

Attachment 1

A large, multi-decked riverboat is positioned in the center of a wide river. The boat has a white upper deck and a lower deck with a dark railing. The water is calm, reflecting the boat and the surrounding environment. The background is a hazy, green landscape with trees and hills. The foreground is framed by dark green trees on the left and right sides.

NAVIGATION & ECOSYSTEM SUSTAINABILITY PROGRAM

UPPER MISSISSIPPI RIVER SYSTEM

NECC – ECC MEETING
AUGUST 2005



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Summary Work Plan – Format



(handout)

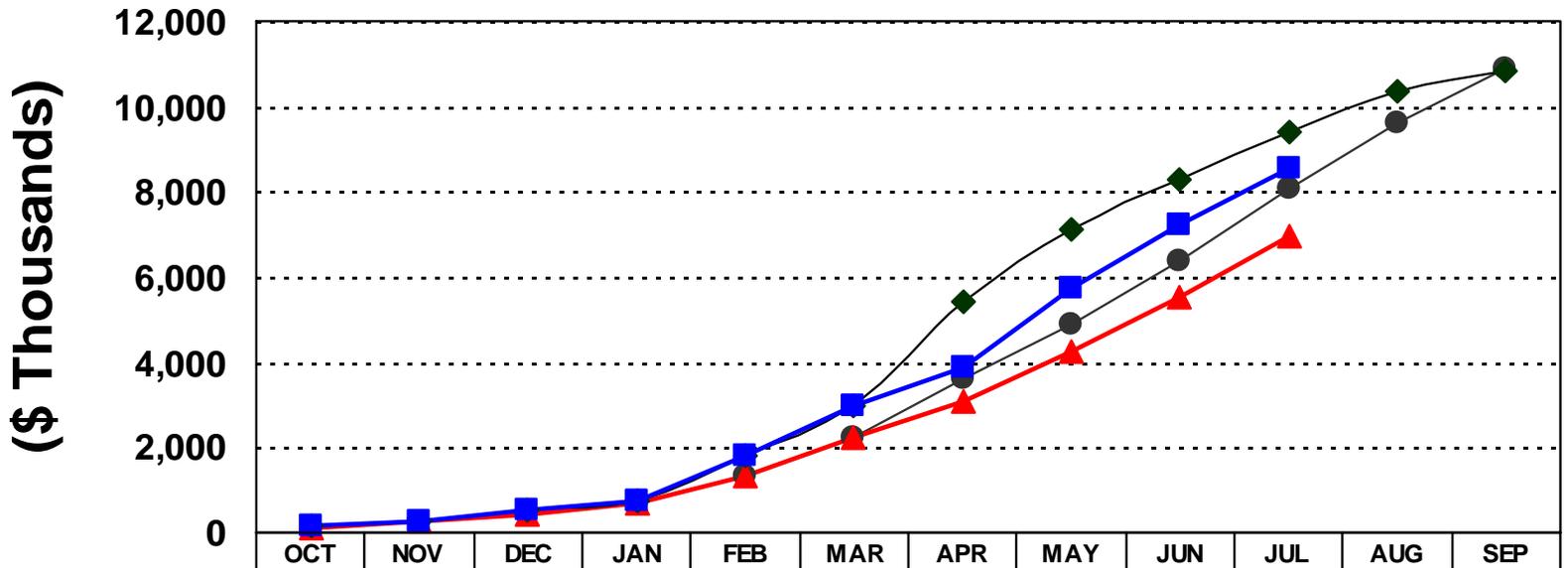
- Project Scope
- Project Completion Date
- Project Manager
- Team Leader
- Project Management Plan – phase(s), scope, outputs
- Interim Completion Date
- Key Activities in FY06 by Quarter
- End of Quarter Statement of Accomplishment
- FYXX Budget
- More information – 15- Year Plans, Project Management Plans, Project Information Paper



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FY05 Status

FY05 Project Financial Execution



	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
—●— Sched. Expenditures	110.8	279.2	449.8	708.4	1,300.9	2,230.7	3,603.5	4,876.4	6,371.1	8,047.7	9,593.1	10,906.9
—▲— Actual Expenditures	110.8	279.2	449.8	708.4	1,300.9	2,230.7	3,056.8	4,248.8	5,532.4	6,940.6		
—◆— Sched. Obligations	161.8	282.2	509.6	735.3	1,792.1	2,986.6	5,395.5	7,103.5	8,280.1	9,419.2	10,347.7	10,849.2
—■— Actual Obligations	161.8	282.2	509.6	735.3	1,792.1	2,986.6	3,869.5	5,755.6	7,242.7	8,561.7		

—●— Sched. Expenditures —▲— Actual Expenditures —◆— Sched. Obligations —■— Actual Obligations



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FY05 Status - Navigation



	Initial	Now
F - NAV Adaptive Management	456,000	456,000
G - Systemic Env Mitigation	449,000	459,000
H - Appointment Scheduling	47,000	47,000
I – Mooring Cells & Buoys	281,000	203,000
J – Switchboats	135,000	135,000
K – Lock 22	1,380,000	1,970,000
L – Lock 25	1,893,000	2,034,000
M – LaGrange Lock	115,000	175,000



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FY05 Status - Ecosystem



	Initial	Now
N - Ecosystem Restoration Plan	360,000	349,000
O – Adaptive Management	900,000	983,000
P – Systemic Cultural Resources	500,000	500,000
Q – Systemic Forest Management	100,000	200,000
R – Systemic Fleeting Plan	150,000	70,000
S – Island Building – Pool 11	190,000	147,000
T – Fish Passage – LD 26	180,000	172,000
U – Fish Passage – LD 22	300,000	338,000



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FY05 Status - Ecosystem



	Initial	Now
V – Floodplain Restoration	350,000	110,000
W – Pool Water Level Management	300,000	469,000
X – Backwater Restoration	100,000	100,000
Y – Side Channel Restoration Schenimann Chute	50,000	0
Z – Side Channel Restoration Buffalo Island	300,000	241,000



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FY05 Status - Ecosystem



	Initial	Now
AA – Wing Dam/Dike Alteration Herculaneum	180,000	215,000
AB – Wing Dam/Dike Alteration Pool 2	100,000	100,000
AC – Island-Shoreline Protection	70,000	70,000
AD – Dam Point Control – LD 25	250,000	279,000
AE – Dam Embankment Lowering LD 8	100,000	100,000
AF – Reduce Water Level Fluctuation - IWW	100,000	130,000



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FY05 Status - Summary



	Initial	Now
Programmatic	1,885,000	1,951,000
Navigation	4,755,000	5,479,000
Ecosystem Restoration	4,580,000	4,573,000
High Estimate	11,220,000	12,000,000
Work Allowance		10,900,000
Low Estimate		10,200,000



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Navigation – LD 25

New 1200' Lock



- **Project Scope: 1200' lock ... June 2017**
- **PM: Rich Astrack TL: Steve Hobbs**
- **PMP: Design Phase (DDR) ... April 2008**
- **Key Activities in FY05 by Quarter**
 - **QTR4: Hydraulic modeling (physical and numeric), concept study (AE), draft report – study of approach walls, complete subsurface exploration +++**
- **FY05 Budget: \$2,034,000**



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Ecosystem – LD 25

Dam Point Control



- **Project Scope:** Altering Pool 25 water regime to better accommodate fish & wildlife ... Sep 2011
- **PM:** Rich Astrack **TL:** Michelle Kniep
- **PMP:** Plan Phase (Feasibility) ... Sep 2008
- **Key Activities in FY05 by Quarter**
 - **QTR4:** Complete existing conditions inventory and modeling
- **FY05 Budget:** \$279,000



