Upper Mississippi River Restoration Program
Coordinating Committee

August 7, 2024
Quarterly Meeting

Highlights and Action Items
Meeting Summary

Programmatic Highlights

- UMRR is scheduled to execute over 95 percent of its FY 2024 appropriation of $55 million by the end of the fiscal year.
- The House of Representatives and Senate Appropriations Committee have included $55 million in their respective FY 2025 energy and water appropriations measures, aligning with the President's budget proposal. With the Administration, House, and Senate Appropriations Committee all proposing $55 million for UMRR in FY 2025, the Corps anticipates being able to proceed with program implementation at $55 million if the FY 2025 appropriations process is extended through a continuing resolution.
- UMRR partners have successfully completed the first two phases of a strategic planning process: understanding strategic issues and developing strategic goals and objectives. UMRR agency partners were joined by several leaders in the conservation community for an in-person strategic planning session on July 23-25, 2024. The next phases of the strategic planning process are to draft strategies and actions, employ a public review process, and finalize the strategic plan.
- Through draft Water Resource Development Act of 2024 bills, the Senate and House of Representatives are proposing to amend the Upper Mississippi River Restoration (UMRR) program's authorizing language to increase the program's annual authorized appropriation for long term resource monitoring from $15 million to $25 million and $20 million, respectively.

Habitat Rehabilitation and Enhancement Projects (HREPs) Highlights

- The Beaver Island HREP construction is complete and a ribbon cutting ceremony is scheduled for October 1. Rock Island District will advance construction on other HREPs and initiate planning on a new project in FY 2025. The new project to begin planning has yet to be determined.
- UMRR program partners continue to work through the process of evaluating potential project opportunities and selecting a suite of projects for implementation in FYs 2026 through 2030. The process schedule for project selection anticipates that the UMRR Coordinating Committee will review and approve fact sheets by the third quarter of FY 2025 – i.e., April 2025 through June 2025. Following the Coordinating Committee's endorsement of projects, the respective Districts will submit them to MVD for review and approval prior to initiating planning. The Rock Island District is allocating personnel to employ environmental justice analysis of the potential projects. Lastly, the Corps is requesting additional information for proposed projects to develop cost estimates. The instructions caused confusion among the river teams. The Corps is coordinating with agency leaders and river team chairs to clarify and simplify the requests for information.

— A few recent HREPs have received construction bids for significantly less cost than estimated. St. Louis and St. Paul are developing additional contracting actions to make use of these funds.

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— The Corps has submitted to the Office of the ASA(CW) on July 11, 2024 a model Memorandum of Agreement (MOA) for the agency's use in advancing UMRR HREPs that are on federal lands and that are managed by a state or local government. Marshall Plumley will report to the UMRR Coordinating Committee when the ASA(CW)'s Office has reached a decision on the Corps' proposed model agreement. A similar agreement for NESP projects was developed and submitted at the same time.

— A few highlights of progress in implementing HREPs include:

- MVD approved the feasibility report for the Big Lake HREP located in Pool 4.
- The St. Paul District is soliciting bids on Stage 1 of the Lower Pool 10 HREP.
- The Rock Island District submitted to MVD the Quincy Bay final feasibility report. Upon approval, the project would advance to construction.
- Construction on Beaver Island HREP is nearing completion, and the Rock Island District has scheduled a ribbon-cutting ceremony for October 1.
- Construction of HREPs in the Rock Island District is being affected by ongoing high water.
- The St. Louis District has submitted to MVD on July 30, 2024 the draft Feasibility Report for the West Alton Islands HREP. Upon approval, the project would advance to construction.
- The St. Louis District is currently solicitating a construction bid on Harlow Islands HREP, anticipating that construction will extend into FY 2025.

Long Term Resource Monitoring (LTRM) Highlights

— UMRR is planning to allocate $13.85 million of its FY 2024 appropriation (i.e., $55 million) to long term resource and monitoring. This includes $5.5 million for base monitoring, $1.5 million for scientific investigations using that base monitoring for analysis (analysis under base), and $6.85 million for scientific investigation related to river restoration and management information needs. In FY25, total budget allocation for LTRM will increase to $14.45 million: $6.5 million for base monitoring, $2 million for analysis under base, and $5.95 million for science in support of restoration and management. This increase is in recognition of increasing base monitoring costs over the past several years.

— Large-scale system topobathy acquisition of all Illinois River pools (La Grange to Lockport) and the southern portion of the Open River reach tracking to award contracts by 30 Sept 2024. Additionally, a pilot study of the Lower Pool 13 HREP study area will be awarded this FY to support UMRR activities in this area.

— Six manuscripts were published in the last quarter (since May 2024) that were supported by UMRR funding and the programmatic infrastructure.

Communications and Outreach

- The announcement for the UMRR Photo Contest was sent to Program practitioners on 2 August. The submission dates are from August 2, 2024 to October 31, 2024.

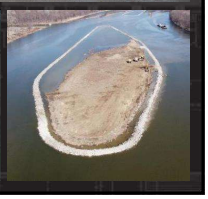
Future Meeting Schedule

- November 2024 in Alton, Illinois
  - UMRBA quarterly meeting – November 19
  - UMRR Coordinating Committee quarterly meeting – November 20
- February 2025 through a virtual platform (not in-person)
  - UMRBA quarterly meeting – February 25
  - UMRR Coordinating Committee quarterly meeting – February 26
- May 2025 in La Crosse, Wisconsin
  - UMRBA quarterly meeting – May 20
  - UMRR Coordinating Committee quarterly meeting – May 21

UMRR COORDINATING COMMITTEE - REGIONAL MANAGEMENT AND PARTNERSHIP COLLABORATION

Marshall Plumley
UMRR Regional Program Manager
St. Paul District
Rock Island District
St. Louis District

Date: 7 August 2024



U.S. ARMY US Army Corps of Engineers

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REGIONAL MANAGEMENT AND PARTNERSHIP COLLABORATION

- FY 2024 Fiscal Update and FY 25 Outlook
- HREP Selection
- UMRR Strategic Plan
- WRDA 2024
- Memorandums of Agreement

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FY 2024 FISCAL UPDATE AND FY 2025 OUTLOOK

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FINANCIAL REPORTING 2ND QTR. FY 24

UMRR Quarterly Budget Report: St. Paul District
FY2024 Q3; Report Date: Tue Jul 16 2024

Habitat Projects

Project Name	Cost Estimates			FY2024 Financials			
	Non-Federal	Federal	Total	Carry In	Allocation	Funds Available	Actual Obligations
Conway Lake	-	$7,413,000	$7,413,000	-	-	-	-$10,488
Lower Pool 10 Island and Backwater Complex	-	$32,428,000	$32,428,000	$78,068	$5,000,000	$5,078,068	$402,048
Lower Pool 4, Big Lake	-	$18,000,000	$18,000,000	$29,071	$250,000	$279,071	$199,707
Lower Pool 4, Robinson Lake, MN	-	$12,000,000	$12,000,000	$29,061	$550,000	$579,061	$293,392
McGregor Lake	-	$23,550,000	$23,550,000	$60,065	$350,000	$410,065	$132,483
Reno Bottoms	-	$38,965,000	$38,965,000	$21,379	$5,000,000	$5,021,379	$1,111,651
Total	-	$132,356,000	$132,356,000	$217,644	$11,150,000	$11,367,644	$2,128,795

Habitat Rehabilitation

Subcategory	FY2024 Financials			
	Carry In	Allocation	Funds Available	Obligations
District Program Management	-	-	-	$479,713
Total	-	-	-	$479,713

Regional Program Administration

Subcategory	FY2024 Financials			
	Carry In	Allocation	Funds Available	Obligations
Habitat Eval/Monitoring	-	$425,000	$425,000	$231,996
Total	-	$425,000	$425,000	$231,996

	Carry In	Allocation	Funds Available	Actual Obligations
St. Paul Total	$217,644	$11,575,000	$11,792,644	$2,840,503

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FINANCIAL REPORTING 2ND QTR. FY 24

UMRR Quarterly Budget Report: Rock Island District
FY2024 Q3; Report Date: Tue Jul 16 2024

Habitat Projects

Project Name	Cost Estimates			FY2024 Financials			
	Non-Federal	Federal	Total	Carry In	Allocation	Funds Available	Actual Obligations
Beaver Island		$25,288,000	$25,288,000				$76,848
Green Island, IA	-	$16,600,000	$16,600,000	$191,858	$1,900,000	$2,091,858	$496,256
Huron Island	-	$13,773,000	$13,773,000	$2,383	-	$2,383	$2,302
Kanhoburg Bottoms	-	$29,643,000	$29,643,000	$78,784	$500,000	$578,784	$368,226
Lower Pool 13	-	$25,288,000	$25,288,000	-	$590,000	$590,000	$84,420
Lower Pool 13 Phase II	-	-	-	$6,095	$600,000	$606,095	$265,896
Pool 11, WI	-	$25,000,000	$25,000,000	-	$50,000	$50,000	$2,599
Pool 19 (Keithsburg)	-	$9,000,000	$9,000,000	$45,590	$600,000	$645,590	$431,606
Pool 19 Forestry	-	$4,000,000	$4,000,000	-	$600,000	$600,000	$206,736
Quincy Bay, IL	-	$25,000,000	$25,000,000	$68,096	$700,000	$768,096	$492,148
Rosenkrans Island	-	$41,977,000	$41,977,000	$54,706	$8,200,000	$8,254,706	$6,618,073
Total	-	$217,569,000	$217,569,000	$389,416	$13,700,000	$14,089,416	$8,985,402

Habitat Rehabilitation

Subcategory	FY2024 Financials			
	Carry In	Allocation	Funds Available	Obligations
District Program Management	-	-	-	$501,930
Total	-	-	-	$501,930

Regional Program Administration

Subcategory	FY2024 Financials			
	Carry In	Allocation	Funds Available	Obligations
Adaptive Management	$2,828	$200,000	$202,828	$92,886
Habitat Eval/Monitoring	$118,657	$425,000	$543,657	$243,416
Model Certification/Regional HREP	-	$100,000	$100,000	$53,227
Public Outreach	-	$50,000	$50,000	$9,315
Regional Program Management	$162,211	$1,500,000	$1,662,211	$1,053,690
Regional Project Sequencing	-	$123,500	$123,500	$76,292
Total	$283,695	$2,400,000	$2,683,695	$1,324,655

Regional Science and Monitoring

Subcategory	FY2024 Financials			
	Carry In	Allocation	Funds Available	Obligations
Long Term Resource Monitoring	$174	$5,500,000	$5,500,174	$4,409,488
Science in Support of Restoration/Management	-	$8,350,000	$8,350,000	$4,084,073
Total	$174	$13,850,000	$13,850,174	$8,493,561

	Carry In	Allocation	Funds Available	Actual Obligations
Rock Island Total	$673,485	$29,950,000	$30,623,485	$19,505,838

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FINANCIAL REPORTING 2ND QTR. FY 24

UMRR Quarterly Budget Report: St. Louis District
FY2024 Q3; Report Date: Tue Jul 16 2024

