

# NEW YORK-NEW JERSEY HARBOR AND TRIBUTARIES COASTAL STORM RISK MANAGEMENT STUDY

Request for Additional Resources

New York District  
December 2023



US Army Corps  
of Engineers®





# OVERVIEW



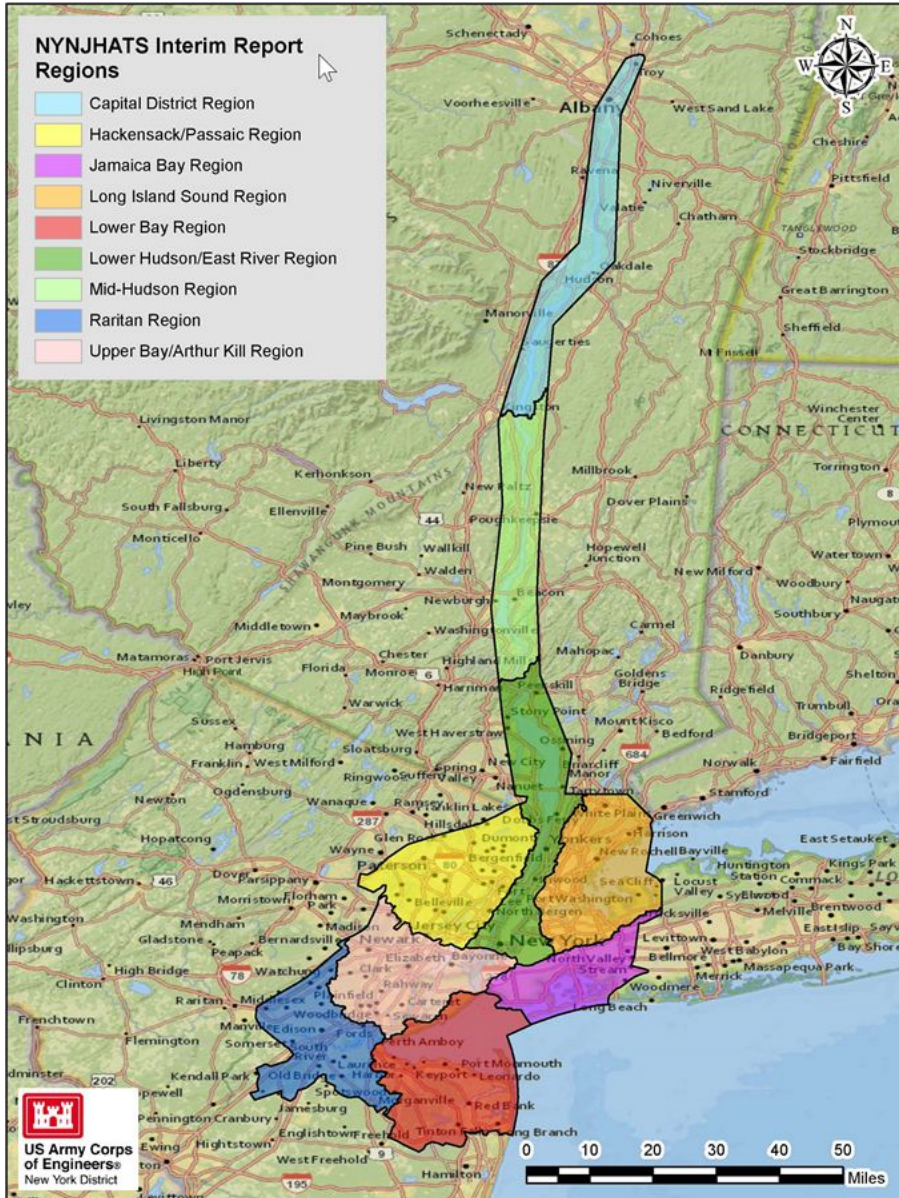
Department of Environmental Conservation



NYC Mayor's Office of Climate & Environmental Justice



Department of State



## STUDY AREA

- The largest and most densely populated of the 9 NACCS Focus Areas
- 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

## COASTAL STORM RISKS & DAMAGES

- Significant Life/Safety Risk and over 275,000 Structures in Potential Impact Area
- Incorporates Dozens of Other Ongoing and Planned CSRM Projects in Study Area
- Present Value Damages for 100-Year Storm Range from \$100+B for Intermediate Sea Level Rise to over \$350B for High Sea Level Rise Projection

## STUDY SCOPE

- **Study Cost:** \$19.4M, cost-shared 50/50 with NYSDEC and NJDEP thru July 2022, and 100% federal thereafter.
- **Study Schedule:** Assistant Secretary of the Army for Civil Works Approved (7 Apr 21) Second Request for Study Extension to 2024 Completion
- **Funding:** Federal funding (\$1.45M) resumed in October 2021 following lapses in fiscal years 2020 and 2021. Study also received \$6,724,000 of Disaster Relief Suppl. Appros. Act funds.
- **Study Scope:** WRDA 2020 includes study specific language

## STUDY SCHEDULE

- Draft Feasibility Report and integrated Tier 1 Environmental Impact Statement Released for extended public day review with meetings planned throughout area. Comment closing date was March 31, 2023.
- Agency Decision Milestone being rescheduled to November/December 2023.
- See [WWW.NAN.USACE.ARMY.MIL/NYNJHATS](http://WWW.NAN.USACE.ARMY.MIL/NYNJHATS) for Draft Report and all appendices.
- Final Chief of Engineers Report Currently Approved to be Completed NLT 15 June 2024.

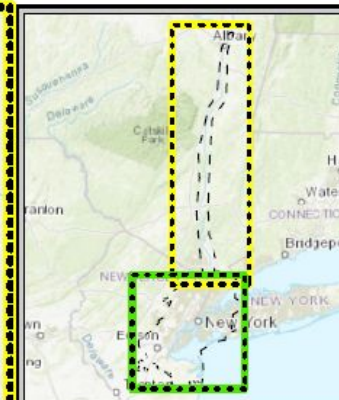
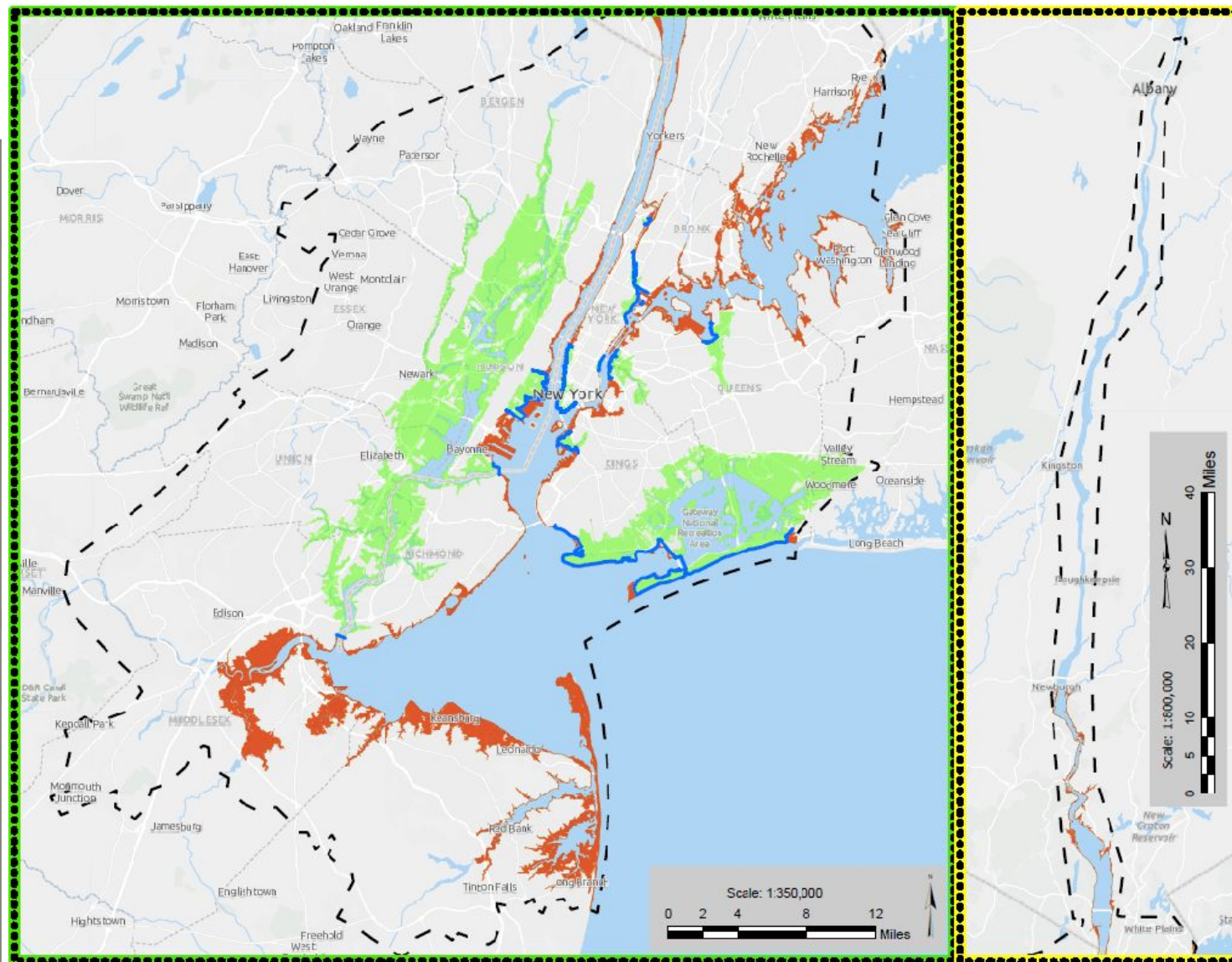


