

LOWER MONONGAHELA RIVER LOCKS AND DAMS 2,3 & 4

Inland Waterways Users Board Meeting No.
103

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1 August 2024



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US Army Corps
of Engineers



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LOCKS AND DAMS 2, 3, AND 4 BLUF STATUS-SUMMARY DASHBOARD



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PROJECT SAFETY



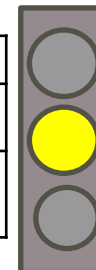
River Chamber Completion, Mon
3 Decommissioning, Fish Reefs &
CHR Elevator Refurb
-4 incidents in FY22
-4 incidents in FY23
-0 incidents in FY24

PROJECT STATUS SUMMARY



	<u>Orig.</u>	<u>Last</u>	<u>Current</u>
Operational (90% benefits)	Jul 2027	Dec 2024	Dec 2024
Completion (Physically complete)	Jan 2029	April 2027	Apr 2027

FINANCIAL STATUS SUMMARY



Project is ahead of baseline
schedule

Planned: \$1,066 M

Earned: **\$1,019 M**

Actual: **\$1,073 M**

Cost Performance Index: **0.95**

*through June 2024

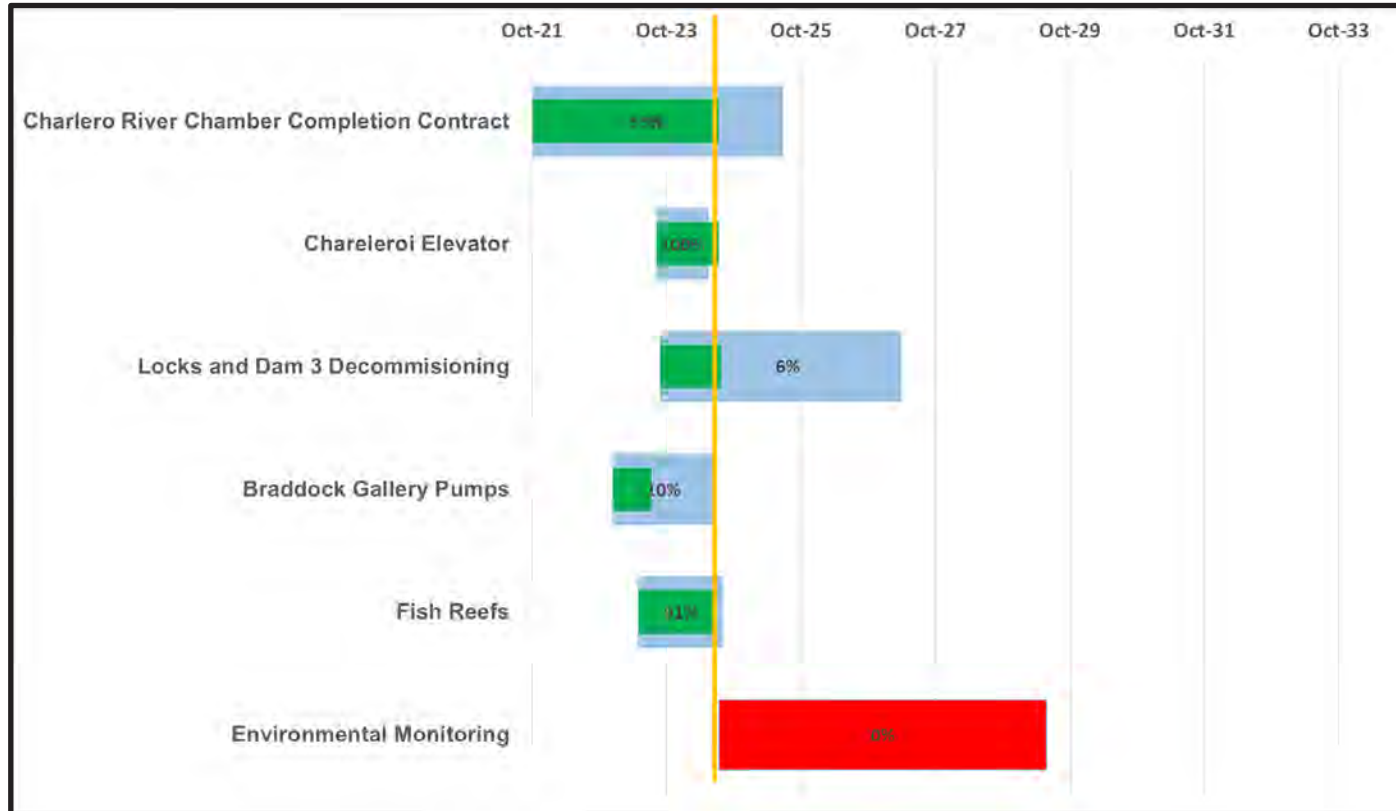
EXECUTIVE SUMMARY:

- Continued focus on safety
- New Charleroi river chamber is operational from control shelters
- Demolition of LD3 is underway
 - Dam breeched 10July24
 - Pool equalization and lock status
- FY 2024 appropriation \$41 M BIL funds
- Cost Update – In agency technical review process



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LOCKS AND DAMS 2, 3, AND 4 SCHEDULE



Schedule comments:

- Final charleroi close out contract not shown
- Environmental monitoring begin after pool equalization

Legend:

- Green – Completed work
- Blue – Funded, in progress
- Red – Not yet started



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LOCKS AND DAMS 2, 3, AND 4

FUNDING SUMMARY

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Allocations:	ARRA (\$M)	GI(\$M)	CG(\$M)	IWTF(\$M)	BIL(\$M)	Total(\$M)
Prior to FY 22:	\$68.3	\$12.5	\$515.5	\$528.1	\$0	\$1,124.4
FY 22:						\$0
FY 23:						\$0
FY 24:					\$41	\$41
Total to Date:	\$68.3	\$12.5	\$515.5	\$528.1	\$41	\$1,165.4
Remaining TPC Balance:						\$67.6

Total Project Cost (TPC) ^{*1}	\$1,233M	May 2018
Authorized Cost:	556.4M	Oct 1991
902 Limit:	\$1,764.4	Mar 2019

Fiscal Year Funding Scenario Breakout: Various scenarios have been developed. All highly dependent on funding streams.

	FY 2024	FY 2025	FY 2026	FY 2027	FY 2028	FY 2029	FY 2030	FY 2031	FY 2032	FY 2033
Efficient	\$41M ^{*2}		TBD	TBD						
Inefficient										

*1 - Total Project Cost is being reevaluated now

*2 - \$41M received in FY24 is from the bipartisan infrastructure law



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LOCKS AND DAMS 2, 3, AND 4 ISSUES/CHALLENGES



- **Challenge:** Completing the 90% benefits project with funding provided
 - **Mitigation Strategies:** Efficiently use the funds provided to achieve the 90% benefits project
- **Challenge:** Post pool change residual risks not funded
 - **Mitigation Strategies:**
 - Siltation – Monitor pool 3 channel depths. Dredge if necessary.
 - Braddock dam scour – Monitor scour progression and repair if necessary.
 - Wetland mitigation – Monitor known wetland areas and emerging wetland areas to determine net gain or loss.



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31 JULY 24 MONONGAHELA L/D 3 (ELIZABETH) 7' DRAFT RESTRICTION AND WAY FORWARD



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Situation: Upon pool leveling after breaching the dam the District determined the depth over the upstream sills was insufficient to allow safe passage of vessels drafting 9' or more. The District coordinated with the USCG and stakeholders and issued a 7' draft Navigation Restriction on 16 July. The lock chamber remains in operation and capable of passing traffic 24/7 at a 7' restriction.

