

# UPPER OHIO NAVIGATION PROJECT

## INLAND WATERWAYS USERS BOARD MEETING NO. 102

Steve Fritz, PE, PMP  
U.S. Army Corps of Engineers  
Pittsburgh District  
11 April 2024



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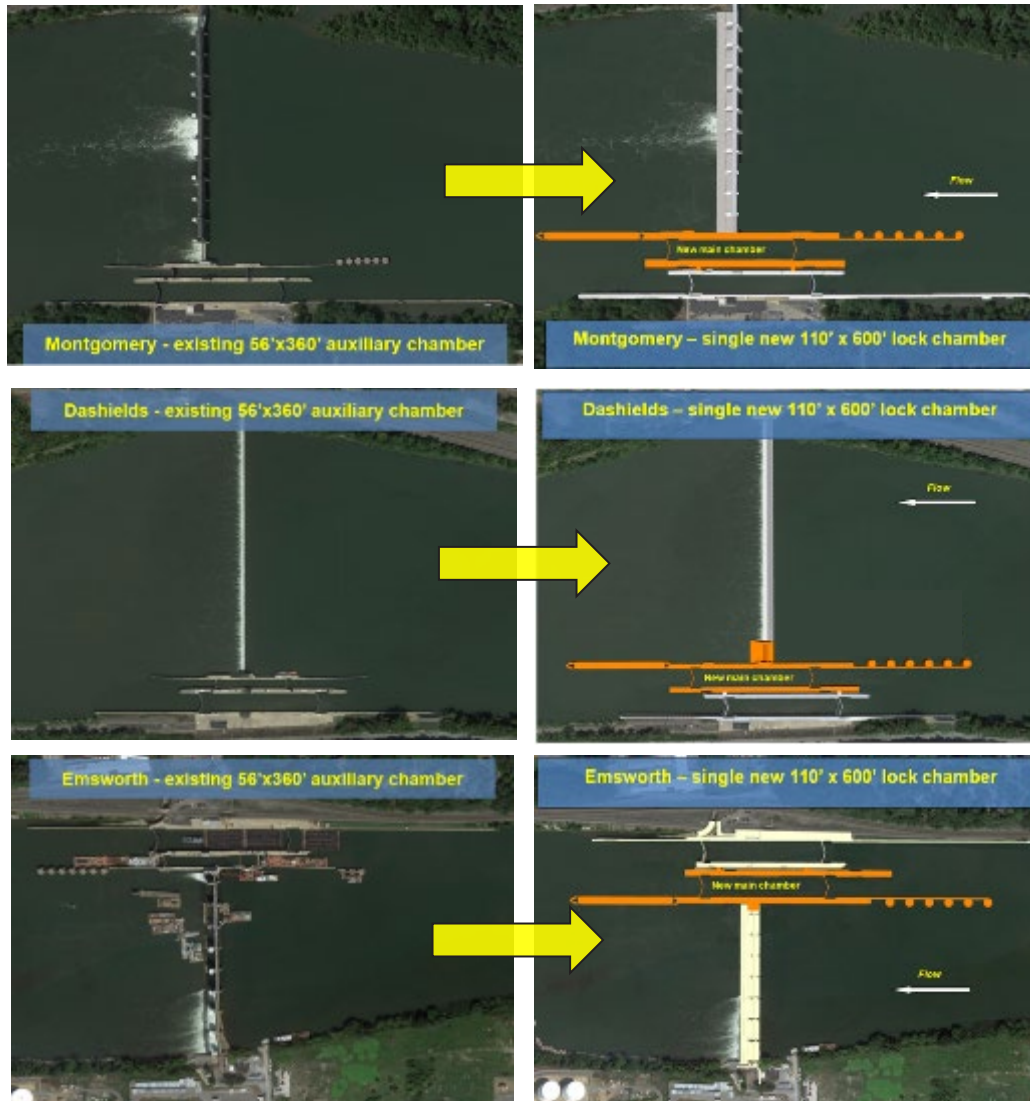
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of Engineers



