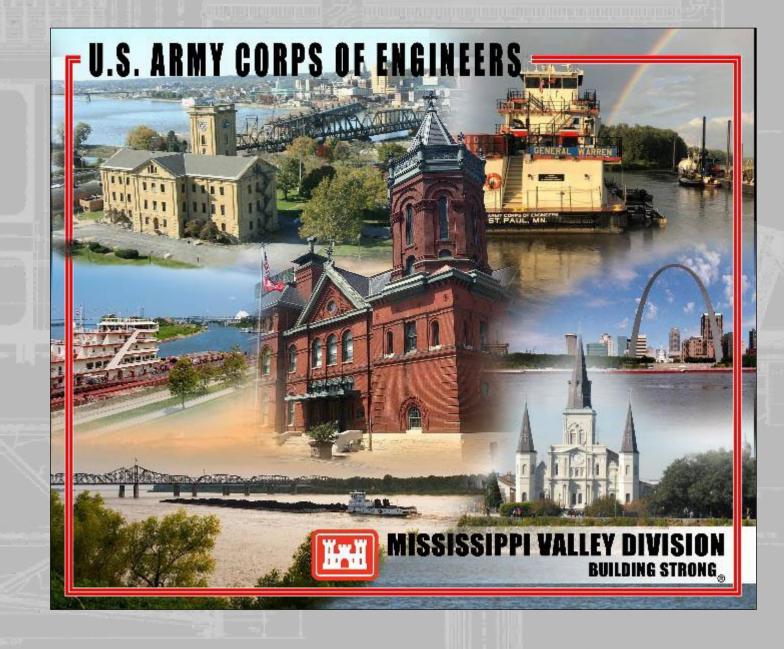
## USACE – ROCK ISLAND DISTRICT

Channel Maintenance Section
Operations Division
Rock Island District

February 2023







### OUTLINE

#### Staff

#### Miss

- 2022 Summary
- 2023 Dredging Projections
- Ongoing DMMP / CARS
- Upcoming DMMP / CARS

#### **IWW**

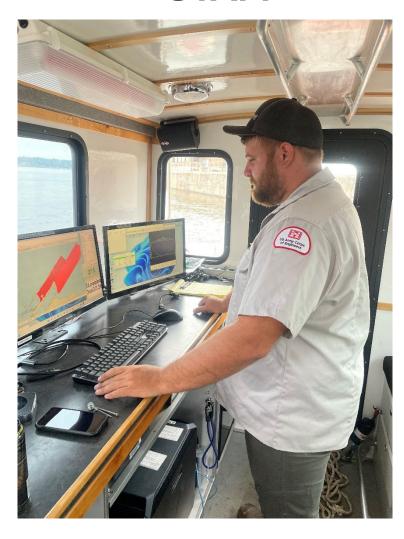
- 2022 Summary
- 2023 Dredging Projections
- Ongoing DMMP Acquisitions
- Upcoming DMMP efforts







#### CHANNEL MAINTENANCE STAFF



Jon Klingman - Chief, Channel Maintenance Section

Matt Afflerbaugh - Channel Maintenance Coordinator (NEPA compliance, Permits) Matt Martin - Dredging Coordinator, Mississippi River Chris Reger - Dredging Coordinator, Illinois River

Jimmy Maher – Supervisory Eng Tech
Chris Engelstad - Lead Eng Tech, Hydro Survey
Cory Brenner - Engineering Tech. (Departing)
Wyatt Kyarsgaard – Eng Tech
Anthony Tipsword – Eng Tech
Chance Sprout – Eng Tech
Vacant – Eng Tech
Jacob Peterson – Eng Tech
Kevin Ressie – Eng Tech (Rehire)

Project Management – Bree Popkin, Tara Gambon (Project Support Section) DMMP and CARS Coordination

US Army Corps of Engineers.

