

CIVIL WORKS PROGRAMS INTEGRATION DIVISION

California Marine Affairs and Navigation Conference

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Chief, Programs Integration Division

14/15 September 2023



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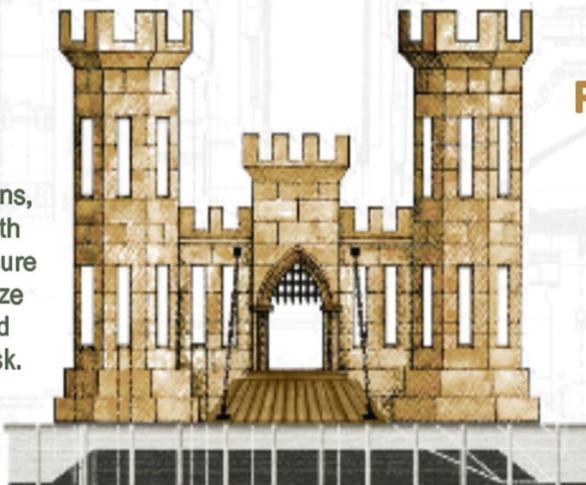
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MISSION AND PRIORITIES

U.S. ARMY CORPS OF ENGINEERS

MISSION

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



PRIORITIES

PEOPLE
READINESS
PARTNERSHIPS
INNOVATE

ENGINEERING SOLUTIONS TO THE NATION'S TOUGHEST CHALLENGES

Chief's Priorities

Upgrade the Nation's Waterways & Ports





Build Innovative, Climate-Resilient Infrastructure

Modernize the Civil Works Program





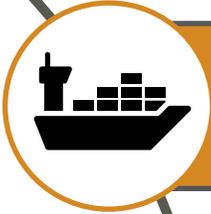
Invest in Science, Research & Development

Strengthen Communication and Relationships



**Assistant Secretary of the Army
for Civil Works Priorities**

ACCOMPLISHMENTS



Upgrade the Nation's Waterways

- **BIL allocations (\$4B in Construction)**
- Making strategic investments in inland system using Capital Investment Strategy
- Improved channel and waterway conditions
- Completing consolidated closures to upgrade lock infrastructure



Build innovative, climate-resilient infrastructure

- Drought resilience strategy
- **Corps Water Infrastructure Financing Program**
- Climate Action Plan Progress Report



Modernize the Civil Works Program

- **Environmental Justice interim guidance**
- Tribal Partnership Program guidance update
- **CAP Sec 165(A) pilot project**



Invest in science, research and development

- **Beneficial use of dredged material pilot projects and initiatives**
- Innovative application of data, analytics and artificial intelligence



Strengthen communications and relationships

- Command Partnering Philosophy
- Synchronized Civil Work Leader Engagement & Messaging
- Innovative Communication Tools: interactive map; podcast; quarterly DCW update



US Army Corps of Engineers.

Top 5 Most Valuable Asset Portfolio

Operating, maintaining, and managing more than **\$212 Billion worth** of the Nation's water resources infrastructure.



68 studies started
82 studies completed
over the past 5 years



48 construction projects started
61 completed construction projects
over the past 5 years



BUILDING FOR THE FUTURE

U.S. ARMY CIVIL WORKS National Impacts



Navigation Reliability

Improves transportation efficiency and supply chain, lowers import and export costs, and reduces carbon footprint

Recent investments have led to **25 channel & harbor deepenings completed and in progress**

Allowing cargo ships to carry **over 2.2 billion tons of cargo annually.** (2017-present)

40%

Increase in investment in USACE locks & dams since 2010

Resulted in a **80%**

decrease of unscheduled stoppages (greater than 1 day)

More Efficient mode of Transportation

1 BARGE

is equivalent to

10 RAILCARS

or

70 SEMI-TRACTOR/TRAILERS

ECONOMIC GROWTH

INFRASTRUCTURE RESILIENCY

\$13 ROI \$1

USACE provides technical assistance and innovative solutions that reduce risks, drive economic growth, and create resilient communities for future generations.



more than 700 dams
13,000 miles of Federally Authorized Levees
The reduce the risk of flooding to more than 45 million people & \$3.8 trillion in property



400+ miles

INNOVATIVE SOLUTIONS



Over the past 5 years
Successfully used innovative financing tools to deliver innovative, resilient, and sustainable projects.
Public-Private Partnerships
Projected Federal Savings of more than
\$450 MILLION & 23 YEARS