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# PROJECT OVERVIEW OF SCOPE




Pre-Project

Post-Project

## Major Project Features

- Similar work at Montgomery, Dashiels, & Emsworth
  - Remove the existing 56' x 360' Auxiliary Chamber
  - Construct a new 110' x 600' Main Chamber
  - Modifications to dams

# UPPER OHIO PROJECT - BLUF STATUS - SUMMARY DASHBOARD

FINANCIAL STATUS SUMMARY		
<i>Montgomery only</i>		
<div></div> <div><b>PROJECT SAFETY</b> <i>No lost time accidents</i></div>	<div></div> <div><b>PROJECT STATUS SUMMARY</b> <b>Schedule:</b><ul style="list-style-type: none"><li>On schedule</li></ul> <b>Next Major Contract Award(s):</b><ul style="list-style-type: none"><li>Montgomery New River Chamber - Fall 2024</li></ul></div>	<div></div> <div><b>As of 1 January 2024</b> Planned (BCWS) \$73.6M Earned (BCWP) \$98.7M Actual (ACWP) \$77.2M  <b>BCWP:</b> Reports the value (based on % complete) of the work performed to date <b>Target:</b> Actual as compared to Planned: (&lt;1% = Green) (&gt;1% and &lt;3% = Yellow) and (&gt;3% = Red)  <b>Benefits/Costs FY23</b> BCR @ 2.75% - 1.0 to 1 BCR @ 7% - 0.5 to 1 RBR CR – 1.0 - 1</div>

<b>EXECUTIVE SUMMARY:</b> <ul style="list-style-type: none"><li>Total project cost updated December 2023</li><li>Montgomery lock design and a significant portion of the construction was funded by the Bipartisan Infrastructure Law (BIL)</li><li>Emsworth lock design, real estate, and a small portion of construction was funded by the BIL</li><li>Overall project schedule to be informed by the Capital Investment Strategy (CIS)</li></ul>
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# UPPER OHIO – OVERALL PROJECT FUNDING SUMMARY



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	GI-PED	BIL	CG	IWTF	Total
Upper Ohio Total Project Cost (Fully Funded, Certified 2023)					\$ 5,687,584,000
FY17 Appropriation	\$ 5,525,000				\$ 5,525,000
FY18 Appropriation	\$ 2,353,000				\$ 2,353,000
FY19 Appropriation	\$ 2,500,000				\$ 2,500,000
FY20 Appropriation	\$ 7,700,000				\$ 7,700,000
FY21 Appropriation			\$ 14,300,000	\$ 7,700,000	\$ 22,000,000
FY22 Appropriation		\$ 934,708,000	\$ 1,992,700	\$ 10,807,300	\$ 947,508,000
FY23 Appropriation					
FY24 Appropriation					
Total Appropriation to Date:	\$ 18,078,000	\$ 934,708,000	\$ 16,292,700	\$ 18,507,300	\$ 987,586,000
Remaining Balance:					\$ 4,699,998,000
Remaining Balance Change From Last Meeting:					\$ (404,477,000)
Total Allocations to Date:	\$ 18,078,000.00	\$ 68,484,250.00	\$ 16,292,700.00	\$ 18,507,300.00	\$ 121,362,250

## Commentary:

- Total project cost certification December 2023
- Montgomery solicitation posted 22 December 2023
- Montgomery Construction 2024 – 2033 (CIS dependent)
- Emsworth Design: 2023 - 2026
- Emsworth Construction: 2031 – 2038(CIS dependent)
- Dashields Design: 2026 – 2027 (CIS dependent)
- Dashields Construction: 2037-2044 (CIS dependent)



