

ROCK ISLAND DISTRICT DREDGING UPDATE

Jon Klingman

February 2021



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**US Army Corps
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OUTLINE

Staff

Miss

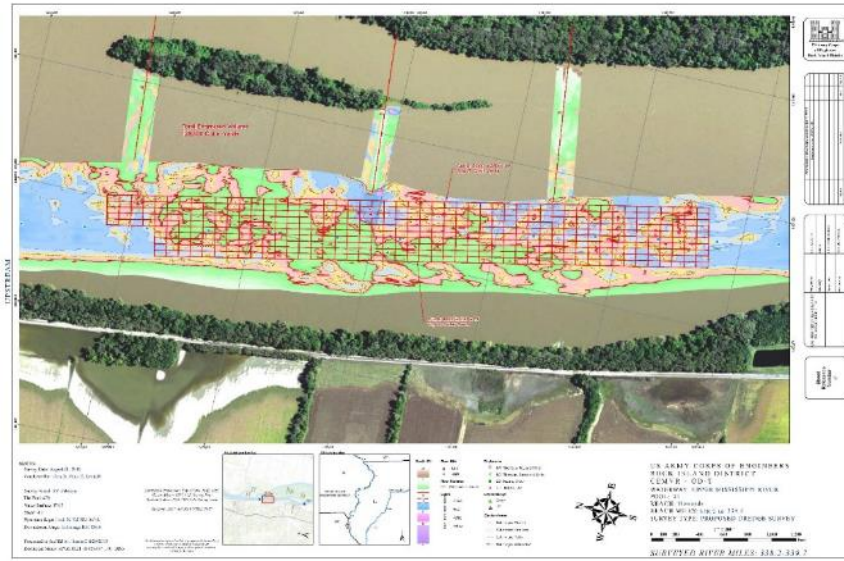
- 2020 Summary
- 2021 Dredging Projections
- Ongoing DMMP / CARS
- Upcoming DMMP / CARS

IWW

- 2020 Summary
- 2021 Dredging Projections
- Ongoing DMMP Acquisitions
- Upcoming DMMP efforts

OTHER

- Grounding Reports
- Contracts



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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

Hydro Survey

Jimmy Maher – Supervisory Eng. Tech

Cory Brenner - Lead Operator SV Dubuque

Chris Engelstad - Lead Operator SV Clark

Vacant - Lead Operator SV Coot II

Wyatt Kyarsgaard– Eng Tech.

Anthony Tipsword– Eng Tech.

Chance Sprout – Eng Tech.

Spencer Rushin – Eng Tech.

Project Management – Bre Popkin (Project Support
Section) DMMP and CARS Coordination



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MISSISSIPPI RIVER



**US Army Corps
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2020 DREDGING SUMMARY – MISS RIVER

Total Volume Dredged = 1,490,000 cubic yards

**8 Hydraulic Jobs - Dredge GOETZ (357K) Dredge POTTER (855K*)
1,212,000cy (81%)**

**14 Mechanical Jobs
278,000cy Gov Mech (19%)**



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2020 DREDGING - MISS RIVER

| 2020 Dredging Jobs - UMR | | | | | | | | | | | | | | 20-Jan-2020 | | |
|--------------------------|----|------|------------------|----------|-------------------|----------|----------------------------------|-------------|---------------|------------------|---------------|-----------------|-----------------------------------|-----------------------|----------------------------|--|
| | | Pool | Mech Priority | Dredge | GOETZ Priority | Riv Mile | Name | Survey Date | Total Quantit | Current Stage | 7-day Stag | 7-day Change | Depth at Minimum Pool Elev. | Current Actual Dep | 7-Day Forecast Depth | Notes: |
| Complete | 11 | | | MVR | | 598.9 | Hurricane | 12-Aug | 5,600 | 1.3 | 1.3 | -0.1 | 11.0 | 12.3 | 12.3 | Dredging Complete (20 May) |
| | 14 | | | MVR | | 510 | Marias Dosier | 25-Jun | 17,200 | 1.3 | 1.5 | 0.2 | 11.0 | 12.3 | 12.5 | Dredging Complete (9 June) |
| | 14 | | | MVR | | 503.6 | Steamboat | 7-Oct | 30,100 | 0.8 | 0.9 | 0.1 | 11.0 | 11.8 | 11.9 | Dredging Complete (1 Oct) |
| | 16 | | | GOETZ | | 481.7 | Crescent to Centennial | 9-Jul | 106,400 | 3.2 | 3.5 | 0.4 | 11.0 | 14.2 | 14.5 | Dredging Complete (8 July) |
| | 16 | | | MVP Mech | | 472.1 | Buffalo | 5-Aug | 14,600 | 2.0 | 2.2 | 0.2 | 11.0 | 13.0 | 13.2 | Dredging Complete (21 Sep) |
| | 16 | | | MVP Mech | | 469.3 | Montpellier | 10-Aug | 14,500 | 1.7 | 1.8 | 0.2 | 11.0 | 12.7 | 12.8 | Dredging Complete (8 July) |
| | 17 | | | MVP Mech | | 456.6 | Lock 16 Lower | 1-Oct | 8,000 | 2.3 | 2.6 | 0.3 | 11.0 | 13.3 | 13.6 | Dredging Complete (1 Oct) |
| | 17 | | | MVR | | 446.3 | Barkis Island | 25-Aug | 26,500 | 1.1 | 1.2 | 0.1 | 11.0 | 12.1 | 12.2 | Dredging Complete (27 July) |
| | 18 | | | MVP Mech | | 427 | Keithsburg | 8-Oct | 34,000 | 1.8 | 2.0 | 0.2 | 11.0 | 12.8 | 13.0 | Dredging Complete (10 Sep) |
| | 18 | | | GOETZ | | 424.5 | Cherokee | 6-Jul | 62,700 | 1.6 | 1.7 | 0.2 | 11.0 | 12.6 | 12.7 | Dredging Complete (29 Jul) |
| | 19 | | | GOETZ | | 405.9 | Baby Rush | 11-Aug | 37,200 | 1.9 | 2.1 | 0.2 | 11.0 | 12.9 | 13.1 | Dredging Complete (6 Aug) |
| | 19 | | | GOETZ | | 389.7 | Green Bay Landing | 27-Aug | 93,400 | 1.0 | 1.1 | 0.1 | 11.0 | 12.0 | 12.1 | Dredging Complete (18 Oct) |
| | 20 | | | GOETZ | | 344 | Lock 20 Upper | 30-Sep | 92,100 | 4.2 | 4.2 | 0.0 | 11.0 | 15.2 | 15.2 | Dredging Complete (4 Sep) |
| | 21 | | | GOETZ | | 339 | Howards | 4-Aug | 57,500 | 1.5 | 1.5 | 0.0 | 11.0 | 12.5 | 12.5 | Dredging Complete (19 Aug) |
| | 24 | | | MVR | | 300.6 | Lock 22 Lower | 3-Jun | 6,400 | 1.9 | 2.1 | 0.2 | 11.0 | 12.9 | 13.1 | Dredging Complete (3 Jun) |
| | 24 | | | MVS | | 300.6 | Lock 22 Lower | 31-Aug | 107,200 | 1.9 | 2.1 | 0.2 | 11.0 | 12.9 | 13.1 | Dredging Complete (14 Aug) |
| Pilot Channel | 11 | 5 | | MVR | | 596.3 | Finley's | 12-Aug | 24,300 | 1.1 | 1.1 | 0.0 | 11.0 | 12.1 | 12.1 | 200' Pilot Channel Established (15 May) AIS ATONS Broadcasting. |
| | 13 | 4 | | MVR | | 530 | Smith Bay | 30-Sep | 23,500 | 0.7 | 0.8 | 0.1 | 11.0 | 11.7 | 11.8 | 200' Pilot Channel Established (17 May) AIS ATONS Broadcasting. |
| | 17 | 3 | | MVR | | 447.7 | Bass Island | 25-Aug | 26,500 | 1.2 | 1.4 | 0.2 | 11.0 | 12.2 | 12.4 | 200' Pilot Channel Established (8 July) ATONS Broadcasting. |
| | 19 | 6 | | MVR | | 397 | Burlington Island Light (Kemp's) | 8-Oct | 11,400 | 1.2 | 1.4 | 0.2 | 11.0 | 12.2 | 12.4 | 250' Pilot Channel Established (6 Aug) ATONS Broadcasting. |
| | 21 | 1 | | MVR | | 331.6 | Hogback | 22-Sep | 7,700 | 0.5 | 0.5 | 0.0 | 11.0 | 11.5 | 11.5 | 250' Pilot Channel Established (28 Aug) AIS ATONS Broadcasting. |
| | 12 | 8 | | MVR | | 568.5 | Deadman's | 25-Aug | 16,000 | 0.9 | 1.0 | 0.1 | 7.8 | 8.7 | 8.8 | AIS ATONS Broadcasting. Spotty Shoaling, 200' Available |
| | 13 | 9 | | MVR | | 554.3 | Duck Creek | 9-Oct | 14,500 | 2.9 | 3.4 | 0.6 | 8.2 | 11.1 | 11.6 | Spotty Shoaling |
| | 13 | 12 | | MVR | | 529.2 | Elk River | 13-Aug | 39,500 | 0.6 | 0.7 | 0.1 | 7.0 | 7.6 | 7.7 | 420' available but on tight turn. |
| | 16 | 10 | | MVR | | 482.8 | Lock 15 Lower | 17-Sep | 24,400 | 3.3 | 3.7 | 0.4 | 6.7 | 10.0 | 10.4 | Spotty shoals |
| | 18 | 7 | | MVR | | 421.5 | Johnson Island | 2-Sep | 13,700 | 1.2 | 1.4 | 0.1 | 7.4 | 8.6 | 8.8 | Narrowing. Shoaling on RDB. Nav Notice for Shoal |
| | 21 | 2 | | MVR | | 336 | LaGrange | 22-Sep | 5,400 | 0.9 | 0.9 | 0.0 | 7.8 | 8.7 | 8.7 | AIS ATONS Broadcasting. Spotty shoals ~200' Available |
| | 22 | 11 | | MVR | | 323.9 | Orton Island | 3-Sep | 26,900 | 2.0 | 2.2 | 0.2 | 7.5 | 9.5 | 9.7 | Spotty shoals - CG buoyed 9/24/20 |