Habitat Projects

Project Name	Cost Estimates			FY2024 Financials			
	Non-Federal	Federal	Total	Carry In	Allocation	Funds Available	Actual Obligations
Clarence Cannon	-	$29,800,000	$29,800,000	$51,513	$650,000	$701,513	$489,360
Crains Island	-	$36,562,000	$36,562,000	$3,340	$4,825,000	$4,828,340	$1,718,202
Gilead Slough	-	$11,000,000	$11,000,000	$2,454	$550,000	$552,454	$190,863
Harlow Island	-	$37,971,000	$37,971,000	-	$925,000	$925,000	$142,132
Oakwood Bottoms	-	$34,200,000	$34,200,000	-	$525,000	$525,000	$106,033
Piasa - Eagle's Nest Islands	-	$26,746,000	$26,746,000	-	$3,950,000	$3,950,000	$1,270,741
Reds Landing Wetlands	-	$16,573,680	$16,573,680	-	$475,000	$475,000	$206,458
West Alton Missouri Islands	-	$14,500,000	$14,500,000	-	$400,000	$400,000	$272,048
Yorkinut Slough, IL	-	$8,500,000	$8,500,000	$5,721	$750,000	$755,721	$489,617
Total	-	$215,852,680	$215,852,680	$63,028	$13,050,000	$13,113,028	$4,885,454

Habitat Rehabilitation

Subcategory	FY2024 Financials			
	Carry In	Allocation	Funds Available	Obligations
District Program Management	$46,864	-	$46,864	$670,488
Total	$46,864	-	$46,864	$670,488

Regional Program Administration

Subcategory	FY2024 Financials			
	Carry In	Allocation	Funds Available	Obligations
Habitat Eval/Monitoring	-	$425,000	$425,000	$120,316
Total	-	$425,000	$425,000	$120,316

	Carry In	Allocation	Funds Available	Actual Obligations
St. Louis Total	$109,892	$13,475,000	$13,584,892	$5,676,258

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FY24 PLAN OF WORK

	Budget	Obligations as of 1 August
TOTAL FY24 Program	**$55,000,000**	**$34,155,890**
Regional Administration and Program Efforts	**$ 1,675,000**	**$ 1,314,314**
Regional Management	$ 1,260,000	
Program Database	$ 100,000	
Program Support Contract (UMRBA)	$ 140,000	
Public Outreach	$ 50,000	
Regional Project Sequencing	$ 125,000	
Regional Science and Monitoring	**$15,325,000**	**$13,475,106**
LTRM (Base Monitoring)	$ 5,500,000	
UMRR Regional Science In Support Rehabilitation/Mgmt. (MIPR's, Contracts, and Labor)	$ 8,350,000	
UMRR Regional (Integration, Adapt. Mgmt.)	$ 200,000	
Habitat Evaluation (split between MVS,MVR,MVP)	$ 1,275,000	
District Habitat Rehabilitation Efforts (Planning and Construction)	**$38,000,000**	**$19,366,470**
St. Paul District	$11,150,000	
Rock Island District	$13,700,000	
St. Louis District	$13,050,000	62.1%
Model Cert.	$ 100,000	

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FY 25 APPROPRIATIONS

President's Budget	$55,000,000
House	$55,000,000
Senate	$55,000,000
FINAL APPROPRIATION	?

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FY25 DRAFT PLAN OF WORK

	Budget
TOTAL FY25 Program	**$55,000,000**
Regional Administration and Program Efforts	**$ 2,225,000**
Regional Management	$ 1,735,000
Program Database	$ 120,000
Program Support Contract (UMRBA)	$ 145,000
Public Outreach	$ 100,000
Regional Project Sequencing	$ 125,000
Regional Science and Monitoring	**$15,925,000**
LTRM (Base Monitoring)	$ 6,500,000
UMRR Regional Science In Support Rehabilitation/Mgmt. (MIPR's, Contracts, and Labor)	$ 7,950,000
UMRR Regional (Integration, Adapt. Mgmt.)	$ 200,000
Habitat Evaluation (split between MVS,MVR,MVP)	$ 1,275,000
District Habitat Rehabilitation Efforts (Planning and Construction)	**$36,850,000**
St. Paul District	$ 9,900,000
Rock Island District	$13,925,000
St. Louis District	$12,925,000
Model Cert.	$ 100,000

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FY 25 PRESIDENTS BUDGET

HREP Feasibility

- TBD MVP
- Robinson Lake, MN

- Lower Pool 13 Phase II
- Lower Pool 11
- Pool 18 Forestry
- TBD 4th Qtr FY 24

- Gilead Slough, IL
- Reds Landing, IL
- Meredosia Island, IL

HREP Design & Construction

- McGregor Lake, WI
- Lower Pool 10 Islands, IA
- Reno Bottoms, MN
- Lower Pool 4 Big Lake, WI

- Pool 12 Forestry, IL
- Quincy Bay, IL
- Keithsburg Division, IL
- Steamboat Island, IA
- Lower Pool 13, IA
- Green Island, IA

- Yorkinut Slough, IL
- West Alton Islands, MO
- Clarence Cannon, MO
- Crains Island, IL
- Piasa and Eagles Nest Islands, IL
- Harlow Island, MO
- Oakwood Bottoms, IL

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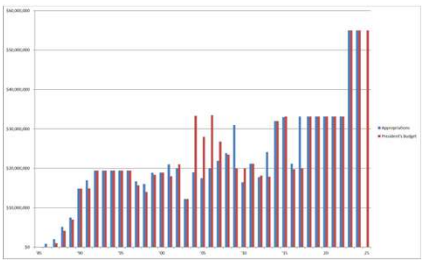
UMRR FUNDING

- From 2018-2022, Congress has funded the program to levels matching UMRR's full authorized annual amount of $33.17 million
- WRDA 2020 increased Authorization $55M (HREP = $40M / LTRM = $15M)
- FY 23 & FY 24 $55M Appropriation
- FY 25 PBUD $55M
- WRDA 2022 Authorization $90M (HREP = $75M / LTRM = $15M)



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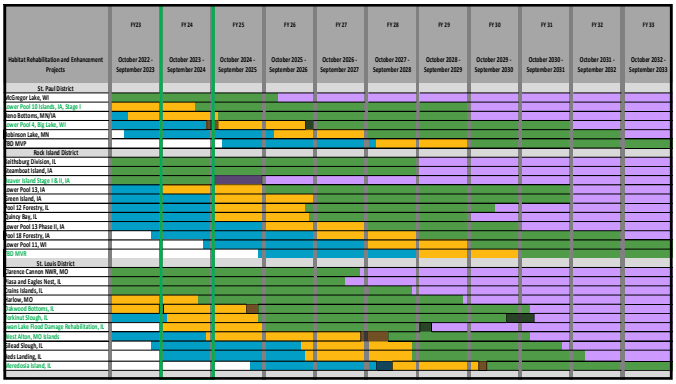

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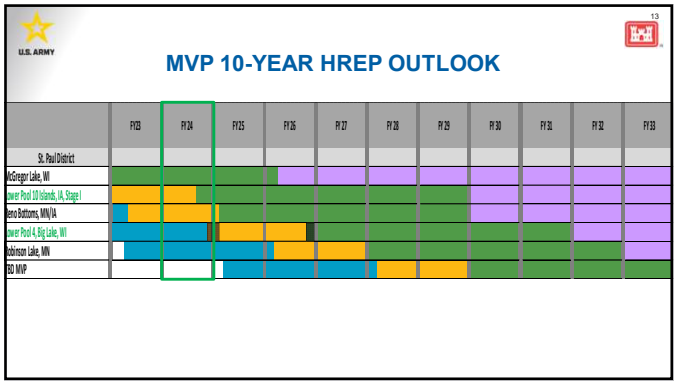

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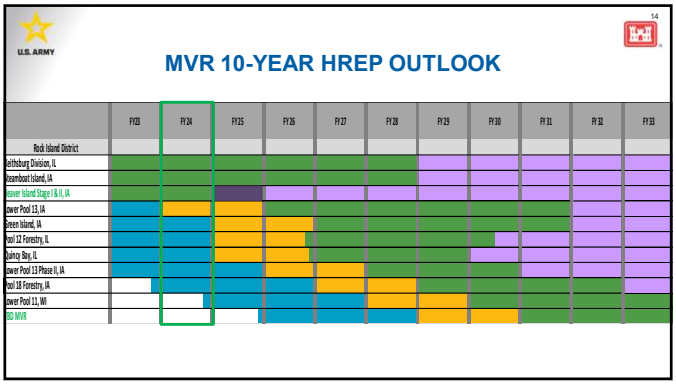

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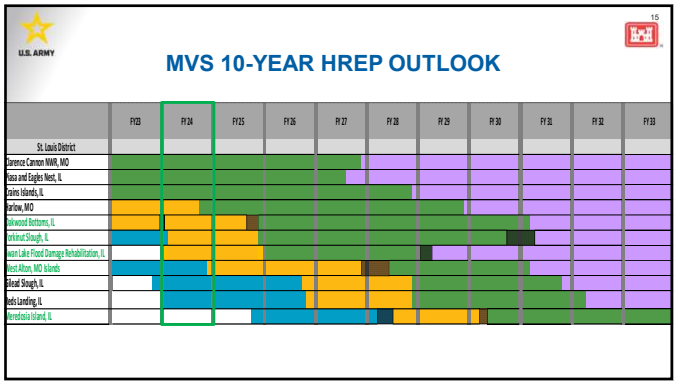

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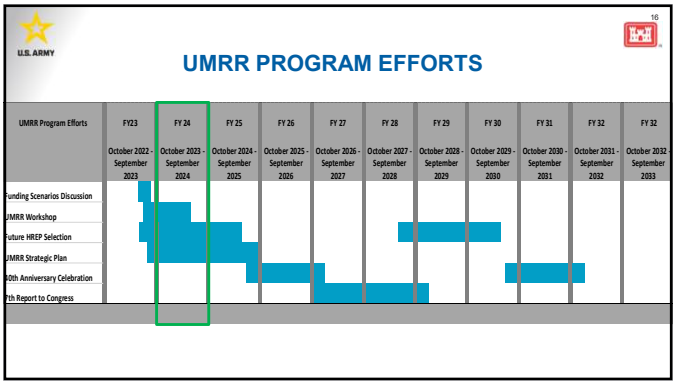

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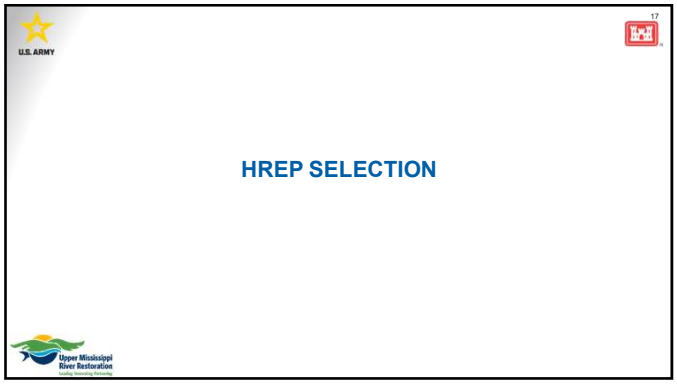

