Lower Mon Bottom Line Up Front

- ✓ Current Schedule: On Schedule
 - ▶ January 2023 (Early Project Operational, 90% benefits)
 - ► January 2024 (Early Project Complete)
- ✓ Current Cost: On Budget
 - ► TEP Total Estimated Price, assuming efficient funding, at \$1.11 B, \$1.2B including contingencies.
- ✓ Keys:
 - 1. \$82M was received thru FY2017 work plan.
 - River Chamber Completion Options 1 and 2 awarded in FY 2017.
 - 3. Pool 3 Dredging contract awarded in FY 2017.
 - 4. FY2018 & FY2019 President's budget = \$0, high potential for cost and schedule growth.
 - 5. Continue to investigate alternatives to reduce the project's critical path.
 - Revisiting construction restrictions
 - L/D 3 removal contract performance period



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







Lower Mon - Project Overview



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









Lower Mon - Project Schedule

Major Feature Construction	Last Reported Completion (Nov 2017)	Revised *1
Charleroi M22-M27	FY 2019	FY 2020
Charleroi Dam Stilling Basin	FY 2021	
Charleroi River Chamber Completion (RCC)	FY 2023	
Dredging Pool 3	FY 2022	FY 2020
Relocations	Variable	
Lock and Dam 3 Removal	FY 2023	

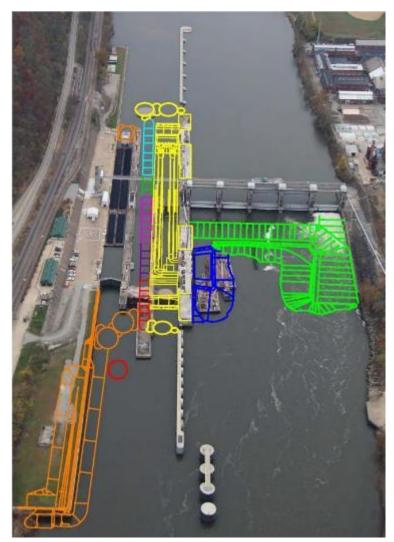
^{*1 –} Assumes receipt of FY 2018 capability







Lower Mon – Charleroi Ongoing / Pending Construction Plan



Description	Last Reported Completion	Current Completion (FY18 Work Plan)	Current Completion (No FY18 Work Plan)	Previously Planned Award	Current Planned Award	Option Expires	% Complete
M22-M27	2019	2020	2020	Completed	Aug 14 A	NA	58%
RCC Base	2023	2023	2019	Completed	Sep 15 A	NA	84%
RCC Opt 1	2023	2023	2027	Completed	Aug 17 A	30 Sep 17	6%
RCC Opt 2	2023	2023	2027	Completed	Aug 17 A	30 Sep 18	2%
RCC Opt 3	2023	2023	2027	Nov 17	FY 18 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	TBD	Sep 18	Sep 18	NA	NA

Notes:

- RCC River Chamber Completion
- RCC Option 1 & 2 awarded in Aug 2017
- Risk informed RCC completion is 2027
- RCC Option 3 at risk
- Stilling Basin at risk

- Remaining project features not shown on this slide:
 - Dredging Awarded Sept 2017
 - Pool Clearing (FY21 planned award)
 - Lock and Dam 3 Removal
 - (FY21 planned award)
 - Relocations







Charleroi Construction Images





- 1 River Chamber Completion Contract Dewatered M2-M6 Cofferbox
- 2 M22-M27 Contract Removal of the D/S Closure Cell

and Taking Care of People!







Lower Monongahela River Project Time and Cost Scorecard



Expenditures

Planned (BCWS)

Earned (BCWP)

Actual (ACWP)

Contingency

Contingency Included

Schedule

(Baseline)/(Current Early) 31 Dec 18

31 Dec 17

\$730.9M \$679.3M \$659.8M \$695.2M

\$684.3M

CPI = 0.96

\$684.3M

CPI 1.02

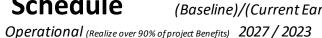
BCWP: Reports the value (based on % complete) of the work performed to date.

Target:

Actual as compared to Planned: (<1% = Green); (>1% and <3% = Yellow); and (>3% = Red)

Values shown reflect project sunk cost of \$550.6M thru FY 2014.

EAC = \$1.11B (nc) TPC = \$1.220 B



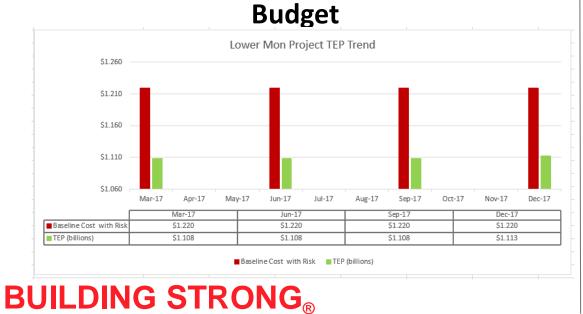
Requested \$105 M in the FY 18 Work Plan

Uncertainty of FY 18 funding is a concern

Project Complete

2029 / 2028





Major Activity Schedule

Activity	Baseline	Current
RCC Option 3 Award	Nov 2017	30 Sep 2018*
Dredging Award T.O. 2	30 Sep 2018	30 Sep 2018*
Stilling Basin Award	30 Sep 2018	30 Sep 2018*







^{*}Requires Work Plan Funding

Discussion

Aerial view of Charleroi Lock Construction



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