Dredge Goetz
June 24 to Oct 18

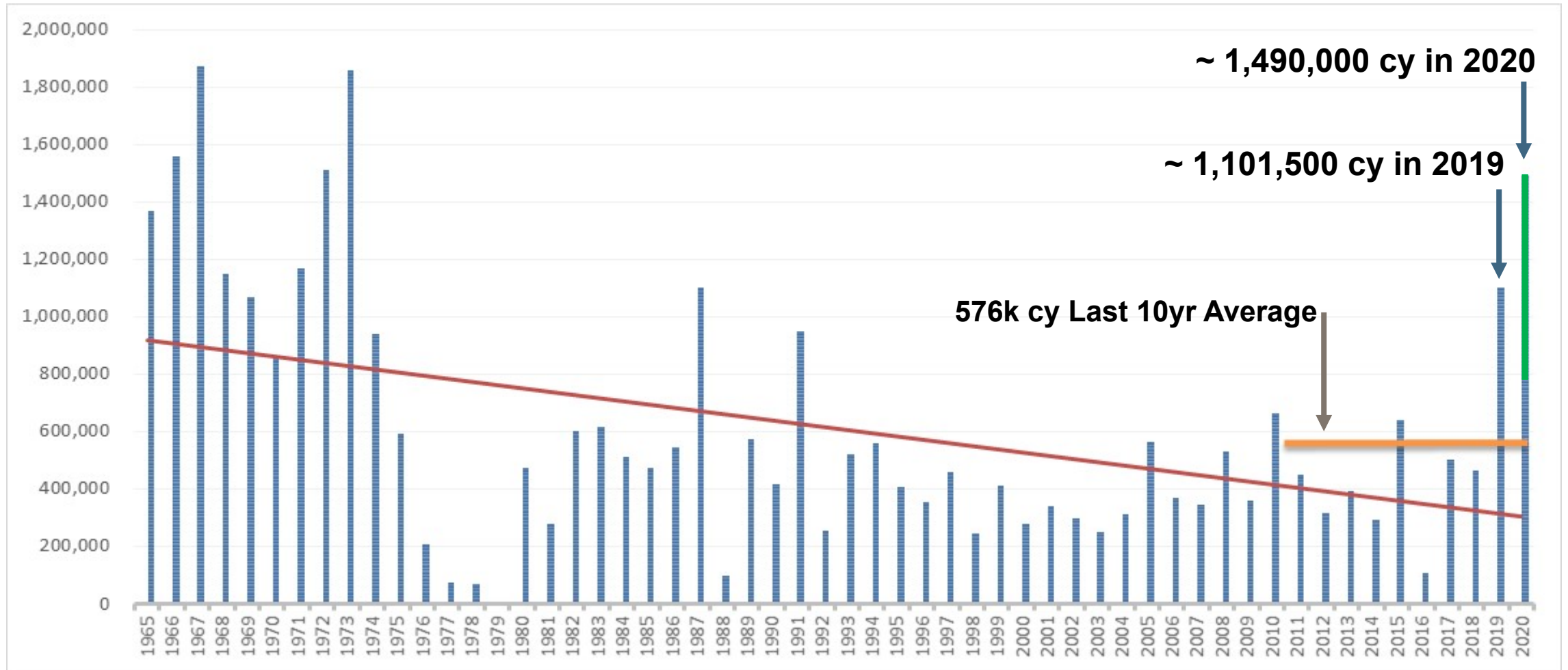
Dredge Potter
August 9 to September 4

MVR Strike/MVP Strike
April 24 to Oct 1

- 28 Dredging Locations identified
- Support from MVP Mechanical
- Five areas pilot channel only
- Seven jobs either deferred or conditions improved and dredging was not required



MISSISSIPPI RIVER HISTORIC DREDGING VOLUMES



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ROCK ISLAND DISTRICT (MVR) - CORPS OF ENGINEERS
2020 Dredging Schedule by Equipment - Upper Mississ
4-Jan-21

| Pool | Site | River Mile | Dredging Dates Start End | Depth & Est. Quantity | Equip. | Placement Site | Placement Type | Dredging Notice # | Job Order # | Cat. ^ |
|--|--|-------------|-----------------------------|--------------------------|--------|---------------------------------|---------------------------|----------------------|-------------|--------|
| Scheduled Dredging Jobs (List will change after Spring Surveys) | | | | | | | | | | |
| 11 | Cassville Lower | 604.7-605.0 | | 11 10,000 | GM | 604.7-605.0R | Bankline | | | R |
| 11 | Finley's Landing | 596.0-596.5 | | 11 30,000 | GM | Bathtub 594.1L | Upland DMMP Site | | | I |
| 11 | Rosebrook | 594.5-595.3 | | 11 25,000 | GM | Bathtub Const 594.1L | Upland DMMP Site | | | R |
| 11 | Bathtub Entrance | 594.1 | | 11 3,000 | GM | Bathtub 594.1L & 595.8R | Upland DMMP Site/Bankline | | | N/A |
| 12 | Island 241 | 561.8-562.1 | | 11 20,000 | GM | 562.2L | Thalweg | | | R |
| 12 | Bellevue Slough | 560.5-560.8 | | 11 15,000 | GM | 562.2L | Bankline | | | R |
| 13 | Smith Bay | 529.9-530.4 | | 11 35,000 | GM | Bankline 531.3-531.7L | Bankline | | | I |
| 13 | Elk River | 529.1-529.3 | | 11 15,000 | GM | Between Islands 527.9R | Upland | | | R |
| 14 | Marais Dosier | 509.6-509.9 | | 11 20,000 | GM | 503.5-504.1R | Bankline | | | R |
| 14 | Steamboat | 503.4-503.8 | | 11 20,000 | GM | 502.7-503.1 | Thalweg | | | R |
| 14 | Lock 14 Upper | 493.8-494.2 | | 11 10,000 | GM | 503.5-504.1R; 503.0 | Bankline & Thalweg | | | R |
| 16 | Lock 15 Lower | 482.3-482.9 | | 11 20,000 | GM | 481.4-482.1L | Bankline | | | R |
| 16 | Buffalo Lower | 472.0-472.3 | | 11 10,000 | GM | Pocket Beaches | Bankline | | | R |
| 17 | Lock 16 Lower | 456.5-456.8 | | 11 10,000 | GM | 456.2-456.4L | Bankline | | | R |
| 17 | Bass Island | 447.6-447.9 | | 11 20,000 | GM | 447.9-448.1L | Bankline | | | R |
| 17 | Barkis Island | 446.1-446.4 | | 11 20,000 | GM | 447.9-448.1L | Bankline | | | R |
| 18 | Willow Bar Island Excav. (off load) | 425.5 | | 150,000 | | Keithsburg Site 4 | Upland DMMP Site | | | N/A |
| 18 | Keithsburg Upper | 426.8-427.3 | | 11 25,000 | GM | 427.1-427.3L | Bankline | | | R |
| 19 | Kemp's Landing Lwr. | 396.9-397.1 | | 11 30,000 | GH | Kemps RM 397.8-398.1L | Bankline | | | R |
| 21 | Howards | 338.7-339.3 | | 11 40,000 | GH | 339.0-339.5L | Bankline | | | R |
| 21 | LaGrange | 336.0-336.5 | | 11 10,000 | GM | 336.3R | Bankline | | | R |
| 21 | Hogback/Lonetree | 331.5-331.9 | | 11 15,000 | GM | 330.5-330.8 | Open Water | | | R |
| 22 | Cave Hollow | 305.0-305.4 | | 11 30,000 | GH | Head of Harris Island 305.5L | Open Water | | | R |