# ALTERNATIVE 3B – THE TENTATIVELY SELECTED PLAN



## 63.0% Study Area at Direct Risk Benefited

Feature Type	Approx. Miles
Storm Surge Barriers	2.2
Shoreline Based Measures	50.6
Induced Flooding-Mitigation Features	11.8
HFFRRF (not shown)	18.7
Alternative	
First Cost (\$B):	\$ 52.7
Total Present Value Cost (\$B):	\$ 76.2
Estimated Construction Duration (years):	14



**Legend**

- Study Area
- Alternative 3B - CSRM Measures (SSB, SBM, IFF)
- CSRM Reduced Risk with Project Alt3B (area directly benefited)
- Residual Risk with Project Alt3B (area not benefited)

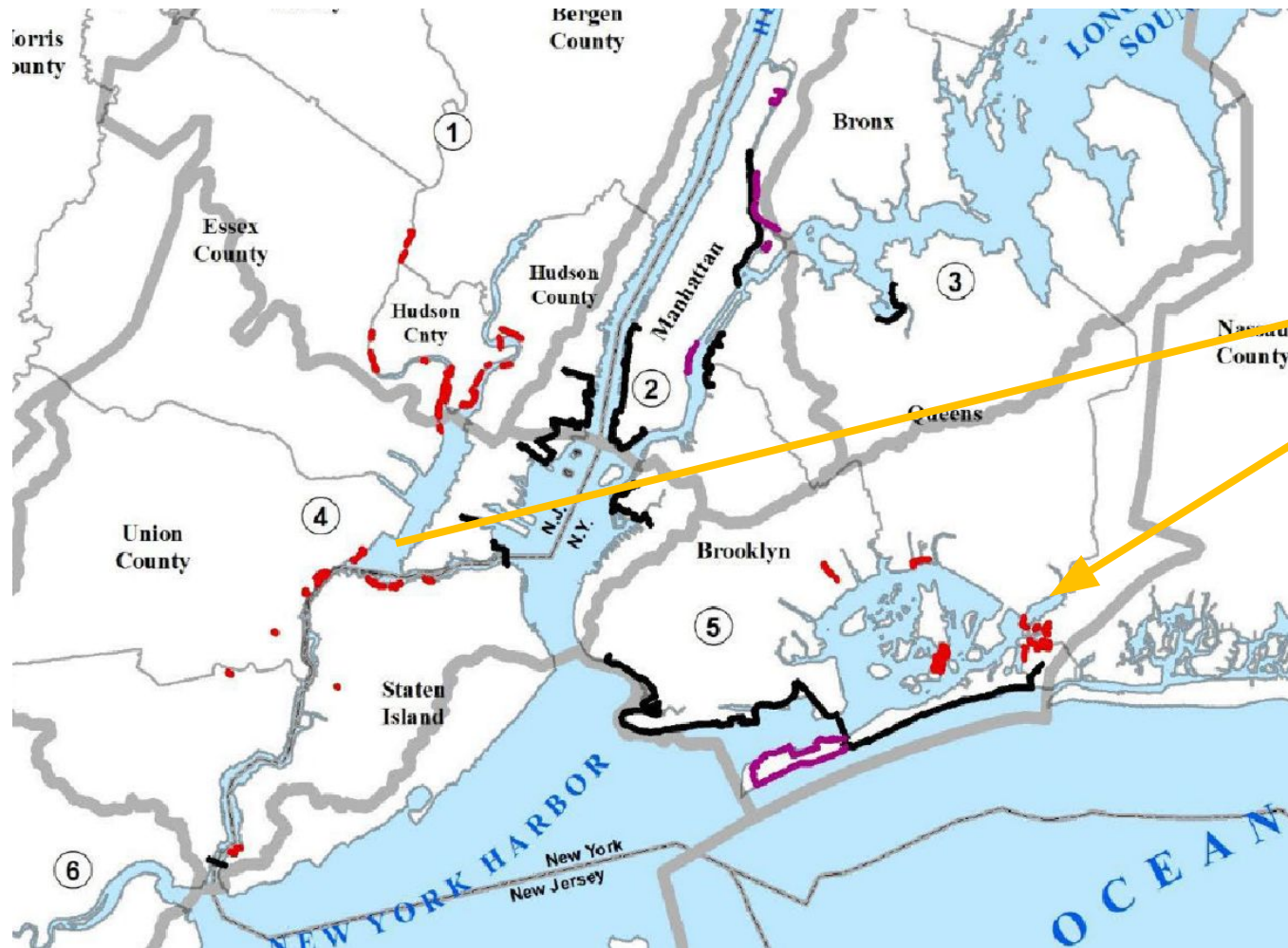
**NY-NJ HARBOR AND TRIBUTARIES STUDY**

**Alternative 3B**  
**Future With Project**  
**Reduced Risk & Residual Risk**  
**(1% AEP with Intermediate Sea Level Rise in 2095)**  
 Date 12/8/2022

U.S. ARMY CORPS OF ENGINEERS  
NEW YORK DISTRICT



# TENTATIVELY SELECTED PLAN FEATURES IN DETAIL



Note High Frequency Flood Risk Reduction Features behind Storm Surge Barriers

- Black** lines – Primary structural features approximately 15-25 ft. NAVD88
- Purple** lines – Structural induced flooding mitigation features also approx. 15-25 ft. NAVD 88
- Red** lines – High Frequency Flood Risk Reduction Features approximately 10 ft. NAVD88



# TYPES OF NEPA ANALYSIS



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

Least



Most

TIER 1 – Consists of a broad-scale review of the Alternatives.

TIER 2 – Consists of subsequent more detailed reviews as the designs are further refined (during the preconstruction engineering and design phase).





# ENVIRONMENTAL JUSTICE



## Defining Disadvantaged Communities (DAC):

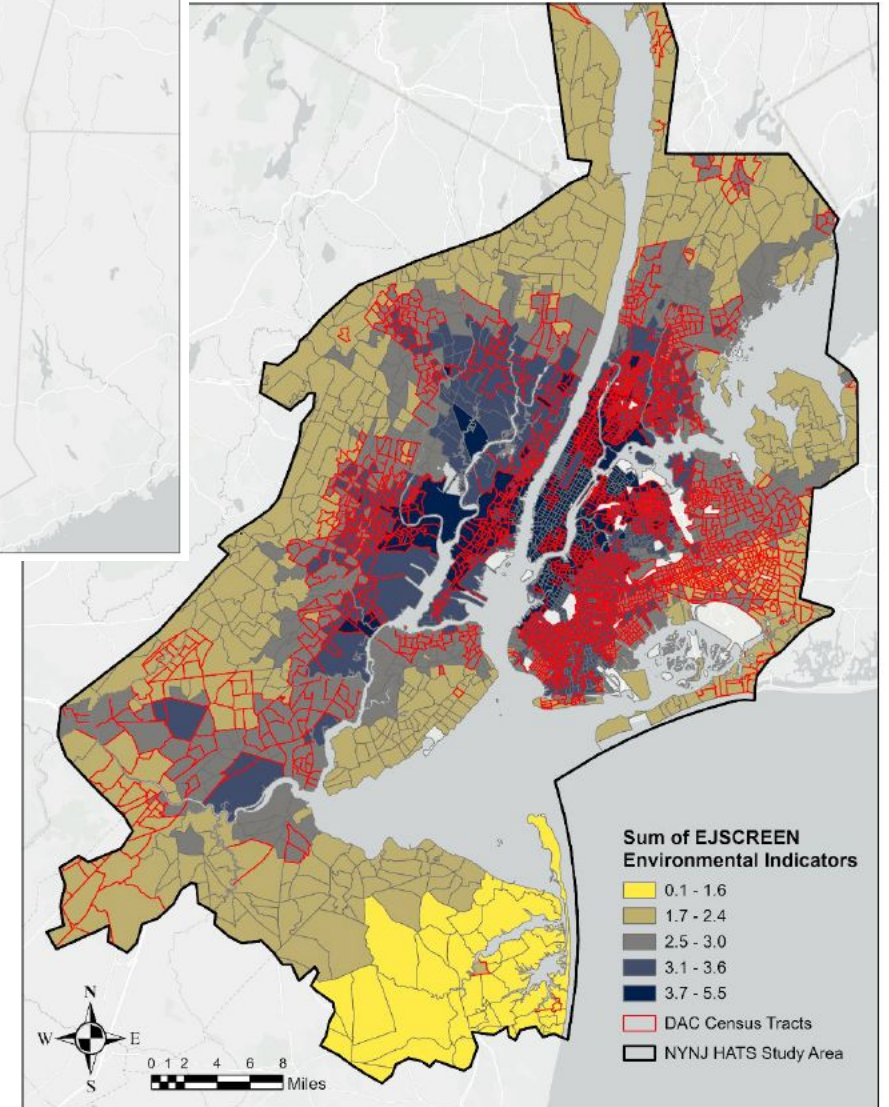
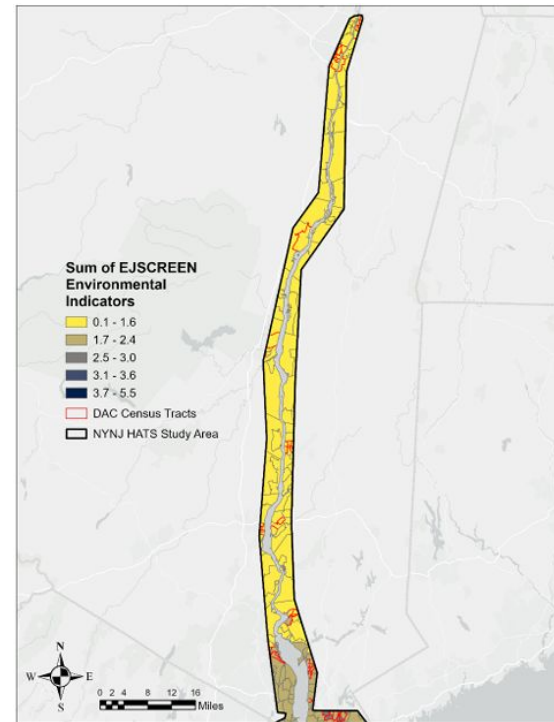
- 23.59% or more of the population below the federal poverty level
- 51.1% or more of the population identify as minority