## MISSISSIPPI RIVER







### 2022 DREDGING SUMMARY – MISS RIVER







#### 2022 DREDGING - MISS RIVER

ROCK ISLAND DISTRICT (MVR) - CORPS OF ENGINEERS 2022 Dredging Schedule by Equipment - Upper Mississippi River										
Pool	Site  eduled Dredging Jobs (Li	River Mile	Start	ng Dates End	De	Depth & Est. Quantity				
11	Turkey River	608.9-609.2	ter opring of	ii ve ys)	11	17,567				
12	Cassville Lower	604.7-605.0			11	109,055				
11	Finley's Landing	596.0-596.3	11/14/22	11/29/22**	12	10,083				
11	Rosebrook 2	595.1-595.6	8/5/22	8/14/22**	11	68,234				
11	Rosebrook 1	594.5-595.3	5/16/22	5/17/22***	11	1,529				
12	Deadman's	567.6-568.7	8/29/22	9/14/22***	11	11,731				
13	Savanna Bend	538.6-539.3	8/18/22	8/27/22**	11	73,462				
14	Beaver Chute	517.5	O/ TO/ZZ	OFETTEE	11	14,073				
14	Marais Dosier	509.6-509.9			11	11,875				
14	Steamboat	503.4-503.8	6/1/22 6/26/22**		11	34,186				
15	Lock 14 Lower	493.1			11	329				
16	Lock 15 Lower	482.6-482.9	6/27/22	7/28/22**	11	14,455				
16	Linwood to Horse Island	475.3-476.1	9/27/22	11/2/22**	11	29,045				
16	Buffalo DMMP Entrance	471.4	6/9/22	6/18/22**	7	11,724				
16	Montpelier	469.2-469.5	0.0.0		11	10,133				
16	Hershey	461.1-461.3			11	5,039				
16	Lock 16 Upper	458.7-458.8			11	5,943				
17	Lock 16 Lower	456.5-456.7			11	13,371				
18	Willow Bar Island Excav. (off load)	425.5				100,000				
18	Willow Bar Entrance	425.5	8/20/22	8/22/22**	7	3,338				
18	Cherokee	424.3-424.5	8/20/22	9/21/22**	11	24,810				
18	Oquawka Bend	414.6-415.1	6/28/22	8/18/22**	11	37,423				
19	Burlington Bluff	401.8-402.4	11/3/22	11/28/22***	11	25,041				
19	Kemp's Landing Lwr.	396.9-397.1			11	15,000				
21	Howards	338.7-339.1	9/30/22	10/15/22**	11	21,215				
21	LaGrange	336.0-336.2	7/26/22	8/19/22**	11	33,791				
21	Hogback/Lonetree	331.5-331.9	6/22/22	7/25/22**	11	52,817				
22	NEMO	319.7-320.4			11	34,323				
22	Cave Hollow	304.9-305.2	3/15/22	4/20/22**	11	44,995				
24	Lock 22 Lower	300.4-300.6	8/23/22	9/13/22**	11	24,616				

#### **MVR Strike**

Mar 15 to Nov 28 (one unit assisted MVS Mid September)

#### **Dredge Goetz**

Aug 5 to Aug 27 (deferred additional work to release to MVS)

#### **Contract Mechanical**

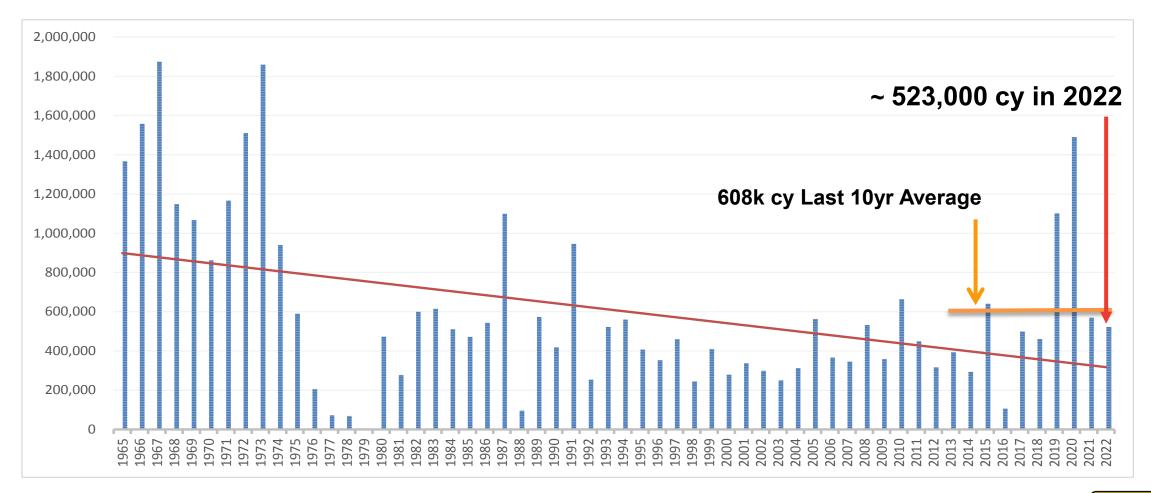
Primary June 9 – Nov 29 Secondary Not mobilized