STRONG

1.4 Billion visits to USACE recreation areas over the past 5 years



\$14 Billion Economic Impact supports 210,000 jobs

more than **350** aquatic ecosystem restoration projects in 40 states

Restoring more than **200,000 acres** of aquatic habitat over the past 5 years

Steward **12 Million acres** of land and water in 43 states

SUSTAINABILITY



Hydropower
Improved Turbine Reliability
25% decrease in unscheduled outages

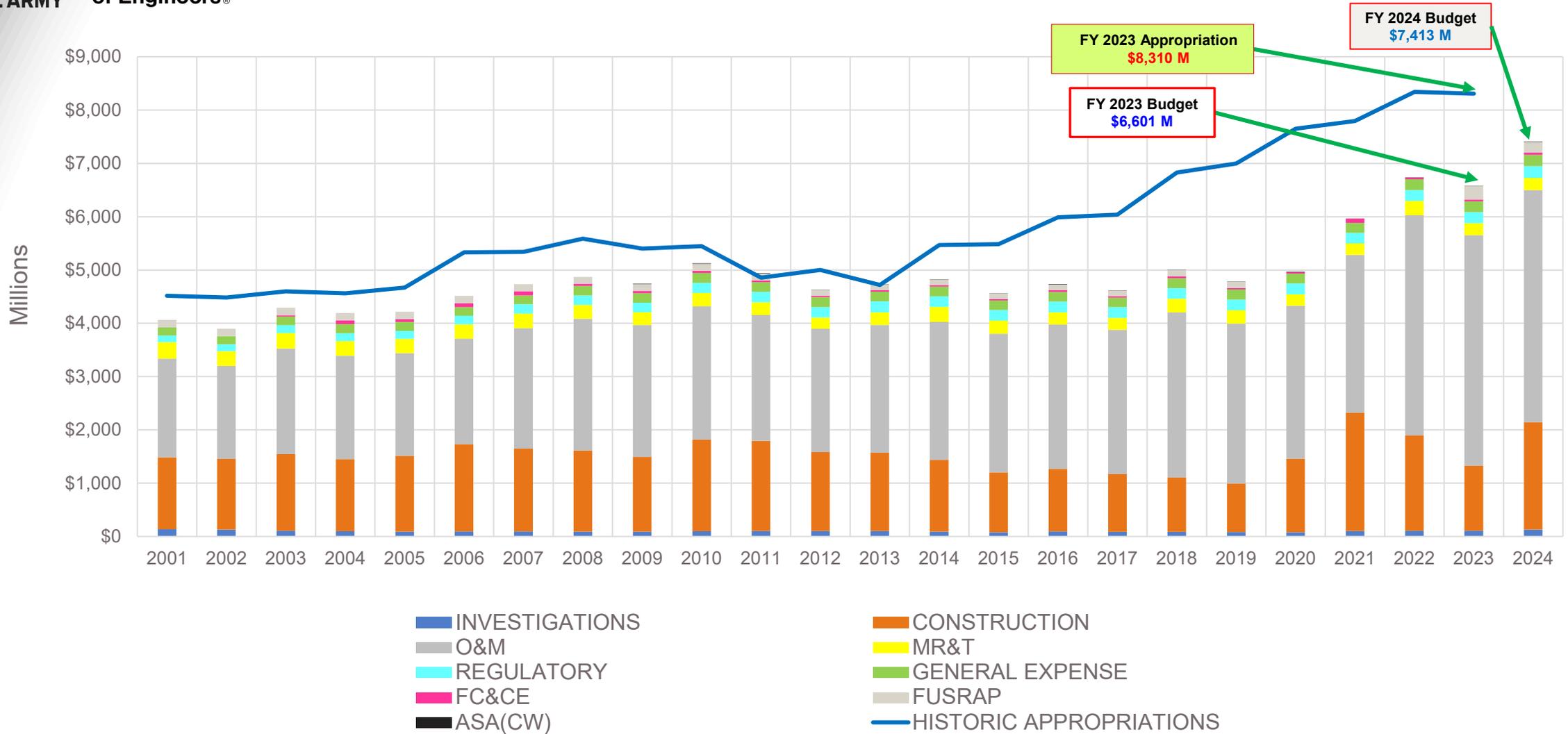
over the past 5 years



Generating enough to power **11 Million +** homes every year

CIVIL WORKS INVESTMENT TRENDS

(EXCLUDES SUPPLEMENTAL FUNDING)



FY24 Budget is ~11% increase above FY23 Budget
FY23 Work Plan is ~21% increase above the FY23 Budget
FY23 Work Plan is ~0.4% decrease below FY22 Work Plan



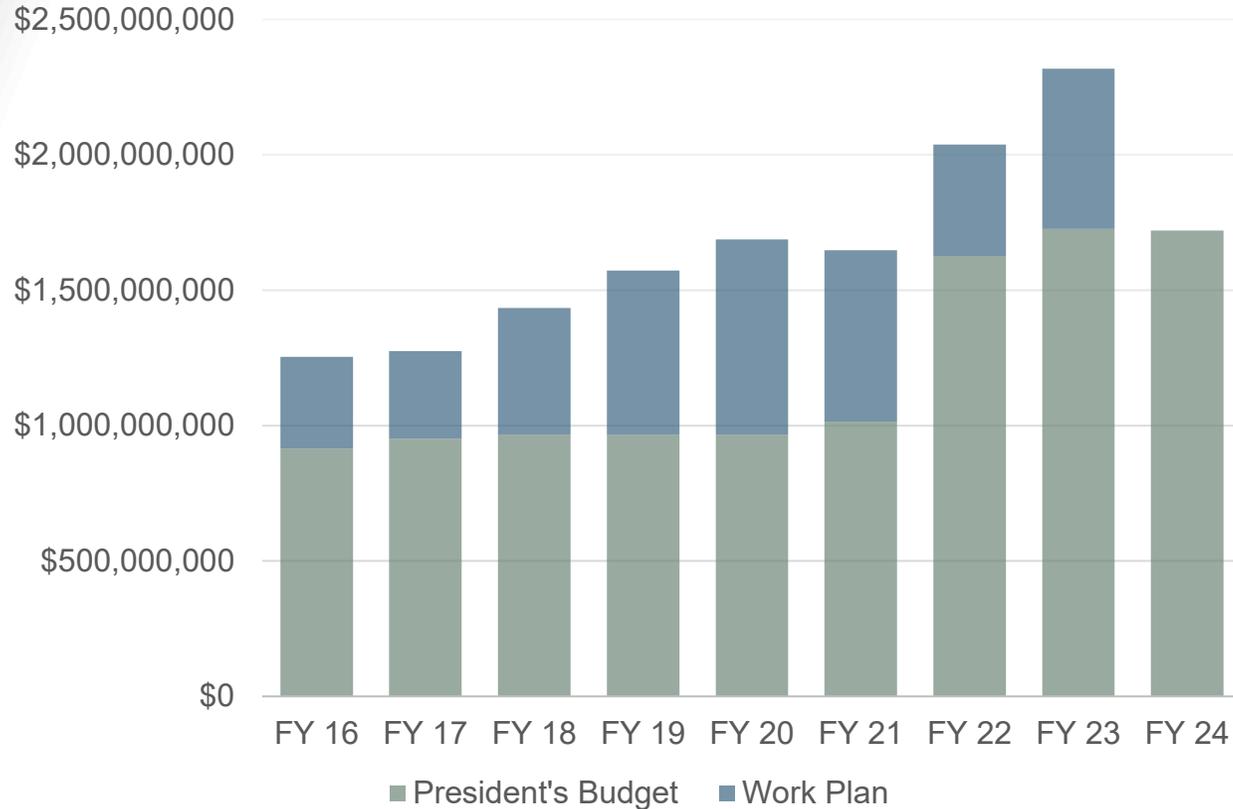
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HARBOR MAINTENANCE TRUST FUND