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FY06 (\$12 M) - Navigation



	Draft
F - NAV Adaptive Management	540,000
G - Systemic Env Mitigation	200,000
H - Appointment Scheduling	60,000
I – Mooring Cells & Buoys	0
J – Switchboats	0
K – Lock 22	2,000,000
L – Lock 25	2,200,000
M – LaGrange Lock	250,000



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FY06 (\$12 M) - Ecosystem



	Draft
N - Ecosystem Restoration Plan	500,000
O – Adaptive Management	1,100,000
P – Systemic Cultural Resources	500,000
Q – Systemic Forest Management	100,000
R – Systemic Fleeting Plan	150,000
S – Island Building – Pool 11	190,000
T – Fish Passage – LD 26	250,000
U – Fish Passage – LD 22	450,000



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FY06 (\$12 M) - Ecosystem



	Draft
V – Floodplain Restoration	400,000
W – Pool Water Level Management	350,000
X – Backwater Restoration - Peoria	100,000
Y – Side Channel Restoration Schenimann Chute	0
Z – Side Channel Restoration Buffalo Island	300,000



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FY06 (\$12 M) - Ecosystem



Draft

AA – Wing Dam/Dike Alteration Herculaneum	180,000
AB – Wing Dam/Dike Alteration Pool 2	100,000
AC – Island-Shoreline Protection	80,000
AD – Dam Point Control – LD 25	250,000
AE – Dam Embankment Lowering LD 8	150,000
AF – Reduce Water Level Fluctuation - IWW	100,000



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FY06 (\$12 M) – Summary



Draft

Programmatic	1,500,000
Navigation	5,250,000
Ecosystem Restoration	5,250,000
Total	12,000,000



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Navigation – LD 25

New 1200' Lock



- **Project Scope: 1200' lock ... June 2017**
- **PM: Rich Astrack TL: Steve Hobbs**
- **PMP: Design Phase (DDR) ... April 2008**
- **Key Activities in FY06 by Quarter**
 - QTR1: Lock Concept Determination +++
 - QTR2: Foundation Characterization Report+++
 - QTR3: Site relocation/staging/disposal area design+++
 - QTR4: Updated cost estimate+++
- **FY06 Budget: \$2,200,000**



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Ecosystem – LD 25

Dam Point Control



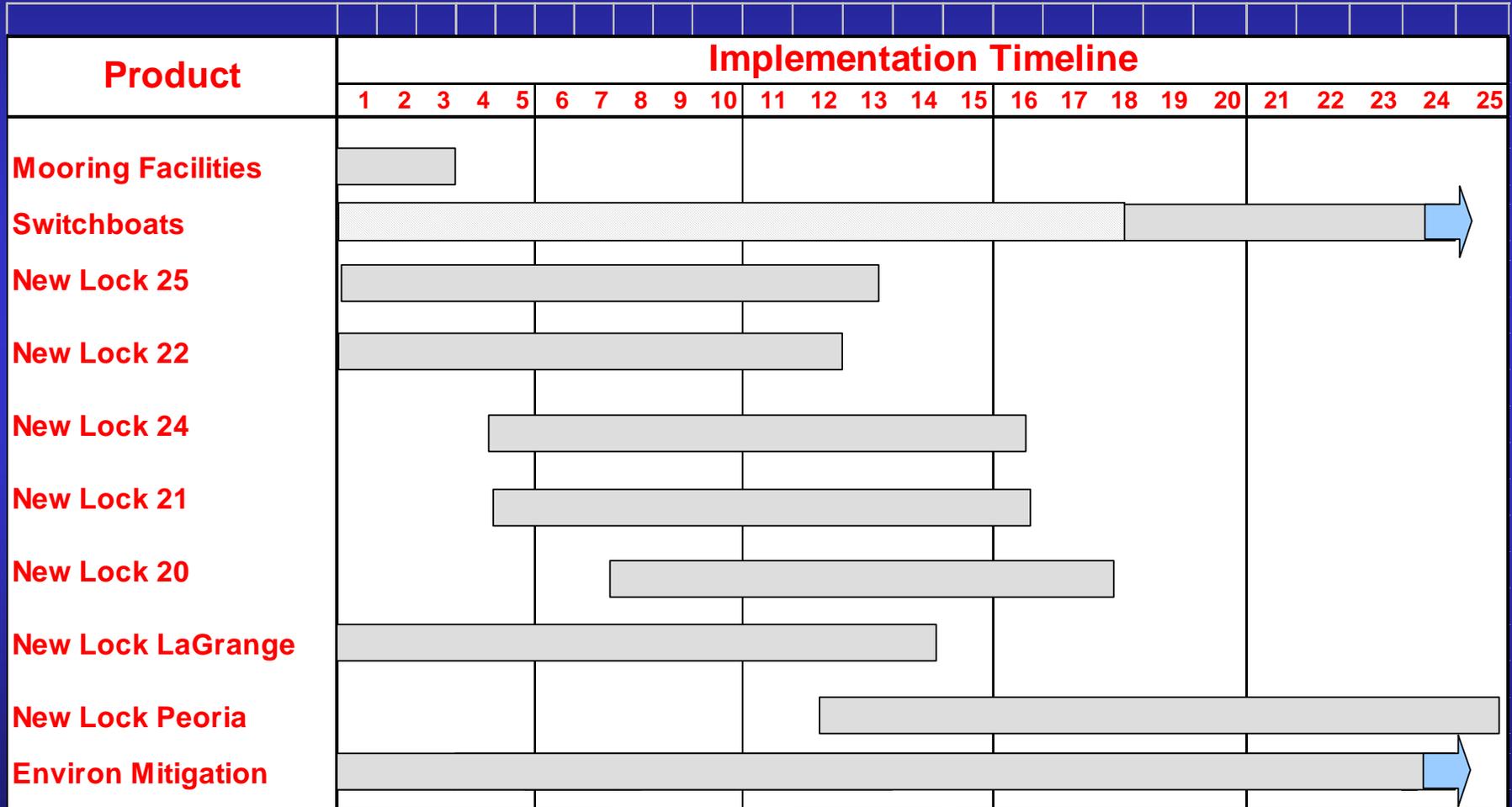
- **Project Scope:** Altering Pool 25 water regime to better accommodate fish & wildlife ... Sep 2011
- **PM:** Rich Astrack **TL:** Michelle Kniep
- **PMP:** Plan Phase (Feasibility) ... Sep 2008
- **Key Activities in FY06 by Quarter**
 - **QTR1:** Complete HEC-EFM existing condition model
 - **QTR2:** Complete GIS database
 - **QTR3:** Initiate alternatives evaluation
 - **QTR4:**
- **FY06 Budget:** \$250,000