- 30 Dredging locations identified
- 19 Completed Locations
- 11 jobs either deferred or conditions improved and dredging was not required





## MISSISSIPPI RIVER HISTORIC DREDGING VOLUMES







	ROCK ISLAND DISTRICT (MVR) - CORPS OF ENGINEERS											
202	23 Dredging Sche	dule by	Equipm	ent - Up	pe	<u>r Missis</u>	sippi	12-Jan-23				
Pool	Site	River Mile	Dredgii Start	ng Dates End		epth & Est. Quantity	Equip.	Placement Site	Placement Type	Cat.		
Sch	eduled Dredging Jobs (l	ist will chan	ge after S	pring Surve	ys)							
11	Turkey River	608.9-609.2			11	15,000	GM	TBD	TBD	R		
12	Cassville Lower	604.7-605.0			11	110,000	GH	TBD	TBD	R		
12	Deadman's	567.6-568.7			11	10,000	GM	566.6-566.9L	Bankline	R		
14	Beaver Chute	517.5			11	15,000	GM	516.8-517.3L	Bankline	R		
14	Marais Dosier	509.6-509.9			11	15,000	СМ	503.5-504.1R	Bankline	R		
14	Steamboat	503.4-503.8			11	15,000	GM	502.7-503.1	Thalweg	R		
16	Montpelier	469.2-469.5			11	15,000	СМ	469.4-469.9L	Bankline	R		
16	Hershey	461.1-461.3			11	5,000	СМ	461.4-461.6R	Bankline	R		
16	Lock 16 Upper	458.7-458.8			11	5,000	CM	461.4-461.6R	Bankline	R		
17	Lock 16 Lower	456.5-456.7			11	10,000	CM	456.2-456.6	Bankline	R		
18	Willow Bar Island Excav. (off load)	425.5				100,000	GH	Keithsburg Site 4	Upland DMMP Site	N/A		
19	Burlington Bluff	401.8-402.4			11	10,000	GM	399.6-399.9L	Bankline	R		
19	Kemp's Landing Lwr.	396.9-397.1			11	15,000	GM	Kemps RM 397.8-398.1L	Bankline	R		
21	Howards	338.7-339.1			11	10,000	GM	339.0-339.5L	Bankline	R		
22	NEMO	319.7-320.4			11	30,000	GH	NEMO DMMP Site	Upland DMMP Site	R		
22	Cave Hollow	304.9-305.2			11	10,000	GM	Head of Harris Island 305.5L	Open Water	R		
* Cu	rrently operating at this jo	b. ** Dred	ging compl	eted ***Dred	lging	Bankli	ne or Thal	weg placement event would be coord	dinated with the OSIT.			
Tota	Total quantities by equipment:											
Government Hydraulic - GOETZ (GH) =						240,000		^E = Emergency				
	Government Mechanical - (GM) =					100,000	I = Imminent Closure					
		Conti	ract Hydrau	ulic - (CH) =		0		R = Routine Dredging				
		Contrac	ct Mechani	cal - (CM) =		50,000						
			Total	Dredging =		390,000	_		Deferred Dredging	g =		