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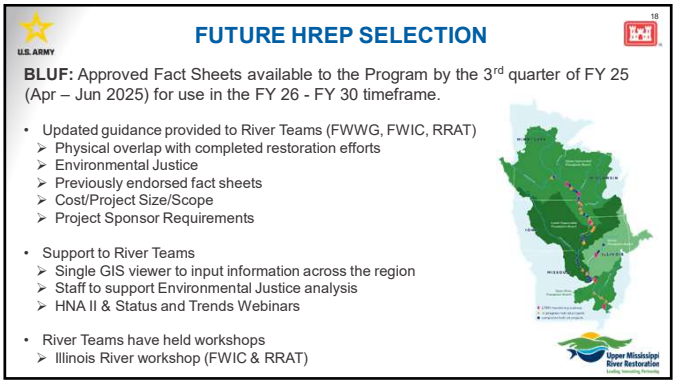

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SCHEDULE

- FWWG (St. Paul AOR)
  - 10 August Initial request
  - 9 January Pre-workshop meeting
  - 2 February Workshop
- FWIC (Rock Island AOR)
  - 26 October Pre-workshop meeting
  - 13 November Workshop
- RRAT Tech (St. Louis AOR)
  - 19 January Pre-workshop meeting
  - 7-8 March Workshop
- Illinois River (FWIC & RRAT)
  - 22 February Pre-workshop meeting
  - 9-10 April Workshop

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SCHEDULE

- August 2024 Program Planning Team Meeting
- Fall 2024 – Draft Fact Sheets for River Team (RRF, RRCT, & RRAT Exec)
- February 2025 UMRR CC – Presentation by River Teams
- May 2025 UMRR CC – Endorsement of Fact Sheets by UMRR CC

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	INITIAL FACT SHEET DEVELOPMENT	DRAFT FACT SHEETS	FINAL APPROVED FACT SHEETS	APPROVED FACT SHEET TO INITIATION OF FEASIBILITY	FEASIBILITY
When?	Oct 2023 – Aug/Sep 2024	Sep 2024 – May 2025		1 to 3 years	18 mo. – 3 years
What?	• Identification of disadvantaged communities & opportunities to engage	• Relationship building • Direct outreach to community leaders about projects that may be of interest • Articulation of specific opportunities by communities		• General Program Updates • Project schedule updates (when will it start) • Changed conditions • New communities	• Problems and opportunities refinement • Comprehensive benefits
Who?	• Corps staff primarily • District River Team (DRT) members secondary	• Corps staff • DRT members w/ existing relationships • Ad hoc committee members with expertise • Representatives from the community		• Project Delivery Team (Corps, sponsors, partners to include interested communities	• Project Delivery Team (Corps, sponsors, partners to include interested communities
How?	• Ecosystem Project Viewer (CEJST & Justice40 data) • DRT firsthand knowledge • Web based project input	• Telephone • Letter/E-mail • In person meetings • Web based project input • Social Media		• Regularly scheduled check ins • Newsletters • Community events • Social Media	• "Build a new table" • Accessible public meetings • Communication plan
Where (Document)?	• Draft Fact Sheet	• Fact Sheet Appendix		• Updated Fact Sheet Appendix	• Communications Plan • Feasibility Report w/ Integrated EA

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PARAMETRIC COST ESTIMATES

What we need from the River Teams for each project draft fact sheet.

- Questionnaire
  - Type of material at potential feature locations?
  - How far will material be moved for features?
  - Flow conditions at feature locations?
  - Constructability issues (ES, cultural, utilities, etc.)
  - Water depths at feature locations?

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COST ESTIMATES

What we need from the River Teams for each project draft fact sheet.

- Conceptual Features Map (Questionnaire Tab B)
  - ✓ Include possible access / haul routes
- Rough quantity estimates (Questionnaire Tab B)
- Anticipated locations for: (Questionnaire Tab A)
  - ✓ Borrow sites – granular/fines
  - ✓ quarry pit – riprap
  - ✓ willow sources, etc.

EXAMPLE		
Feature	Quantity	Unit
Access/Habitat Dredging	50,000	Acres/cubic yards
Islands	100,000	Acres/cubic yards
Emergent Wetlands	15,000	Acres/cubic yards
Thin Layer Placement	20,000	Acres/cubic yards
Forest Management	150	Acres
Rock Closure	5,000	Acres/cubic yards
Shoreline Protection	30,000	Acres/cubic yards
Sediment Deflector	10,000	Acres/cubic yards
Spawning Reef	500	Acres/cubic yards

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COST ESTIMATES

Corps Cost Estimating

POC's:

- MVP Kacie Grupa & Angela Deen
- MVR Steve Gustafson & Julie Millhollin
- MVS Jasen Brown & Brian Markert

When do we need this information:

- ASAP before going to Exec River Teams. Corps will need 2/3 weeks to develop.

Reminders

- Projects over $40M (planning, design, construction, and contingency) will need to be descoped
- Range of projects costs are desired

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UMRR STRATEGIC PLANNING

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UMRR STRATEGIC PLANNING

PURPOSE

PRODUCTS

PEOPLE

PROCESS

Support the strategic management of the UMRR Program

Enhance collaboration among the partnership

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UMRR STRATEGIC PLANNING

PURPOSE

PRODUCTS

PEOPLE

PROCESS

UMRR Coordinating Committee

Strategic Planning Team

Independent Facilitator

Stakeholders, individuals, and organizations

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UMRR STRATEGIC PLANNING

PURPOSE

PRODUCTS

PEOPLE

PROCESS

Program Mission, Vision, Goals, Objectives, & Strategies

Strategic Issues and Response

Implementation Plan and Evaluation

Stronger Relationships

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UMRR STRATEGIC PLANNING

PURPOSE

PRODUCTS

PEOPLE

PROCESS

Phase I – Understanding Strategic Issues

Phase II – Develop Strategic Goals and Objectives

WE ARE HERE

Phase III – Strategies and Actions

Phase IV – Public Review Process

Phase V – Finalize Strategic Plan

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UMRR STRATEGIC PLAN

- **Information Gathering on Strategic Issues**
  - February SWOT exercise with UMRR CC (C-1 to C-5)
  - 7-9 May UMRR Workshop input
  - Request for existing resources (e-mail)

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UMRR STRATEGIC PLAN

- **Request for existing resources (e-mail)**
  - 1-3 relevant resources
  - Resources" might include:
    - Organizational strategic plans for UMRS focused non-profits
    - Chapters from community comprehensive plans or economic development plans with a UMRS focus
    - UMRS reports or studies on community perspectives
    - Narrative descriptions of community art or public gatherings focused on UMRS issues
    - Transcribed personal narratives or lived experiences that express concerns, hopes, or values related to UMRS issues

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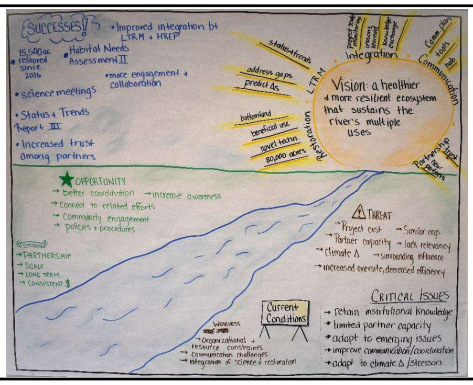

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WRDA 2024

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POTENTIAL WRDA 2024 CHANGES TO UMRR

Senate SEC. 334. UPPER MISSISSIPPI RIVER PLAN. Section 1103(e)(4) of the Water Resources Development Act of 1986 (33 U.S.C. 652(e)(4)) is amended by striking "$15,000,000" and inserting "**$25,000,000**".

House SEC. 307. UPPER MISSISSIPPI RIVER RESTORATION PROGRAM. Section 1103(e)(4) of the Water Resources Development Act of 1986 (33 U.S.C. 652(e)(4)) is amended by striking "$15,000,000 for fiscal year 1999 and each fiscal year thereafter" and inserting "$15,000,000 for fiscal year 2024 and **$20,000,000** for each fiscal year thereafter".

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MEMORANDUMS OF AGREEMENT

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MEMORANDUMS OF AGREEMENT

- The Corps has provided a model Agreement for the ASA(CW) approval on 11 July.
- Use for when the Corps will be paying for all design and construction and a State or local agency is responsible for O&M as the public entity managing the project area for fish and wildlife.
- Model language will be usable across the UMRS states while in accordance with current laws, regulations, and policies.

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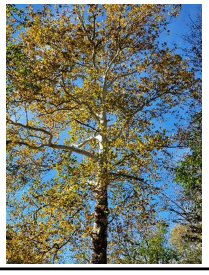
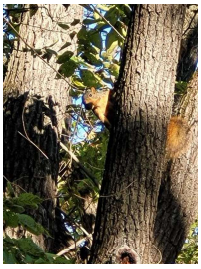
DISCUSSION

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THIN LAYER PLACEMENT

MCGREGOR LAKE

UMRR Coordinating Committee
August 7, 2024

U.S. ARMY
US Army Corps of Engineers

John Henderson, P.E.

B.S. Agricultural Engineering
University of Illinois, Urbana-Champaign

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USACE – MVP (2017-2024)

Habitat Project Experience

- Harper's Slough
- Conway Lake
- Harper's Slough Repair
- McGregor Lake Stage I & II
- Upper Pool 4 1122
- Upper Pool 4 Island 4
- Pigs Eye Islands
- Lower Pool 10 Stages I, II, & III
- Reno Bottoms
- Lower Pool 4 Big Lake
- Lower Pool 4 Robinson Lake
- Wacouta Bay
- Johnson Island
- Sny Magill

Special Thanks

Scott Baker	Sharonne Baylor
Tom Johnson	Wendy Woyczik
Tom Novak	Kendra Pednault
Kacie Grupa	Stephanie Edeler
Nathan Wallerstedt	Kirk Hansen
Angela Deen	Ryan Hupfeld
Trevor Cyphers	Pat Short
Dano Devaney	Brenda Kelly
Katie Opsahl	Jeff Janvrin
Andy Meier	Neil Rude
	Lucas Youngsma

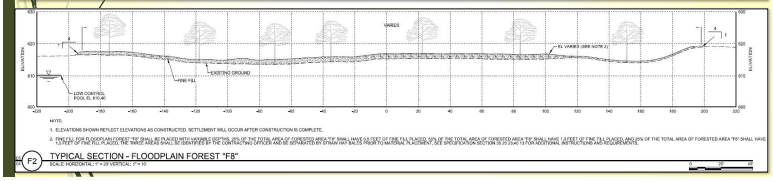
Upper Mississippi River Restoration
Leading Innovating Partnering

What is Thin-Layer Placement (TLP)?

