

Lower Mon 2-3-4 Update Inland Waterways Users Board Meeting No. 84

MR. MIKE BRADEN, PE, PMP, CCE
CHIEF, Olmsted Division
Louisville District
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**US Army Corps
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Lower Mon Bottom Line Up Front

✓ Current Schedule: **On Schedule**

- ▶ **November** 2022 (Early Project Operational, benefits)
- ▶ **October** 2023 (Early Project Complete)

✓ Current Cost: **On Budget**

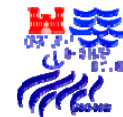
- ▶ TEP – Total Estimated Price, assuming efficient funding, remains at \$1.2 B.

✓ Keys:

1. **\$82M was received in FY 17.**
2. **River Chamber Completion Options 1 and 2 will be awarded in FY 2017.**
3. **\$0 in FY18 President's Budget Request has potential for impacts to cost and schedule, and will require an increase in the FY18 capability from \$105M to \$135M.**
4. Continue to investigate alternatives to bring the project in ahead of schedule.
 - Reduction in construction restrictions
 - Design changes
 - Removal of L/D 3 is the final critical path item to achieve project benefits
 - L/D 3 removal contract performance period– reduction possible, will be evaluated when P&S are developed.

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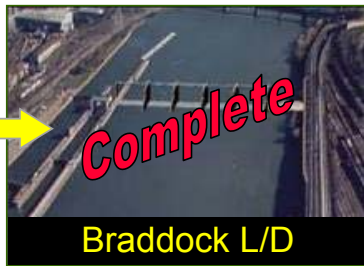
NOTE: Funding & schedule information reported does not include the Charleroi Land Chamber or the Port Perry Bridge relocation.



Lower Mon - Project Overview

Pre-Project Condition

Post-Project Condition



■ Major Project Features

- New Dam at Braddock
- New Locks at Charleroi
- Dredging
- Removal of Locks and Dam 3
- Relocations

■ Financial

- 902 Limit: \$1.76 Billion
- Current Estimate at Completion \$1.2 Billion, including contingencies ^{*1}

^{*1} does not include Land Chamber nor Port Perry Bridge

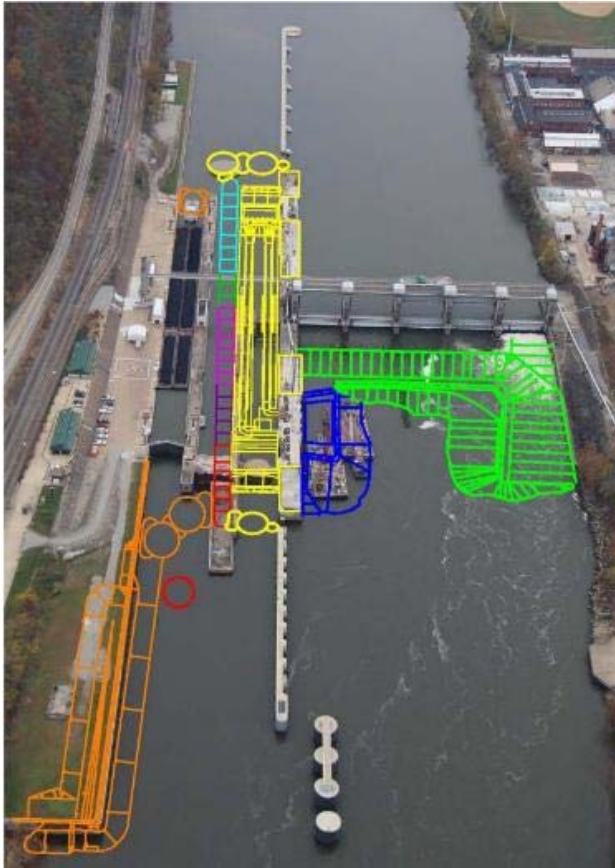
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Lower Mon - Project Schedule

Major Feature Construction	Last Reported Completion (May 2017)	Revised ^{*1}
Charleroi M22-M27	FY 2019	
Charleroi Dam Stilling Basin	FY 2021	
Charleroi River Chamber Completion (RCC)	FY 2023	
Dredging Pool 3	FY 2022	
Relocations	Variable	
Lock and Dam 3 Removal	FY 2023	

^{*1} – No departure from last reported dates. PDT will begin looking at revised dates related to potential impacts from no FY18 funding. For example, impacts of not awarding RCC Option 3 before expiration on 30 Sep 2018.