* Currently operating at this job. ** Dredging completed ***Dredging placement requires OSIT approval. Mussel survey may be required for placement sites that have not been used in the

Total quantities by equipment:

Government Hydraulic - GOETZ (GH) = 100,000
 Government Mechanical - (GM) = 333,000
 Contract Hydraulic - (CH) = 0
 Contract Mechanical - (CM) = 0
 Total Dredging = 433,000

^E = Emergency
 I = Imminent Closure
 R = Routine Dredging

Deferred Dredging 150,000

INITIAL 2021 MISS RIVER DREDGE PROJECTIONS

| | |
|---------------------|-------------|
| Cassville Lower | 604.7-605.0 |
| Rosebrook/Finley's | 595.5-596.5 |
| Smith Bay | 530 |
| Island 241 | 561.8-562.1 |
| Steamboat | 503.4-503.8 |
| Buffalo Lower | 472.0-472.3 |
| Bass Island | 447.6-447.9 |
| Kemp's Landing Lwr. | 396.9-397.1 |
| Howard's | 338.7-339.5 |
| Hogback/Lonetree | 331.5-331.9 |



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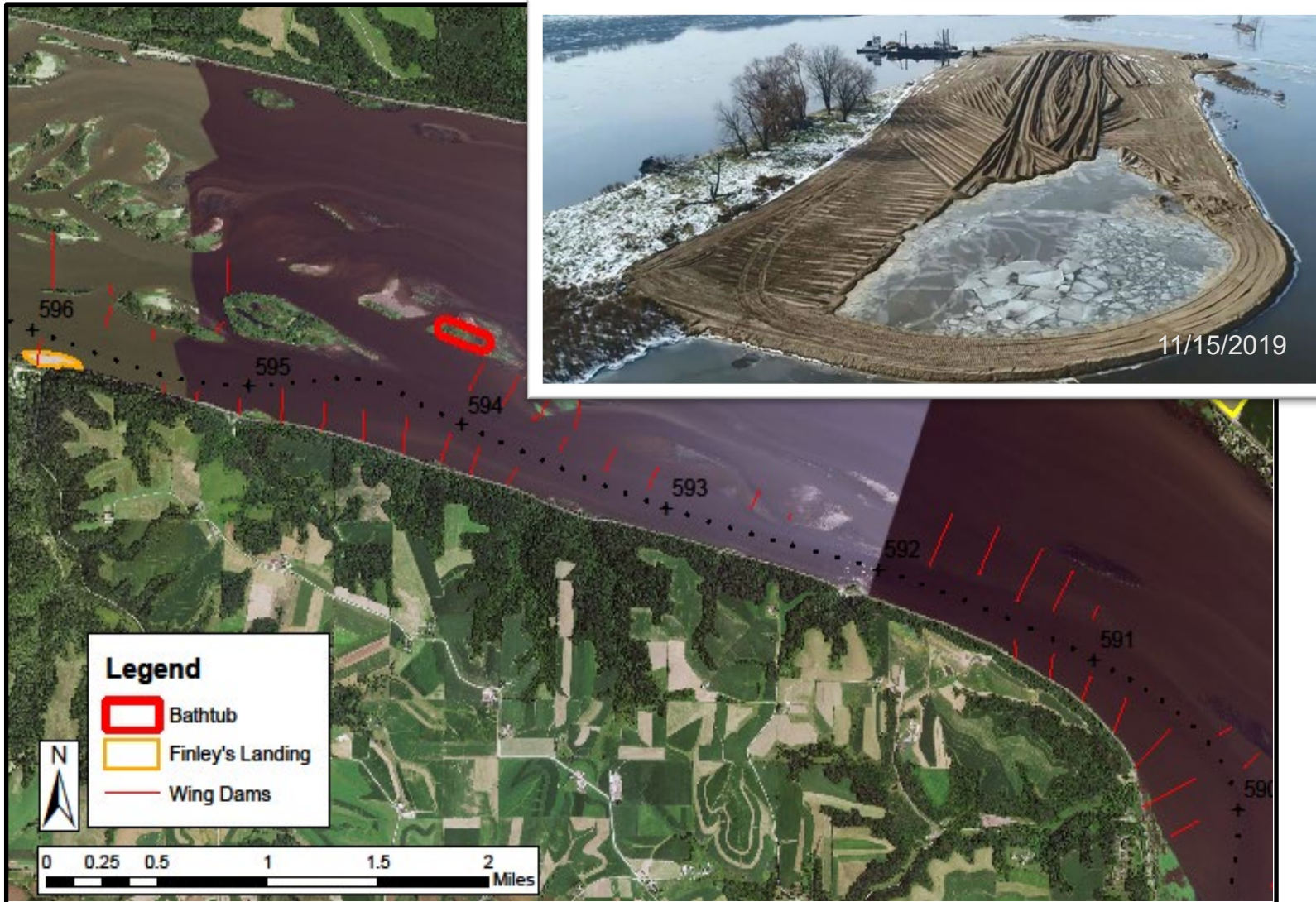
MISSISSIPPI RIVER ONGOING DMMP SITE CONSTRUCTION / CARS



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UMR (POOL 11) 595.0 HURRICANE ISLAND REACH DMMP



Construction:

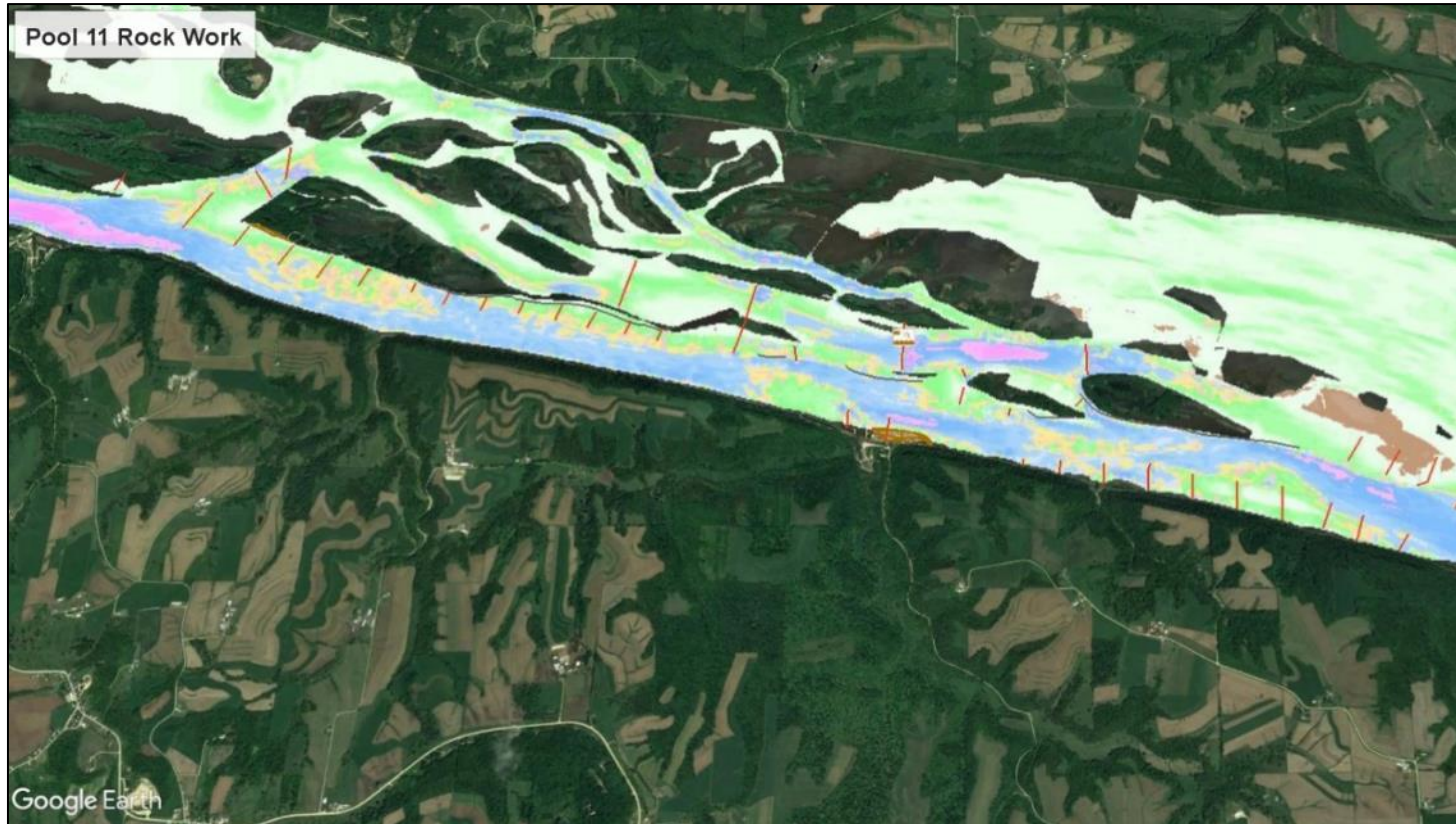
- ~33,000 CY placed in 2020
- Work Scheduled for Oct/Nov 2020 was deferred to 2021 due to an emergency request to send a rock crew to Kansas City District.