## Environmental Burdens:

- EPA's EJ Screen

## Additional Vulnerability Factors Considered:

- Elderly/Very young
- Disabled
- Single parent households
- English Proficiency



**EJ and the TSP/Alternative 3B**

63% of census tracts in the Reduced Risk Areas meet the criteria for DAC

63 census tracts in the construction footprint meet the criteria for DAC

Virtually every feature of the Tentatively Selected Plan touches a DAC



# PUBLIC COMMENTS



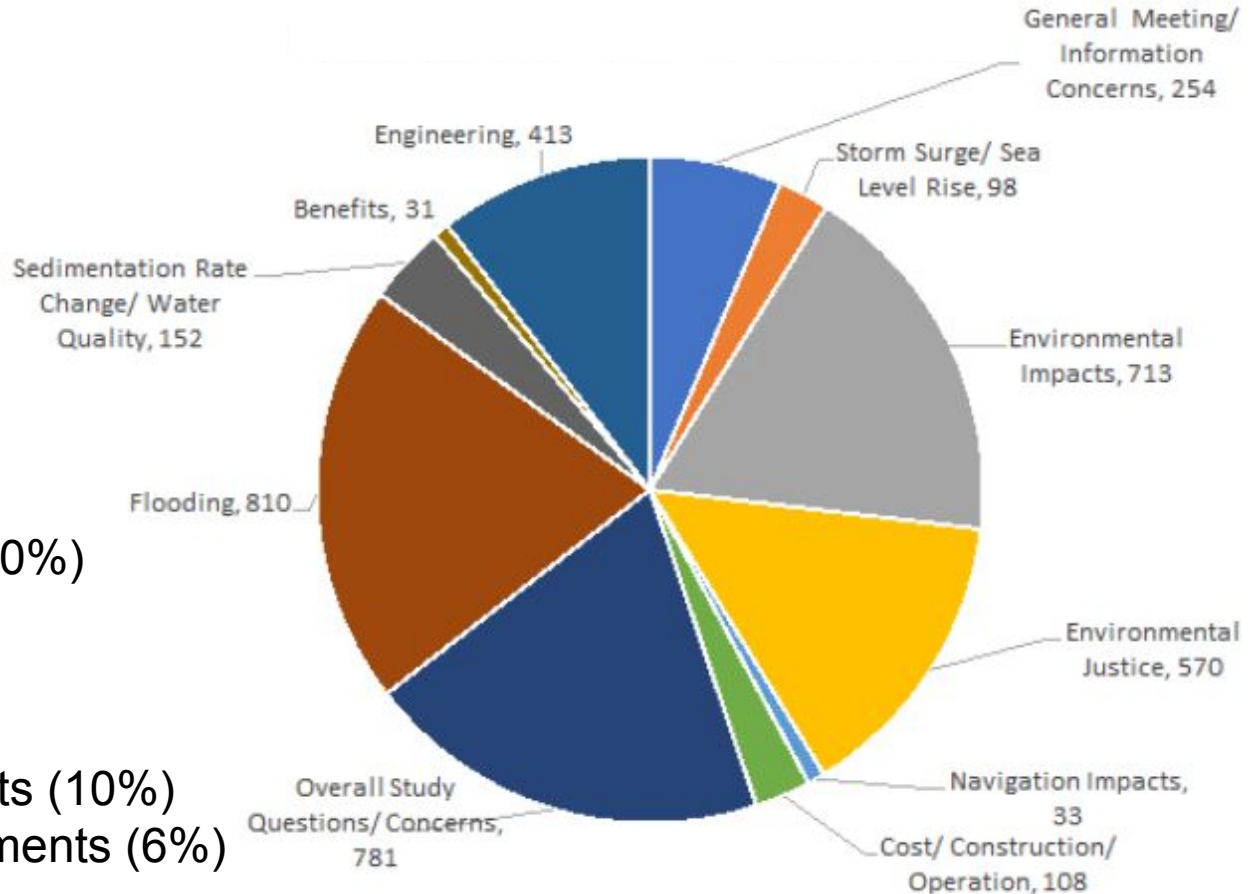
## 2,767 comments received

- Elected officials
- Local government
- Non-governmental organizations
- Academic institutions
- Private entities
- Individuals

## Breakdown by Theme

- Flooding: 810 comments (31%)
- Overall Study Questions/Concerns: 781 comments (30%)
- Environmental Impacts: 713 comments (27%)
- Environmental Justice: 570 comments (22%)
- Engineering: 413 comments (16%)
- General Meeting/Information Concerns: 254 comments (10%)
- Sedimentation Rate Change/Water Quality: 152 comments (6%)
- Cost/Construction/Operation: 108 comments (4%)
- Storm Surge/Sea Level Rise: 98 comments (4%)
- Navigation Impacts: 33 comments (1%)
- Benefits: 31 comments (1%)

Note: Some comments included more than one theme, so total percentage adds up to >100%





# PUBLIC COMMENTS: MAIN THEMES



- Need for further agency and public engagement on plan going forward, especially in disadvantaged communities
- Need for greater incorporation of natural and nature-based features (more “green”) and nonstructural measures when possible
- Need for more refined, more detailed environmental impact analyses, especially of water quality and ecological impacts from storm surge barriers
- Need for greater integration of proposed structural measures into existing neighborhood waterfronts to reduce impacts on aesthetics, viewsheds and recreation
- Concern for remaining areas with existing coastal storm risk unaddressed by current plan features
- Request for evaluating more combined flood risks & interior drainage issues as may be caused by rainfall fluvial/pluvial impacts coincident with coastal storms
- Concern regarding long time needed for design and construction (6 and 14 years, respectively). Need to accelerate implementation of less complex features as quickly as possible for highly flood prone areas
- Concern that advancing the plan to construction may be delayed or stopped altogether due to HTRW issues, lack of non-federal sponsor support, Congressional authorization, funding, etc.
- Concerns on the future prioritization and sequencing of construction of the plan features
- Concern regarding funding and assurance that the plans features will be properly operated and adequately maintained into the future