# INITIAL 2023 MISS RIVER DREDGE PROJECTIONS

Cassville	604.7-605.0
Deadman's	567.6-568.7
Marais Dosier	609.6-609.9
Steamboat	503.4-503.8
Montpelier	469.2-469.5
Burlington Bluff	401.8-402.4
* Willowbar Offload	425.5





## MISSISSIPPI RIVER DMMP / CARS





### UMR (POOL 11) TRANSFER SITE, RM 594.0 - COMPLETED!

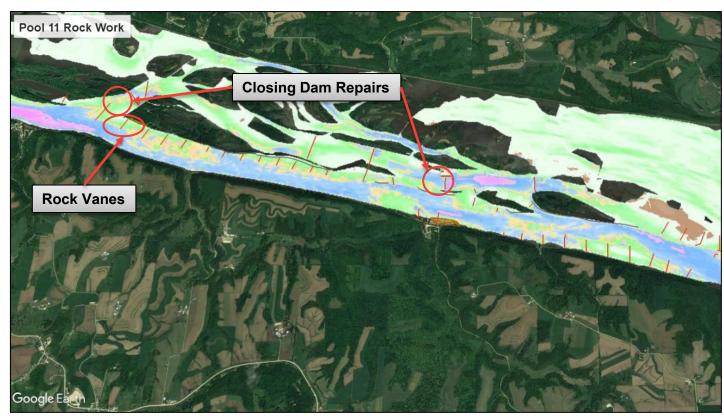


- Perimeter berms and mitigation areas capped with fines, final grading completed, mitigation seeding completed.
- 68,000 cubic yards placed from the Rosebrook cut August 2023
- 200,000 yards capacity





## UMR (POOL 11) 595.0 HURRICANE ISLAND REACH ROCK WORK - CARS



- Degraded rock structures not functioning as originally built
- Provide channel stability and reduce shoaling
- Construction anticipated in 2023



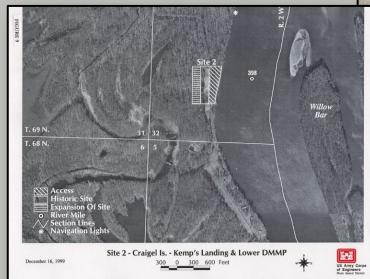


### UMR (POOL 19) 398.0, KEMPS-CRAIGEL DMMP, SITE 2

Site constructed Fall 2022 / Winter 2023

Ready for mechanical use

Capacity: 77,000 CY









## UMR (POOL 20) LOCK #20 UPPER

 Construction completed March 2022 – Ready for use

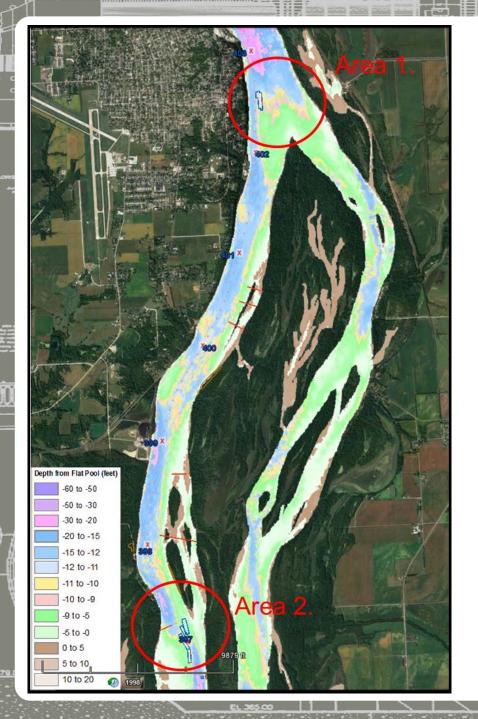
Capacity: 440,000 CY











## UMR (POOL 19) - BURLINGTON BLUFF / BURLINGTON ISLAND LIGHT

PDT Kicked-off December 2022. First iteration of potential features and hydraulic modeling underway.