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IMPLEMENTATION TIMELINE

From Feasibility Study



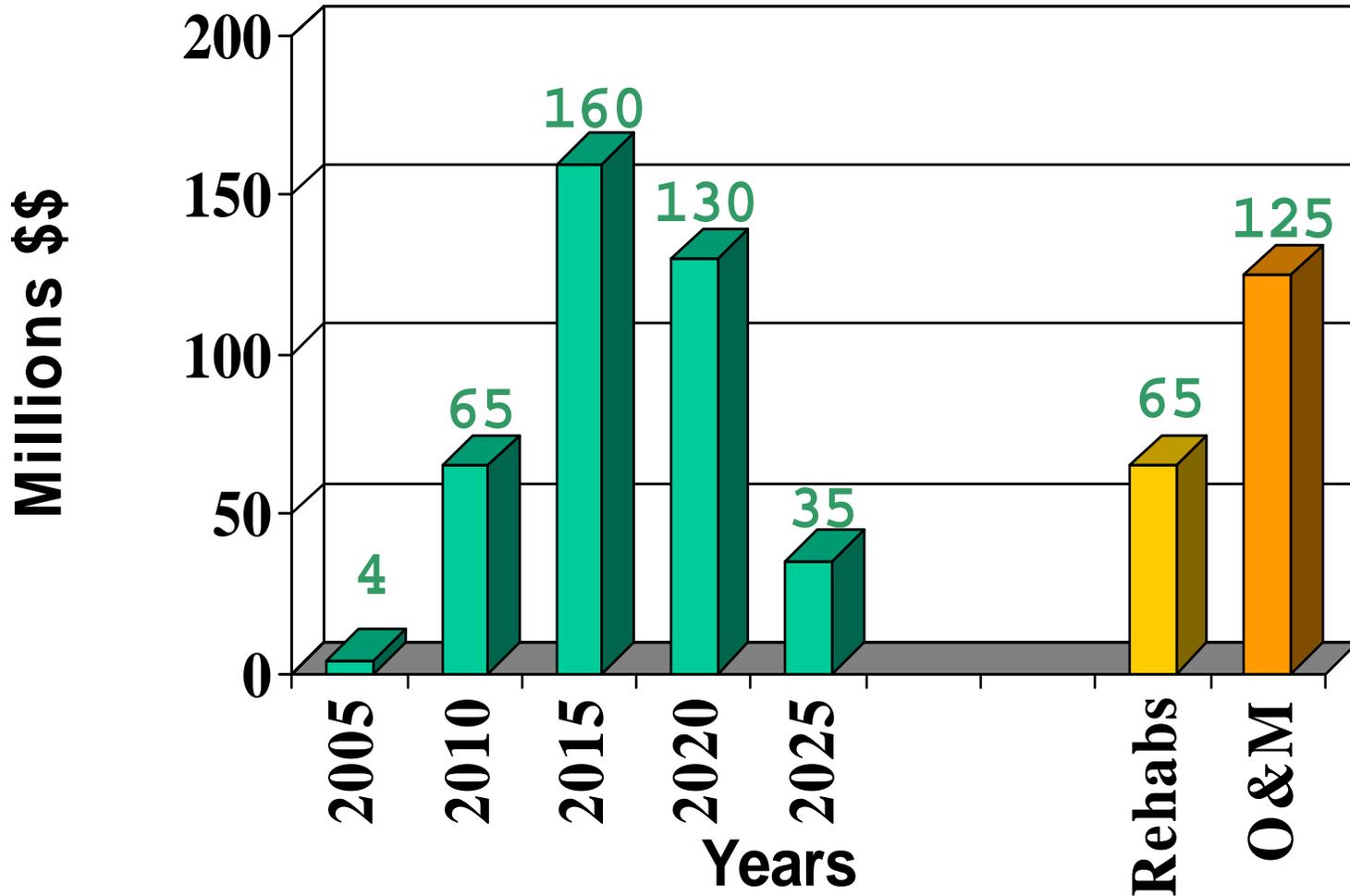


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Challenge: Funding Stream



From Feasibility Study Navigation Program Costs





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First Increment Schedule & Budget

\$2.03 billion – Navigation
\$1.58 billion - Ecosystem



- Prepare schedules for *first increment* under different funding scenarios
 - Set schedule and estimate cash flow for navigation
 - Develop mix of ecosystem restoration projects to match cash flow
- Present timeline and funding needs for a scenario on the same graph
- Update graphs annually based on current information – work progress, actual funds received, and other information



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Implementation Capability and Efficiency



- Need flexible implementation strategy that addresses the range of funding scenarios.
- Prioritization of ecosystem initiatives will need to consider implementation strategy.



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Corps Internal Management



- Internal considerations
 - How to integrate management of programs
 - How to engage stakeholders
- Reach common understanding among program managers ... and management hierarchy within Corps
- Reach common understanding with FWS



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Corps Principles for Integrated Management of the UMRS (*)



■ Corps Programs

- NESP
- EMP
- Section 519
- Operation & Maintenance of 9-Ft Channel Project
- Regulating Works
- Major Rehabilitation of 9-FT Channel Project
- *Continuing Authorities as appropriate*

(*) Principles currently being considered and discussed



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Corps Principles for Integrated Management of the UMRS (*)



- “Reach” planning
 - Corps districts will be individually responsible for “reach” planning for MR reaches
 - MVR and MVS will be jointly responsible for “reach” planning for the IWW reach
- Districts will act jointly in “system” planning
- Stakeholders engaged throughout ...

(*) Principles currently being considered and discussed



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Corps Principles for Integrated Management of the UMRS (*)



- **Integrated reach & system planning for navigation**
 - NESP – system planning for capacity expansion
 - O&M – system planning for major rehabilitation
 - O&M – Reach and system planning for operation & maintenance of the 9-ft channel
 - Implementation is through available programs – NESP, O&M, Regulating Works, and specifically authorized major rehabilitation projects

(*) Principles currently being considered and discussed



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Corps Principles for Integrated Management of the UMRS (*)



- **Integrated reach & system planning for ecological health**
 - NESP – reach and system planning
 - Implementation is through available programs – NESP, EMP, Section 519, and O&M

(*) Principles currently being considered and discussed



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Corps Principles for Integrated Management of the UMRS (*)



■ UMRS-IWW Reach

- NESP – System Planning for IWW portion of the UMRS
 - Section 519 – Watershed Planning for Illinois River Basin
 - Implementation in the UMRS-IWW is primarily through NESP, but may be through Section 519. Actions in tributary watersheds are through Section 519.
-
- Program development for all UMRS programs (NESP, EMP, O&M, MR, and Regulating Works) will be integrated at the system level before being reassembled as part of District Programs

(*) Principles currently being considered and discussed



To seek long-term sustainability of the economic uses and ecological integrity of the Upper Mississippi River System