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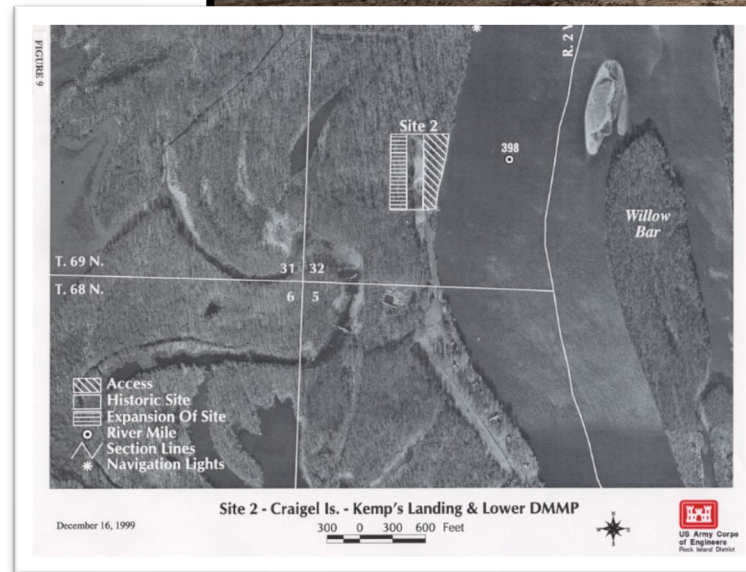
UMR (POOL 11) 595.0 HURRICANE ISLAND REACH ROCK WORK - CARS



- Degraded rock structures not functioning as originally built
- Provide channel stability and reduce shoaling
- Preferred alternative selected from H&H analysis of 17 variations
- Next steps: 30-day Public Review of NEPA document underway, finalize all documents, sign FONSI, begin construction

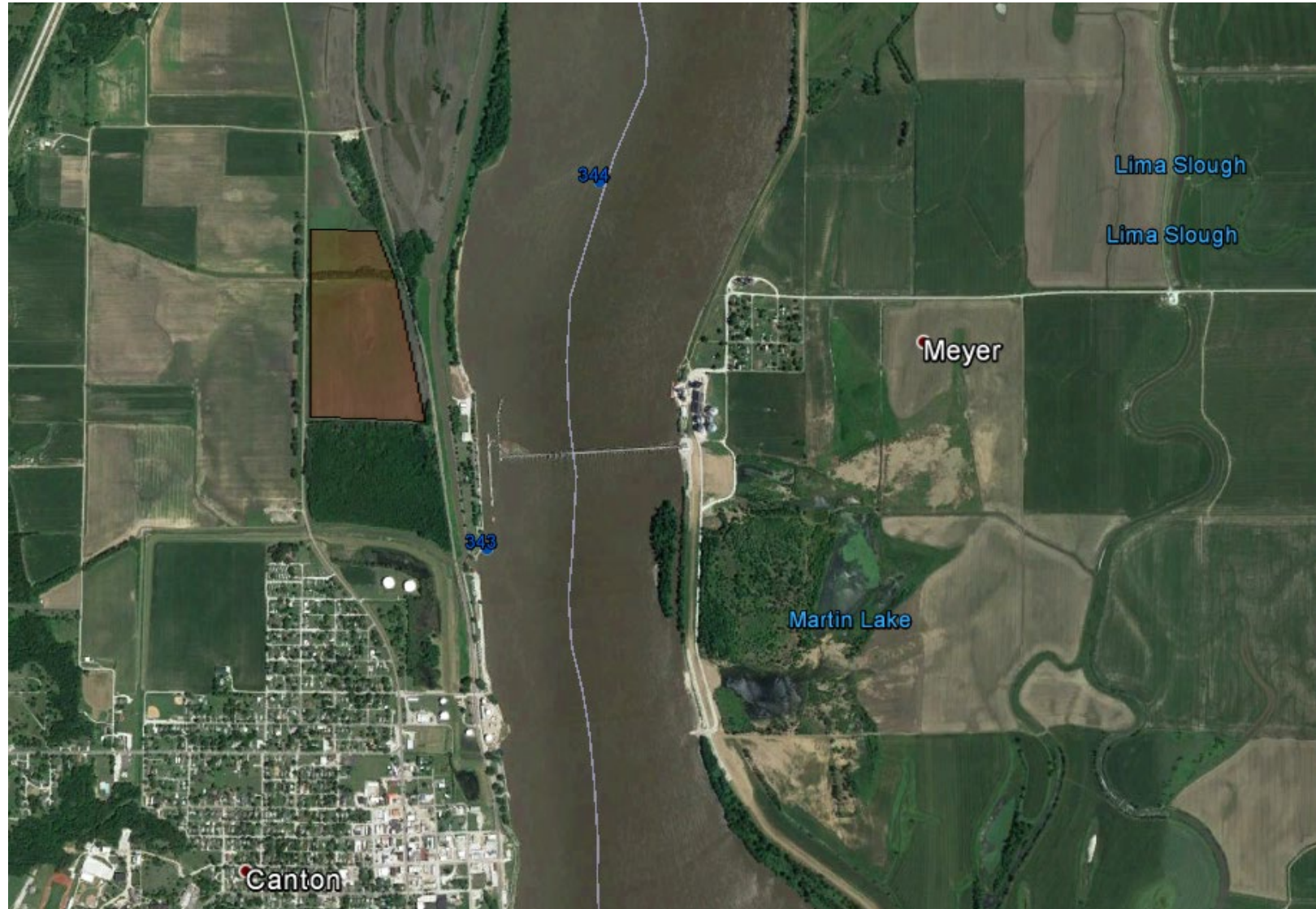
UMR (POOL 19) 398.0 KEMPS-CRAIGEL DMMP

- Timber harvest completed
- PDT finalizing plan set, anticipated completion March 2021
- Real Estate working on agreement to cross county road with dredge pipes
- Site preparation and construction to be completed by OD-M crews