#### **Project Features:**

- Area 1 concerns: primary current shifts from navigation channel to side channel
- Area 2 concerns: sediment migrates across navigation channel, requires increasing dredging quantities & frequencies
- Team will evaluate options:
  - Identify and study problems
  - Potential solutions
    - Restore existing rock structures
    - Modify existing rock structures
    - Build new rock structures
    - Others ideas





## **ILLINOIS RIVER**







#### FY 2022 DREDGING SUMMARY – IWW







### 2022 DREDGING SUMMARY - IWW

#### ROCK ISLAND DISTRICT (MVR) - CORPS OF ENGINEERS

2022 Dredging Schedule by Equipment - Illinois Waterway

		River Mile	Dredging	Dates	Depth & Est.	
Pool			Start	End	Quantity	Equip.
LaGrange	Beardstown **	87.0-8733	10/17/22	11/3/22	8,589	GM
LaGrange	Otter Creek	110.9-111.8			37,280	CH
LaGrange	Bath Chute	113.1-114.1			41,133	CH
LaGrange	Havana upper/Quiver Island	120.5-121.4			55,001	CH
LaGrange	Duck Island	135.3-135.5			9,809	GM
LaGrange	Copperas Creek Lower	136.0-136.2			5,569	GM
LaGrange	Copperas Creek **	136.2-136.7	10/28/22	11/6/22	36,443	СН
LaGrange	Coon Hollow Island ***	140.9-141.3	8/8/22	suspended	28,151	GM
LaGrange	Lancaster Landing **	144.5-144.6	11/10/22	11/19/22	3,915	GM
LaGrange	Kingston Mines **	145.0-146.0	10/15/22	10/25/22	59,296	СН
	Mackinaw River 3 (CFI)	147.0-147.3	11/28/22		2,612	GM
	Mackinaw River 2 **	147.7-148.0	9/29/22	10/14/22	54,573	СН
LaGrange	Mackinaw River 1 ***	147.7-148.0	1/4/22	1/10/22	3,903	GM
LaGrange	Pekin Bend (wiggles)	150.4-150.8			159,362	CH
LaGrange	Peoria Lock lower guide wall**	157.7	8/19/22	8/19/22	925	GM
LaGrange	Peoria Lock lower 2	157.7			1,549	GM
Peoria	Upper Henry Island	194.3-194.6				GM/CM
Peoria	Hennepin Power				18,362	GM
Peoria	Clark Island **	215.4-216.0	11/11/22	11/20/22	26,106	
	Deer Park Light	228.0-228.5	12/13/22	12/15/22	2,200	GM
Peoria	Starved Rock Lower **	230.7-230.9	6/27/22	7/27/22	6,000	GM
Starved Rk	Delbridge Island **	232.2-232.6	1/19/22	3/15/22	11,439	GM
	Bulls Island upper **	241.5-241.6	6/7/22	6/23/22	6,182	GM
	Bulls Island				6,000	GM
	Vermillion River				40,000	CH
	Marseilles Lower	244.2-244.3			6,000	GM
Marseilles	Grist Island **	258.6-258.9	3/21/22	3/31/22	7,075	GM