Attachment 2

NESP WORK PLAN for FY 05
4-Aug-2005

Project Identifier & Name	Project Scope & Target Date for Completion	Project Manager	Team Leader	PMP Identifier & Phases/Stages	PMP Scope, Outputs & Target Date for Completion	Quarterly Projections (key activities by quarter) FY 2005	Quarterly Progress Statement (progress and expenditures relative to plan and corrective actions)	Budget FY 2005	
A. Feasibility/PEIS Wrap-up	Provide support to MVD and Headquarters. Dec-05	S. Whitney	S. Whitney	None Plan (Feasibility)	Complete and closeout feasibility phase. Jun-05	QTR 1: MRC Briefing, Chiefs Report Signed QTR 2: ITR Comment Resolution, Tech Rpt. Compl. QTR 3: Final Closeout	Task Complete and Closed-Out by end of 3rd Quarter	\$220,000	
B. Program Management	All program activities that are not addressed as part of specific projects and initiatives. Annual	Program C. Spitzack	S. Whitney	PGMP Annual	FY 2005 program management activities. Sep-05	QTR 1: FY05 Workplan, Team Charter QTR 2: Program Implementation and Communication QTR 3: Program Execution and Tracking QTR 4: FY06 Planning, FY05 Close-Out		\$630,000	
C. PgMP Development	Development of the initial PgMP for all aspects of the program and annual updates. Annual	Mar-05 C. Spitzack	N. McVay	None	Develop initial PgMP. Begin updating for FY 2006. Mar-05	QTR 1: Draft PgMP Development QTR 2: Draft PgMP Review QTR 3: Final PgMP Approval, Close-Out	Task Complete and Closed-Out by end of 3rd Quarter	\$370,000	
D. Institutional Arrangements	Development and implement of institutional arrangements for integrated management.	Program J. DeZellar	R. Soileau	D.1.0.1 Annual	Develop and implement institutional arrangements for integrated management. Sep-05	QTR 4: COE by in on guidelines for continuing modifications of IA FWS by in on guidelines for continuing modifications of IA Define objectives and set up Stakeholder Workshop for Oct FY06		\$261,000	
E. Systemic Public Involvement	Public involvement and communication activities not related to specific projects and initiatives. Annual	Program J. DeZellar	K. Bluhm	E.1.0.1 Annual	FY05 PI and communication activities not related to specific projects and initiatives, including development of an initial communication plan for NESP and for the UMRS. Sep-05			\$285,000	
F. Navigation Adaptive Management	Monitor, evaluate, and report concerning adaptive management of the navigation system. Includes market studies, scenarios and forecasts, efficiency monitoring, economic modeling, project reformulation, report preparation, etc.	Mar-09 R. Astrack	R. Astrack	F.1.0.1 Plan (Evaluation)	Complete ITR Initiate Data Collection and Analysis Initiate Notification Report NETS Completes Demand Elasticity Initiate Evaluation Report Submit Notification Report Submit Evaluation Report Submit Updated Feasibility Report	Jul 05 Apr 05 Oct 05 Dec 05 Feb 06 May 08 Mar 09 Jun 18	QTR 4: ITR (complete Feas phase ITR) Monitor / Review NETS Program Navigator Economic Data Monitoring and Analysis (plan development based upon progress in the NETS program)	About \$330,000 is being used to complete the ITR	\$455,800
G. Systemic Environmental Mitigation	Design and implement systemic mitigation requirements.	S. Whitney	M. Cornish	G.1.0.1 Design (Field Studies)	Short-term studies to validate model predictions - submersed aquatic plant validation (Pools 5,9,11,13,19), fish trawling (Pool 14), mussel surveys (12 sites), bank erosion surveys. Includes cultural study of bank erosion. Outputs – Study Reports.	QTR 3: Presentation to the NECC Team Meetings SAV Contract was negotiated PMP Revised Bank Erosion Team Created a GIS coverage Systemic Mitigation Bank Erosion subgroup Site Visit Pool 13 ERDC will Initiate Data Entry for Mussel QTR 4: SAV Contractor Began Field Sampling Bank Erosion Team is Planning a Interagency ERDC initiated Data Entry into Mussel Field Reports		\$458,667	

Project Identifier & Name	Project Scope & Target Date for Completion	Project Manager	Team Leader	PMP Identifier & Phases/Stages	PMP Scope, Outputs & Target Date for Completion	Quarterly Projections (key activities by quarter) FY 2005	Quarterly Progress Statement (progress and expenditures relative to plan and corrective actions)	Budget FY 2005
M. Lock La Grange	Design and construct a new 1200' lock.	S. Whitney	M. Tarpey A. Werner	M.1.0.1 Design (DDR)	Projec Management Plan Design Documentation Report DDR Program and Proeject Mgmt Engineering Analysis and Design Socio/Economics Environmental HTRW Studies Cultural Resources Cost Estimates Report Documentation Value Engineering/Management Construction E&D During Construction	QTR 4: Lock Alignment A/E Task Order Surveying A/E Task Order HTRW Phase 1 Report		\$175,000
N. UMRS Ecosystem Restoration and Management Plan	Reconnaissance level (integrated) restoration plans that identify and prioritize projects for near-term implementation ... those starting within three years.	Program S. Whitney	H. Dehaan	N.1.1.1 Plan (Recon - Stage 1)	Project Management Plan Develop Planning Process Establish Monitoring Plan Develop Initial Implementation Plan	Mar 05 Mar 05 Mar 05 Jun 05	QTR 4: Project Management Plan Distribute Draft Planning Process Distribute Draft Monitoring Plan Distribute Draft Implementation Plan	\$348,865
O. Ecosystem Adaptive Management	Develop and implement adaptive management process for ongoing system/project monitoring, evaluation, and plan/design adjustment.	Program S. Whitney	K. Barr	O.1.0.1 Plan	FY 05 ER adaptive management activities.	Sep-05		\$900,000
O2. Ecosystem Adaptive Management Mile 100 Islands	Develop and implement adaptive management process for ongoing system/project monitoring, evaluation, and plan/design adjustment.	K. Barr	T. Allen	Plan (Monitoring)	Winter Sampling Spring Sampling Summer Sampling Complete Final Report	07 Mar 05 16 May 05 18 Jul 05 May 07	QTR 2: Winter Sampling Fish Identification QTR 3: Spring Sampling Fish Identification QTR 4: Summer Sampling Fish Identification	\$78,000
P. System Cultural Stewardship	Develop and implement cultural resources plan.	S. Whitney	J. Ross	P.1.0.1 Plan	Cultural resources plan.			\$500,000
Q. Forest Management	Develop and implement forestry management plan.	J. DeZellar	R. Urich	Q.1.0.1 Plan	Draft Systemic Forest Mgmt Plan Forest Inventory in Reno Bottoms Sediment Transects Vegetation Classifications from Imagery	30 Sep 05 30 Sep 05 30 Sep 05 30 Sep 05	QTR 4: Complete item in Section 7	\$200,500
R. Fleeting Plan	Develop and implement fleeting plan.	S. Whitney	D. Bollman	R.1.0.1 Plan	Systemic fleeting plan report.			\$70,000
S. Island Building - Pool 11	Plan, design, and construct islands in Pool 11.	Oct-08 S. Whitney	R. Nickel	S.1.0.1 Plan	Development of the PMP Development of the DPR		QTR 4: Administer Mussel Survey Contract	\$157,000
T. Fish Passage - L&D 26	Plan, design, and construct fish passage at LD 26.	R. Astrack	T. Atchley	T.1.0.1 Plan	Program Management Definite Project Report Structural Testing Project Monitoring	Jan 05 Apr 05 May 05 Jun 05	QTR 3: Fish Passage Summit Site Visits for Fish Passage Structures Pre-Construction Monitoring QTR 4: Geotechnical Record Search Initial Hydraulic Analysis on Cofferdam DPR NEPA Coordination Additional Schedule/Budget Detail for PMP	\$172,000