Resolution: The District is resequencing blasting of certain sections of the Dam to prioritize the construction of a 100' wide channel in the center of the river to minimize the amount of time the Navigation Restriction is necessary. The priority actions that must occur are the drilling, blasting, and rubble removal of sections 4,6, and 8, dredging, marking, and certification of the channel.

Completed Steps: The District modified the contract and worked with the contractor to safely deliver by 28 August 2024.

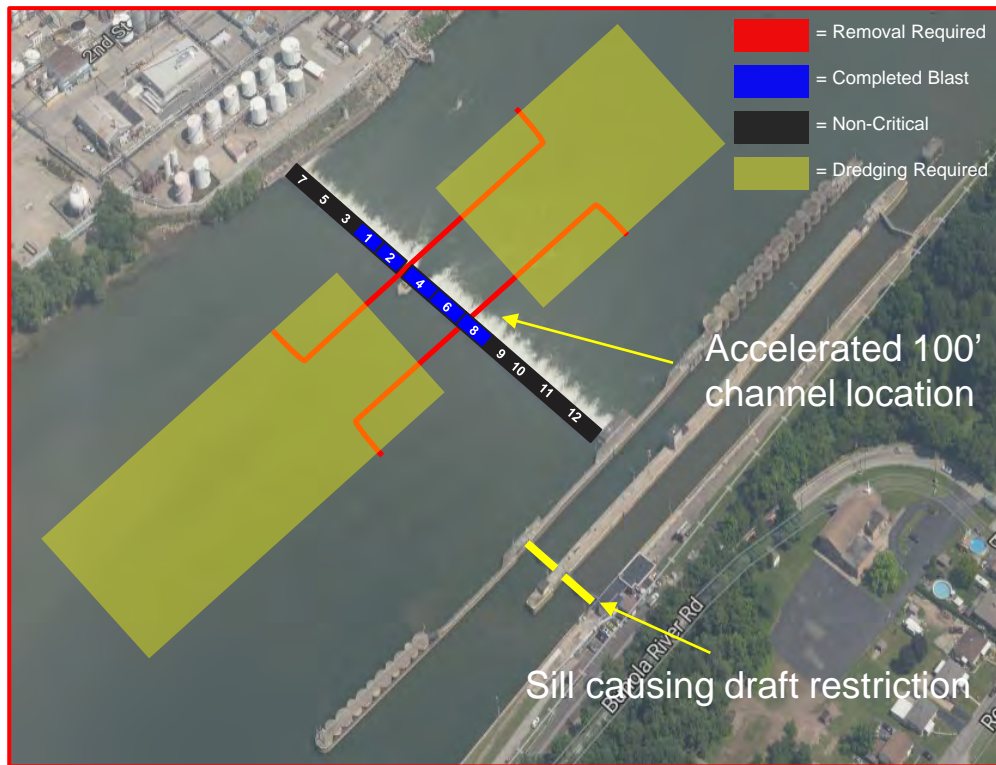
- Section 4: Blast and begin rubble removal
- Section 6 and 8: Blasting complete
- Section 6 and 8: Start rubble removal
- Continue to pass restricted navigational traffic
- Industry and congressional briefing 24 July
- USCG meeting 25 July

Next Steps 29 July-2 August:

- Section 4: Rubble removal
- Section 6 and 8: Blast (Wednesday, 31 July)

Priority	Objectives	
1 Reduce Dam	A	Blast Section 4
	B	Drill and Blast Section 6 and 8
2 Clear Channel	C	Clear rubble Section 4
	D	Clear rubble Section 6 and 8
	E	Clear sheet and timber piles Sections 4,6, and 8
3 Establish Channel	F	Dredge Channel
	G	Channel Marking
	H	USCG Certification and Survey