- The strategic placement of small lifts (6 to 36 inches) of dredged material onto existing surfaces to raise the ground elevation to a more suitable hydraulic position for bolstering vegetation growth and survival.
- Primarily Coastal Use
  - https://tlp.el.erdc.dren.mil/ (Numerous Examples)
  - Village Creek Boat Launch, Lansing, IA (2000s) – Little Information Available
  - Seven Mile Island Innovation Laboratory, NJ
  - McGregor Lake HREP (3 Acre Project Feature)
- How we want to use in MVP
  - Underwhelming – That's the point.
  - Less Intrusive. Mimic Natural Processes
  - Strategic Hydraulic Placement

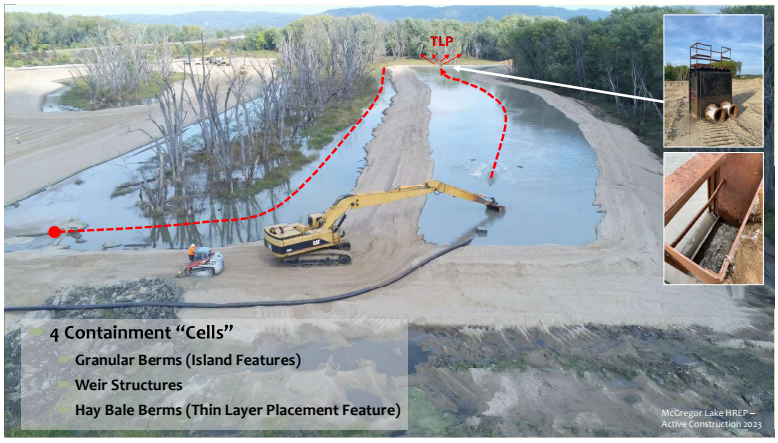
McGregor Lake HREP Pool 10

TLP at McGregor



Lessons Learned - So Far…

- Understanding Your Borrow Source
  - How do borrow-site and material specific challenges impact the project?
- Refining Containment and Placement Methods
  - Every site is unique, particularly on the Mississippi, so how do we better engineer TLP sites to reduce project costs?
- Using Lessons from Decades of Coastal Placement

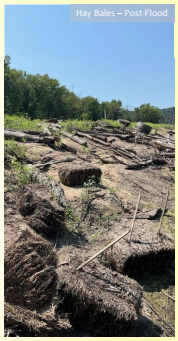


TLP Berms – Great in Theory, Tough in Practice

Earthen Berms
- Counterproductive in Wooded Areas
- Substantial Material Costs

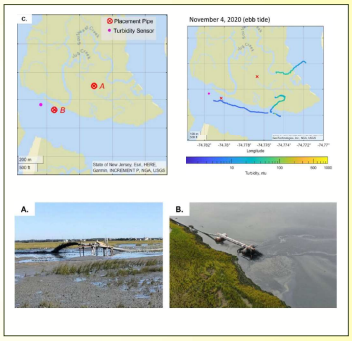
Hay Bales
- Limited Effectiveness
- Tedious Maintenance
- Challenging with differing Contours

Are they needed at all?



TLP at Seven Mile Island Complex

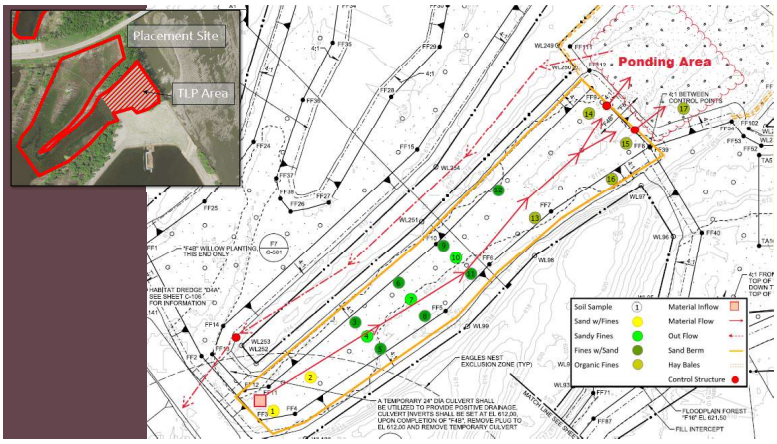
- Unconfined Placement
- Mixed Granular/Fine Material
- Requires consideration of wind and current velocities to ensure sediment does not remain suspended
- "Thus, in calm, back bay systems open water placement practices are a promising method for increasing marsh and near marsh accretion rates, while having minimal far-field turbidity impacts" (Fall et al.)
- https://www.westerndredging.org/journal
  - WEDA Volume 20, Issue 1 (2022)

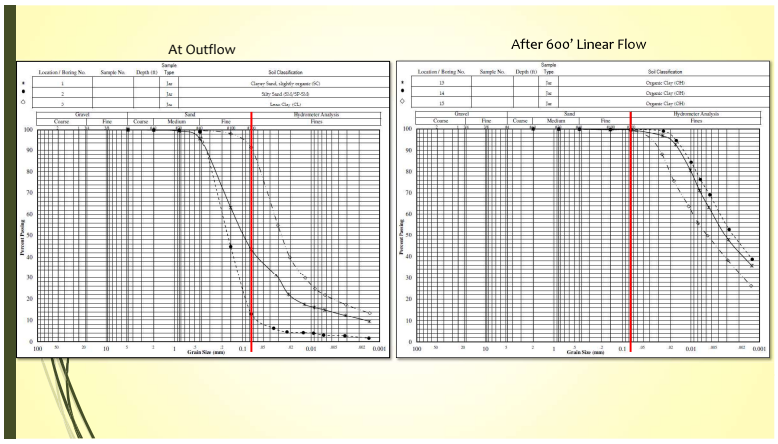


Differing Placement Methods

- Material sources are not uniform nor are the considerations we need to have when each type of material is placed
- Borrow Sources Matter
  - McGregor - 50% Granular/50% Fines
  - Sand vs Silt vs Clay
  - Productivity, Workability, Time
  - 3000CY vs 1000CY vs 300CY
  - Debris (Nozzles are problematic)
- How Material Behaves once Pumped
  - Water flows downhill…
  - Work with the river and contours


Clay Clogging Dredge at McGregor





Questions we hope to answer…

What is the impact of material placement on top of and around existing vegetation/trees?

How do we design better on future projects to increase constructability?

Impact of flocculant on settlement times in large features?

Recommendations

- **Would** recommend on future projects, with following considerations:
  - Limited Berming Requirements
  - Soil Borings of Material Borrow Sources
  - Reasonable expectations of final product
  - Providing working "paths" for contractors
  - Reasonable Water Quality Testing Requirements

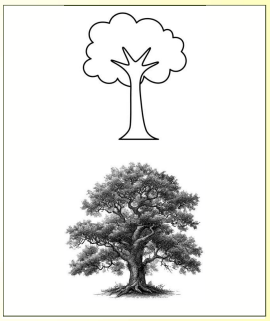
TLP in the Future

Reno Bottoms HREP

Robinson Lake HREP

15 New UMRR/NESP Fact Sheets

TLP – Another Tool



STURGEON SPAWNING REEF PLANNING
ROBINSON LAKE

Kacie Grupa, P.E.
St. Paul District UMRR Engineering Lead

UMRR Coordinating Committee
August 7, 2024

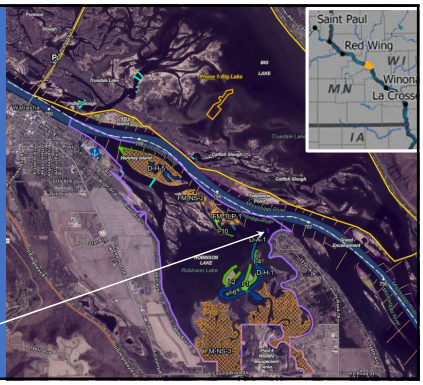
U.S. ARMY | US Army Corps of Engineers

1

Lower Pool 4 HREP - Robinson Lake HREP

Lower Pool 4 HREP
- Phase 1: Big Lake
- **Phase 2: Robinson Lake**
- Phase 3: Tank Pond

Robinson Lake Features
- Islands
- Emergent Wetlands
- Thin Layer Placement
- Non-Structural Forestry Measures
- Habitat Dredging
- Access Dredging
- ***Sturgeon Spawning Reef***



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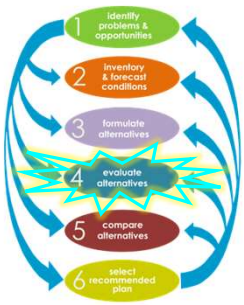
Robinson Lake HREP Planning Statements

Problem
- Degradation and changes to flow and depth diversity throughout the study area used by native fish and mussels, due to island loss and **sediment deposition.**

Objective
- Protect, enhance, and restore backwater (shallow and deep) habitats to restore, maintain or create depth diversity and flow conditions suitable for native backwater biota.

Measures:
- Habitat Dredging
- ***Sturgeon Spawning Reef***



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Spawning Reef Habitat Benefit Analysis

Why Sturgeon?
- Design proxy for large riverine fish → lithophilic broadcast spawning species.
- Similar features on the St. Clair and Detroit Rivers (MI) have been used for spawning by 18 native fish species.
- Allowing for migrating populations to spawn is very important for the conservation and management of large riverine fishes.

HEP (Habitat Evaluation Procedure) Modeling
- Walleye model is the most similar to the requirements for lake sturgeon spawning habitat
- The spawning reef would also benefit mussel species by…
  - Inciting Mussel Reproduction/Recruitment
  - Increasing Rare Mussel Species Populations
  - Increasing Mussel Colonization
  - Increasing Mussel Dispersal

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Spawning Reef Literature Review

References below provided most of the design guidelines:
- Lake sturgeon (Acipenser fulvescens) spawning habitat: a quantitative review (Baril, et al., 2018):
  - Analyzed 48 spawning sites.
  - Spawning sites were classified by:
    - Watershed (Mississippi, Great Lakes – St. Lawrence, Nelson, and James Bay)
    - River magnitude (small: <100 m3/s, large: >100 m3/s)
    - Whether data were from a peer-reviewed publication
- Lake sturgeon response to a spawning reef constructed in the Detroit river (Roseman, et al., 2011):
  - Constructed 12 reefs on the Detroit River spanning the width of a channel.
  - Analyzed substrate types to understand preferred substrates by completing egg mat, larval, juvenile and adult sampling.