HMTF Allocation Trends



-FY 22 EOY Balance- \$9.5B

-FY23 bill directed \$2.32B in funding,
FY24 PBUD was \$1.72B

-With the exception of a minor dip in FY 20 collections have remained at about \$1.5B/year

-The additional HMTF investments have allowed us to:

- maintain further into the portfolio those low use projects
- address breakwater and jetty maintenance
- consider advanced maintenance activities at critical harbors

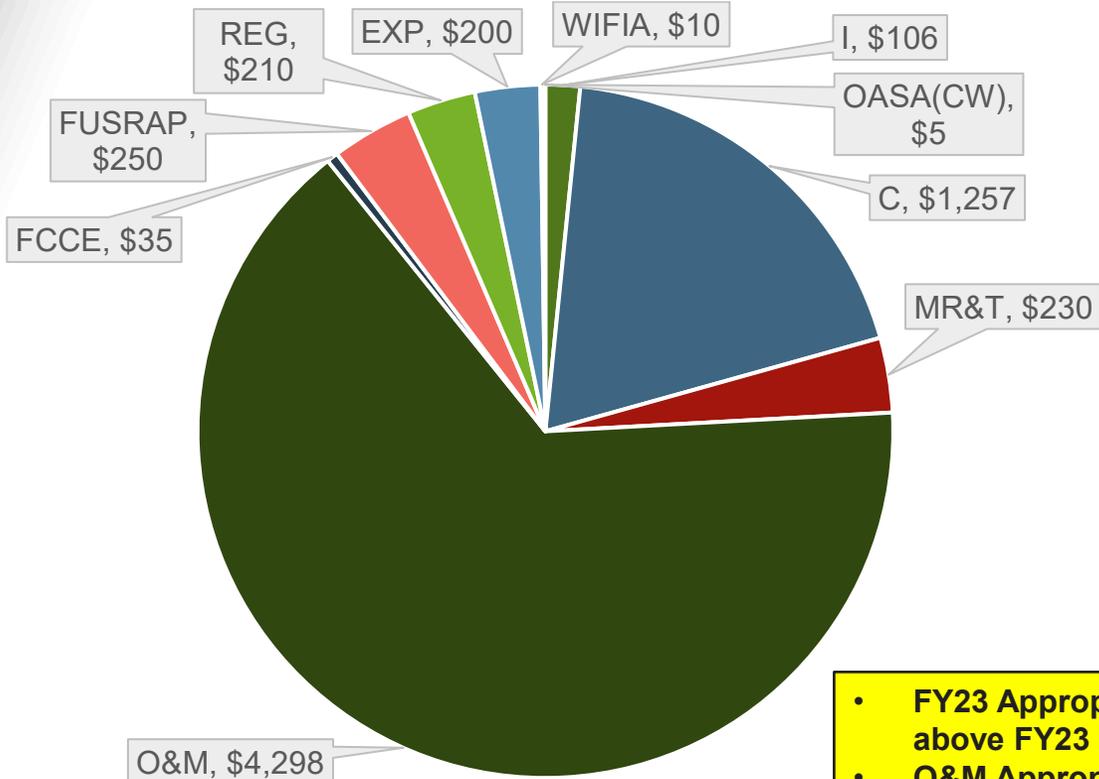


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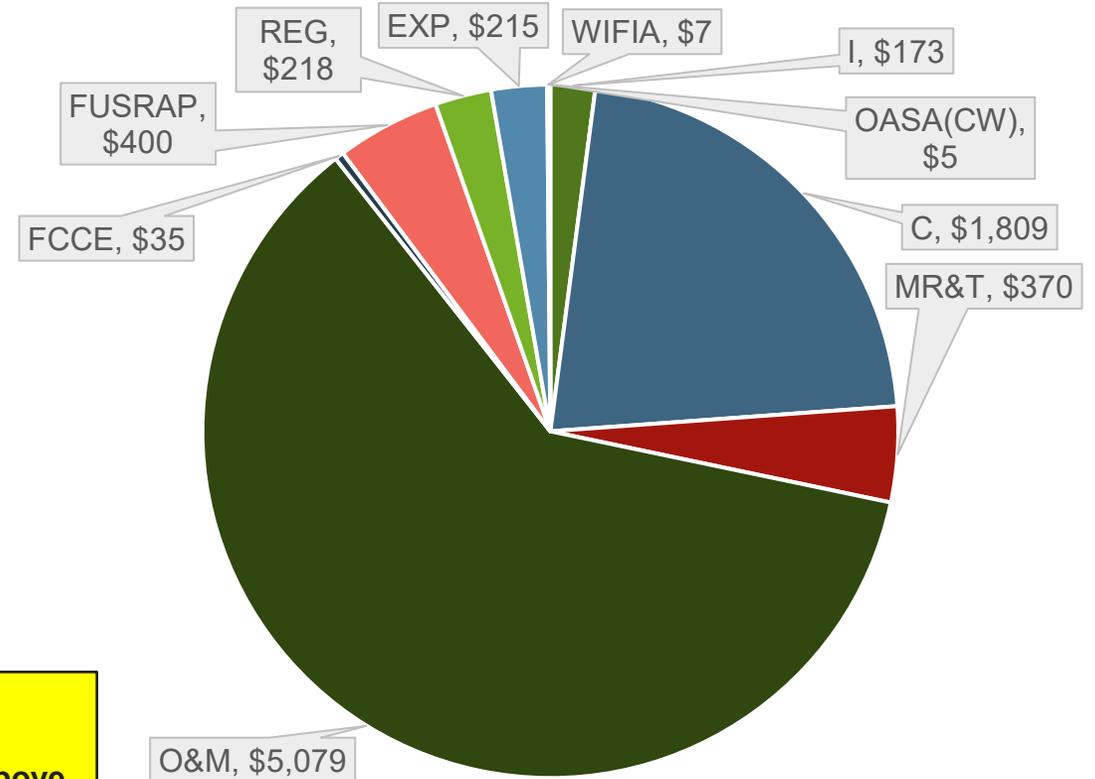


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FY23 CIVIL WORKS PROGRAM SUMMARY



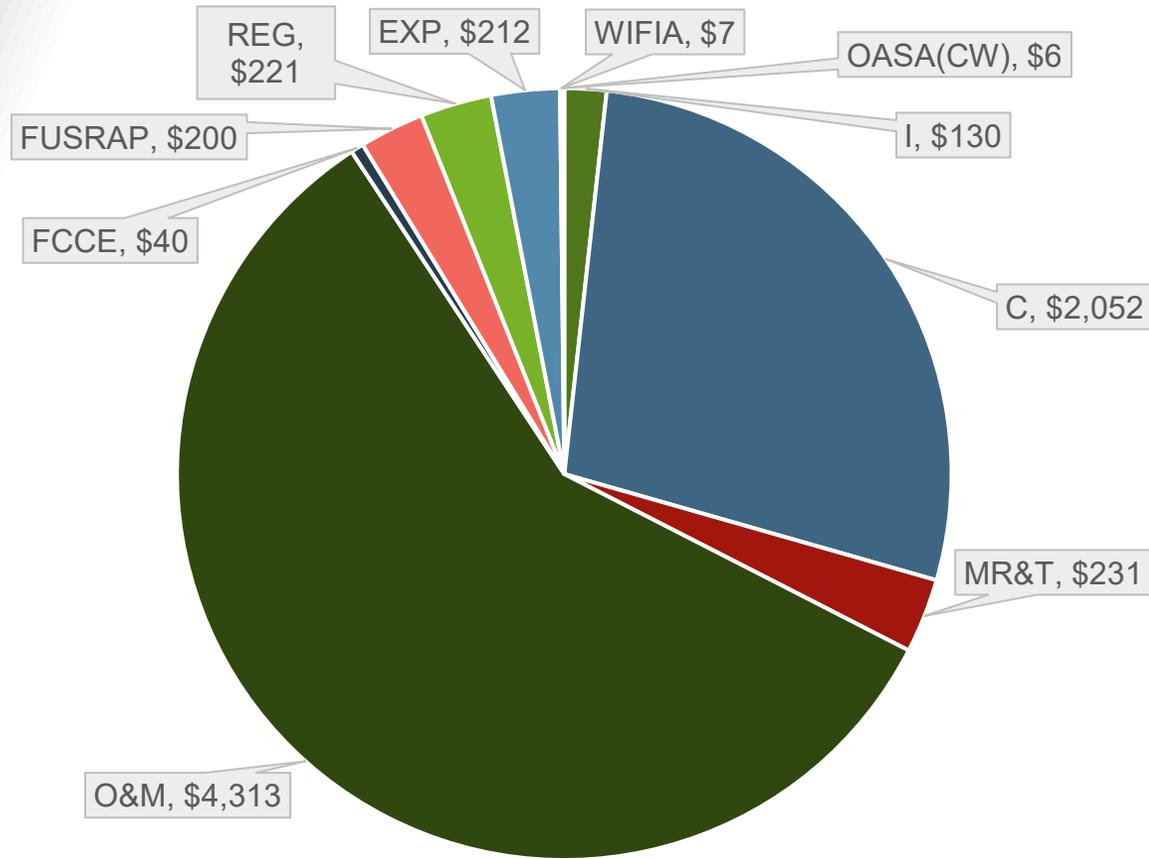
FY2023 Budget - \$6,601
By Account
(\$ Millions)