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# UPPER OHIO – MONTGOMERY LOCK FUNDING AND KEY ACTIVITIES

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	GI-PED	BIL	CG	IWTF	Total
Montgomery Lock Total Cost (Fully Funded, Certified 2023)					\$ 1,688,974,000
FY17 Appropriation	\$ 5,525,000				\$ 5,525,000
FY18 Appropriation	\$ 2,353,000				\$ 2,353,000
FY19 Appropriation	\$ 2,500,000				\$ 2,500,000
FY20 Appropriation	\$ 7,700,000				\$ 7,700,000
FY21 Appropriation			\$ 14,300,000	\$ 7,700,000	\$ 22,000,000
FY22 Appropriation		\$ 857,708,000			\$ 857,708,000
FY23 Appropriation					
FY24 Appropriation					
Total Appropriation to Date:	\$ 18,078,000	\$ 857,708,000	\$ 14,300,000	\$ 7,700,000	\$ 897,786,000
Remaining Balance:					\$ 791,188,000
Remaining Balance Change From Last Meeting:					\$ (9,598,000)
Total Allocations to Date:	\$ 18,078,000	\$ 58,443,250	\$ 14,300,000	\$ 7,700,000	\$ 98,521,250

## Commentary:

- Montgomery Concrete Batch Plant Site Development contract – 72% complete, on schedule
- Montgomery Esplanade Site Development contract – in construction – 45% complete, slightly behind, but recovering schedule
- Montgomery New River Chamber contract – Solicitation posted December 2023; scheduled award in Fall 2024



# MONTGOMERY LOCK DETAILS – ISSUES/CHALLENGES

## Issues and Challenges

- Facility failure prior to completion
  - ✓ Completed maintenance repairs prior to construction
  - ✓ Conducting routine inspections during construction
  - ✓ Continue maintenance during construction as needed
- Construction cost/Inflation
  - ✓ Evaluate transfer of risk contractually
  - ✓ Utilizing economic price adjustment
- Market condition
  - ✓ Engaged with industry partners



Concrete Batch Plant site development, Northern retaining wall construction



Esplanade site development – Sewer line installation



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# PROJECT: UPPER OHIO – EMSWORTH LOCK FUNDING AND KEY ACTIVITIES



	GI-PED	BIL	CG	IWTF	Total
Emsworth Lock Total Cost (Fully Funded, Certified 2023)					\$ 1,939,317,000
FY17 Appropriation					\$ -
FY18 Appropriation					\$ -
FY19 Appropriation					\$ -
FY20 Appropriation					\$ -
FY21 Appropriation					\$ -
FY22 Appropriation		\$ 77,000,000	\$ 996,350	\$ 5,403,650	\$ 83,400,000
FY23 Appropriation					
FY24 Appropriation					
Total Appropriation to Date:	\$ -	\$ 77,000,000	\$ 996,350	\$ 5,403,650	\$ 83,400,000
Remaining Balance:					\$ 1,855,917,000
Remaining Balance Change From Last Meeting:					\$ (49,225,000)
Total Allocations to Date:	\$ -	\$ 18,141,000	\$ 996,350	\$ 5,403,650	\$ 24,541,000

## Commentary:

- Design activities - in progress
- Physical modeling – testing in progress
- In river geotechnical and environmental investigations – completed
- Initiated real estate acquisition activities for future batch plant and potential laydown sites



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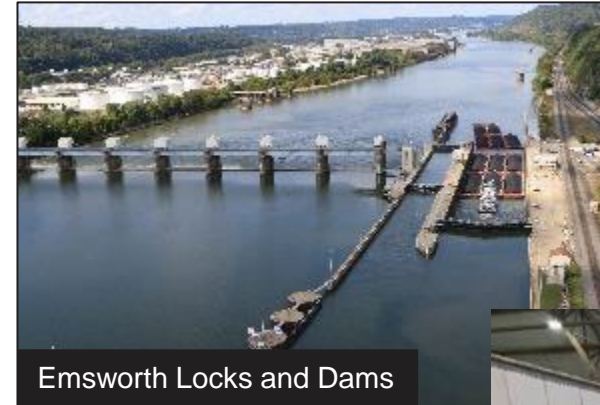
# EMSWORTH LOCK DETAILS – ISSUES/CHALLENGES