Project Identifier & Name	Project Scope & Target Date for Completion	Project Manager	Team Leader	PMP Identifier & Phases/Stages	PMP Scope, Outputs & Target Date for Completion	Quarterly Projections (key activities by quarter) FY 2005	Quarterly Progress Statement (progress and expenditures relative to plan and corrective actions)	Budget FY 2005
U. Fish Passage - L&D 22	Plan, design, and construct fish passage at LD 22. Coordinate planning with design of new lock ...	S. Whitney	M. Cornish	U.1.0.1 Plan	Program Management Jan 05 Definite Project Report Apr 05 Structural Testing May 05 Project Monitoring Jun 05	QTR 2: Draft PMP/Draft DPR Final DPR Plans & Specs Construction Contract Award QTR 3: Fish Passage Summit Public Meeting Society of American Military Presentation PMP Revised Fargo Field Trip Pre-Construction Monitoring PDT Meetings QTR 4: PDT Meetings Geotechnical Borings Results Pre-Draft DPR NEPA and Section 106 Coordination Pre-Construction Monitoring Final PMP		\$338,000
V.1 Floodplain Restoration - Emiquon	Plan, design, and construct floodplain restoration at Emiquon in the Illinois River floodplain.	S. Whitney	B. Thompson	V.1.0.1 Plan	Develop PMP Initiate Coordination of Design Agreement with TNC			\$50,000
V.2 Floodplain Restoration - Root River	Plan, design, and build floodplain restoration.	J. DeZellar	J. Petersen	V.2.0.1 Plan	Develop PMP Initiate Coordination of Design Agreement with State of MN			\$20,000
V.3 Floodplain Restoration - Pierce County, WI	Plan, design, and build floodplain restoration.	J. DeZellar	J. Petersen	V.3.0.1 Plan	Develop PMP Initiate Coordination of Design Agreement with State of WI			\$20,000
V.4 Floodplain Restoration - Emiquon West	Plan, design, and build floodplain restoration at Emiquon West	S. Whitney	B. Thompson	V.4.0.1 Plan	Develop PMP Initiate Coordination of Design Agreement with TNC	QTR 4: Plan & Expend \$20k on developing PMP		\$20,000
W.1 Pool Water Level Management: Pool 5	Monitoring before, during, and after the drawdown.	J. DeZellar	J. DeZellar	W.1.0.1 Implement (Monitor)	Initiate Monitoring Mar 05 Start Drawdown 13 Jun 05 End Drawdown 30 Sep 05 Complete Monitoring 30 Sep 05	QTR 4: End Drawdown 30 Sep 05 Complete Monitoring 30 Sep 05		\$269,354
W.2 Pool Water Level Management: Pool 9	Plan, design, implement water level draw down. Sep-07	J. DeZellar	S. Jutila	W.2.0.1 Plan	Initiate Definite Project Report 1 Apr 05 Initiate Monitoring 1 May 05 Complete FY05 Monitoring 30 Sep 05	QTR 4: Draft EA 30 Sep 05 Draft Hydraulic Analysis 30 Sep 05 Complete FY05 Monitoring 30 Sep 05		\$100,000
W.3 Pool Water Level Management: Pool 18	Plan, design, implement water level draw down.	S. Whitney	K. Landwehr	W.3.0.1 Plan	Project Management Plan 01 Feb 05 Definite Project Report 01 Feb 05 Implementation Plan 01 Jan 06 Monitoring Plan 01 Mar 05 Construction E&D 01 Oct 06 Construction 01 May 07	QTR 4: Public Meetings Aquatic Vegetation Mapping by Contract (MACTEC) Background Cultural Properties Evaluation by Contract (Bear Creek)		\$115,000
X. Backwater Restoration (Dredging) - Middle Peoria Pool Backwaters	Plan, design, and implement backwater restoration at Middle Peoria Pool Backwaters.	S. Whitney	M. Plumley	X.1.0.1 Plan	Decision document			\$100,000
Y. Side Channel Restoration - Schenimann Chute	Plan, design, and construct side channel restoration at Schenimann Chute.	R. Astrack	M. Thompson					\$0

Project Identifier & Name	Project Scope & Target Date for Completion	Project Manager	Team Leader	PMP Identifier & Phases/Stages	PMP Scope, Outputs & Target Date for Completion	Quarterly Projections (key activities by quarter) FY 2005	Quarterly Progress Statement (progress and expenditures relative to plan and corrective actions)	Budget FY 2005
Z. Side Channel Restoration - Buffalo Island	Plan, design, and construct wing dam/dike alteration at Buffalo Island.	R. Astrack	B. Johnson	Z.1.0.1 Plan	Initiate Feasibility Study 26 Jan 05 Complete Alternatives Analysis 23 Sep 05 Complete Draft Report 14 Feb 06 Feasibility Study Approved 17 Oct 06 Complete Plans & Specs 31 Sep 06 Complete Construction 30 Sep 07	QTR 4: Complete Habitat Assessment Complete ICA Complete Cultural Resource Assessment Continue Pre-Project Monitoring	ESTIMATED CONTRACT CARRYOVERS INCLUDE \$8,250 FOR FALL FISH AND WATER QUALITY SAMPLING	\$240,600
AA. Wing Dam/Dike Alteration - Herculaneum	Plan, design, and construct wing dam/dike alteration at Herculaneum. Sep-11	R. Astrack	L. Hopkins	AA.1.0.1 Plan	Initiate Feasibility Study Feb 05 Initiate Pre-Construction Monitoring Jul 05 Complete Alternatives Analysis Sep 05 Complete Draft Report Feb 06 Feasibility Study Approved Aug 06 Complete Engineering & Design Sep 06 Complete Construction Sep 07 Complete Monitoring Sep 10 Complete Project & Final Report Sep 11	QTR 4: Complete Habitat Assessment Aug 05 Complete ICA Sep 05 Complete Cultural Res. Assessment Sep 05 Continue Pre-Project Monitoring Sep 05		\$215,500
AB. Wing Dam/Dike Alteration - Pool 2	Plan, design, and construct wing dam/dike alteration in Pool 2.	J. DeZellar	E. Stefanik	AB.1.0.1 Plan	Initiate Baseline Monitoring Jul 05 Finalize Wingdam Notch Designs Sep 05	QTR 3: Initiate Baseline Monitoring QTR 4: Continue Baseline Monitoring Complete Wingdam Notch Designs		\$100,000
AC. Island Shoreline Protection	Plan, design, and construct shoreline protection in stages throughout UMRS.	S. Whitney	T. Kirkeeng	AC.1.1.1 Plan, Design, Construct for Stage 1.		QTR 4: Workshop in Rock Island on August 11th Selection of Two Sites Per District Bathymetric Surveys (MVR & MVP) and Mussel Survey (MVP)		\$70,000
AD. Dam Point Control - L&D 25	Plan, design, and implement change to multiple point control (hinge point to dam point). Sep-11	R. Astrack	M. Kniep	AD.1.0.1 Plan	Initiate Feasibility Study 26 Jan 05 Complete PMP 28 Mar 05 Complete Alternatives Analysis 31 Oct 06 Complete Draft Report 30 Nov 07 Feasibility Study Approved 30 Sep 08	QTR 4: Complete existing conditions inventory and modeling		\$279,000
AE Dam Embankment Lowering - L&D 8	Plan, design, and construct dam embankment lowering at L&D 8.	J. DeZellar	J. DeZellar	AE.1.0.1 Plan	Initiate Definite Project Report 1 Apr 05 Initiate Monitoring 1 May 05 Complete FY05 Monitoring 30 Sep 05	QTR 4: Complete FY05 Monitoring 30 Sep 05		\$100,000
AF. Reduce Water Level Fluctuation - IWW	Plan, design, and implement water level fluctuation project on the IWW.	S. Whitney	K. Landwehr	AF.1.0.1 Plan	Project Management Plan 01 Feb 05 Develop Planning Process 01 Feb 05 Establish Monitoring Plan 01 Mar 05 Construction E&D 01 Mar 07 Construction 01 Jul 07	QTR 4: Aquatic Vegetation Mapping Starved Rock, Marseilles, and Dresdne Island Pools by Contact (MACTEC) Completion of Dam Gate Remoting Requirments and Cost Estimates		\$130,000
TOTAL PROGRAM FY05 COST ESTIMATE								\$11,838,286