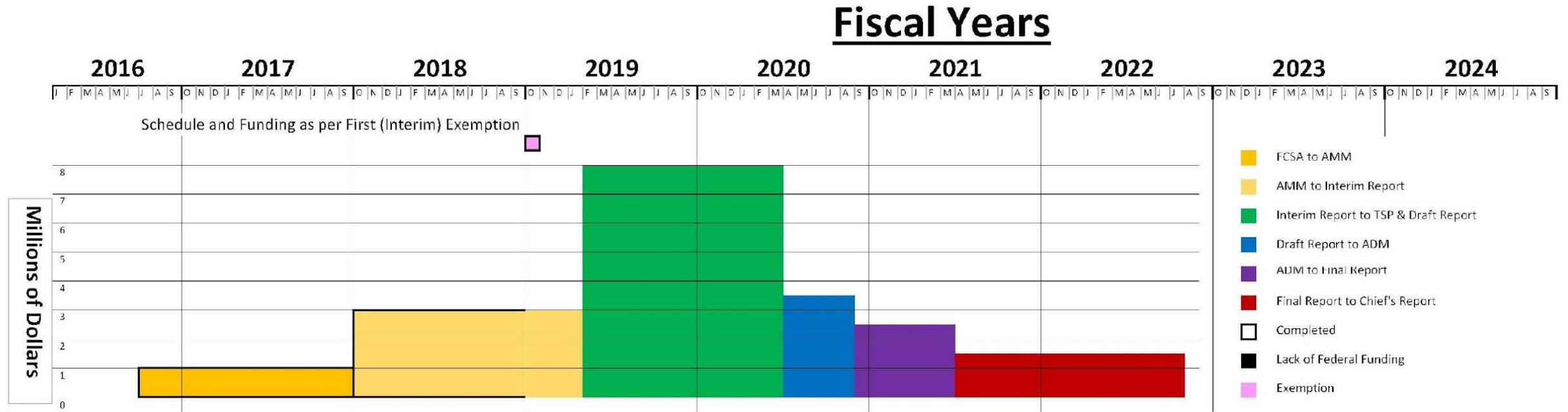
# OVERVIEW OF RECENT BRIEFS



- May 26, 2023: Mr. Bush Brief
- June 6, 2023: Megastudy Brief
- June 9, 2023 IPR: Focus on general update and technical issues for VT alignment
- June 16, 2023 IPR: Focus on NEPA approach
- June 23, 2023 IPR: Focus on steps to ADM
- June 30, 2023: Mr. Belk Brief
- July 22, 2023 IPR: Vertical Team Discussion of Courses of Action and NEPA Compliance
- July 26, 2023: MG Graham, Mr. Bush, COL Lloyd Site Visit
- August 21, 2023: Principles Meeting
- October 31, 2023 IPR: Vertical Team Discussion of Courses of Action and NEPA Compliance



# STUDY PLAN/SCOPE AT FIRST REQUEST FOR ADDITIONAL RESOURCES (OCTOBER 2018)

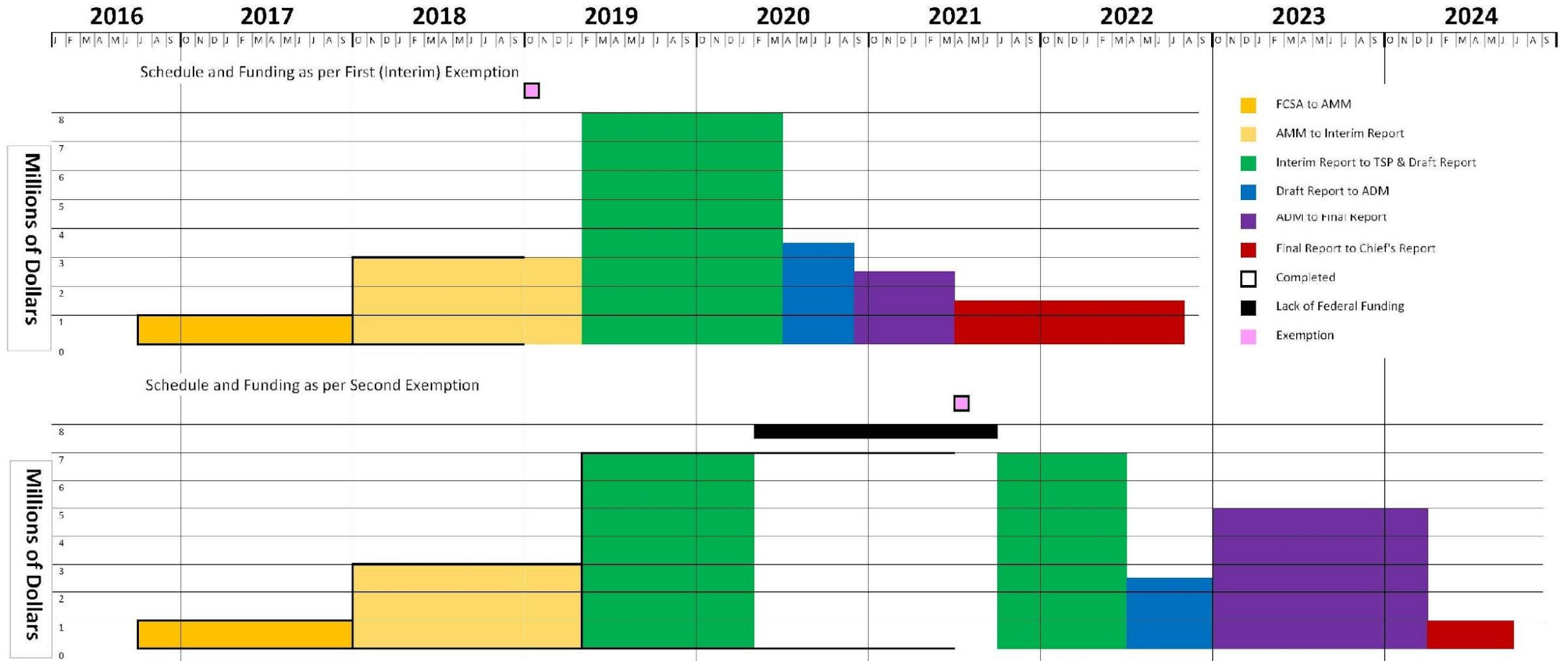


- Six-year study duration
- \$19.4M total study cost
- Six main study segments



# STUDY PLAN/SCOPE AT SECOND REQUEST FOR ADDITIONAL RESOURCES (APRIL 2021)

## Fiscal Years



- Approx. 8 year study duration
- Same \$19.4M total study cost

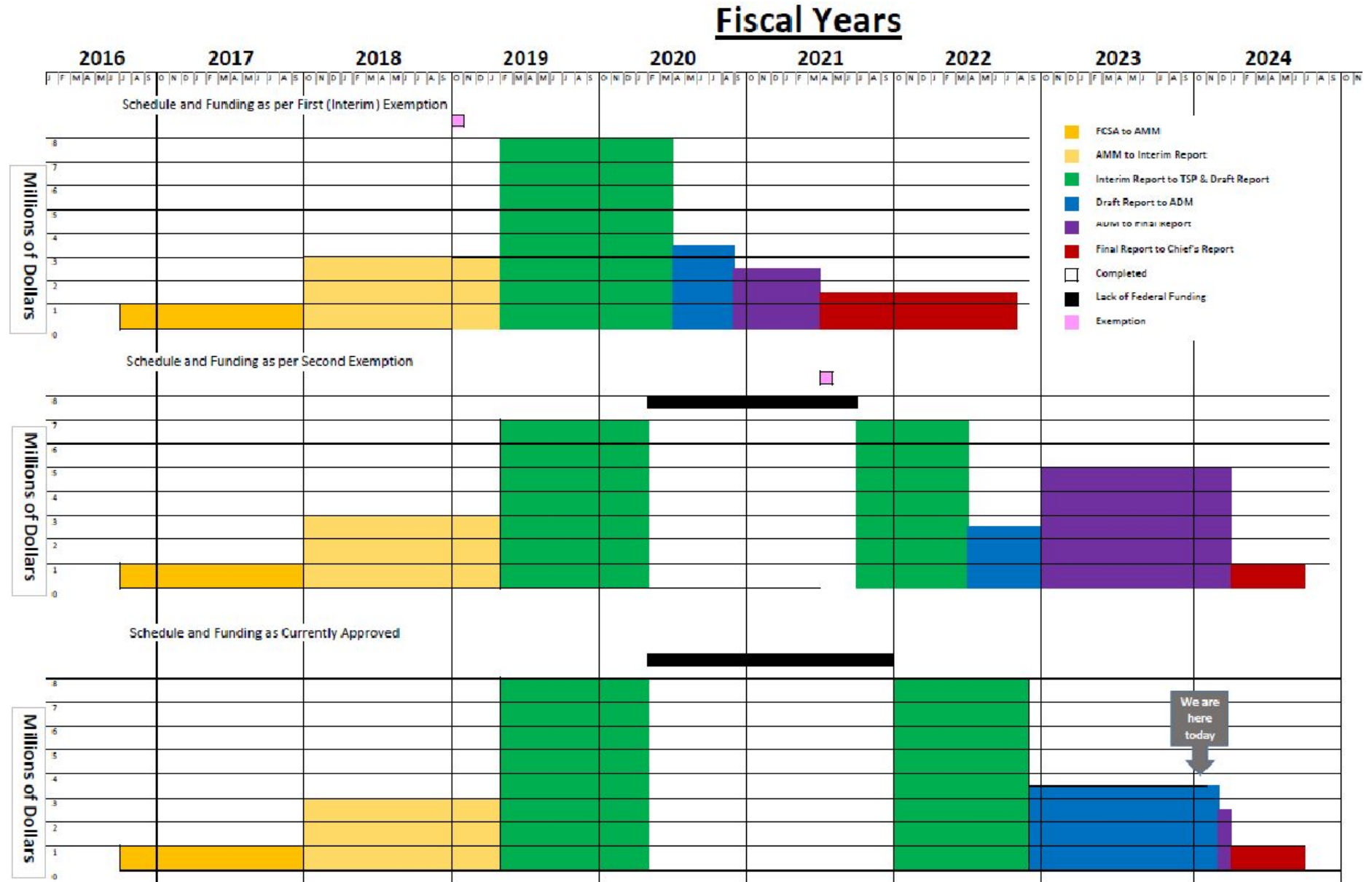
- Assumed July 2021 study resumption via Congressional reprogramming