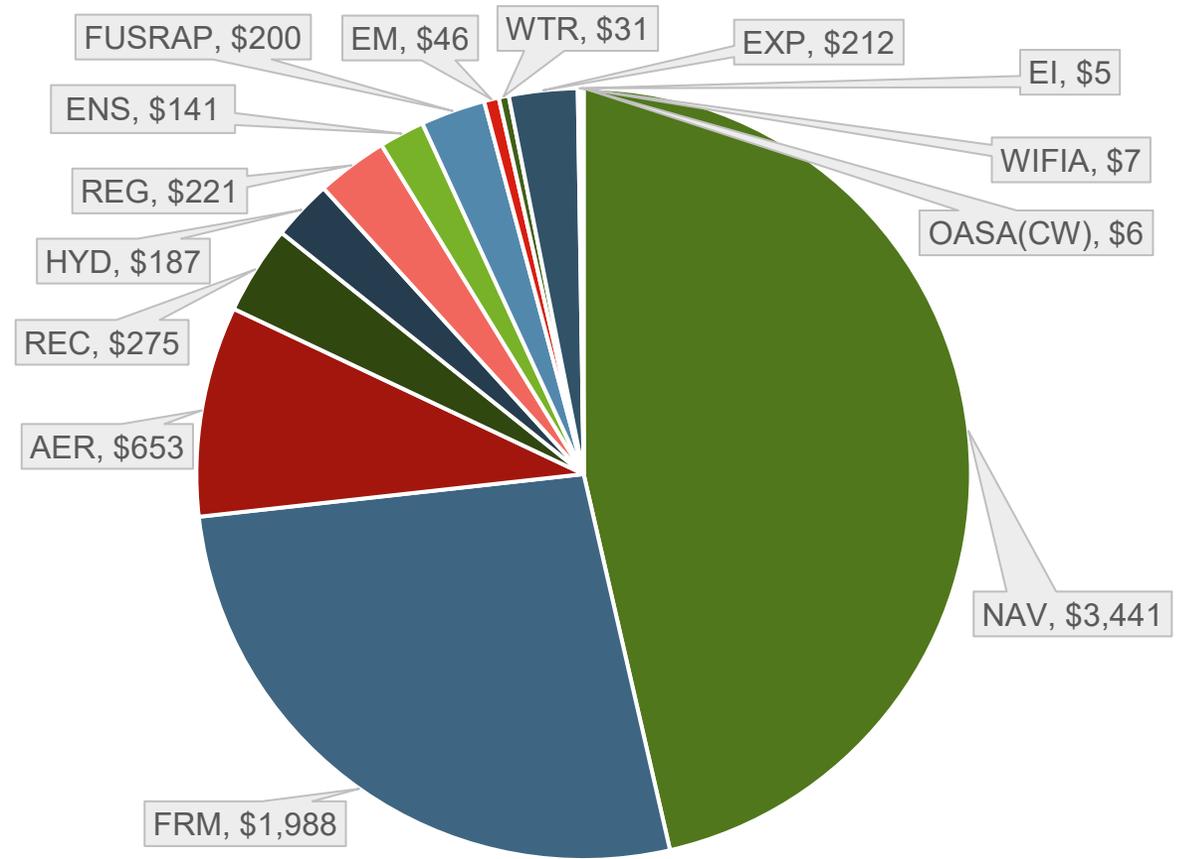
FY2023 Appropriation - \$8,310
By Account
(\$ Millions)

- FY23 Approp is \$1.709B above FY23 PBUD
- O&M Approp is \$780M above PBUD
- C Approp is \$552M above PBUD
- MR&T Approp is \$140M above PBUD