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## Issues and Challenges

- Funding for major contract
  - ✓ CIS dependent
  - ✓ Inflation/Escalation
- Design funding uncertainty
  - ✓ Design continuation tied to Montgomery award
  - ✓ Hold off on advanced contracts until after Montgomery award
- Failure of Lock Chamber before or during construction
  - ✓ Advanced maintenance being implemented
- Real Estate Acquisition in an Industrial Corridor
  - ✓ Continuing acquisition activities early
  - ✓ Environmental challenges







# PROJECT: UPPER OHIO – DASHIELDS LOCK FUNDING AND KEY ACTIVITIES



	GI-PED	BIL	CG	IWTF	Total
Dashields Lock Total Cost (Fully Funded, Certified 2023)					\$ 2,059,293,000
FY17 Appropriation					\$ -
FY18 Appropriation					\$ -
FY19 Appropriation					\$ -
FY20 Appropriation					\$ -
FY21 Appropriation					\$ -
FY22 Appropriation			\$ 996,350	\$ 5,403,650	\$ 6,400,000
FY23 Appropriation					
FY24 Appropriation					
Total Appropriation to Date:	\$ -	\$ -	\$ 996,350	\$ 5,403,650	\$ 6,400,000
Remaining Balance:					\$ 2,052,893,000
Remaining Balance Change From Last Meeting:					\$ (345,654,000)
Total Allocations to Date:	\$ -	\$ -	\$ 996,350	\$ 5,403,650	\$ 6,400,000

**Commentary:**

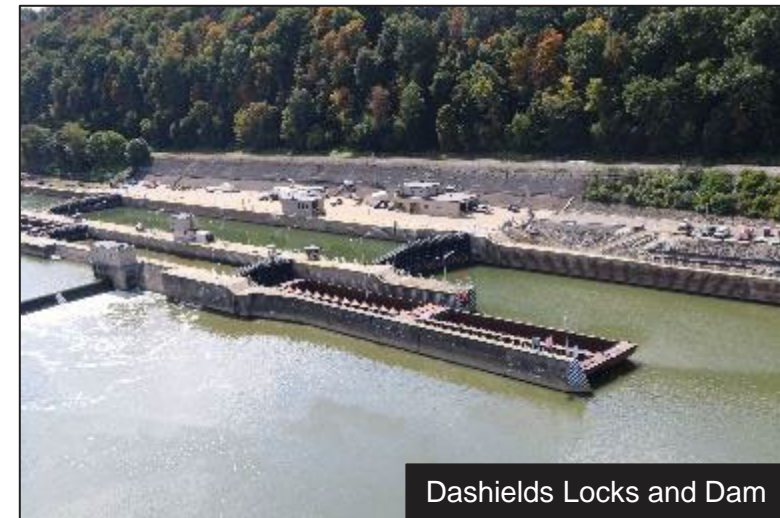
- Design – start in late 2026
- Preliminary efforts to include geotechnical, environmental, and real estate

# DASHIELDS LOCK DETAILS – ISSUES/CHALLENGES



## Issues and Challenges

- Funding for design and major contract
  - ✓ CIS dependent
  - ✓ Inflation/escalation
- Failure of Lock Chamber before or during construction
  - ✓ Advanced maintenance to be implemented
- Real estate acquisition in an industrial corridor
  - ✓ Start acquisition activities early
  - ✓ Environmental challenges





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# DASHIELDS

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# THANK YOU

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Montgomery Lock Pre-Proposal Contract Site Visit



ERDC – Emsworth  
Navigation Model –  
Navigation Stakeholder  
Event