# CURRENT APPROVED STUDY PLAN/SCOPE (COURSE OF ACTION #1)



- Same approx. 8-year study duration
- Same \$19.4M total study cost
- Used GI & DRSAAs funds via FCSA amendment in June 2022 (no Congressional reprogramming)
- Very limited time remaining





# FUTURE PATH OF STUDY TO COMPLETION

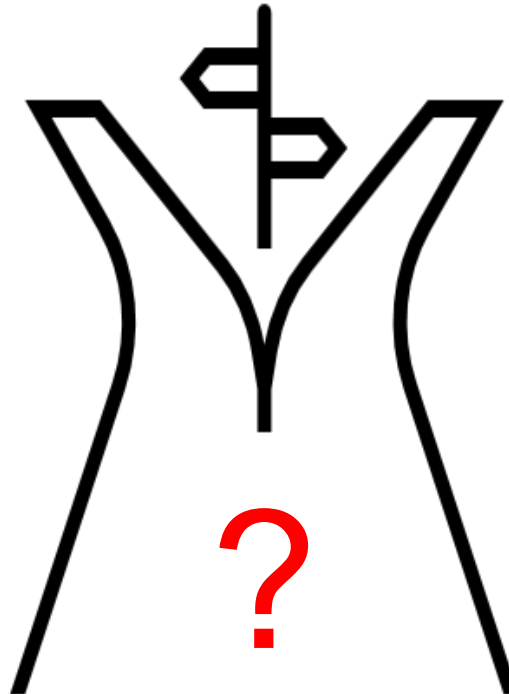


## Refine and Optimize Plan with Existing Approved Funding and Schedule and Proceed to Final Report?

(Course of Action #1 – No further additional resource requests)

- Substantially Less Funding and Time for Optimization as planned in Second Request for Additional Resources
- Little, if any, further federal agency coordination and public engagement
- Considerately more risk & uncertainty in Chief's Report (interim summary report with no recommendations)

- DRSA Funding: \$6.724M identified in work plan to complete at 100% federal expense \$19.4M currently approved study cost (\$12.676M balance was previously 50/50 cost shared)
- \$3.45M DRSA funding provided to date to issue Draft Report, do expanded public outreach and get to ADM
- \$3.274M DRSA funding remaining at HQUSACE from prior work plan amount



## 3<sup>rd</sup> Request for Additional Resources

Expand Study Scope and Schedule to more fully address comments received

- Courses of Action 2, 3, 4a, 4b, and 5 described on next slides
- All will require additional time
- Courses of Action 3-5 will require additional funding
- Recovering and possibly expanding prior study scope will reduce risks and uncertainties with increasing identification of actionable plan components
- Currently assuming no new substantial WRDA 2020 Section 113(b) or WRDA 2022 Section 8106 analyses



# COURSES OF ACTION



**Course of Action #1** – Complete the study under the currently approved schedule and budget

**Course of Action #2** – Increased schedule, results in conceptual plan (framework) with no actionable items

- Schedule increase: 14 months
- Budget increase: \$0
- Actionable items recommended?: None
- Reports: None
- Response to study authority: Partial/Interim. Chief's Report would describe a Conceptual Plan (Framework) that would not include any actionable items

**Course of Action #3** – Increased schedule and budget, results in Comprehensive (Programmatic) Plan with no actionable items

- Schedule increase: 2.5 years
- Budget increase: \$7M
- Actionable items recommended?: None
- Reports: Technical reports, and final programmatic integrated feasibility report and Tier 1 EIS (no revised draft integrated feasibility report and Tier 1 EIS)
- Response to study authority: Partial/Interim. Chief's Report would describe a Comprehensive (Programmatic) Plan that would not include any actionable items

**Course of Action #4a** – Increased schedule and budget, results in Comprehensive (Programmatic) Plan with limited small-scale actionable items

- Schedule increase: 3.5 years
- Budget increase: \$10M
- Actionable items recommended?: Limited small-scale actionable items
- Reports: Revised draft integrated feasibility report and Tier 1 EIS, final programmatic integrated feasibility report and Tier 1 EIS
- Response to study authority: Partial/Interim. Chief's Report would describe a Comprehensive (Programmatic) Plan, that would include limited small-scale actionable items for construction authorization

**Course of Action #4b** – Increased schedule and budget, results in Comprehensive (Programmatic) Plan with limited small-scale and large-scale actionable items

- Schedule increase: 4 years
- Budget increase: \$19.5M
- Actionable items recommended?: Limited small-scale and large-scale actionable items
- Reports: Revised draft integrated feasibility report and Tier 1 EIS, final programmatic integrated feasibility report and Tier 1 EIS
- Response to study authority: Partial/Interim. Chief's Report would describe a Comprehensive (Programmatic) Plan, that would include limited small-scale and large-scale actionable items for construction authorization

**Course of Action #5** – Increased schedule and budget, results in Recommended Plan with all actionable items

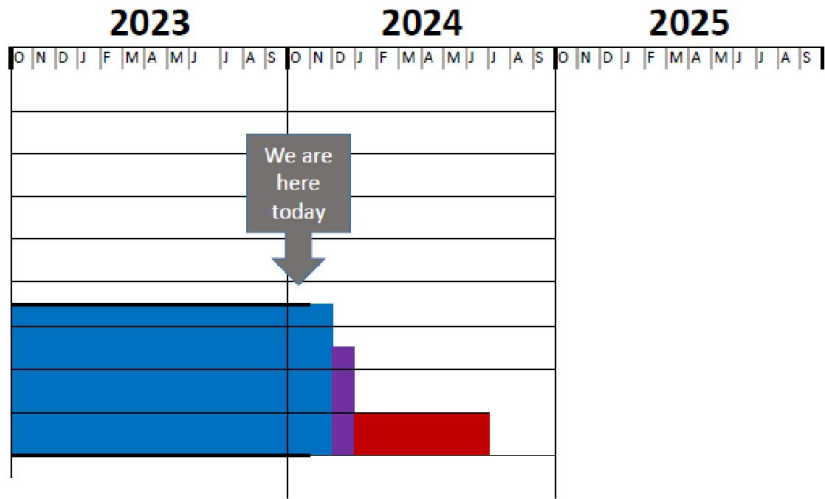
- Schedule increase: 7+ years
- Budget increase: \$40-50M
- Actionable items recommended?: All actionable items
- Reports: Revised draft integrated feasibility report and Tier 1 EIS, final integrated feasibility report and Tier 1 EIS
- Response to study authority: Final. Chief's Report would describe Recommended Plan, that would include all plan features as actionable items for construction



# COURSE OF ACTION #1 – COMPLETE THE STUDY UNDER THE CURRENTLY APPROVED SCHEDULE AND BUDGET



## Fiscal Years



**OVERALL STUDY FUNDING:**  
\$19.4M – unchanged (\$3.274 million remaining)

**OVERALL STUDY SCHEDULE:** 95 months – unchanged

- DELIVERABLES:**
- Final Report – February 2024
  - Summary Report to Congress? - June 2024

**DESCRIPTION:** Given unexpected impacts to the study schedule, complete study with remaining allocated DRSA funding with Chief’s Report NLT 15 June 2024, with remaining DRSA funding and one month for optimization following ADM.

**OUTCOME:** Study would result in a conceptual plan (framework) with no recommendations for construction authorization (actionable items). No further reports would be published.