## MVR Strike January 4 to December 15

Contract Hydraulic

September 29 to November 20

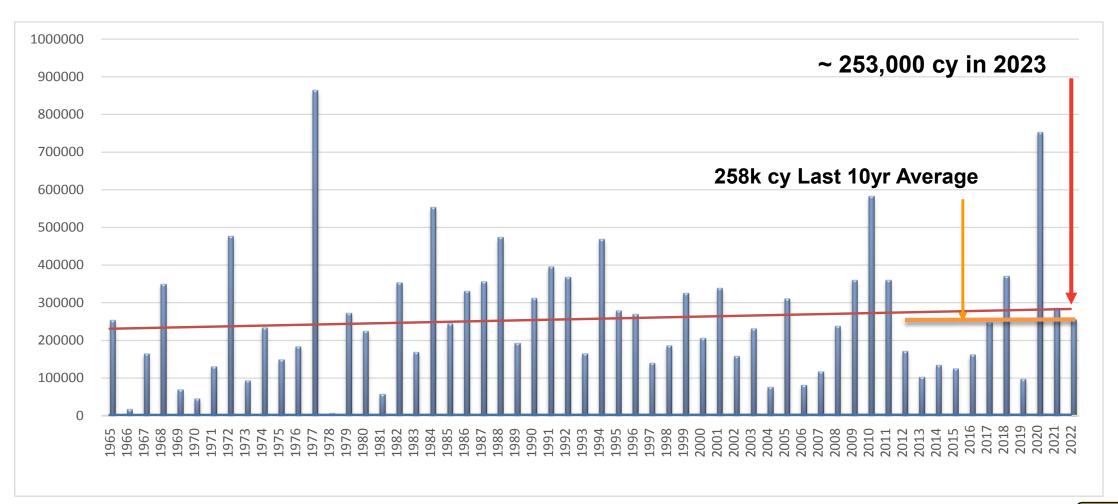
#### **Contract Mechanical** Secondary Not mobilized

- 24 Dredging locations identified
- 12 Completed Locations
- 1 Dredging job suspended
- 11 Jobs either deferred or conditions improved and dredging was not required





## ILLINOIS RIVER HISTORIC DREDGING VOLUMES







## **INITIAL 2023 IWW DREDGE PROJECTIONS**

ROCK ISLAND DISTRICT (MVR) - CORPS OF ENGINEERS 2022 Dredging Schedule by Equipment - Illinois Waterway

19-Jan-22

		River Mile	Dredging Dates		Depth & Est.		Placement				Job Order #	Cat.^
Pool	Dredge Cut Name	Taver Iville	Start	End		Quantity	Equip.	Site	Placement Type	Dredging Notice #	Job Order #	Cat.
LaGrange	Havana upper/Quiver Island	120.5-121.3				55,000	CH	120.2-121.5 R	Bankline			R
LaGrange	Mackinaw River ***	147.7-148.0	1/4/22	1/10/22		3,903	GM	146.4-147.0	Bankline			R
LaGrange	Pekin Bend (wiggles)	150.4-150.8				159,362	CH	150.0-151.0 R	Bankline/Upland			R
LaGrange	Kingston Mines	145.1-146.0				73,000	CH	144.9-145.6L	Upland			R
Starved Rk	Delbridge Island *	232.2-232.6	1/19/22			9,000	GM	243.7R	Upland			R
Starved Rk	Marseilles Lower	244.2-244.3				6,000	GM	241.7 R	Bankline or Upland			R
Peoria	Upper Henry Island	194.3-194.6				11,000	GM/CM	?	?			R

\* Currently operating at this job. \*\* Dredging completed \*\*\* Dredging suspended.

Bankline placement requires OSIT approval. Marseilles Pool requires additional

Total quantities by equipment:

 Government Hydraulic - (GH) =
 0
 Scheduled
 306,265

 Government Mechanical - (GM) =
 18,903
 Unscheduled
 0

 Contract Hydraulic - (CH) =
 287,362
 TOTAL
 306,265

 Contract Mechanical - (CM) =
 0

Hydraulic - (H) = 0

Total Dredging = 306,265

C= Critical
^E = Emergency

I = Imminent Closure

R = Routine Dredging

Dresden Lower	271.1-271.3
Bulls Island	240.3-241.2
Delbridge Island	232.3-232.8
Hennepin Power	212.0-212.7
Kingston Mines	145.5-147.5





## ILLINOIS RIVER DMMP ACQUISITIONS





#### IWW (Starved Rock) -Bulls Island DMMP, Site 3 & 4

15.7 acre acquisition completed in 2021

Entrance road work completed in 2022

 Crews are hauling material for BU staging and residential buffer

Projected capacity: 530,000
 CY





### IWW (LaGrange) - Mackinaw River DMMP, Site 10



- Acquisition ongoing
  - ➤ Tract 111 OTS prepared
  - Tract 112 closed
  - Tract 113 closed
  - > Tract 114 closed
  - ➤ Tract 115 pending closing
- Initiate construction 2023/2024.
- Additional 2.5M CY capacity when constructed