Report Title	Citation
Lake sturgeon (*Acipenser fulvescens*) spawning habitat: a quantitative review	Baril, et al., 2018
A model to locate potential areas for lake sturgeon spawning habitat construction in the St. Clair–Detroit River System	Bennion & Manny, 2014
A scientific basis for restoring fish spawning habitat in the St. Clair and Detroit Rivers of the Laurentian Great Lakes	Manny, et al., 2014
Assessment of Lake Sturgeon (*Acipenser fulvescens*) Spawning Efforts in the Lower St. Clair River, Michigan	Nichols, et al., 2003
Lake sturgeon response to a spawning reef constructed in the Detroit river	Roseman, et al., 2011

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Spawning Reef Planning Variables

- Water Temperature
- Depth
- Velocity
- Substrate

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Spawning Reef Planning Variables

Water Temperature

Spawning Period Target: 11-15°C ☑

L&D 4 Average Spawning Period : 19 April – 19 May

L&D 4 Average Discharge (1981-present): 68,000 cfs

Depth and velocity targets must be met for L&D 4 discharge of approx. 68,000 cfs ☑

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Spawning Reef Planning Variables

Depth

- **Target:** **3.23 – 8.1 m** (10.6 – 26.6 ft)
- Existing Condition: 4.9 – 5.6 m (16.0 – 18.5 ft)
- With-Reef Condition: 4.3 – 5.0 m (14.0 – 16.5 ft) ☑

8

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Spawning Reef Planning Variables

Velocity

- **Target:** **0.42 – 1.35 m/s** (1.4 – 4.4 fps)
- Existing Condition:
  - Field Data: 0.57 m/s (1.87 fps)
  - Modeled: 0.84 m/s (2.75 fps)
- With-Reef Condition:
  - Modeled: 0.84 m/s (2.75 fps) ☑

9

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Spawning Reef Planning Variables

Substrate

- Common Substrates:
  - Gravel to Cobble (Baril)
  - Small to Large Broken Limestone, Cobble, Mix (Roseman)
- Cobble Definition: 64 – 256 mm (2.5 – 10.1 in)
- **Substrate Average Target:** **117 mm** (4.6 in)
- With-Reef Condition:
  - R30 riprap 241 mm (9.5 in)
  - Cobble 124 mm (4.9 in) ☑
- **Interstitial Spacing Target:** **>200 mm**

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SUMMARY

Spawning Reef Planning Variables

- Water Temperature 11-15°C ☑
- Depth 4.3 – 5 m ☑
- Velocity 0.84 m/s ☑
- Substrate 124 mm ☑

With-Reef Condition Values Presented

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Spawning Reef Layout

Width

Target: >11.3 m (>37 ft)

With-Reef Condition: 12.2 m (40 ft) ☑

Length

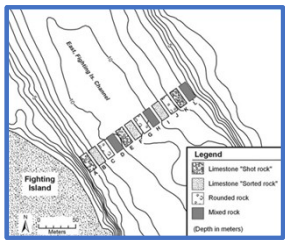
Target: > 18 m (>59 ft)

With-Reef Condition: 25.9 m (85 ft) ☑

Thickness

Target: <0.61 m (<2 ft)

With-Reef Condition: 0.61 m (2 ft) ☑



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Other Considerations

- **Location:** Reefs should be placed out of main-channel navigation areas to avoid interference with barge traffic.
- **Alignment:** Reefs should be aligned with flow.
- **Sediment-free:** Maintain interstitial space. Interstitial space provides protection for the eggs from predation.

13

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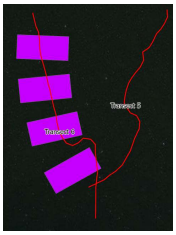
Mussel Surveys

- Sturgeon spawning reef located in high quality mussel bed
  - No Federally listed sspecies found
  - 2 MN state listed species found
    - 1 Spike (*Eurynia dilata*)-Threatened
    - 3 Monkeyface (*Theliderma metanevra*)-Threatened
- Path Forward: Re-survey for mussels in the Design phase; potential relocation by MDNR



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Robinson Lake Spawning Reef Summary

Design Element	Reference	Target (Average/Range)	Proposed Feature (Average/Range)
Water Temperature	Baril, et al., 2018	11 – 15°C	11 – 15°C 68,000 cfs (L&D 4)
Depth	Baril, et al., 2018	3.23 – 8.1 m 10.6 – 26.6 ft	4.3 – 5.0 m 14 – 16.5 ft *(includes 2-foot feature thickness)*
Velocity	Baril, et al., 2018	0.42 - 1.35 m/s (1.4 – 4.4 fps)	Modeled: 0.84 m/s 2.75 fps
Width	Roseman, et al., 2011	>11.3 m 37 ft	12.2 m 40 ft
Length	Roseman, et al., 2011	> 18 m 59 ft	25.9 m 85 ft
Thickness	Manny	<0.61 m 2 ft	0.61 m 2 ft
Substrate	Baril, et al., 2018	117 mm 4.6 in Cobble defined as 64 – 256 mm 2.5 – 10.1 in	Use two: R30 riprap: 241 mm 9.5 in Cobble: 124 mm 4.9 in
Substrate Interstitial Spacing	Roseman, et al., 2011	> 200 mm interstitial space	R30: Approx. 450 mm Cobble: Approx. 350 mm

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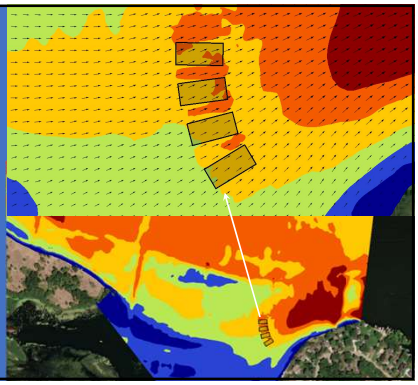
Robinson Lake Spawning Reef

Feasibility Design

- 4 spawning reefs (40x85x2 feet)
  - 2 with R30 gradation
  - 2 with cobble material
- Reefs should remain free of sediment.
  - Coarse sand velocity threshold is less than modeled velocity.
  - Deep proposed location suggesting self-scour is occurring.

Future Design Refinements

- Refine reefs to be aligned with flow.
- Analyze velocities for minimum substrate gradation to avoid mobilization.
- Refine chosen substrates.



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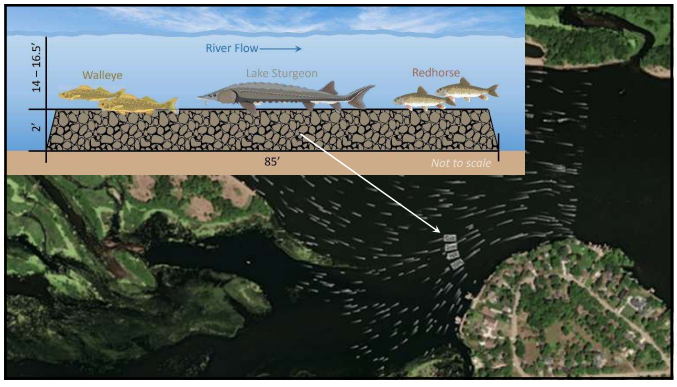

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Phytoplankton assemblage dynamics in relation to environmental conditions in a riverine lake

UMRR Coordinating Committee
August 7th, 2024

Rob Burdis

Minnesota Department of Natural Resources
Lake City LTRM Field Station

1

Upper Mississippi River - Navigation Pool 4 - Lake Pepin

Natural riverine lake located 64 river kilometers from the Twin Cities

Length = 35 km
Mean depth = 6.4 m
Max depth = 18.2 m

Water Residence Time ≈ 3 to 45 days

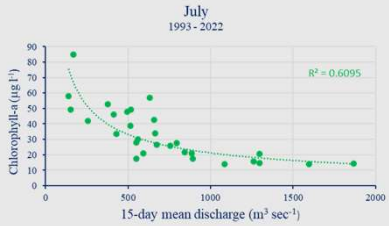
Water clarity increases two-fold through the lake (≈ 80% retention of suspended material)

2

Harmful Algal Blooms

3

Lake Pepin discharge-chlorophyll relationship



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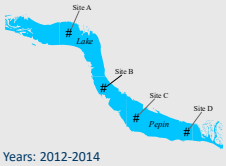
Study design

- 4 Sites in Lake Pepin

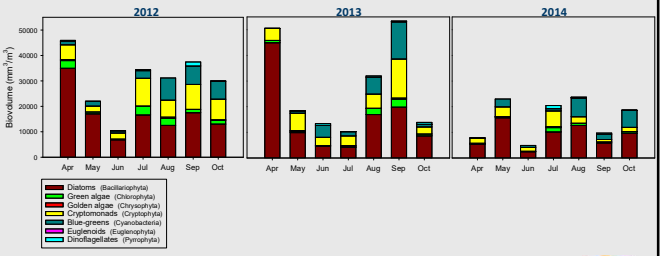


- 3 Years: 2012-2014
- Monthly phytoplankton samples (late April to October)
- Water quality samples bi-weekly to monthly

Suite of environmental variables:
water temperature
pH
dissolved inorganic nitrogen
total nitrogen
soluble reactive phosphorus
total phosphorus
silica
water residence time
water column stability (Brunt-Väisälä frequency)
zooplankton biomass
turbidity
volatile suspended solids

5

Biovolume – major groups



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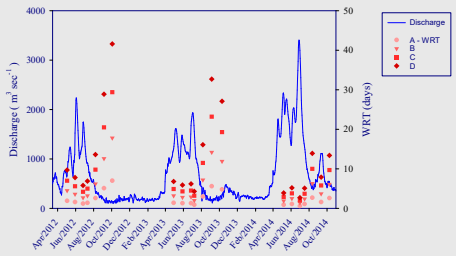
Discharge/Water Residence Time (WRT)



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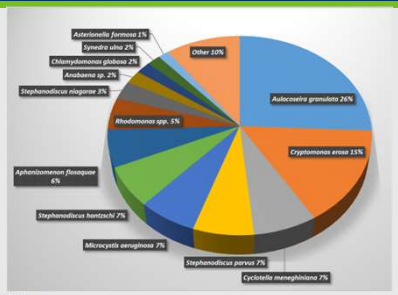
Phytoplankton assemblage - % biovolume



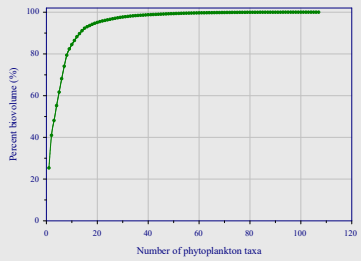
106 total taxa

13 most abundant:
7 diatoms - 53%
2 cryptomonads - 20%
3 blue-greens - 15%
1 green - 2%

93 others - 10%

8

Percent biovolume



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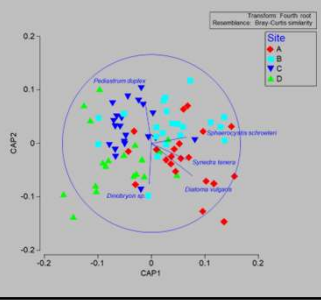
PERMANOVA

	d.f.	Mean Square	Pseudo-F	P(perm)	Percentage of overall variation
Year	2	5454	9.86	0.0001	13.4
Site	3	963	1.78	0.0018	4.6
Month	6	3563	6.44	0.0001	16.0
Year X Site	6	614	1.11	0.2480	3.0
Year X Month	12	1236	2.24	0.0001	13.2
Site X Month	18	553	1.14	0.1067	5.1
Residual	35				23.5

10

Canonical analysis of principal coordinates (CAP) - differences among sites



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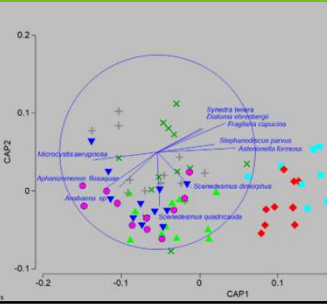
CAP – differences among months