- PROS:**
- No further funding or requests needed

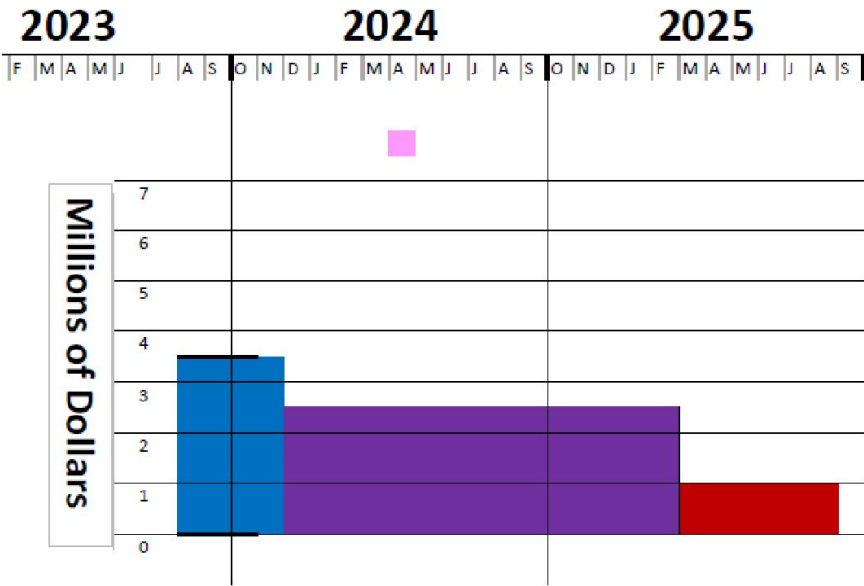
- CONS:**
- No recommendation for construction authorization (actionable items)
  - Public and resource agencies would not receive detailed or any responses to their comments made to the draft report
  - Conceptual plan may have qualified non-federal partners support, but no other agency endorsement and nothing fully environmentally compliant (no NEPA, ESA, EFH, CAA, NHPA, etc.)
  - Many unanswered questions



# COURSE OF ACTION #2 – CONCEPTUAL PLAN (FRAMEWORK) WITH NO ACTIONABLE ITEMS (INCREASED SCHEDULE ONLY)



## Fiscal Years



**OVERALL STUDY FUNDING:** \$19.4M – unchanged (\$3.274 million remaining)

**OVERALL STUDY SCHEDULE:** 95 + 14 months = 9 years, 1 month

### DELIVERABLES:

- Final Report – February 2025
- Summary Report to Congress – August 2025

**DESCRIPTION:** Recovers schedule to complete the study by adding time for past unplanned impacts to study execution (e.g., federal funding cessation in FY 20-21, extended public outreach with Draft Report, etc.).

**OUTCOME:** Study would result in a conceptual plan (framework) with no recommendations for construction authorization (actionable items). No plan components would have full environmental compliance. No further reports would be published.

### PROS:

- Final conceptual plan would be complete identifying all feasible plan components in study area
- Public and resource agencies would receive responses to their comments made to the draft report, to the extent possible

### CONS:

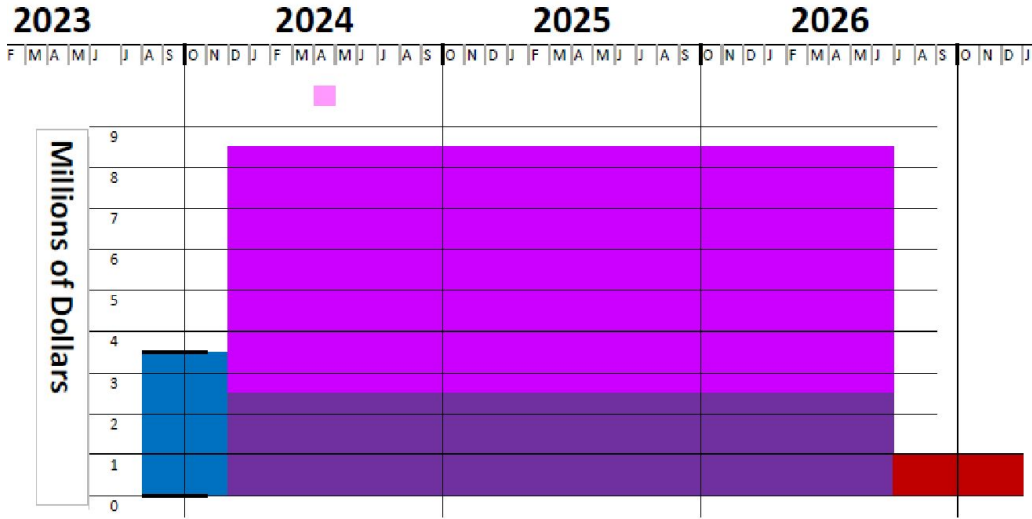
- No recommendations for construction authorization (actionable items)
- Without further plan refinements, non-federal partners may not support advancement
- No plan components fully environmentally complete
- No resource agency endorsement



# COURSE OF ACTION #3 - COMPREHENSIVE (PROGRAMMATIC) PLAN WITH NO ACTIONABLE ITEMS



## Fiscal Years



**OVERALL STUDY FUNDING:** \$19.4M + ~\$7M = ~\$26.4M

**OVERALL STUDY SCHEDULE:** 95 months + ~30 months = ~10 years, 5 months

**DELIVERABLES:**

- Final Report – June 2026
- Chief's Report (interim response) – January 2027

**DESCRIPTION:** Extends schedule and funding beyond that in second request for additional resources to perform technical studies largely to address other resource agencies comments, particularly related to storm surge barrier effects.

**OUTCOME:** Study would result in a Comprehensive (Programmatic) Plan with no recommendations for construction authorization (actionable items). No plan components would have full environmental compliance. A final integrated programmatic feasibility report and Tier 1 EIS would be published.

**PROS:**

- Comprehensive (programmatic) plan would be complete identifying all feasible plan components in study area, with analysis of hydraulic connectivity (e.g., separability)
- Public and resource agencies would receive responses to their comments made to the draft report
- Tier 1 EIS complete (Tier 2 environmental compliance required in PED prior to construction)
- Non-federal partners may support advancement

**CONS:**

- No recommendations for construction authorization (actionable items)
- No formal public review (no revised integrated feasibility report and Tier 1 EIS)
- Public and resource agencies may not support advancement
- Potentially a Director's Report product only



# COURSE OF ACTION #4A – COMPREHENSIVE (PROGRAMMATIC) PLAN WITH LIMITED SMALL-SCALE ACTIONABLE ITEMS



## Fiscal Years

**DESCRIPTION:** Further extends schedule and funding beyond COA #3 to carry out technical studies and advance designs and environmental compliance on limited number of small-scale actionable items.

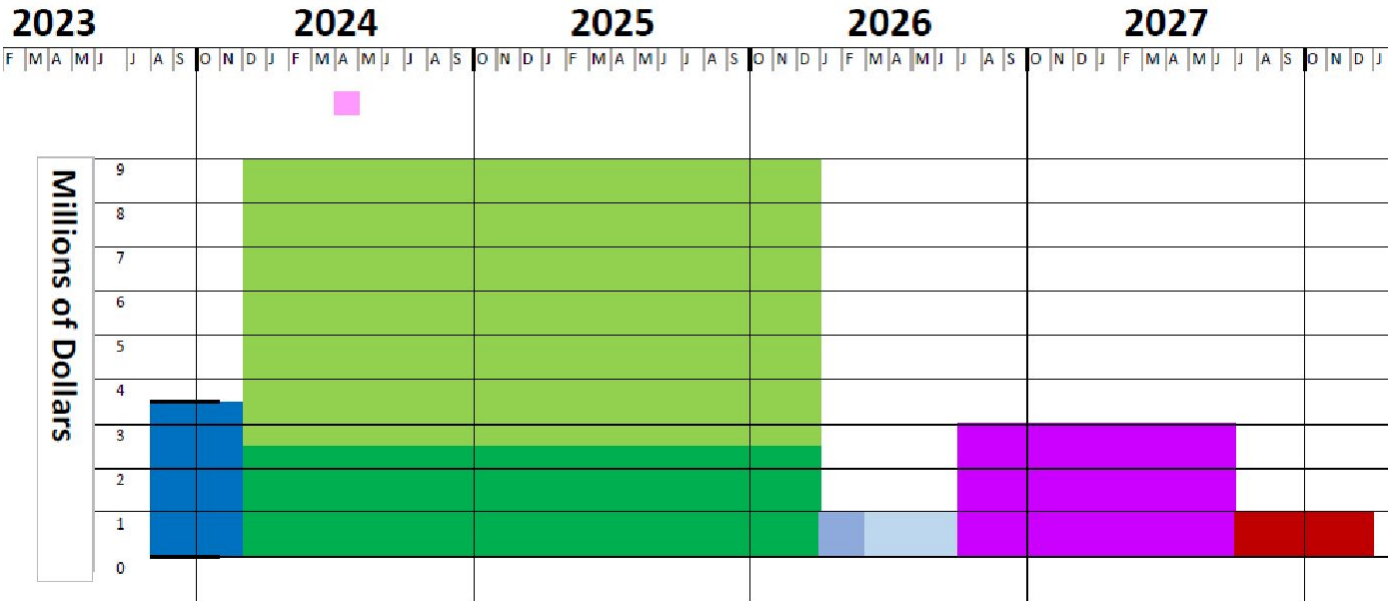
**OUTCOME:** Study would result in a Comprehensive (Programmatic) Plan with limited recommendations for construction authorization (small-scale actionable items). Full environmental Tier 1 compliance would be complete. A revised draft and final integrated programmatic feasibility report and Tier 1 EIS would be published. The draft report would undergo public review.