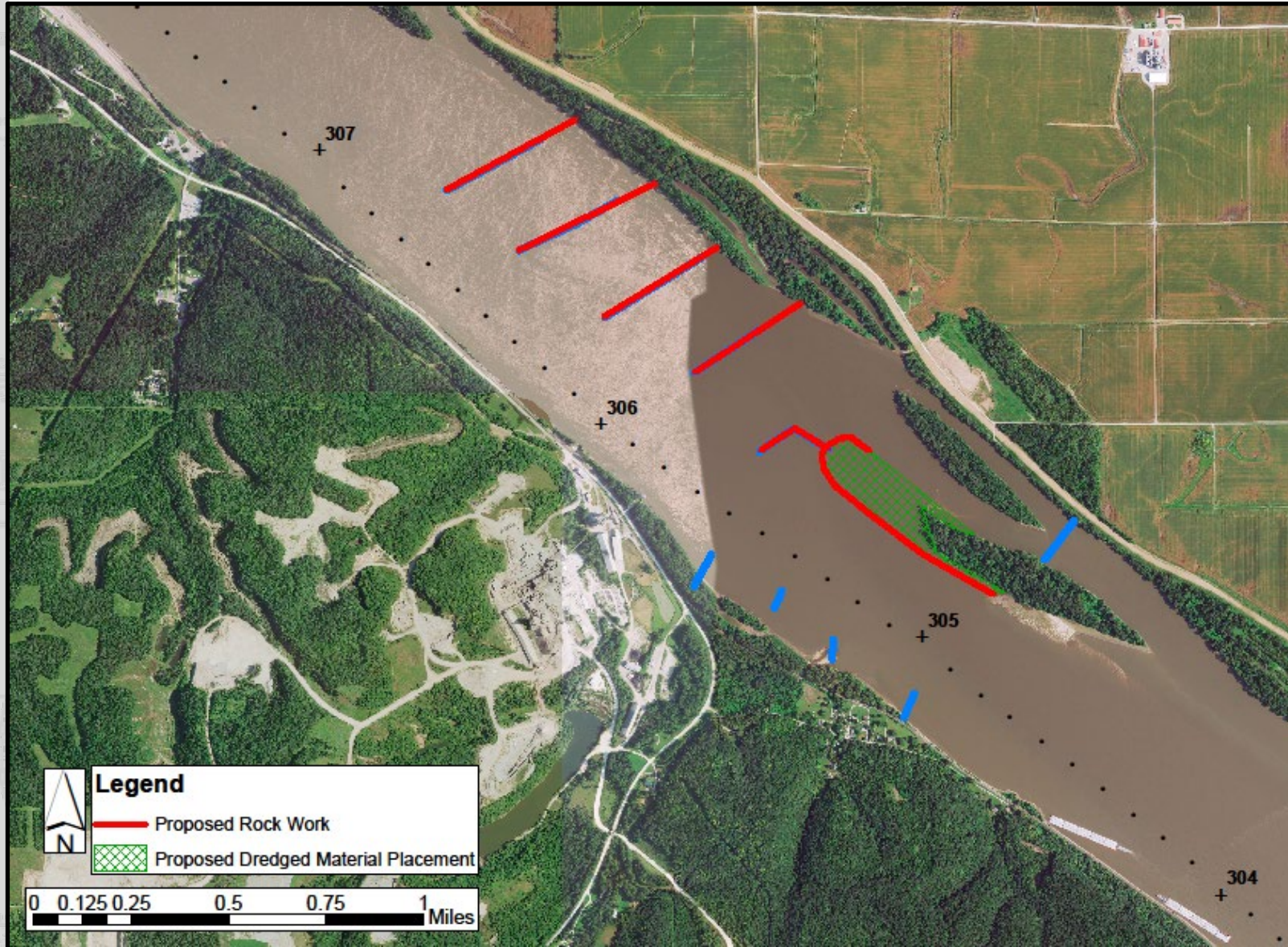


UMR (POOL 20) LOCK #20 UPPER

- Plan set and associated documents completed in early December 2020
- Site preparation and construction began by OD-M crews in mid-December 2020
- Real Estate awaiting license from BNSF for final parcel prior to placement activities



UMR (POOL 22) 306.0 CAVE HOLLOW ROCK WORK



Project Features:

- Restore rock at head of Harris Island
- Incrementally restore wing dams 4, 5, and 6 (7 and 8, if needed).

UMR (POOL 22) 306.0 CAVE HOLLOW ROCK WORK



- Wingdam #6 elevated to slow flows
- Dredge Potter placed 748,000 cubic yards of sand
- Rock placed around the reconstructed island head
- Additional Wingdam work in 2021



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MISSISSIPPI RIVER UPCOMING DMMP/CARS



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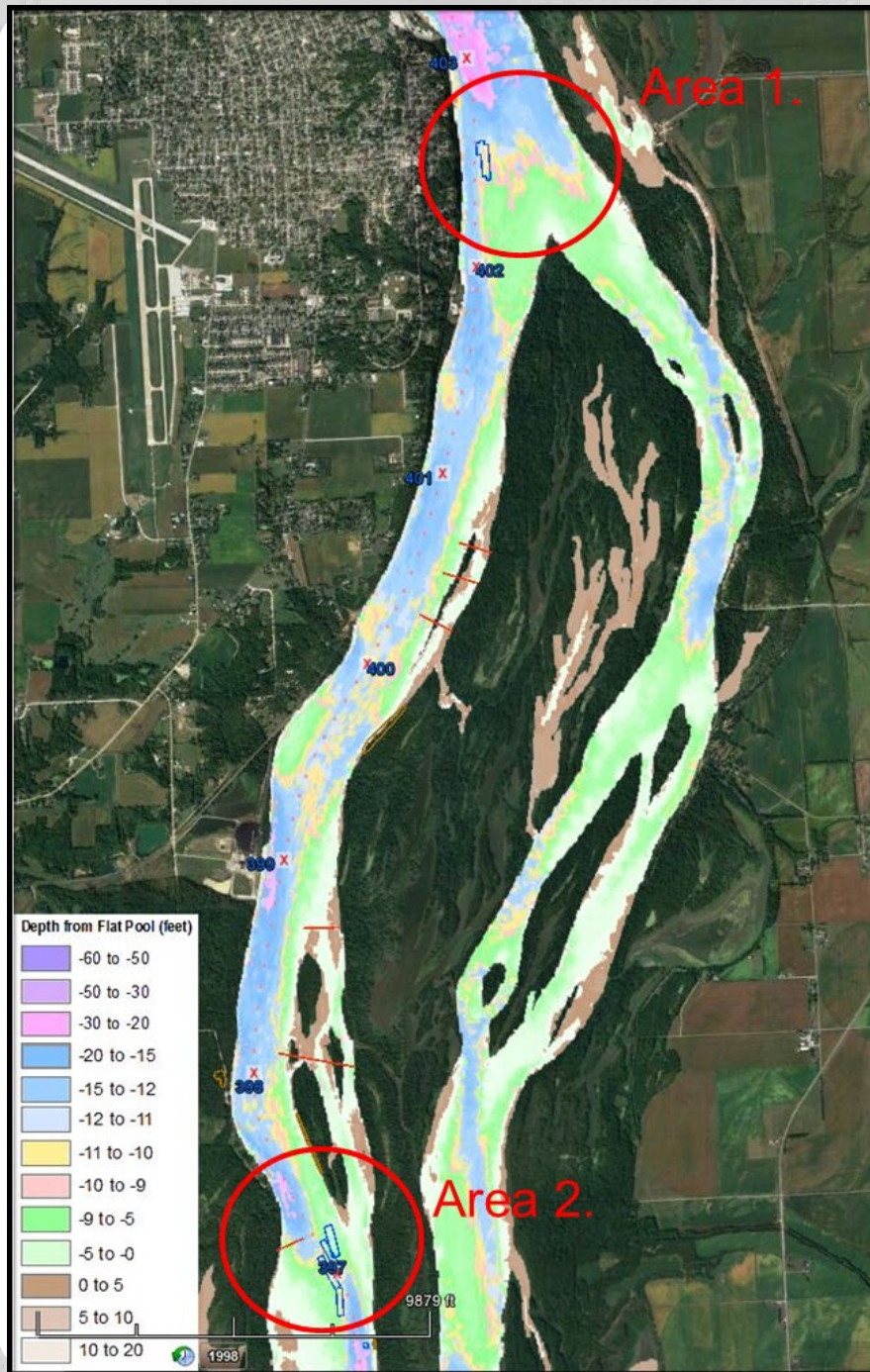


UMR (POOL 13) SMITH BAY/DARK SLOUGH- ROCK WORK



Project Features:

- Planning efforts began January 2021
- Areas: Sabula Lower (RM 533), Dark Slough (RM 531), and Smith Bay (RM 530), Elk River (529)
- Concern: Increased dredging frequency
- Team will evaluate options:
 - Identify and study problems
 - Potential solutions
 - Restore existing rock structures
 - Modify existing rock structures
 - Build new rock structures
 - Others ideas



UMR POOL 19 - BURLINGTON BLUFF

Project Features:

- Planning anticipated FY22
- 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