Attachment 3

NESP WORK PLAN for FY 06

4-Aug-2005

Project Identifier & Name	Project Scope & Target Date for Completion	Project Manager	Team Leader	PMP Identifier & Phases/Stages	PMP Scope, Outputs & Date for Completion	Target	Quarterly Projections (key activities by quarter) FY 2006	Quarterly Progress Statement (progress and expenditures relative to plan and corrective actions)	Budget FY 2006
B. Program Management	All program activities that are not addressed as part of specific projects and initiatives. Annual	Program C. Spitzack	S. Whitney	PGMP Annual	FY 2005 program management activities.	Sep-06	Revised and Re-Approved PgMP, FY06 Workplan, Continued PED Implementation, Fact Sheets, Communication and Coordination, Program and Project Financial Tracking and Performance, Project Scheduling, etc....		\$975,000
D. Institutional Arrangements	Development and implement of institutional arrangements for integrated management.	Program J. DeZellar	R. Soileau	D.1.0.2 Annual	Develop and implement institutional arrangements for integrated management.	Sep-06			\$225,000
E. Systemic Public Involvement	Public involvement and communication activities not related to specific projects and initiatives. Annual	Program J. DeZellar	K. Bluhm	E.1.0.2 Annual	FY05 PI and communication activities not related to specific projects and initiatives, including development of an initial communication plan for NESP and for the UMRS.	Sep-06			\$300,000
F. Navigation Adaptive Management	Monitor, evaluate, and report concerning adaptive management of the navigation system. Includes market studies, scenarios and forecasts, efficiency monitoring, economic modeling, project reformulation, report preparation, etc.	Mar-09 R. Astrack	R. Astrack	F.1.0.1 Plan (Evaluation)	Complete ITR Initiate Data Collection and Analysis Initiate Notification Report NETS Completes Demand Elasticity Initiate Evaluation Report Submit Notification Report Submit Evaluation Report	Jul 05 Apr 05 Oct 05 Dec 05 Feb 06 May 08 Mar 09	QTR 1: Finalize Monitoring Plan for Economic Data Monitor NETS Program- Grain Forecasts Initiate Notification Report QTR 2: Initiate Monitoring of Economic Data Monitor NETS Program- Demand Curves Establish ITR through COP QTR 3: Monitoring of Economic Data Initiate Evaluation Report Notification/Evaluation Reports- 1st Public Meeting QTR 4: Monitoring of Economic Data Resource Inventory for Notification/Evaluation Rpt.	Extra Capability- Traffic Base Update (Corps): \$250k Transportation Rates (TVA): \$320k Forecasts: \$450k	\$540,000
G. Systemic Environmental Mitigation	Design and implement systemic mitigation requirements.	S. Whitney	M. Cornish	G.1.0.1	Program Management Plan Fisheries (field sampling) Submersed Aquatic Vegetation Mussels Bank Erosion (field reconnaissance)	Jan 05 Oct 05 Jul 06 May 06 Jun 05	QTR 1: Project Management Plan Stand up Backwater and Secondary Channel Sedimentation Field Sampling Field report- SAV, fisheries entrainment SOW- mussel field study QTR 2: Project Management Plan Draft Program Management Plan Draft EA- Bank Erosion Sites Contract Award- Mussel Field Study QTR 3: Project Mangement Final Program Management Plan Final EA- Bank Erosion Sites Field Sampling QTR 4: Project Management Plan Monitoring Plan Field Sampling		\$200,000
H. Navigation Appointment Scheduling	Develop and test appointment scheduling system. Consider implementation if test proves viable.	Mar-09 R. Astrack	R. Manguo	H.1.0.1 Design	Initiate Work on Alpha Version of NaSS Complete Alpha Version of NaSS PDT Decision on NaSS Model Initiate Analysis of Appointment Sys. Complete Analysis of Appointment Sys Complete Draft Report Complete ITR Complete Final Report Complete Field Testing	Sep 05 Sep 06 Oct 06 Nov 06 Mar 07 Jun 07 Dec 07 Mar 08 Mar 09	QTR 1: Complete Assessment of UMSL Report Contract with UMSL for Additional Model Evaluation Coordination with NETS on Development of NaSS QTR 2: Coordination with NETS on Development of NaSS QTR 3: Coordination with NETS on Development of NaSS Report from UMSL on Additional Model Eval. QTR 4: Coordination with NETS on Development of NaSS		\$60,000
I. Mooring Cells and Buoys	Design and construct mooring facilities. Buoys at Locks 12, 18, 20, 22. Cells at Locks 14, 24, LaGrange.	J. DeZellar	T. Grundhoffer	I.1.0.1 Design, Construct	Design and construct mooring facilities. Buoys at Locks 12, 18, 20, 22. Cells at Locks 14, 24, LaGrange. (Monitoring efficiency improvements will be part of NAV Adaptive Management.)				\$0

Project Identifier & Name	Project Scope & Target Date for Completion	Project Manager	Team Leader	PMP Identifier & Phases/Stages	PMP Scope, Outputs & Date for Completion	Target	Quarterly Projections (key activities by quarter) FY 2006	Quarterly Progress Statement (progress and expenditures relative to plan and corrective actions)	Budget FY 2006
J. Switchboat	Design and implement operation of five switchboats, one at each lock – 25, 24, 22, 21, & 20	R. Astrack	D. Gordon	J.1.0.1 Design (Stage 1 - 2 switchboats)	Complete PMP Meeting with Operations Sources Sought Synopsis Meeting with Industry Complete Legal Review OMNI Modifications Complete Cost Estimates Initiate ITR Complete DDR Contract Documentation & Report Solicitation for Switchboat Contractors Implement Switchboat Operations Begin Monitoring Switchboat Complete Contract Documents Solicitation for Switchboat Contractors Implement Switchboat Operations	Apr 05 May 05 May 05 Jun 05 Jun 05 Jul 05 Aug 05 Nov 05 Mar 06 May 06 May 06 May 06 May 06 May 07 May 07 May 07	QTR 1: Prepare a Contract Solicitation for a "Test" Switchboat QTR 2: Complete Draft DDR Initiate ITR Process QTR 3: Complete DDR	Extra Capability- Fully Fund USACE work: \$100,000 One-Month Switchboat Contract for Planning Purposes: \$250,000	\$0
K. Lock 22	Design and construct a new 1200' lock.	S. Whitney	M. Tarpey	K.1.0.1 Design (DDR)	Start Project Prepare Draft Report ITR and VE Public Review Incorporate Public Review Comments Approval	Feb 05 Jul 06 Apr 07 Aug 07 Sep 07 Oct 07	QTR 4: Lock Concept AE Task Order 3D Modeling AE Task Order Surveying AE Task Order Geotechnical Exploration AE Task Order Mussel Survey Task Order Lock Concrete Condition Survey Navigation 1:120 Model Approach Wall Evaluation Report HTRW Phase 1 Report Existing Lock Wall Evaluation		\$2,000,000
L. Lock 25	Design and construct a new 1200' lock. Jun-17	R. Astrack	S. Hobbs	L.1.0.1 Design (DDR)	PED/Design Documentation Report Plans & Specs Construction	May 07 Oct 07 Oct 08	QTR 1: Hydraulic Model Testing Lock Concept Determination- Initial Design Preparation of SOW for Lock Design Phase 2 Approach Wall Concept Determination- Initial Design Upstream/Downstream Comparison Documentation Geotech Foundation Characterization Materials Evaluation Initialize Environmental Scoping QTR 2: Hydraulic Model Testing Detailed Lock Design- Award AE Contract Initialize Central Control House Study Foundation Characterization Report Seepage Analysis Initialize Machinery Study Initialize Biological Assessments RE Supplement Plan Initial Cultural Surveys QTR 3: Site Relocations/Staging/Disposal Area Design Concrete Mix Consultation/Design ERDC Initialize Electrical Load and Lighting Analysis RE Plan to MVD QTR 4: Pile Load Testing Quantities and Cost Estimate- Lock & Approach Wall		\$2,200,000
M. Lock La Grange	Design and construct a new 1200' lock.	S. Whitney	M. Tarpey A. Werner	M.1.0.1 Design (DDR)	Design lock, guidewalls, approaches, and relocations. (Defer structural steel design until P&S.) Outputs – design report.				\$250,000