FY24 CIVIL WORKS PROGRAM SUMMARY

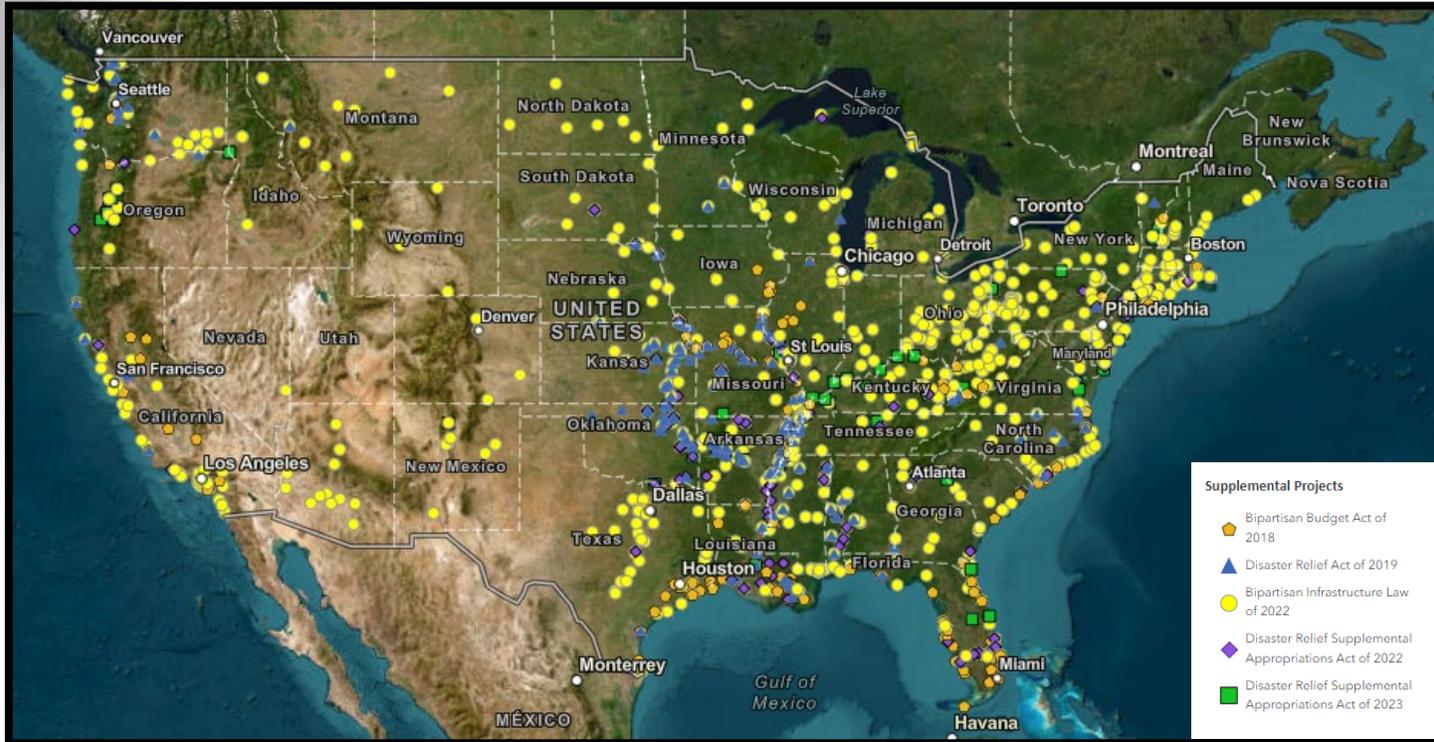


FY2024 Budget
By Account
(\$ Millions)



FY2024 Budget
By Business Line/Funding Category
(\$ Millions)

SUPPLEMENTAL PROGRAM OVERVIEW



Katrina (aka HSDRRS): \$14.5B
(multiple laws starting in 2005); Managed by MVD

Disaster Relief Appropriations Act, 2013 (Sandy): \$5.1B
(signed into law 29 Jan 2013); Managed by NAD

Bipartisan Budget Act of 2018: \$17.4B
(signed into law 9 Feb 2018)

Disaster Relief Act of 2019: \$3.25B
(signed into law 6 Jun 2019)

Disaster Relief Supplemental Approps Act, 2022: \$5.7B
(signed into law 30 Sep 2021)

Bipartisan Infrastructure Law (BIL), 2022: \$17.1B
(signed into law 15 Nov 2021)

Disaster Relief Supplemental Approps Act, 2023: \$1.48B
(signed into law 29 Dec 2022)

Total Supplemental Program - ~\$44.93 Billion



To be directed to
our interactive
project map



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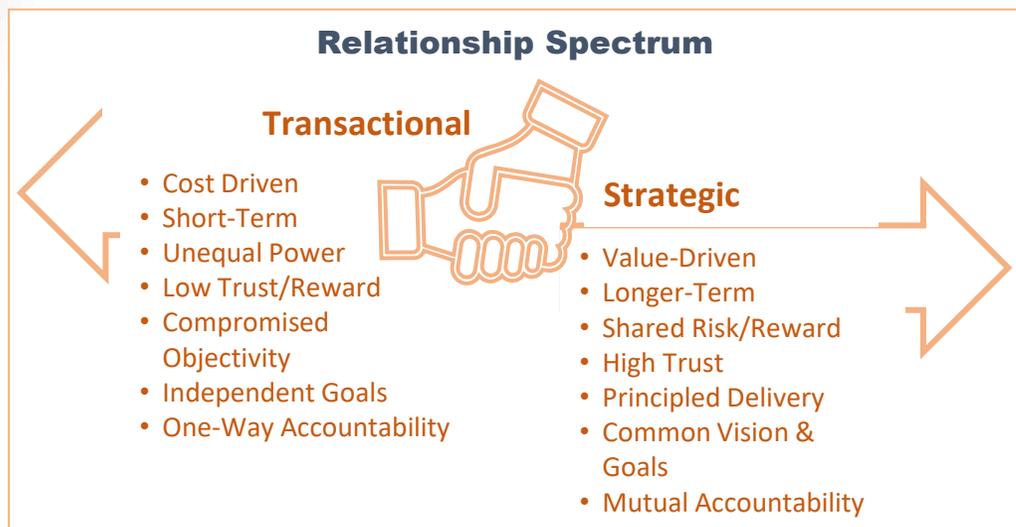
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PARTNERSHIPS

BUILDING AND SUSTAINING STRATEGIC RELATIONSHIPS

One Mission – One Team:

The quality of our relationships drive performance outcomes



3 Cs of Successful Strategic Relationships



Key Principles:

- ✓ Partnering requires enduring leadership commitment and active involvement
- ✓ A “partnering mindset” is needed to achieve successful partnering outcomes
- ✓ Partnering is continual and should be incorporated into all activities, interactions, and phases of delivery
- ✓ Each relationship is unique and should be treated as such



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CLIMATE RESILIENCE IN USACE PROJECTS

USACE RESILIENCE INITIATIVE

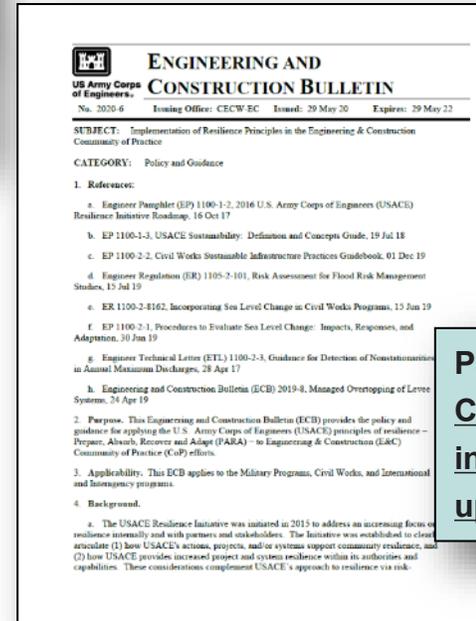
USACE Approach to Resilience

- USACE applies **resilience thinking** through **four principles** that spring from **our definition of resilience**:
 “the ability to anticipate, **prepare** for, and **adapt** to *changing conditions* and **withstand, respond to**, and **recover** rapidly from *disruptions*.”
- The **PARA principles** frame & guide actions that build resilience throughout the considered lifecycle.