ON SCHEDULE



Priority Action Status



Drilling 4,6, 8



Blasting 4, 6, 8



Rubble Removal 4,6, 8



Dredging Channel



Channel Marking
USCG Certification

Legend

↓ Critical Path

★ Milestone

Priority 1

Priority 2

Priority 3

26Jul

2Aug

9Aug

16Aug

23Aug

28Aug

A 7/24

B 7/31

C 7/30

C 8/5

D Clear Rubble Section 6-8 8/19

E 8/26

F Dredge 8/13

G 8/17

H 8/28

Info date: 29 JUL 2024



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LD 3 REMOVAL – 31 JULY 2024 WORK AREA

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LOCKS AND DAMS 2, 3, AND 4 – LOOK AHEAD

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Progress: Charleroi new river chamber

- Complete operational testing for the Charleroi control tower
- Complete pre-final inspections and develop punch lists

Progress: Locks and Dam 3 removal

- Complete dam removal – December 2024
- Lock usage ends – river passage opens – December 2024
- Complete removal of river and middle walls – Spring 2027

Progress: Monitoring post pool change conditions to assess residual project risk

- Siltation
- Braddock dam scour
- Wetland monitoring

Progress: Remaining items (summary)

- Permanent Charleroi land chamber closure contract
- Relocations
- Land deposition
- Victory hollow bridge



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LOCKS AND DAMS 2, 3, AND 4 – PROGRESS CHARLEROI (JOHN P. MURTHA) LOCKS AND DAM FIRST COMMERCIAL LOCKAGES – 10 MAY 2024





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LOCKS AND DAMS 2, 3, AND 4 – PROGRESS

CHARLEROI LOCKS AND DAM RENAMED JOHN P. MURTHA LOCKS AND DAM

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Renaming – 28 August 2024



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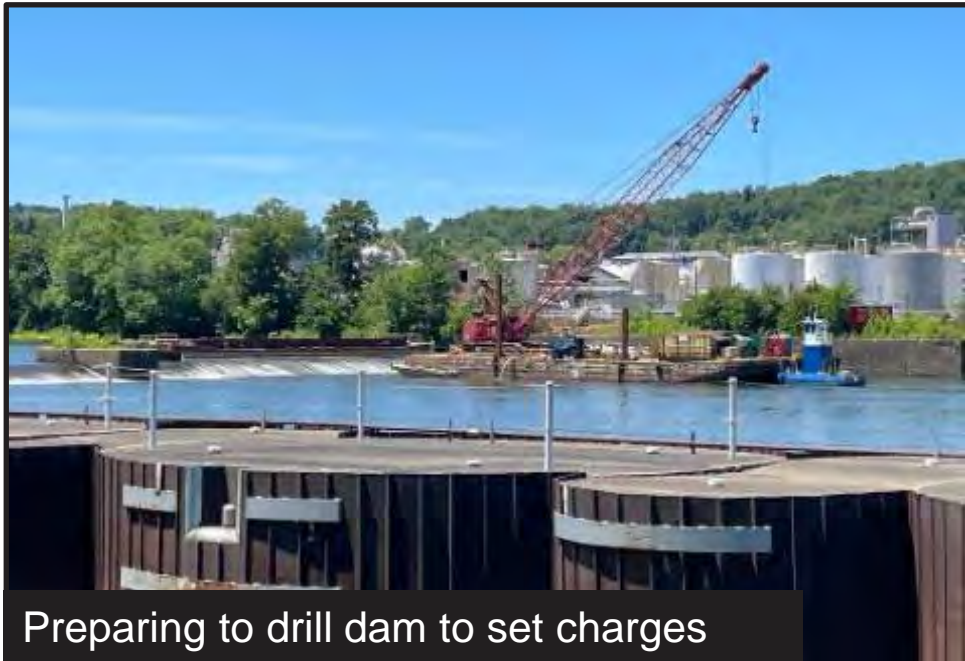
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LOCKS AND DAM 3 REMOVAL

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Dam 3 removal Aids to Navigation



Preparing to drill dam to set charges



Dam 3 Controlled Demolition



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QUESTIONS?