**PROS:**

- Non-federal sponsors may support advancement
- Public and resource agencies may support advancement
- Hydraulic modeling data would be sufficient for federal decision making from an Impact Analysis perspective (could affect application of Tier 2 NEPA analysis)
- Public release of revised draft report would allow for limited additional engagement with stakeholders; public and Resource Agencies, etc.
- Chief's Report (interim response to study authority) with recommendation for some actionable items.

**CONS:**

- Chief's Report would recommend construction authorization only for some small-scale actionable items and would not recommend construction authorization for any large-scale actionable items
- Lack of engineering investigations may present unacceptable cost risk



**OVERALL STUDY FUNDING:** \$19.4M + ~\$10M = ~\$29.4M

**OVERALL STUDY SCHEDULE:** 95 + ~42 months = ~11.5 years

**DELIVERABLES:**

- Revised Draft Report – December 2025
- Agency, Stakeholder and Public Review Closing – March 2026
- Chief's Report (interim response) - TBD
- Final Report – June 2027
- Chief's Report (final response) – January 2028



# COURSE OF ACTION #4B – COMPREHENSIVE (PROGRAMMATIC) PLAN WITH LIMITED SMALL-SCALE AND LARGE-SCALE ACTIONABLE ITEMS



## Fiscal Years



**OVERALL STUDY FUNDING:** \$19.4M + ~\$19.5M = ~\$38.9M

**OVERALL STUDY SCHEDULE:** 95 months + ~48 months = ~12 years

### DELIVERABLES:

- Revised Draft Report – December 2025
- Agency, Stakeholder and Public Review Closing – March 2026
- Chief's Report (interim response) - TBD
- Final Report – December 2027
- Chief's Report (final response) – June 2028

**DESCRIPTION:** Further extends schedule and funding beyond COA #4a to carry out technical studies and advance designs and environmental compliance on limited number of small-scale and large-scale actionable items.

**OUTCOME:** Study would result in a Comprehensive (Programmatic) Plan with limited recommendations for construction authorization (small-scale and large-scale actionable items). Full environmental Tier 1 compliance would be complete. A revised draft and final integrated programmatic feasibility report and Tier 1 EIS would be published. The draft report would undergo public review.

### PROS:

- Non-federal sponsors may support advancement
- Public and resource agencies may support advancement
- Hydraulic modeling data would be sufficient for federal decision-making from an Impact Analysis perspective (could affect application of Tier 2 NEPA analysis)
- Public release of revised draft report would allow for limited additional engagement with stakeholders; public and Resource Agencies, etc.
- Chief's Report (interim response to study authority) with recommendation for some actionable items.

### CONS:

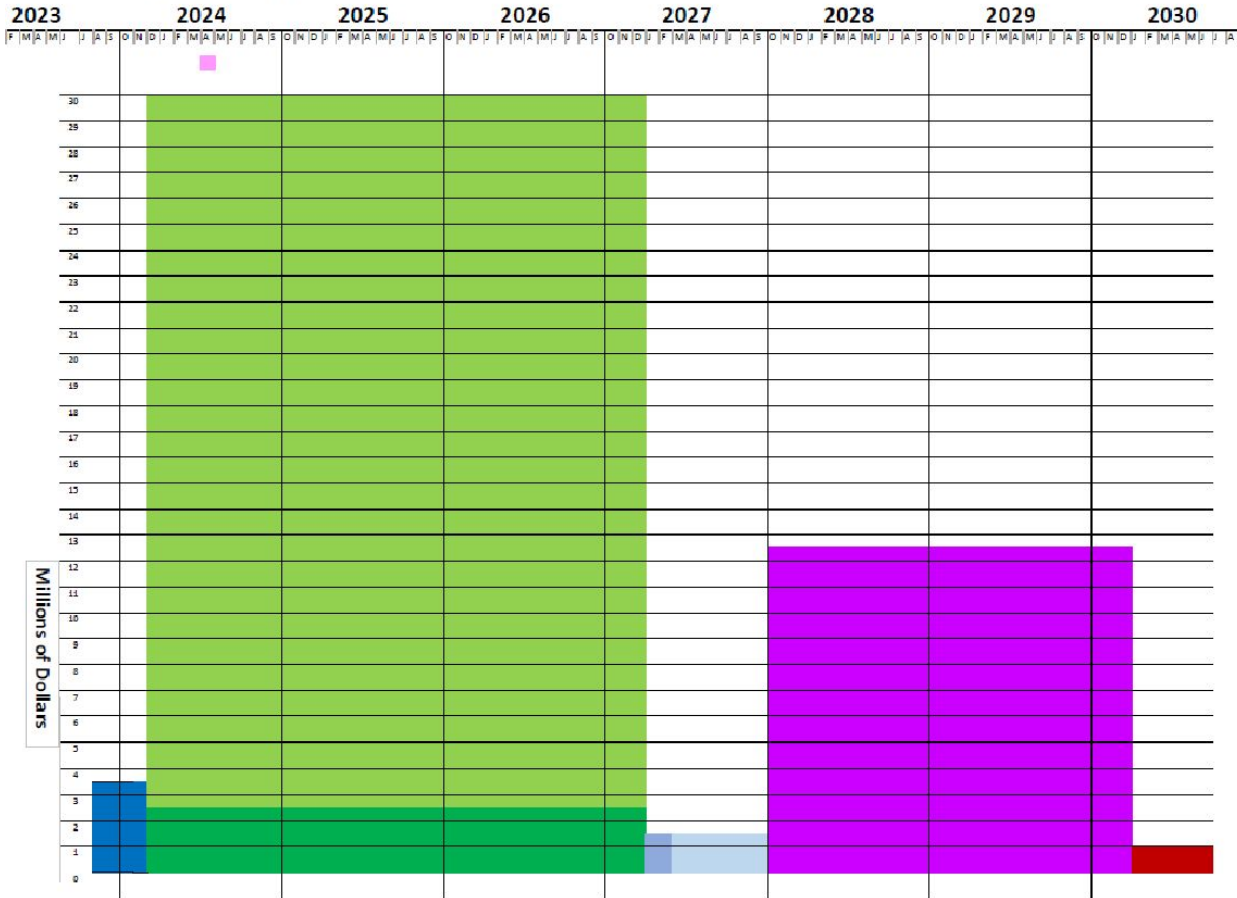
- Chief's Report would recommend construction authorization only for some small-scale and large-scale actionable items (but more than COA #4a)
- Lack of engineering investigations may present unacceptable cost risk



# COURSE OF ACTION #5 – COMPREHENSIVE (PROGRAMMATIC) PLAN WITH ALL ACTIONABLE ITEMS



## Fiscal Years



**OVERALL STUDY FUNDING:** \$19.4M + ~\$40-50M = ~\$60-70M

**OVERALL STUDY SCHEDULE:** 95 + ~84 months = ~15 years

### DELIVERABLES:

- Revised Draft Report – December 2026
- Agency, Stakeholder and Public Review Closing – March 2027
- Chief's Report (interim response) - TBD
- Final Report – December 2030
- Chief's Report (final response) – June 2031

**DESCRIPTION:** Substantial increase in study schedule and funding to make designs, costs and environmental analyses on all plan components fully environmentally compliant (i.e., traditional feasibility study with least risk).

**OUTCOME:** Study would result in a Recommended Plan with recommendations for construction authorization (all small-scale and large-scale actionable items). Full environmental Tier 1 compliance would be complete. A revised draft and final integrated programmatic feasibility report and Tier 1 EIS would be published. The draft report would undergo public review.

### PROS:

- All plan components environmentally complete and recommended for construction authorization in Chief's Report
- Non-federal sponsors may support advancement
- Public and resource agencies may support advancement
- Hydraulic modeling data would be sufficient for federal decision-making from an Impact Analysis perspective (could affect application of Tier 2 NEPA analysis)
- Public release of revised draft report would allow for limited additional engagement with stakeholders; public and Resource Agencies, etc.
- Chief's Report (interim response to study authority) with recommendation for some actionable items.