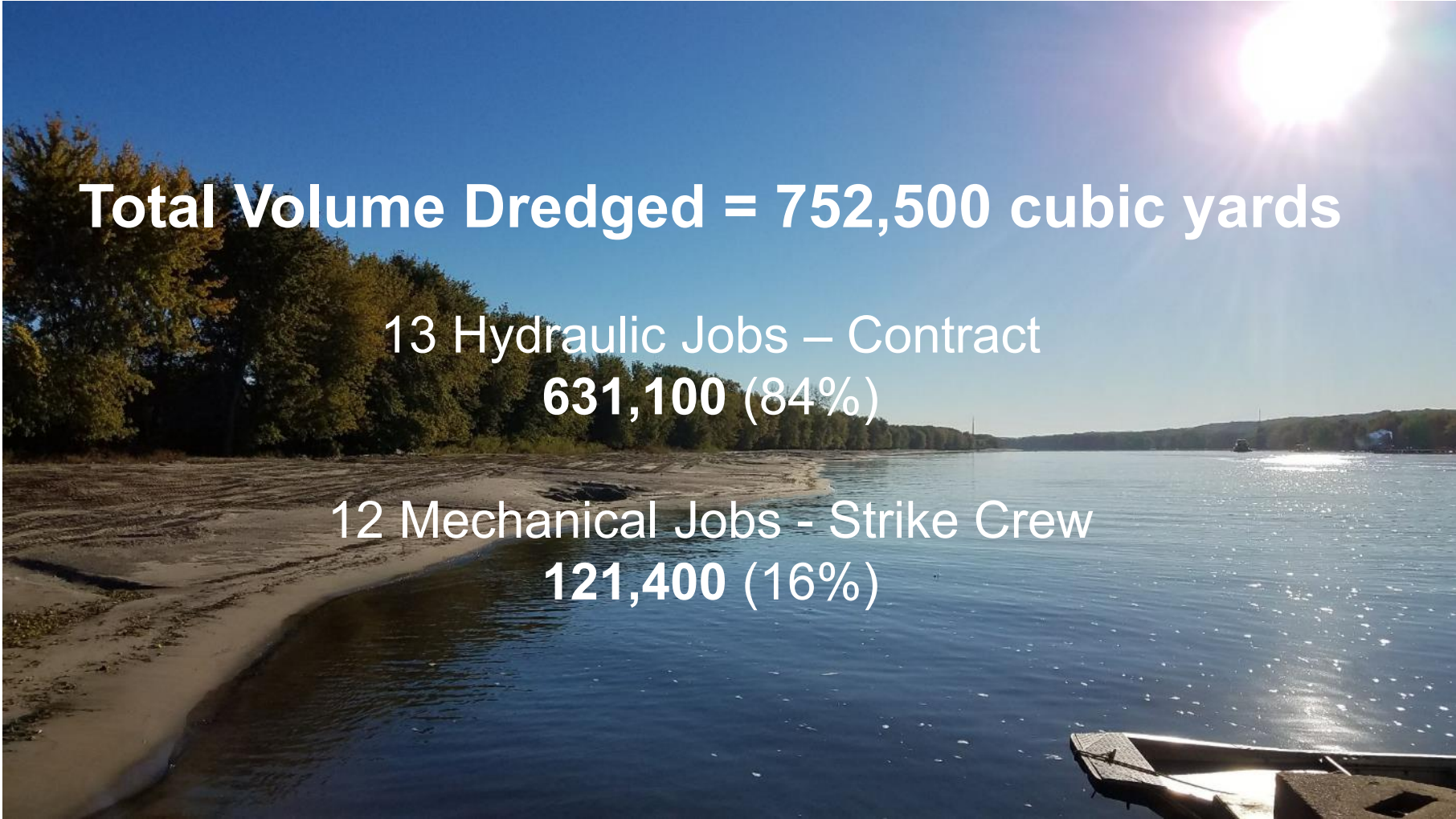
ILLINOIS RIVER



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FY 2020 DREDGING SUMMARY – IWW



Total Volume Dredged = 752,500 cubic yards

13 Hydraulic Jobs – Contract
631,100 (84%)

12 Mechanical Jobs - Strike Crew
121,400 (16%)



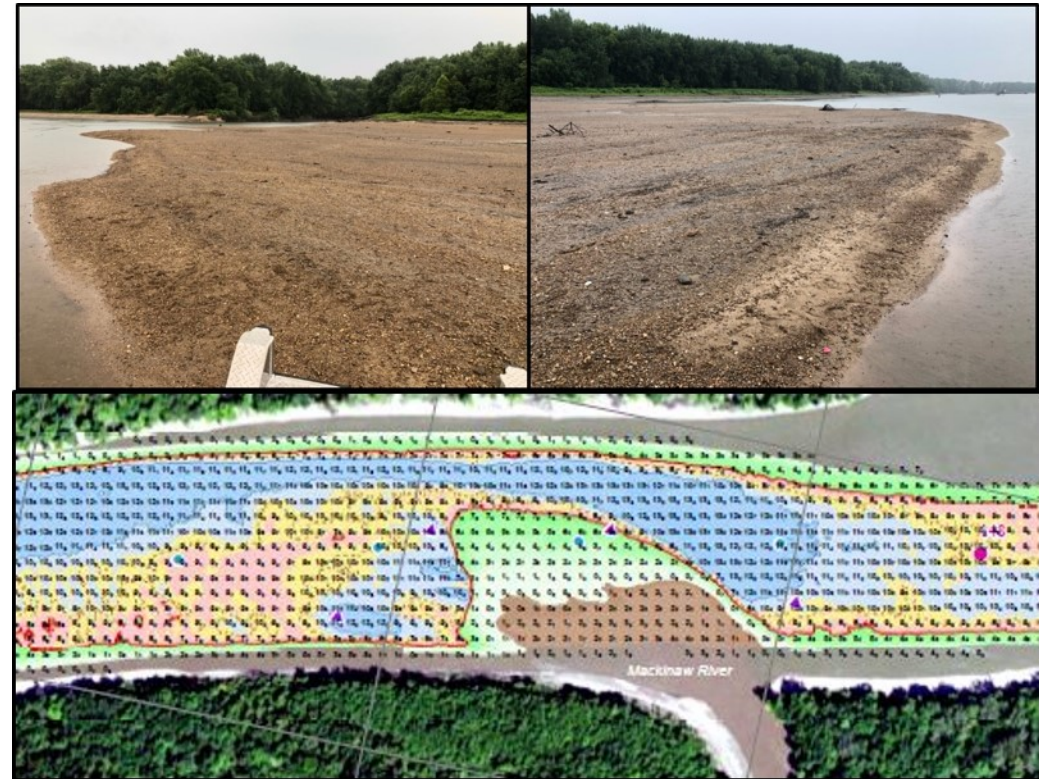
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2020 DREDGING – IWW

Contract Hydraulic Dredge – 20 Apr through 17 Nov

- Beardstown, RM 86.8-88.8
- Devils Elbow Lower, RM 114.5-115.6
- Devils Elbow Upper, RM 116.5-117.3
- Duck Island, RM 135.7-136.2
- Copperas Creek, RM 136.3-136.8
- Kingston Mines Lower, RM 144.2-144.5
- Kingston Mines, RM 145.6-146.2
- Kingston Mines Upper, RM 146.6-147.3
- Mackinaw River, RM 147.7-147.9
- Lick Creek, RM 155.7-156.8
- Chillicothe, RM 180.4-181.5
- Spring Valley Upper, 218.7-219.1
- Huse Slough, RM 219.1-220.4



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2020 DREDGING – IWW

Strike Removal – 3 Mar through 4 Nov

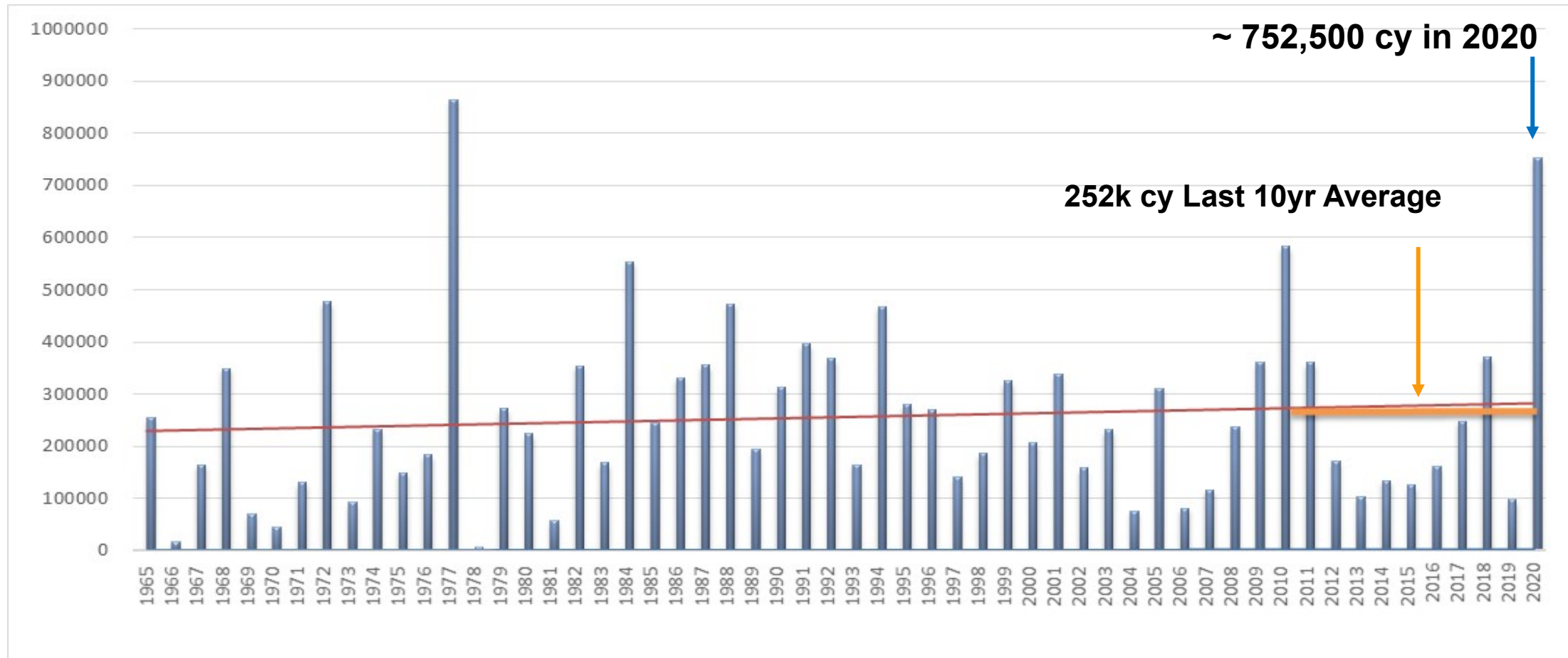
- Lancaster Landing Lower , RM 142-143
- Lancaster Landing, RM 143.3-143.7
- Chillicothe, RM 180.4-181.6
- Hennepin Power, RM 212.0-212.9
- Spring Valley lower, RM 217-0-212.9
- Starved Rock Lower, RM 230.3-230.9
- Bulls Island Upper, RM 241.4-241.6
- Dresden Lower, RM 270.7-271.3



