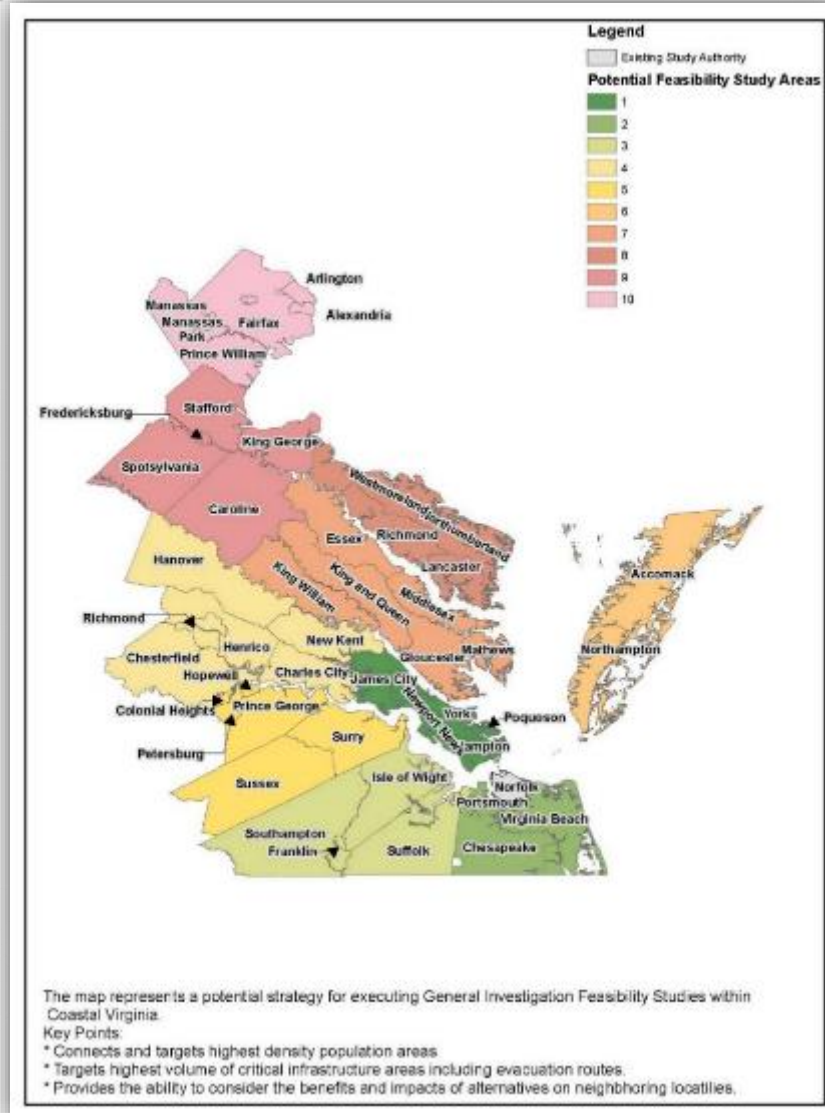
# WHAT'S NEXT FOR NORFOLK CSRM?



- Completed Chief's Report with an identified recommended plan for implementation (Dec 2018)(ACCELERATED from Feb 2019)
- Chief's Report to Congress (2019)  
(Requires Clearance from Administration)
- Construction Authorization (Future WRDA)
- Construction New Start Appropriations
- Preconstruction Engineering and Design
- Construction



# MULTI-JURISDICTIONAL RESILIENCY STRATEGY



- Norfolk Flood Risk Management Study: almost complete
- Awaiting Coastal Virginia Resilience Study Authority – expected in WRDA 2018
- Proposed Virginia Peninsula Coastal Storm Risk Management Study
- Proposed Chincoteague Study
- Subsequent studies in Coastal Virginia: proposed prioritization based on damages avoided to critical infrastructure
- Requires close alignment with Commonwealth to study resiliency alternatives





# HOW CAN THE COMMONWEALTH HELP?



- 1. Assist with Cost Sharing Challenges**
  - Scope beyond political jurisdictions of individual localities, Commonwealth could serve as Sponsor
  - Some localities may not have financial capability, but have a need
- 2. Provide Guidance/Vision on State-Level Priorities to Address Recurrent Flooding**
- 3. Provide clear legislation allowing localities to provide required real estate interest in State bottom for USACE projects**





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# QUESTIONS?

*Chincoteague, Virginia*