

LD 2022 REVIEW – 2023 WORK

Sam Mathiowetz
Lockmaster, Lock and Dam 10
ST Paul District
08 Feb 2023



US Army Corps
of Engineers®

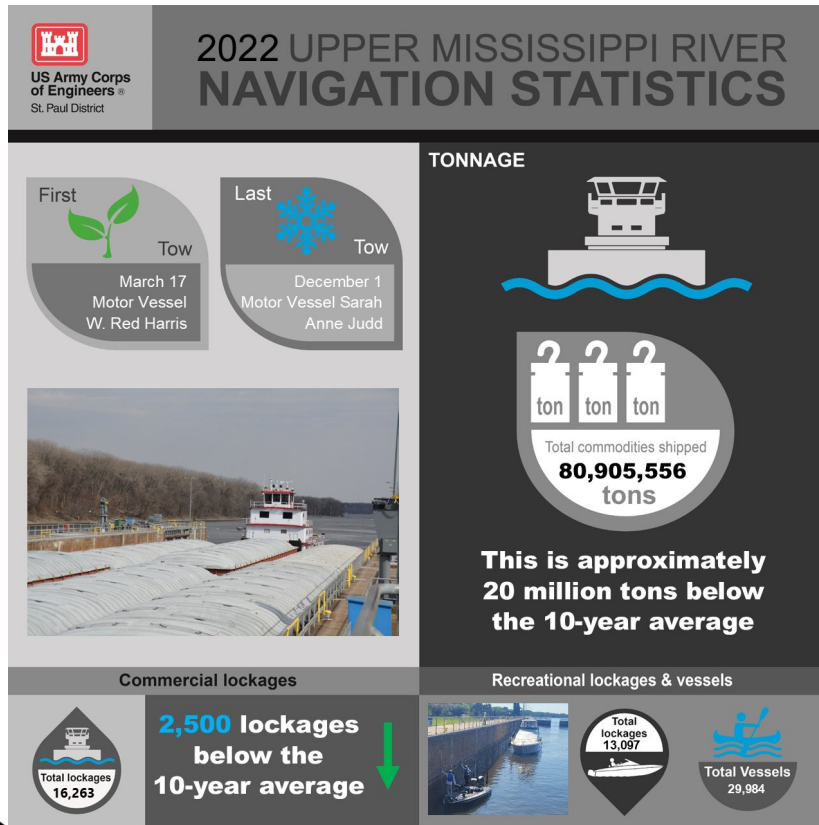


BUILDING STRONG®

Crane – Quad Cities (LD8)



2022 NAVIGATION STATISTICS



- Avg Nav Season = 253 days
- 2022 Nav Season = 259 days



Highest rec #s in MVD



BUILDING STRONG®
and Taking Care of People!



2022 REVIEW – LOCK AND DAM 5A & 8 REPLACEMENT OF MITER GATES



SUMMARY: St. Paul District accepted delivery of and installed newly fabricated miter gates at Locks and Dams 3 and 4. This was a collaborative effort utilizing MVR’s M&R crew and 500-ton crane – the Quad Cities.

OBJECTIVES:

- Remove the current miter gates system that have been in place since the 1930s.
- Install more robust miter gates and pintle balls to continue extending equipment service life at lock and dam facilities and minimize potential maintenance downtime.
- Complete the installation with minimal impact to navigation partners.

KEY TAKEAWAY:

- The new miter gates are more robust and more resilient.
- Collaborative efforts utilizes Division assets and continues to build expertise between district crews.



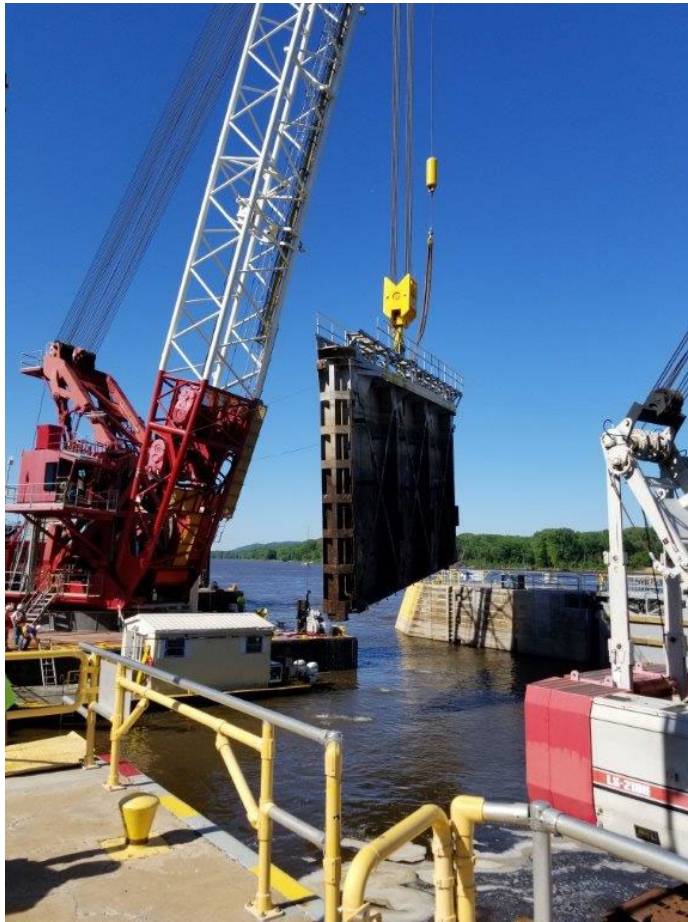
Left to Right: New miter gates awaiting placement (LD5A); Removing an old miter gate (LD5A).



BUILDING STRONG[®]
and Taking Care of People!



2022 REVIEW – LOCK AND DAM 5A & 8 REPLACEMENT OF MITER GATES



BUILDING STRONG[®]
and Taking Care of People!

Left to Right: Removing an old miter gate (LD8); Preparing to pick a new miter gate for placement (LD8).



2022 WORK - LOCK AND DAM 6 & 10 AUX LOCK CHAMBER CLOSURES



Left to Right: Driving piles for closure (LD6); Filling closure with aggregate (LD6); Finished closure viewed from upstream (LD10).



BUILDING STRONG[®]
and Taking Care of People!



2022 / 23 WORK - LOCK AND DAM 3 & 4 REPLACEMENT OF MITER GATE ANCHORAGES



Left to Right: Existing gusset plate after concrete demo (LD4); New anchorage "lollipop" components; "Lollipops" installed to gusset plate, painted, waiting for concrete (LD4).



BUILDING STRONG[®]
and Taking Care of People!



MITER GATES AND ANCHORAGES TENTATIVE SCHEDULE

<u>Non-NAV:</u>	<u>Anchorage Replacement</u>	<u>Navigation</u>	<u>Mite Gate Install</u>
		2022	LDs 5A & 8
2022-2023	LDs 3 & 4	2023	MVD assets supporting IWW, no MVP gate install.
2023-2024	Dewater LD 2	2024	LD 10
2024-2025	LDs 7 & 9	2025	LDs 6 & 7
	LGW repair - LD 9		
2025-2026	LD 5	2026	LD 9
		2027+	LDs 3, 4, & 5

*MG exchange: 4, 12-hour closures needed per lock + 2 contingencies 12-hour closure dates.
Closures typically scheduled for Tue and Thu each week.



BUILDING STRONG®
and Taking Care of People!



2023 NON-NAV MAINTENANCE – LD2 DEWATER



BUILDING STRONG[®]
and Taking Care of People!



QUESTIONS ?



Goodyear blimp over LD5A



BUILDING STRONG[®]
and Taking Care of People!