# IWW – Spring Valley DMMP, Site 9

- MATOC Task Order for construction awarded in 2021
- Construction complete August 2022 by DCR Services (Detroit)
- 1<sup>st</sup> use November 2022
- Capacity: 698,000 CY





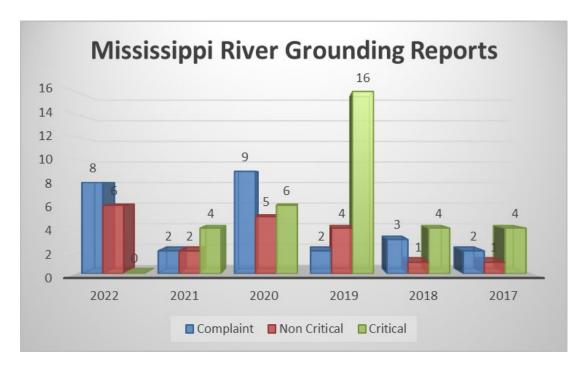


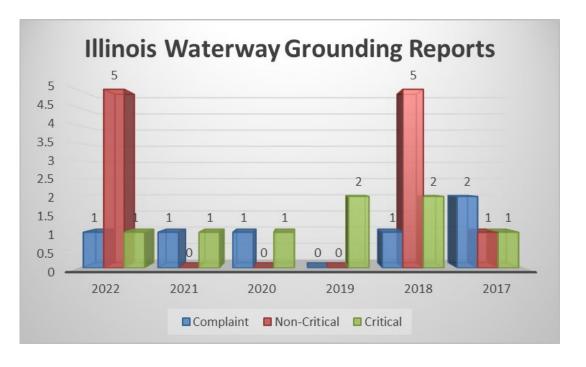
## OTHER TOPICS.....





### **GROUNDING REPORTS**









#### https://www.mvr.usace.army.mil/Missions/Navigation/Navigation-Status/



☆ / Missions / Navigation / Navigation Status

#### Illinois Waterway

#### **Consolidated Lock Closures**

The Illinois Waterway, which provides a navigable connection between Lake Michigan and the Mississippi River, includes eight lock and dam sites that are long overdue for significant repairs. To facilitate repairs, the U.S. Army Corps of Engineers, Rock Island District developed a consolidated repair schedule, which included a short closure to locks in 2019 followed by two extended closures in 2020 and 2023. The closures were scheduled to take place simultaneously to lessen impact to commercial navigation as much as possible. Work was successfully completed in 2020 and the District is now preparing for closures in 2023.

All lock and dam facilities on the Illinois Waterway have a single lock chamber for passing vessels. During the scheduled closures, no vessels will be able to pass through the affected locks. Navigation on the rest of the river, between the locks, will not be impacted by the closures. Recreational and commercial vessels will be able to navigate within the pools without restriction.



#### Closure Schedule

\*\*NOTICE\*\* Should changes to the schedule be needed, they will be posted in RED on this website as soon as they are available.

\*\*NOTE: Projects and dates listed below are tentative dates and do not necessarily reflect the exact date each lock will close or reopen. The schedule is subject to change due to river levels, weather conditions, health and safety concerns due to COVID-19, project funding, and unknown circumstances that may be discovered during construction.

#### 2023

Brandon Road Lock and Dam - Upper Miter Gate Installation & Machinery Replacement

Full closure scheduled <u>120 days</u> (June 1-Sept. 30, 2023)

Dresden Island Lock and Dam - Upper Miter Gate Installation, Valve Replacement, Machinery Replacement, and Electrical System Replacement

Full closure scheduled approx. 120 days (June 1-Sept. 30, 2023)

Marseilles Lock and Dam - Electrical Crossover Work\*

Full closure scheduled approx. 120 days (June 1-Sept. 30, 2023)

Starved Rock Lock and Dam - No Work Anticipated\*

\* Miter gate machinery replacement at Starved Rock and Marseilles locks has been deferred to a later date. TBD