Lower Mon – Charleroi Ongoing / Pending Construction Plan



Description	Last Reported Completion	Current Completion (FY17 Work Plan)	Current Completion (No FY17 Work Plan)	Previously Planned Award	Current Planned Award	Option Expires	% Complete
M22-M27	2019	2019	2019	Completed		NA	54%
RCC Base	2023	2023	2019	Completed		NA	72%
RCC Opt 1	2023	2023	2027	May 17	Aug 17	30 Sep 17	NA
RCC Opt 2	2023	2023	2027	Jun17	Aug 17	30 Sep 18	NA
RCC Opt 3	2023	2023	2027	Nov 17	Nov 17 See notes	30 Sep 18	NA
RCC Opt 4	2023	2023	2027	Dec 18	Dec 18	31 Mar 20	NA
RCC Opt 5	2023	2023	2027	Nov 20	Nov 20	31 Mar 21	NA
Stilling Basin	2021	2021	2021	Oct 18	Oct 18	NA	NA

Notes:

- RCC – River Chamber Completion
- RCC Option 1 & 2 will be awarded in Aug 2017
- Risk informed RCC completion is 2027.
- Unlikely to achieve award of RCC Option 3 in Nov 2017 as planned since project is not in the FY 2018 President's budget.

- Remaining project features not shown on this slide:
Dredging (Late FY17 planned award)-Risk
Pool Clearing (FY21 planned award)
Lock and Dam 3 Removal (FY21 planned award)
Relocations

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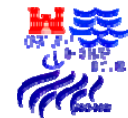
Charleroi Construction Images



1 - M22-M27 Contract: General work area

2 - RCC Base Contract: Placing lift # 8 of 9 total lifts in monolith M7.

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Lower Monongahela River Project Time and Cost Scorecard

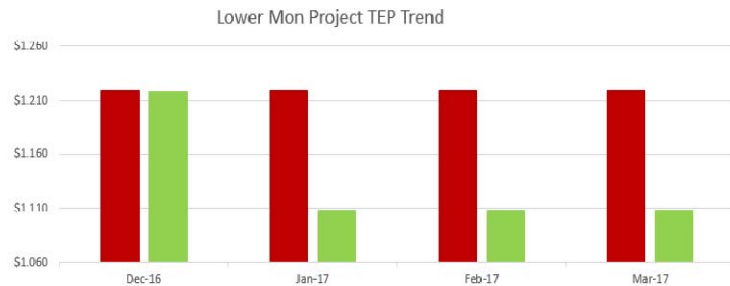


Expenditures

Planned (BCWS_{nc}) \$683.7M
 Earned (BCWP_{nc}) \$636.1M
 Actual (ACWP) \$659.4M

Target: Actual as compared to Planned: (<5% = Green); (>5% and <10% = Yellow); and (>10% = Red)
 Values shown reflect project sunk cost of \$550.6M thru FY 2014 and Current data thru March 2017
 CV = -3.7%, CPI=0.97
 EAC = \$1.108B TPC = \$1.220 B

Budget



	Dec-16	Jan-17	Feb-17	Mar-17
Baseline Cost with Risk	\$1.220	\$1.220	\$1.220	\$1.220
TEP (billions)	\$1.218	\$1.108	\$1.108	\$1.108

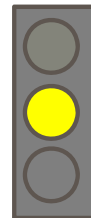
■ Baseline Cost with Risk ■ TEP (billions)

Schedule

(Baseline)/(Current Early)

Operational (Realize over 90% of project Benefits) 2027 / 2022 *
 Project Complete 2029 / 2028

- Received \$82M in FY17 to keep early operational date in calendar year 2022.
- Uncertainty of FY 18 funding is a concern



Major Activity Schedule

Activity	Baseline	Current
Award RCC Option 1 (w/ concrete)	NA	Aug 17
Award RCC Option 2 (w/ concrete)	NA	Aug 17
Stilling Basin Model	FY17	Completed
Dredging RTA	FY17	Aug 17

Dredging – RTA date has slipped to the right due to requirement to do a formal acquisition plan

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Discussion

Aerial view of Charleroi Lock Construction



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