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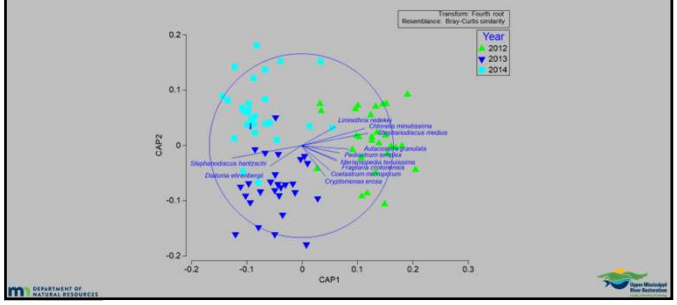
CAP – differences among years



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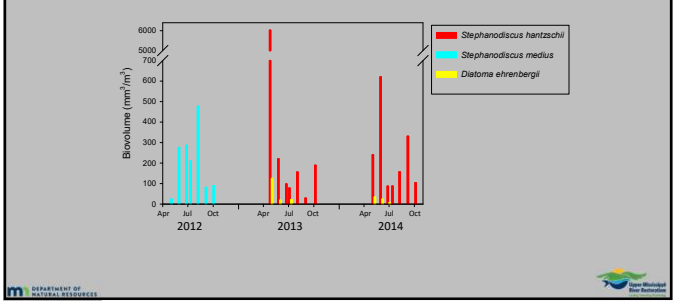
Diatoms

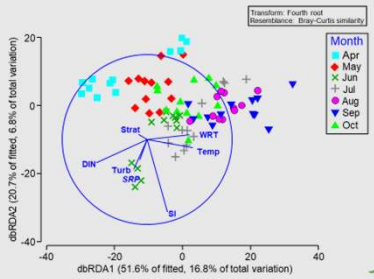


14

Distance-based linear model (DISTLM)
Distance-based redundancy analysis (dbRDA)

32.6% of the total variation in the phytoplankton assemblages was explained with the DISTLM using the following variables:

SI=silica
DIN=dissolved inorganic nitrogen
Temp=water temperature
WRT=water residence time
Turb=turbidity
SRP=soluble reactive phosphorus
Strat=water column stability



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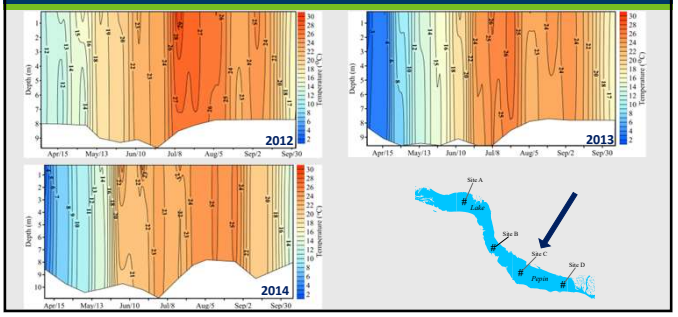
Temperature isopleths



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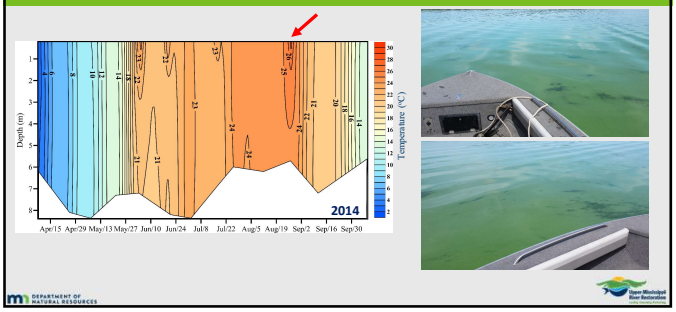
Microcystis bloom - Site D



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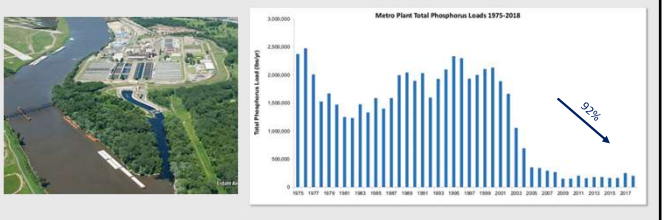
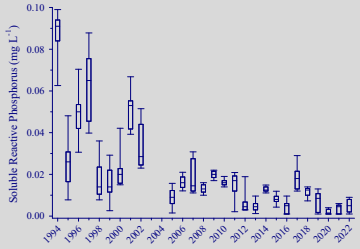
Twin Cities wastewater treatment



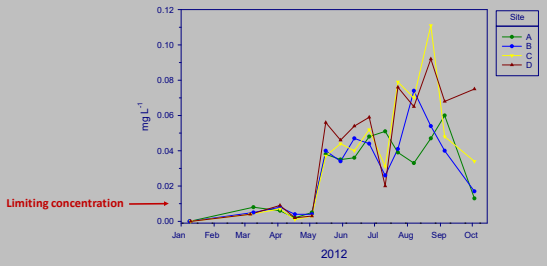
18

Lake Pepin – winter soluble reactive phosphorus



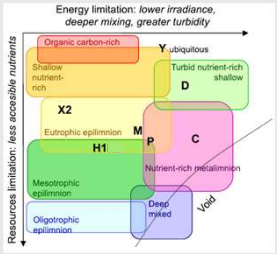
19

Soluble Reactive Phosphorus



20

Reynolds Functional Groups



Representation of the habitat template from Reynolds (1987), modified to include references to the type of aquatic ecosystems represented by environmental gradients (Reynolds, 1999)

Modified from: Kruk et al. 2021. Reynolds Functional Groups: a trait-based pathway from patterns to predictions. Hydrobiologia 848:113-129

21

Questions?

22

UMRR Strategic Planning Process

1

Phase 1: Understanding Strategic Issues

THEMES

STRENGTHS	WEAKNESSES
Partnership Scale Long-term Consistently funded Programmatic approach	Resource constraints Communication challenges Lack of integration of 2 mission areas Organizational constraints
OPPORTUNITIES	**THREATS**
Better coordination with NESP Increased awareness of UMRR Connect to related efforts/priorities Community engagement Policies and priorities	Project cost Partner ability to support Funding Similar organizations Lacking relevancy Climate change Increased oversite, decreased efficiency Influences in surrounding watershed

2

Phase 1: Understanding Strategic Issues

TOP CRITICAL ISSUES

1. **Capacity: partner staff, USACE staff, contractors.** to support the growing program in order to most effectively address environmental needs, maintain quality and retention
2. **Increasing resiliency of projects** to better combat climate change threats/ invasives/ watershed influences
3. **Data collection & analysis** prior to projects

3

Phase 1: Understanding Strategic Issues

RELEVANT INFORMATION

Potential Resources

- Organizational strategic plans for UMRS focused non-profits
- Chapters from community comprehensive plans or economic development plans with a UMRS focus
- UMRS reports or studies on community perspectives
- Narrative descriptions of community art or public gatherings focused on UMRS issues
- Transcribed personal narratives or lived experiences that express concerns, hopes, or values related to UMRS issues

Analyzed to identify themes

4

Key considerations from other organizations

--

NOT in current UMRR strategic plan

- Climate change
- Nature based solutions
- Resilience
- Future-oriented (emerging issues)
- Innovation
- Human communities/built places
- Cultural/identity connection
- Historical attributes
- Recreation
- Scenic attributes

5

Strategic pursuits (how organizations are achieving their goals)

--

NOT in current UMRR strategic plan

- Geographic-specific conservation strategies
- Management specific strategies
- Species-specific conservation strategies
- Regulatory implementation strategies
- Resource-specific conservation strategies
- Advocacy strategies
- Stakeholder engagement strategies
- DEIJ efforts
- Emergency response efforts
- Energy policy
- Fiscal responsibility strategies/economic considerations

6

Overlap with UMRR strategic plan

Findings specific to Goal 1 (Enhance habitat for restoring and maintaining a healthier and more resilient Upper Mississippi River ecosystem)

- Lots of organizations are interested in habitat restoration objective 1.1, but fewer mentioned adaptive management objective 1.2
- Many organizations are approaching ecosystem goals blended with other goals/visions in a holistic manner and/or aimed towards a very specific outcome (birds, people, communities, singular geography), rather than restoration as an end in itself. UMRR also has a strong vision but the strategic plan is generally quiet on the link between restoration and the vision
- Wasn't clear the extent to which other groups were engaging in restoration at the scale of UMRR. This seems to be a unique strength of the UMRR program

7

Overlap with UMRR strategic plan

Findings specific to Goal 2 (Advance knowledge for restoring and maintaining a healthier and more resilient Upper Mississippi River ecosystem)

- Advancing knowledge in general was a common area of overlap between UMRR and other organizations, but the capacity for the depth and detail of scientific analysis, evaluation and communication that UMRR has was much less commonly demonstrated. This area of expertise seems to really shine for UMRR
- Other organizations leaned towards a goal of increasing knowledge of the watershed or a system of interest (eg. a species or a place), while the UMRR goal of increasing knowledge seem to focus on increasing knowledge of UMRR program outcomes and application

8

Overlap with UMRR strategic plan

Findings specific to Goal 3 (Engage and collaborate with other organizations and individuals to help accomplish the Upper Mississippi River Restoration vision)

- UMRR collaboration strategies and approaches frequently overlapped with approaches and values from other groups
- Other groups are not working to deliver UMRR specific message objective 3.2 strategy 1, which makes sense
- Other groups frequently had engagement focused on building stakeholder and community capacity, which is not part of the UMRR plan

9

Overlap with UMRR strategic plan

Findings specific to Goal 4 (Utilize a strong, integrated partnership to accomplish the Upper Mississippi River Restoration vision)

- Partnership was a very common shared goal area
- Most often partnerships were built on shared geography and/or shared mission
- Often organizations named the intent of the partnership or desired outcome
- Other organizations are not working to advance objective 4.2, implement UMRR joint charter, which makes sense

10

Communication plan goals/objectives

1. **Gather data from stakeholders to inform the strategic plan**
2. **Gather feedback on draft goals and objectives from a wide variety of stakeholders**
3. Gather feedback on the draft strategic plan from a wide variety of stakeholders

11

Draft goals for 2025 - 2035

Active, engaged and inclusive partnership built on trust that supports the mission and vision of the UMRR program and meets the needs of communities, stakeholders, agencies and the public in managing the multiple uses of the upper Mississippi River System	
Improve understanding of large floodplain river ecosystem structure and function to inform the management of the upper Mississippi River system	**Enhance engagement and communication with UMRR key audiences**
Restore habitat to maintain and enhance the Upper Mississippi River ecosystem in the face of changing stressors	**Strengthen collaboration between program elements for efficient, effective and innovation restoration and management**

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Goal 1: Improve understanding of large floodplain river ecosystem structure and function to inform the management of the upper Mississippi River system

- Objectives:
- 1.1: maintain standardized base long-term monitoring on an annual basis.
- 1.2: Quantify and communicate status and trends of river and floodplain resources on a decadal basis
- 1.3: Maintain opportunities to address emerging science questions (on a triannual basis at a minimum)
- 1.4: increase scope and scale of understanding of river ecosystem structure and function
- 1.5: evaluate and anticipate ecosystem responses to changing drivers.