Project Identifier & Name	Project Scope & Target Date for Completion	Project Manager	Team Leader	PMP Identifier & Phases/Stages	PMP Scope, Outputs & Date for Completion	Target	Quarterly Projections (key activities by quarter) FY 2006	Quarterly Progress Statement (progress and expenditures relative to plan and corrective actions)	Budget FY 2006	
N. UMRS Ecosystem Restoration and Management Plan	Reconnaissance level (integrated) restoration plans that identify and prioritize projects for near-term implementation ... those starting within three years.	S. Whitney	H. Dehaan	N.1.1.1 Plan	Project Management Develop Planning Process Establish Monitoring Plans Develop Implementation Plan	Oct 05 Nov 05 Nov 05 Nov 05	QTR 1: Revise Draft Planning Revise Monitoring Plan Revise Draft Implementation QTR 2: Initiate Additional Priority Monitoring Coordinate Planning Efforts Selection and Sequencing QTR 3: Generate/Distribute 2nd Draft of all Plans Conduct ITR QTR 4: Distribute all Final Plans	Extra Capabilities- Additional monitoring and modeling to support the planning effort and products. Also, additional coordination with stakeholders and partners to support development of the products.	\$500,000	
O. Ecosystem Adaptive Management	Develop and implement adaptive management process for ongoing system/project monitoring, evaluation, and plan/design adjustment.	S. Whitney	K. Barr	O.1.0.2 Plan	FY 05 ER adaptive management activities. (FY05 output – completion of process development ... but lacking full implementation.)				\$876,000	
O.2. Ecosystem Adaptive Management Mile 100 Islands	Develop and implement adaptive management process for ongoing system/project monitoring, evaluation, and plan/design adjustment.	K. Barr	T. Allen	Plan (Monitoring)	Fall Sampling Winter Sampling Spring Sampling Summer Sampling Complete Final Report	Oct 05 Jan 06 May 06 Jul 06 May 07	QTR 1: Fall Sampling Fish Identification Initial Statistical Analysis QTR 2: Winter Sampling Fish Identification Initial Statistical Analysis QTR 3: Spring Sampling Fish Identification Initial Statistical Analysis QTR 4: Summer Sampling Fish Identification Initial Statistical Analysis	Extra Capability- \$100,000 for statistical analysis	\$224,000	
P. System Cultural Stewardship	Develop and implement cultural resources plan.	S. Whitney	J. Ross	P.1.0.1 Plan	Outputs – cultural resources plan.				\$500,000	
Q. Forest Management	Develop and implement forestry management plan.	J. DeZellar	R. Urich	Q.1.0.1 Plan	Update PMP Public Review of Final Draft Plan Public Meetings Partner Meetings Final Systemic Forest Mgmt Plan	30 Oct 06 31 Jan 06 28 Feb 06 31 Mar 06 30 Jun 06	QTR 1: Update PMP QTR 2: Public Review of Final Draft Plan Public Meetings Partner Meetings QTR 3: Final Systemic Forest Mgmt Plan	30 Oct 06 31 Jan 06 28 Feb 06 31 Mar 06 30 Jun 06	Extra Capabilities- \$900,000. As per PMP, additional capability is for implementation of forest improvement projects in MVP, MVR, and MVS. MVP project includes topographic diversity and establishment of forest mast species in Reno Bottoms.	\$100,000
R. Fleeting Plan	Develop and implement fleeting plan.	S. Whitney	D. Bollman	R.1.0.1 Plan	Systemic fleeting plan report.				\$150,000	
S. Island Building - Pool 11	Plan, design, and construct islands in Pool 11.	S. Whitney	R. Nickel	S.1.0.1 Plan	Decision document		QTR 1: Biological Assessment Formal Endangered Species Consultation with USFWS QTR 2: General Project Design Habitat Evaluation Draft Environmental Assessment QTR 3: General Project Design Incremental Cost Analysis Recommended Plan QTR 4: Value Engineering Study Independent Technical Review Public Involvement		\$237,500	