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ILLINOIS RIVER HISTORIC DREDGING VOLUMES



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INITIAL 2021 IWW DREDGE PROJECTIONS

ROCK ISLAND DISTRICT (MVR) - CORPS OF ENGINEERS 2021 Dredging Schedule by Equipment - Illinois Waterway

14-Jan-21

| Pool | Dredge Cut Name | River Mile | Dredging Dates Start End | Depth & Est. Quantity | Equip. | Placement Site | Placement Type | Dredging Notice # | Job Order # | Cat [^] |
|------------|----------------------------|-------------|-----------------------------|-----------------------|--------|-------------------|--------------------|----------------------|-------------|------------------|
| LaGrange | Briggs Landing | 83.6-84.1 | | 48,600 | CH | 84.1-84.9 R | Bankline | | | R |
| LaGrange | Anderson Lake Light | 108.8-109.4 | | 35,000 | CH | 108.5-111.0 R | Bankline | | | R |
| LaGrange | Havana upper/Quiver Island | 120.5-121.3 | | 55,000 | CH | 120.2-121.5 R | Bankline | | | R |
| LaGrange | Spring Lake Lt. | 133.5-134.4 | | 20,000 | | ? | ? | | | C |
| LaGrange | Lancaster Landing lower | 142.0-143.0 | | 28,881 | GM | 142.0-143.2L | Bankline | | | |
| LaGrange | Pekin Bend (wiggles) | 150.4-150.8 | | 159,362 | CH | 150.0-151.0 R | Bankline/Upland | | | R |
| Peoria | Clark Island | 215.4-216.3 | | 15,000 | GM | 216.0 R | Bankline | | | R |
| Peoria | Vermillion River * | 227.0-227.6 | 1/11/21 | 10,000 | GM | 228.0R | Bankline | | | R |
| Starved Rk | Marseilles Lower | 244.2-244.3 | | 6,000 | GM | 241.7 R | Bankline or Upland | | | R |

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

Bankline placement requires OSIT approval. Marseilles Pool requires additional endangered mussel coordination.

Total quantities by equipment:

| | | | |
|--------------------------------|----------------|-------------|---------|
| Government Hydraulic - (GH) = | 0 | Scheduled | 309,243 |
| Government Mechanical - (GM) = | 59,881 | Unscheduled | 0 |
| Contract Hydraulic - (CH) = | 249,362 | TOTAL | 309,243 |
| Contract Mechanical - (CM) = | 0 | | |
| Hydraulic - (H) = | 0 | | |
| Total Dredging = | 309,243 | | |

C = Critical
^E = Emergency
I = Imminent Closure
R = Routine Dredging

| | |
|-------------------|-------------|
| Anderson Lake | 108.8-109.4 |
| Clark Island | 215.4-216.3 |
| Mackinaw River | 147.7 |
| Lancaster Landing | 142-143 |



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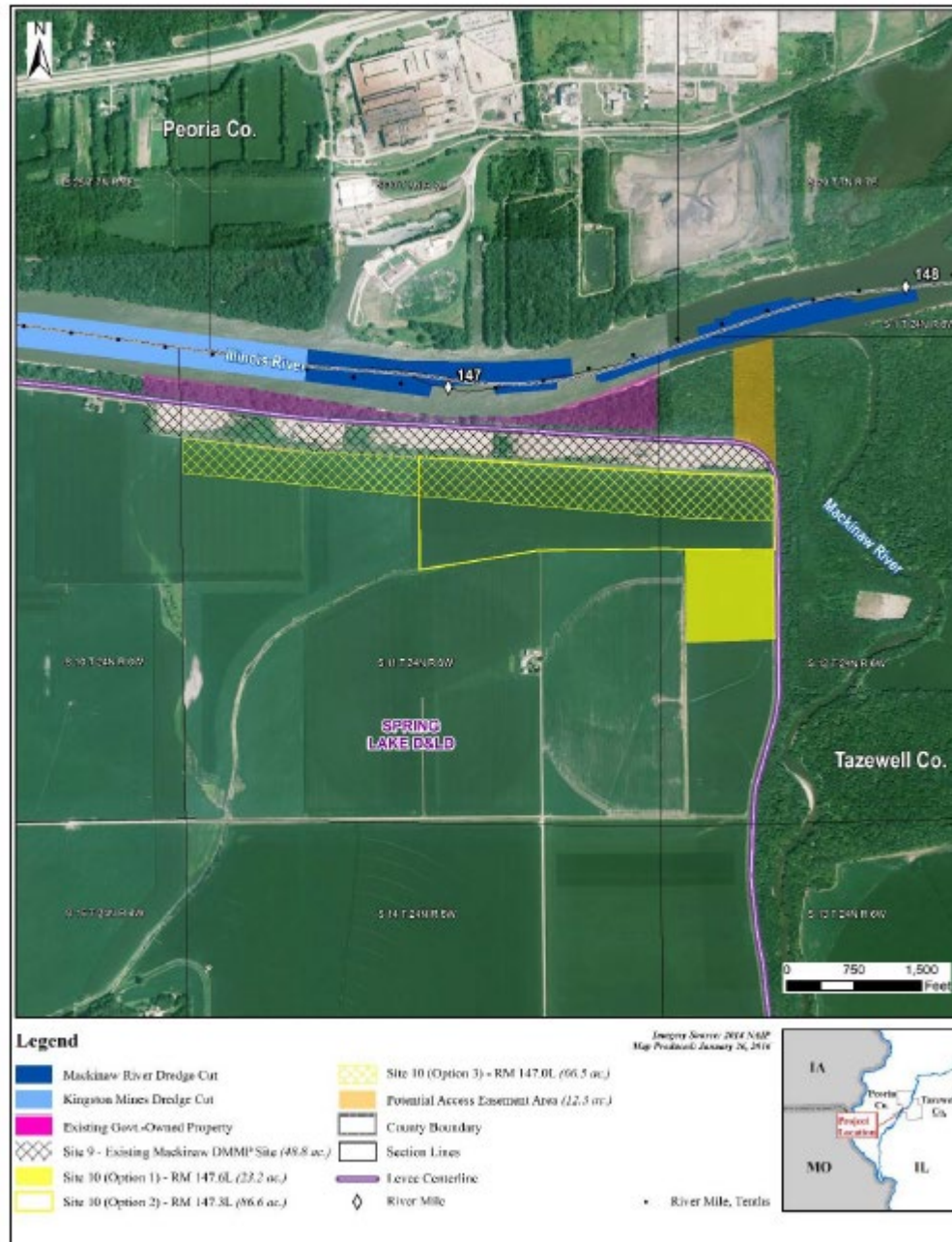
ILLINOIS RIVER ONGOING DMMP ACQUISITION



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Mackinaw River DMMP:

- Acquisition was delayed due to 2020 funding
- Anticipated acquisition start 2nd quarter FY21