Goal 2: Enhance engagement and communication with UMRR key audiences

- Objectives:
- 2.1: Continue to implement current UMRR strategic engagement and communication plan and update the plan by 2027.
- 2.2: Partners will co-create communication tools to meet the goals of the engagement and communication plan. This may include an update of the graphical data viewer to make it more applicable to the general public.
- 2.3: Expand involvement in the Communications and Outreach Team 2.4: expand partner capacity to participate in UMRR engagement and communication efforts
- 2.5: Develop a centralized programmatic communication hub
- 2.6: ensure any publication or communications provided to the public are made available in multiple languages relevant to the target audience
- 2.7: prioritize development of plain-language queries relevant to public interest topics/data
- 2.8: Create UMRR 101 onboarding materials for agencies and practioners that is commonly accessible

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Goal 3: Restore habitat to maintain and enhance the Upper Mississippi River ecosystem in the face of changing stressors

- Objectives:
- 3.1: Stabilize the loss of bottomland forest (systemic forest stewardship plan language)
- 3.2: Add 60,000 to 80,000 acres of new restoration
- 3.3: Meaningfully engage new non-federal project partners
- 3.4: Promote the use of X# novel techniques
- 3.5: All projects demonstrate biodiversity benefits… all habitat objectives are met with projected change in hydrograph and other climate/stressor related changes (???)
- 3.6: X acres identified for beneficial use
- 3.7: Complete and utilize the new updated UMRR Design Handbook

Goal 4: Strengthen collaboration between program elements for efficient, effective and innovation restoration and management

- Objectives:
- 4.1: Enhance knowledge exchange by developing a framework of procedures and processes
- 4.2: standardize project monitoring data collection and serving to foster learning between project (write/document SOP/guidance for project monitoring design in LTRM study reaches and non-study reaches)
- 4.3: SOP from 2 is a part of our normal operation as a program
- 4.4: minimize uncertainty of restoration actions through targeted research
- 4.5: 3-4 projects spread across geomorphic reaches at ony one time that effectively learn from HREP to inform later HREPs using LTRM&S
- 4.6: something related to LTRM HREP integration outside of project specific actions (eg in project nomination and project selection) including systemic LTRM datasets in the project selection process based on ecological spatial orientation/habitat mosaic
- 4.7: document cumulative effects of restoration across river system (could benefit from standardized data collection across program

14

Goal 5: Active, engaged and inclusive partnership built on trust that supports the mission and vision of the UMRR program and meets the needs of communities, stakeholders, agencies and the public in managing the multiple uses of the upper Mississippi River System

- Objectives:
- 5.1: identify existing, create new, and implement transparent and accessible pathways to participate in UMRR opportunities by 2028
- 5.2: Engage 10 new underrepresented and non-traditional partners by 2035 using identified participation pathways
- 5.3 Build, maintain and strengthen trust with the current and expanded partnership
- Identify strategies to address limited partner capacity

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Review process for Goals & Objectives

AUG 16: Strategic Leadership Team Review Complete

SEP 6: Workshop participant Review Complete

SEP 23 – OCT 11: Coordinating Committee Review
- Members of the CC can allow other staff in their respective agencies to review, and provide a single documents with all comments

Is input from Phase 1 captured?

Do the objectives help achieve the goals?

Do the goals help achieve the mission/vision of UMRR?

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UMRR Strategic Planning Process

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UMRR-LTRM MONITORING AND SCIENCE UPDATE

Davi Michl
Rock Island District
UMRR-CC
7 Aug 2024



The views, opinions and findings contained in this report are those of the author(s) and should not be construed as an official Department of the Army position, policy or decision, unless so designated by other official documentation.

U.S. ARMY US Army Corps of Engineers

1

UMRR MONITORING & SCIENCE FY24

$55 Million UMRR Program

2 SOWs in FY24

SOW for LTRM base monitoring
$5.5M

SOW for science in support (analysis under base)
$1.5M

Both SOWs <u>together</u> are equivalent to a fully funded UMRR LTRM element $7.0M

Science in Support of Restoration & Management
(combined with analysis under base into 1 SOW)
$6.85M

TOTAL: $13.85M

2

UMRR MONITORING & SCIENCE FY24

LTRM

	Budget (gross)
MN	$960,408
WI	$808,323
IA	$553,442
Great Rivers (IL)	$576,343
Big Rivers & Wetlands (MO)	$616,632
IRBS (IL)	$634,892
Equipment	$225,840
Science meeting	$ 10,483
STATES TOTAL (-carry-in)	**$4,160,377***
UMESC TOTAL (-carry-in)	**$3,545,194**
Corps tech/science reps	$ 77,000
TOTAL FY24 LTRM BUDGET	**$7,782,571**

3

UMRR MONITORING & SCIENCE FY24

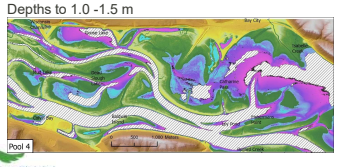
Science in Support of Restoration and Management

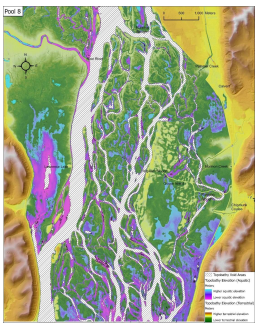
A. LTRM balance	$ 705,571
B. River Gradients – IRBS	$ 5,052
C. Macroinvertebrates	$ 199,892
D. Resilience FY25-27	$ 907,731
E. Chloride Monitoring FY24-25	$ 96,274
F. Landscape Patterns	$ 428,911
G. Topobathy UMESC support	$ 200,419
H. Implementation Planning INs	$ 2,168,249
I. Science Proposals	$ 1,990,447
Subtotal	**$ 6,702,546**
Remaining	**$ 147,454***

4

TOPOBATHY UPDATES

- FY23 Pilot Study (Pools 4 & 8)
  - Bathymetric LiDAR acquisition – Nov 2023
  - Hydrosurvey acquisition – 8 Apr 2024 – 9 Aug 2024
  - Final deliverables due: 31 Aug, on target
- Deliverables to date:
  - Classified point clouds
  - Images are derived DEMs with 0.5m resolution
  - Depths to 1.0 -1.5 m





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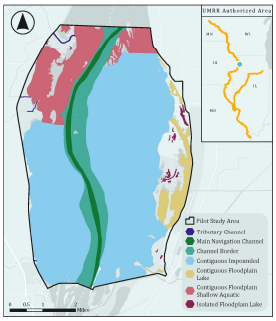
TOPOBATHY UPDATES

- Proposed FY24 Topobathy Acquisition
  - Lower Pool 13 pilot study expansion
    - Support Lower Pool 13 HREP/HARP
    - Use best-of-FY23 Pilot sensors
    - Test additional sensor capabilities/efficiencies
    - Develop HYPACK-compatible software to determine bottom typing
    - QA/QC reports



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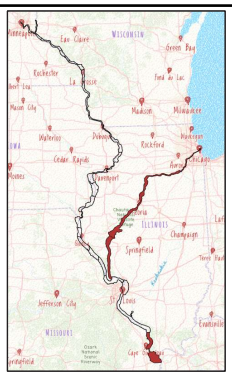
TOPOBATHY UPDATES

FY24 Acquisition Area
- ILWW (La Grange to Lockport)
- Open River 2 (Ohio confluence to Grand Tower, IL), as funding allows

Deliverables
- Data ready to use on projects:
  - Classified point clouds of elevation values
  - Digital Elevation Models (DEM)
  - Ground control reports
  - Accuracy reports
  - QA/QC reports



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QUESTIONS?

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HABITAT RESTORATION - DISTRICT REPORTS

39

ST. PAUL DISTRICT PROJECT UPDATE

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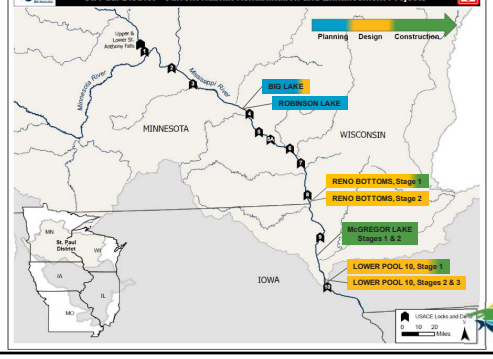
St. Paul District - Current Habitat Rehabilitation and Enhancement Projects



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PLANNING

- **Robinson Lake – Pool 4, MN**
  - Array of alternatives set
  - Quantities, Cost, HEP underway
  - Late August – CE/ICA discussion
  - Fall – TSP decision

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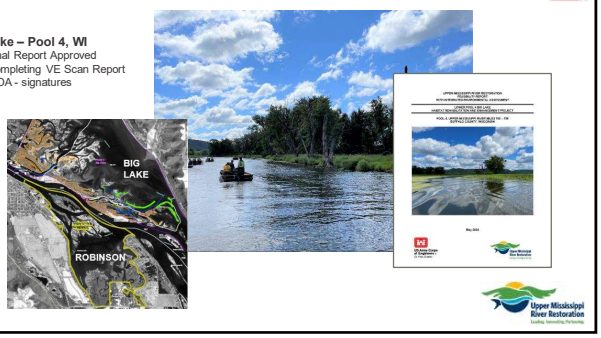
PLANNING

- **Big Lake – Pool 4, WI**
  - Final Report Approved
  - Completing VE Scan Report
  - MOA - signatures



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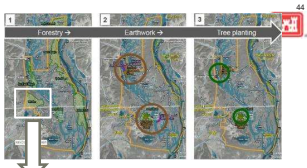
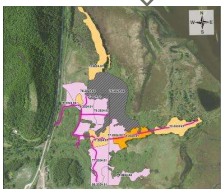
DESIGN

- **Reno Bottoms HREP – Pool 9, MN/IA**

Stage 1
- Forest Management Actions
- USACE Completed SOW
- Contract Award TBD

Stage 2
- A/E Design
- 65% Review – Completed
- 95% Review – Sept
- Plan-in-hand Site Visit
  - Aug 22-23 with A/E and Partners





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DESIGN

- **Lower Pool 10 HREP – Pool 10, IA**
  - A/E Design of Stages 1-3
  - Stage 1 – Bid Opening!
  - Stages 2 & 3 – in review
    - August 15-16 Site Visit planned

45

CONSTRUCTION

- **McGregor Lake HREP – Pool 10, WI**
  - Stage 1: 100% Complete
    - Drafting O&M Manual
  - Stage 2: 60% Complete
    - Weathered flooding
    - Completing fines placement & berm mixing
    - Final grading & seeding 2025

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ROCK ISLAND DISTRICT PROJECT UPDATE