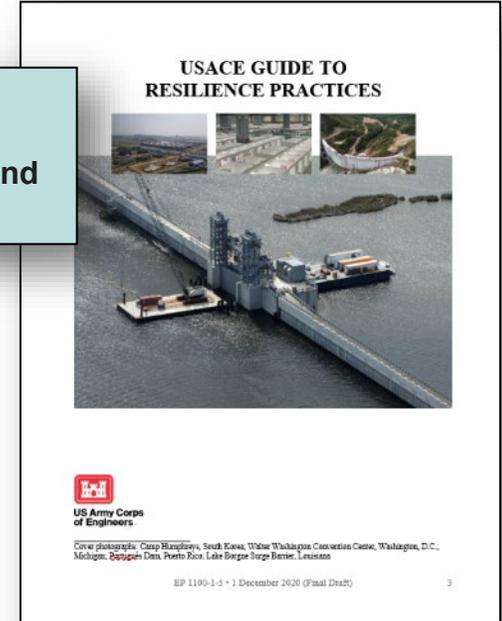
Comprehensive inventory of USACE resilience activities, guidance documents, tools, and methods

Implementation of Resilience Principles (ECB 2020-6)



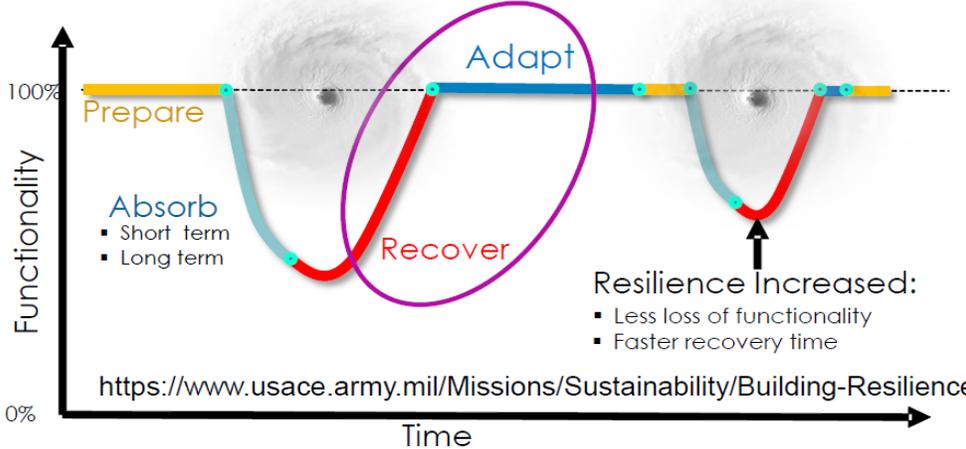
Policy: “The E&C CoP and sub-CoPs will reflect resilience thinking in their practices and in new and updated standards and criteria.”

USACE Guide to Resilience Practices (EP 1100-1-5)



DEFINING RESILIENCE

2016 Resilience Initiative: resilience will be implemented USACE-wide





CLIMATE RESILIENCE IN USACE PROJECTS

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Climate Science Resources

PRIMARY VARIABLE	OBSERVED		PROJECTED	
	Trend	Literature Consensus (n)	Trend	Literature Consensus (n)
Temperature	↓	↻ (5)	↑	↻ (7)
Temperature MINIMUMS	↑	↻ (1)	↑	↻ (3)
Temperature MAXIMUMS	↑	↻ (1)	↑	↻ (3)
Precipitation	↑	↻ (4)	↔	↻ (3)
Precipitation EXTREMES	↕	↻ (4)	↑	↻ (3)
Hydrology/ Streamflow	↑	↻ (4)	↓	↻ (4)

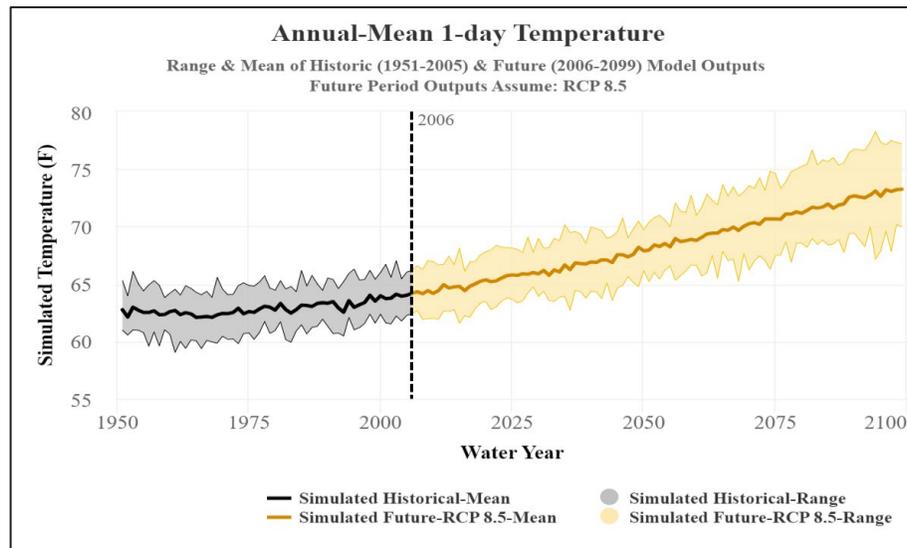
NOTE: Spatial variability was observed in the literature review for Observed Precipitation Extremes. The inland portion of HUC 12 generally showed decreasing trends while the coastal portion of the HUC generally showed increasing trends for observed precipitation extremes.