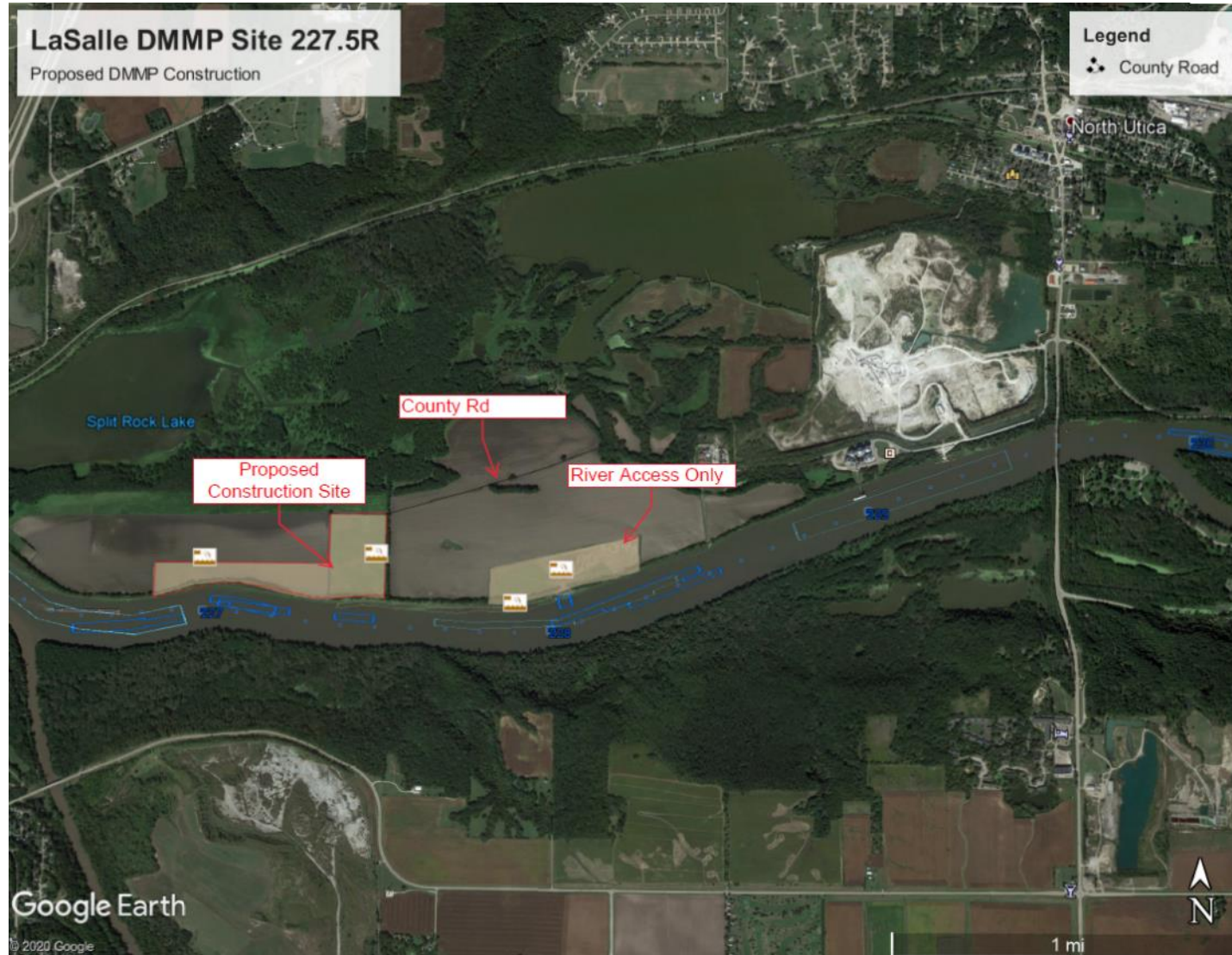
ILLINOIS RIVER UPCOMING DMMP EFFORTS



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ILWW – LASALLE DMMP



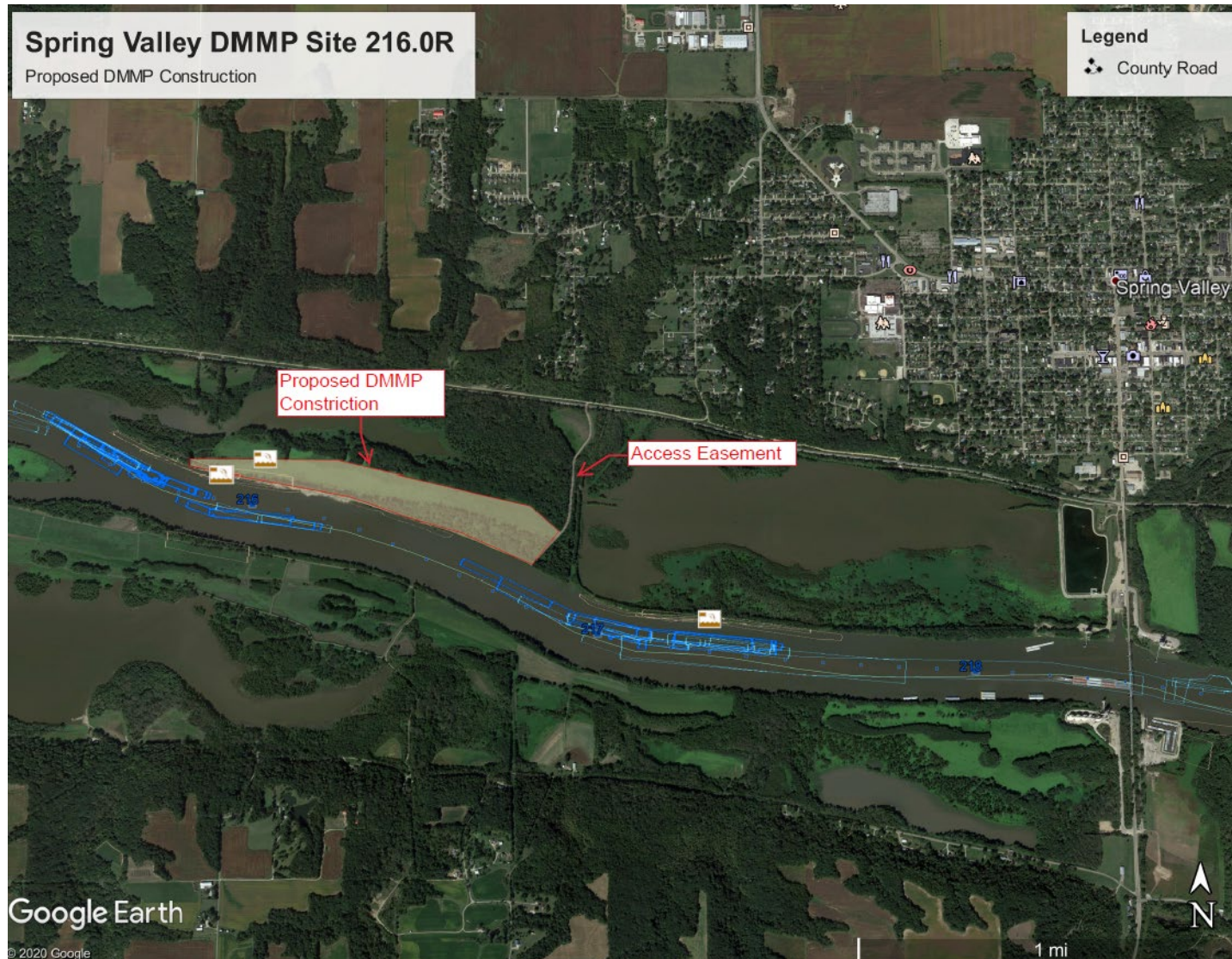
- Began developing plan set in FY20
 - Progressing toward 65%/100% review
- On hold pending funding
- Real Estate working to acquire a permanent easement for access



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ILWW – SPRING VALLEY DMMP



- Began developing plan set in FY20
 - Progressing toward 65%/100% review
- On hold pending funding



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ILWW - LAGRANGE POOL DMMP



- Pool-scale planning
- Approximately 77.5 RM
- Goal: Adaptable to future conditions
- Identify potential upland and environmental placement sites
- Inventory of existing conditions
- Anticipated project kick off 3rd Quarter, FY21



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OTHER TOPICS.....

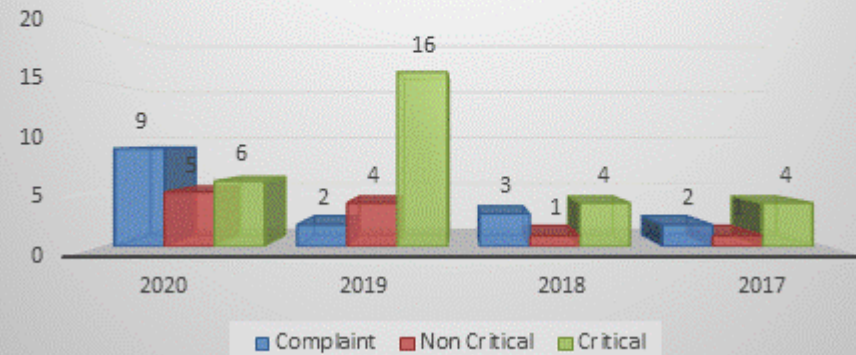


**US Army Corps
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GROUNDING REPORTS

Mississippi River Grounding Reports



Illinois Waterway Grounding Reports



| Report of Navigation Problem | | | |
|---|------------|--|-------------------|
| Send Report To: US Army Corps of Engineers | | E-mail: jon.a.klingman@usace.army.mil Fax (309) 794-5180 phone (309) 794-5505 (For Business Hours reporting) | |
| Category (check one - see attached memo for definitions) <input type="checkbox"/> Critical <input checked="" type="checkbox"/> Non-Critical <input type="checkbox"/> Complaint | | | |
| Location | | | |
| River | Illinois | River Mile | 143.5 |
| Pool | LaGrange | Bank | Middle of Channel |
| Date Aground | 01/26/2021 | Time Aground (HH:MM) | 02:00 |
| Date Free | 01/26/2021 | Time Free (HH:MM) | 04:45 |
| Name of Vessel: MV Perpetual Grounder | | | |
| Loads | 12 | Empties | 3 |
| Draft | 9.3 | Direction | Upbound |
| Remarks | | | |
| Stuck again. | | | |
| Reporting Individual | | Phone Number | (309) 555-1212 |
| Date (mm/dd/yyyy) | 01/26/2021 | Coast Guard Notified? | Yes |
| OD-T Use Only | | | |
| Action Taken / Results | | | |
| | | | |
| Date/Time Commenced | | Date/Time Completed | |
| Signature | | Date | |

SUBMIT



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CONTRACTS

- IWW Hydraulic Dredging Contract: Base plus 4-year option
~ Late March Award
- New Contract - IWW Mechanical Dredging Contract
 - Base plus 4-year option
- New Contract - Mississippi River Mechanical Dredging Contract
 - Base plus 4-year option