### CONS:

- May require separate additional funding/budgeting mechanism due to insufficient available DRSA funding
- Delays implementation of possibly earlier actionable plan components to evaluate more complex plan components (nothing is advanced until everything is ready to be advanced)



U.S. ARMY

# SUMMARY



<b>Course of Action #1</b> - Complete Study under Currently Approved Budget and Schedule	<b>Course of Action #2</b> Restore Study Schedule to that Planned at Second Request for Additional Resources	<b>Course of Action #3</b> Additional Scope and Schedule with Technical Studies	<b>Course of Action #4a</b> Refine & Expand Study Scope with Revised Draft Report	<b>Course of Action #4b –</b> Refine & Expand Study Scope with Revised Draft Report <input type="checkbox"/> <b>Recommended</b> <input type="checkbox"/>	<b>Course of Action #5 –</b> Substantial Increase in Scope & Schedule
+\$0 / 0 months	+\$0 / +14 months	+\$7M / +2.5 years	+\$10M / +3.5 years	+\$19.5M / +4 years	+\$40M+ / +7+ years
<ul style="list-style-type: none"> <li>•No recommended actions anticipated.</li> <li>•Do not include any new text.</li> </ul> <p><b>TOTAL (Costs / Duration)</b></p>	<ul style="list-style-type: none"> <li>•Schedule increase: 14 months</li> <li>•Budget increase: \$0</li> <li>•Actionable items recommended?: None</li> <li>•Reports: None</li> <li>•Response to study authority: Partial/Interim. Chief’s Report would describe a Conceptual Plan (Framework) that would not include any actionable items</li> </ul>	<ul style="list-style-type: none"> <li>•Schedule increase: 2.5 years</li> <li>•Budget increase: \$7M</li> <li>•Actionable items recommended?: None</li> <li>•Reports: Technical reports, and final programmatic integrated feasibility report and Tier 1 EIS (no revised draft integrated feasibility report and Tier 1 EIS)</li> <li>•Response to study authority: Partial/Interim. Chief’s Report would describe a Comprehensive (Programmatic) Plan that would not include any actionable items</li> </ul>	<ul style="list-style-type: none"> <li>•Actionable items recommended?: Limited small-scale actionable items</li> <li>•Reports: Revised draft integrated feasibility report and Tier 1 EIS, final programmatic integrated feasibility report and Tier 1 EIS</li> <li>•Response to study authority: Partial/Interim. Chief’s Report would describe a Comprehensive (Programmatic) Plan, that would include limited small-scale actionable items for construction authorization. These may include:                             <ol style="list-style-type: none"> <li>1. High Frequency Flood Risk Reduction Features</li> <li>2. NNBFs (NBSs)</li> <li>3. Nonstructural measures</li> </ol> </li> </ul>	<ul style="list-style-type: none"> <li>•Actionable items recommended?: Limited small-scale and large-scale actionable items</li> <li>•Reports: Revised draft integrated feasibility report and Tier 1 EIS, final programmatic integrated feasibility report and Tier 1 EIS</li> <li>•Response to study authority: Partial/Interim. Chief’s Report would describe a Comprehensive (Programmatic) Plan, that would include limited small-scale and large-scale actionable items for construction authorization. These may include:                             <ol style="list-style-type: none"> <li>1. Multiple large-scale plan components</li> <li>2. High Frequency Flood Risk Reduction Features, NNBFs and nonstructural</li> <li>3. New Additional TSP Components</li> </ol> </li> </ul>	<ul style="list-style-type: none"> <li>•Actionable items recommended?: All actionable items</li> <li>•Reports: Revised draft integrated feasibility report and Tier 1 EIS, final integrated feasibility report and Tier 1 EIS</li> <li>•Response to study authority: Final. Chief’s Report would describe Recommended Plan, that would include all plan features as actionable items for construction authorization. These may include:                             <ol style="list-style-type: none"> <li>1. All Shoreline-based measures</li> <li>2. All Storm Surge Barriers with tie-ins</li> <li>3. All High Frequency Risk Reduction Features including NNBFs and nonstructural</li> <li>4. All New Additional TSP Components</li> </ol> </li> </ul>
\$19.4M / 7.9 years	\$19.4M / 9 years	\$26.4M / 10.4 years	\$29.4M / 11.4 years	\$38.9M / 11.9 years	\$59.4M+ / 14.9+ years



# THE PROCESS



**Draft Feasibility Report / Tier 1 EIS (September 2022)**



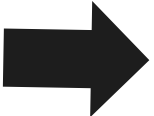
**Revised Draft Feasibility Report / Tier 1 EIS**  
-Same Comprehensive Plan (Alternative 3B)  
-More Analysis(Modeling)  
-TSP Refinements  
-Enhanced public and agency engagement



**Final Feasibility Report / Tier 1 EIS**  
-Tier 1 NEPA Complete  
-Comprehensive Plan after HATS study complete



**Engineering and Design Report, with multiple Tier 2 NEPA documents**



**Chief's Report**  
-Interim response to study authority  
-includes construction recommendations for small-scale actionable items (TBD)  
-Assume all separable "stand alone" features\*

*NOTE: "Stand alone" features must be shown to have independent utility (not dependent on other features of the comprehensive plan) and be economically justified (See also, slide 26).*

**Chief's Report**  
-Recommending comprehensive plan  
-Enabling continuation of the feasibility study into Tier 2 Analyses  
-Authorization  
-New phase of project (budgeted)



# RISKS FOR EACH COURSE OF ACTION



RISK FACTORS	Course of Action #1 - Complete Study under Currently Approved Budget and Schedule.	Course of Action #2 – Restore Study Scope to that Planned at Second Request for Additional Resources	Course of Action #3 – Additional Scope and Schedule with Technical Studies (No 2nd Draft)	Course of Action #4a – Refine & Expand Study Scope	Course of Action #4b – Refine & Expand Study Scope <input type="checkbox"/> Recommended <input type="checkbox"/>	Course of Action #5 – Substantial Increase in Scope & Schedule
Stakeholder Support and Public Outreach	Insufficient	Insufficient	Partly Sufficient (No 2nd Draft)	Partly Responsive to stakeholder and public feedback	Responsive to stakeholder and public feedback	Responsive to stakeholder and public feedback
Environmental Compliance	Insufficient <sup>A</sup>	Insufficient <sup>A</sup>	Sufficient <sup>B</sup>	Sufficient <sup>C</sup>	Sufficient <sup>C</sup>	Sufficient <sup>D</sup>
Cost Risk: Class 3 Cost Estimate	Non-compliant	Non-compliant	Non-compliant	Compliance for Limited Actionable Items <sup>E</sup>	Compliance for All Actionable Items <sup>E</sup>	Full Compliance
Actionable Items	No Actionable Items	No Actionable Items	No Actionable Items	Limited Small-Scale Items	Limited Small-Scale and Large-Scale Items	All Items
Implementation	Doubtful	Doubtful	Possible	Phased	Phased	Delayed

<sup>A</sup> NEPA incomplete

<sup>B</sup> NEPA (Tier 1) complete for Recommended Plan only. Requires additional NEPA (Tier 2) to be completed in future phases of Study for the Recommended Plan.

<sup>C</sup> NEPA (Tier 1) complete for Recommended Plan and either small-scale (COA 4a) or large-scale (COA 4b) actionable components. Requires additional NEPA (Tier 2).

<sup>D</sup> NEPA complete during Feasibility Phase (not utilizing a Tiered NEPA approach).

<sup>E</sup> Class 3 Cost Estimate requires coordination with Vertical Team. No site-specific geotechnical, hydrographic/topographic, or utility investigations are included in budget.



# SCHEDULE (AS CURRENTLY APPROVED)



Action/Milestone	Date
Execute Feasibility Cost-Sharing Agreement (study start)	✓ 15 July 2016
ASA(CW) Approval of First Request for Additional Resources	✓ 31 October 2018
Release Interim Report	✓ 19 February 2019
Public Meetings for Interim Report	✓ March - October 2019
Delay due to lack of Federal funding	✓ February 2020 – September 2021
Senior Official Approval (Acting on behalf of ASA(CW)) of Second Request for Additional Resources	✓ 7 April 2021
Federal funding resumption	✓ October 2021
FCSA Amendment Execution	✓ 28 June 2022
Tentatively Selected Plan Milestone	✓ 26 July 2022
Release Draft Integrated Feasibility Report and Tier 1 EIS	✓ Late September 2022 (175+ day review period)
Public Meetings for Draft Report	✓ October 2022 – March 2023
Public Comment Closing Date	✓ March 31, 2023
Agency Decision Milestone	TBD in December 2023/January 2024
Submit Final Integrated Feasibility Report and Tier 1 EIS	January 2024*
Chief of Engineer’s Report Approval (study end)	NLT 15 June 2024*

\* Currently scheduled/approved dates – likely to be rescheduled if/as anticipated third request for additional resources is approved.



**QUESTIONS?**



# SLIDE 22 **NOTE** CONT'D: NEPA CONSIDERATION



What are connected actions and how do they relate to segmentation?

Connected actions are closely related and therefore should be discussed in the same impact statement. Actions are connected if they:

- (i) Automatically trigger other actions which may require environmental impact statements.
- (ii) Cannot or will not proceed unless other actions are taken previously or simultaneously.
- (iii) Are interdependent parts of a larger action and depend on the larger action for their justification.

State why the proposed project(s) can stand on its own without the implementation of other CSRM improvements (e.g., the project(s) provides CSRM to the affected shorelines by adding these structures which satisfies the project's need, and this would be true even if no other CSRM measures were built nearby).

Explain why the proposed project is not an irretrievable commitment of federal funds - this may be as simple as stating that, because the project stands alone, it cannot and does not irretrievably commit federal funds.

State why the proposed project would not restrict the consideration of alternatives for other CSRM measures, i.e., if the project has independent utility no future alternatives would be dictated or restricted.