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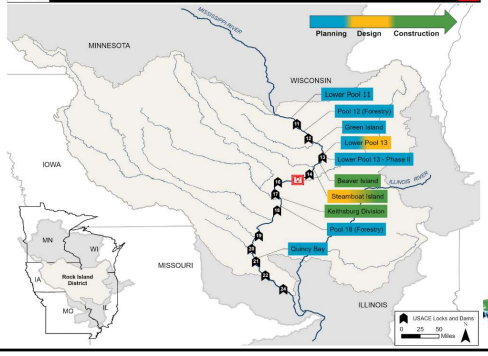
Rock Island District - Current Habitat Rehabilitation and Enhancement Projects



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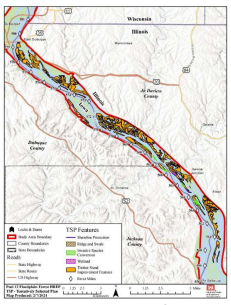
PLANNING

- **Lower Pool 11 – Pool 11, WI**
  - Requesting the PDT
  - Next Step: Schedule Kickoff Meeting
- **Pool 12 Forestry – Pool 12, IA/IL/WI**
  - Finalizing MVD policy and legal review
  - PDT addressing final DQC comments
  - Next step: Final ATR and report to MVD for Approval
- **Green Island – Pool 13, IA**
  - Final ATR is completed
  - Cost certification completed
  - PDT working on final approval package to MVD
  - Next step: Approval from MVD



Pool 12 Forestry TSP

Green Island TSP

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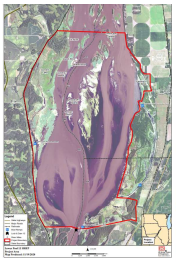
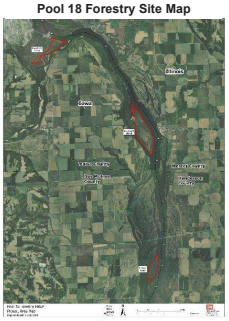
PLANNING

- **Lower Pool 13 Phase II – Pool 13, IA/IL**
  - PDT completed Chapter 1-3 review
  - The PDT is establishing screening criteria
  - Next step: Final array in September
- **Pool 18 Forestry – Pool 18, IA**
  - Completed alternative formulation
  - Final array was finalized - Jul 24th
  - Next step: Start cost and habitat analysis for the final array



Lower Pool 13 Phase II Site Map

Pool 18 Forestry Site Map



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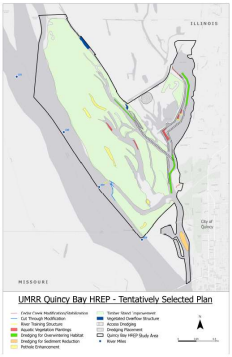
PLANNING

- **Quincy Bay – Pool 21, IL**
  - Final DQC and ATR completed
  - PDT routing the final package for MVD approval
  - Next step: MVD approval



UMRR Quincy Bay HREP - Tentatively Selected Plan

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DESIGN

- **Lower Pool 13 Stage I – Pool 13, IA/IL**
  - PDT getting ready for 30% design reviews
  - Next step: 30% design reviews scheduled for November
- **Steamboat Island Stage III – Pool 14, IA/IL**
  - 30% design reviews started July 15th
  - PDT addressing 30% comments
  - Next step: 65% design reviews

Steamboat Island Stage III Draft Site Plan

52

CONSTRUCTION

- **Beaver Island Stage IB, Pool 14, IA/IL**
  - Ribbon cutting ceremony being planned for October
- **Steamboat Island Stage I – Pool 14, IA/IL**
  - Contractor has completed all riprap placement
  - Engineering is reviewing the final survey
  - PDT is sending survey out to make sure no damage happened during high water event
- **Steamboat Island Stage II, Pool 14, IA/IL**
  - Contractor is dredging and placing material
  - Protest – on-going

Steamboat Stage II – Placing material at the Island Head

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CONSTRUCTION

- **Keithsburg Division Stage I, Pool 18, IL**
  - Contractor has demob due to high water
- **Keithsburg Division Stage II, Pool 18, IL**
  - Contractor is not on-site
- **Huron Island, Stage III - ERDC, Pool 18, IA**
  - Spring growth assessment is scheduled for August 13th – delayed due to high water
  - Supplemental plantings is scheduled for August 20-22nd
  - Survival survey is scheduled for September 17th

Keithsburg Division Stage I – Spring Slough Road July 26th

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OTHER ACTIVITIES

- **Forestry Inventory Services Blank Purchase Agreements (BPA)**
  - Awarded July 2024
  - FY 24 SOW:
    - Lower Pool 11 – awarded contract
- **Forestry Multiple Award Task Order Contract (MATOC)**
  - FY24 SOW:
    - Steamboat Island – out for bid
    - Lower Pool 13 – awarded contract
    - Spring Lake – awarded contract
- **PER Site Visits**
  - Scheduling the following site visit this FY:
    - Rice Lake – rescheduling due to high water
    - Princeton – completed on June 28th
    - Pool 11 Islands – Postponed until next FY
    - Lake Odessa – Scheduled for August 15th

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ST. LOUIS DISTRICT PROJECT UPDATE

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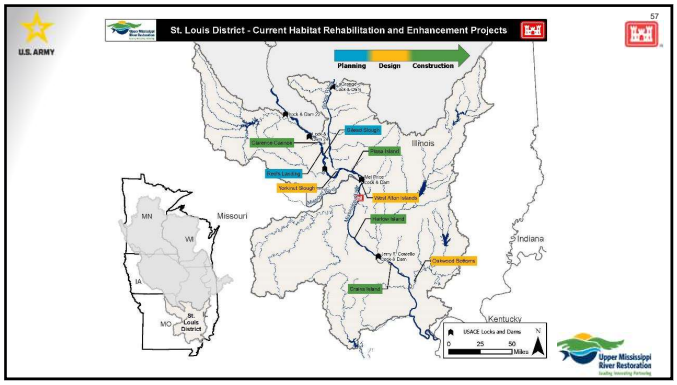

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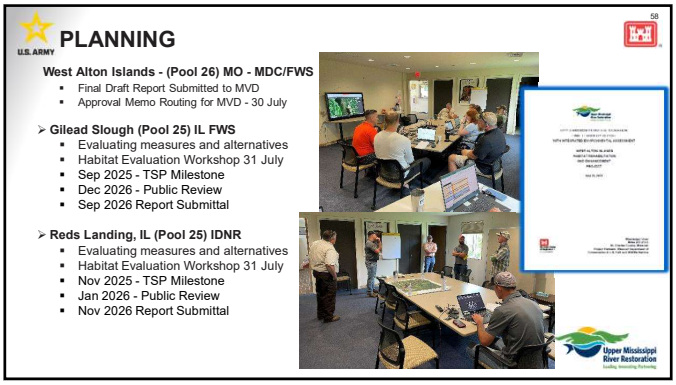

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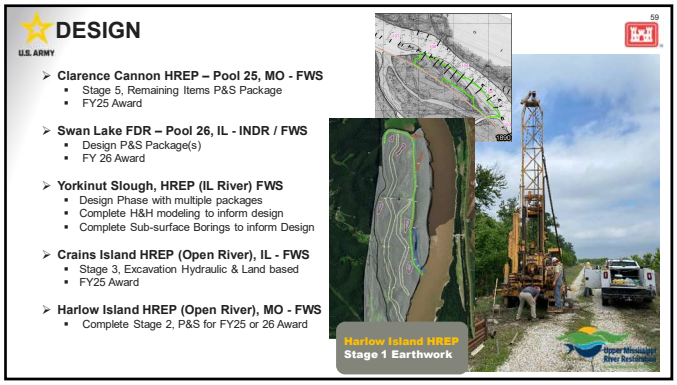

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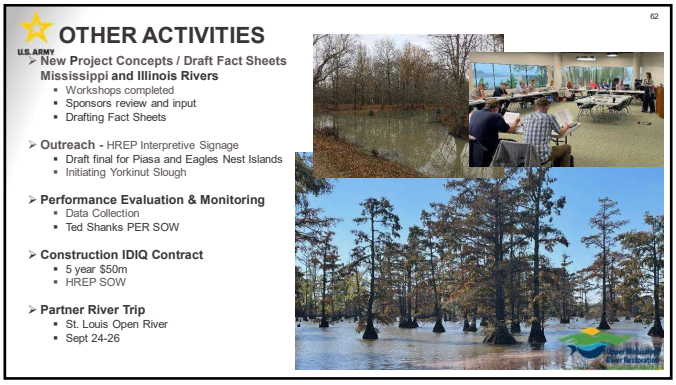

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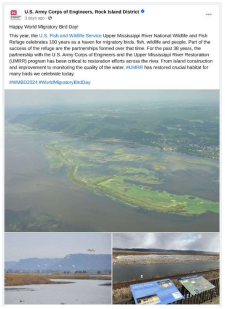
UMRR COMMUNICATION AND OUTREACH TEAM
Update

Rachel Perrine
- *Water Resource Planner*
- *Rock Island District Plan Formulation Section Chief*
- *UMRR Communication and Outreach Team Lead*

1

Where We've Been …

- Inaugural UMRR photo contest planning
- World Migratory Bird Day social media post
- Initial discussions regarding potential updates to UMRR outreach materials, kiosks, and interpretive stations



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Where We're Going …

- Ongoing support for 2022 UMRR Report to Congress
- Potential updates to UMRR outreach materials, kiosks, and interpretive stations
- Social media engagements (World Rivers Day | September 22, 2024)
- Synthesizing, discussing, and prioritizing input from the May 7-9 UMRR Workshop
- Inaugural UMRR Photo Contest!

3

UMRR COMMUNICATION AND OUTREACH TEAM – UMRR PHOTO CONTEST

"Empowering Conservation Through Vision: Capturing the Upper Mississippi River's Essence"

Who: UMRR partners
When: Photo submission period is August 1 – October 31, 2024; photos can be from any season or taken during prior years.
Why: To bolster UMRR's program materials and communication efforts.

Categories:
- Before/After, Construction, or Benefits of HREPs
- Connecting People with Nature, Human Use, or Public Interaction
- Natural Features, Scenic Views, or Landscapes
- Cultural or Historic Features
- LTRM – Monitoring in Action

4

UMRR COMMUNICATION AND OUTREACH TEAM – UMRR PHOTO CONTEST

"Empowering Conservation Through Vision: Capturing the Upper Mississippi River's Essence"

Prizes:
- Your contribution to:
  - bolstering the UMRR program's materials and communication efforts
  - amplified awareness and fostered appreciation for this vital ecosystem restoration and monitoring program
  - Celebration of the Upper Mississippi and Illinois Rivers through the lens of your creativity
- UMRR gear and/or framed photo (if under $20)
- "Our Mississippi" highlight in Spring 2025

5

UMRR COMMUNICATION AND OUTREACH TEAM – UMRR PHOTO CONTEST

Submission Link:
https://form.jotform.com/241196197003151

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QUESTIONS

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UMRR Communication and Outreach Team

Rachel Perrine
USACE-RPEDN-PD-F @ MVR
Rachel.E.Perrine@usace.army.mil

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