TREND SCALE
 ↑↑ = Large Increase ↑ = Small Increase — = No Change ↕ = Variable
 ↓↓ = Large Decrease ↓ = Small Decrease ○ = No Literature

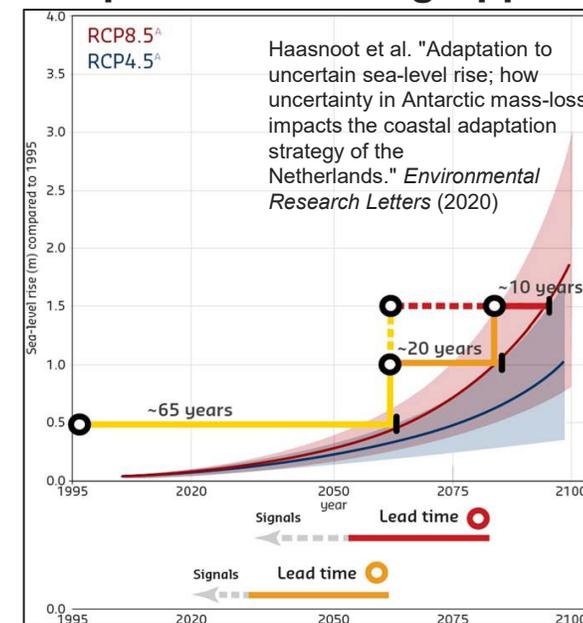
LITERATURE CONSENSUS SCALE
 ↻ = All literature report similar trend ↻ = Low consensus
 ↻ = Majority report similar trends ○ = No peer-reviewed literature available for review
 (n) = number of relevant literature studies reviewed



Climate Tools



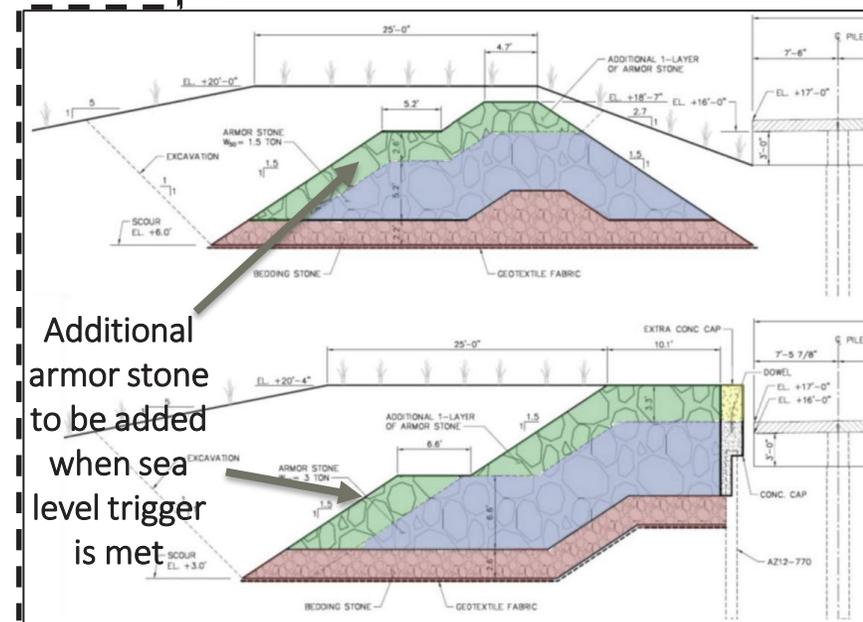
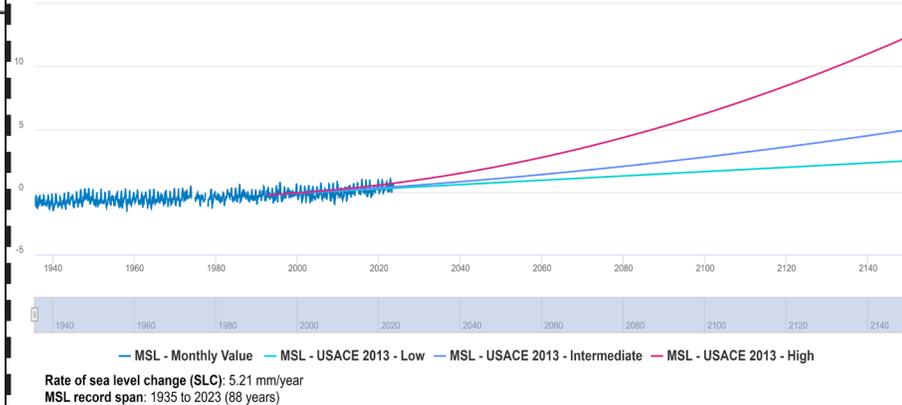
Adaptation Planning Approach



Sea Level Data and Projections: Fort Pulaski, GA (8670870)

NOAA Tide Gauge

Feet above North American Vertical Datum of 1988 (1983-2001 epoch)





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Listen to learn more about our programs and projects!



A podcast that goes behind castle doors to have real conversations with real people about solving the nation's toughest challenges.

<https://podcasts.apple.com/us/podcast/inside-the-castle/id1539014668>

Episodes of Interest:

- Spotlight on the Water Resources Development Act
- Interview with Chief of Engineers
- Interview with Assistant Secretary of the Army for Civil Works
- USACE Supplemental Program Overview
- Environmental Infrastructure
- Aging Infrastructure
- USACE Budget Process
- Overview of USACE Operations Division
- Corps Water Infrastructure Financing Program

Thank you!