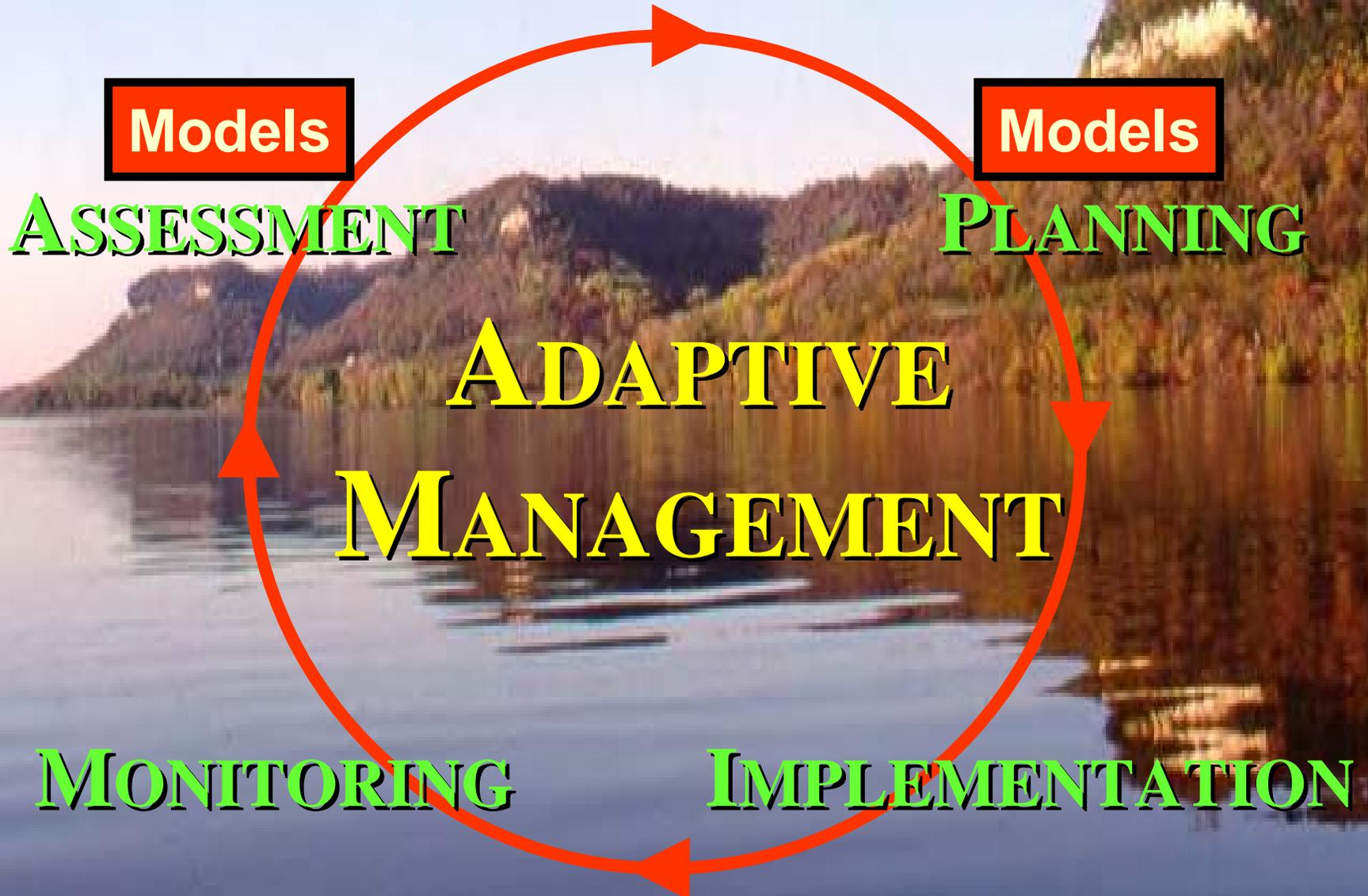
Project Identifier & Name	Project Scope & Target Date for Completion	Project Manager	Team Leader	PMP Identifier & Phases/Stages	PMP Scope, Outputs & Date for Completion	Target	Quarterly Projections (key activities by quarter) FY 2006	Quarterly Progress Statement (progress and expenditures relative to plan and corrective actions)	Budget FY 2006
T. Fish Passage - L&D 26	Plan, design, and construct fish passage at LD 26.	R. Astrack	T. Atchley	T.1.0.1 Plan	Program Management Definite Project Report Project Monitoring	Jan 05 Sep 05 Jun 06	QTR 1: Project Management Draft Sections of Environmental & Engineering Sections of DPR Pre-Construction Monitoring QTR 2: Project Management Draft Sections of Environmental & Engineering Sections of DPR Pre-Construction Monitoring QTR 3: Project Management Completion of Draft DPR and Coordination QTR 4: Project Management Statement of Findings Package Summary Reports of Pre-Construction Monitoring		\$250,000
U. Fish Passage - L&D 22	Plan, design, and construct fish passage at LD 22. Coordinate planning with design of new lock ... <i>(Decide later whether this will whether design/build will part or separate from new lock.)</i>	S. Whitney	M. Cornish	U.1.0.1 Plan	Program Management Definite Project Report Project Monitoring	Jan 05 Sep 05 Jun 06	QTR 1: Project Management Draft Sections of Environmental & Engineering Sections of DPR Pre-Construction Monitoring QTR 2: Project Management Initiation of Pre-Construction Monitoring QTR 3: Project Management Completion of Draft DPR and Coordination Installation of Hydracoustic Equipment in Gate Bays Hydracoustic Sampling of Tailwaters Fisheries Sampling of Tailwaters QTR 4: Final DPR Plans & Specs Construction Contract Award		\$450,000
V.1 Floodplain Restoration - Emiquon	Plan, design, and construct floodplain restoration at Emiquon in the Illinois River floodplain.	S. Whitney	B. Thompson	V.1.0.1 Plan	Outputs – decision document				\$75,000
V.2 Floodplain Restoration - Root River	Plan, design, and build floodplain restoration.	J. DeZellar	J. Petersen	V.2.0.1 Plan	Complete PMP Design Agreement Initiate Feasibility				\$70,000
V.3 Floodplain Restoration - Pierce County, WI	Plan, design, and build floodplain restoration.	J. DeZellar	J. Petersen	V.3.0.1 Plan	Complete PMP Design Agreement Initiate Feasibility				\$75,000
V.4 Floodplain Restoration -Emiquon West	Plan, design, and build floodplain restoration.	S. Whitney	B. Thompson	V.4.0.1 Plan	Complete PMP Design Agreement Initiate Feasibility	Apr 06 Jul 06 Aug 06	QTR 2: Complete PMP QTR 3: Sign Design Agreement QTR 4: Initiate Feasibility	Extra Capability- If FWS only project or authorization allows TNC participation earlier in year, than could use additional \$100,000 for feasibility.	\$80,000

Project Identifier & Name	Project Scope & Target Date for Completion	Project Manager	Team Leader	PMP Identifier & Phases/Stages	PMP Scope, Outputs & Date for Completion	Target	Quarterly Projections (key activities by quarter) FY 2006	Quarterly Progress Statement (progress and expenditures relative to plan and corrective actions)	Budget FY 2006	
W.1 Pool Water Level Management: Pool 5	Monitoring before, during, and after the drawdown.	J. DeZellar	J. DeZellar	W.1.0.1 Implement (Monitor)	Initiate Definite Project Report Complete Definite Project Report Initiate FY06 Monitoring Initiate Drawdown End Drawdown Complete FY06 Monitoring	1 Oct 06 1 May 06 1 May 06 15 Jun 06 30 Sep 06 30 Sep 06	QTR 1: Initiate DPR (2nd year drawdown) Public Info Meeting QTR 3: Complete DPR Initiate FY06 Monitoring Public Info Meeting Conduct Dredging (MC+rec access) Initiate Drawdown QTR 4: End Drawdown Complete FY06 Monitoring	1 Oct 05 1 Nov 05 1 May 06 1 May 06 1 May 06 1 May 06 15 Jun 06 30 Sep 06 30 Sep 06	Extra Capability- \$1,100,000 will be needed for main channel and recreational access dredging prior to conducting a FY06 drawdown of Pool 5	\$115,500
W.2 Pool Water Level Management: Pool 9	Plan, design, implement water level draw down. Sep-07	J. DeZellar	S. Jutila	W.2.0.1 Plan	Public Information Meeting Initiate FY06 Monitoring Program Public Information Meeting Complete FY06 Monitoring Complete Definite Project Report	1 Nov 06 1 May 06 1 Aug 06 30 Sep 06 30 Sep 06	QTR 1: Public Info Meeting QTR 3: Initiate FY06 Monitoring Program QTR 4: Public Info Meeting Complete FY06 Monitoring Complete Definite Project Report	1 Nov 06 1 May 06 1 Aug 06 30 Sep 06	Extra Capability- \$425,000 will be needed for pre-project monitoring for vegetation, sediment transport, mussels, fish and wildlife, and recreational usage.	\$115,500
W.3 Pool Water Level Management: Pool 18	Plan, design, implement water level draw down.	S. Whitney	K. Landwehr	W.3.0.1 Plan	Project Management Plan Definite Project Report Implementation Plan Monitoring Plan Construction E&D Construction	01 Feb 05 01 Feb 05 01 Jan 06 01 Mar 06 01 Oct 06 01 May 07	QTR 1: Develop Final List of Alternatives Alternative Evaluation QTR 2: Initiate Draft DPR and EA Complete Alternative Evaluation QTR 3: Complete Draft DPR and EA Independent Technical Review Public Meetings QTR 4: Conduct 2nd Year of Aquatic Vegetation Sampling Final DPR	Extra Capabilities- Aquatic vegetation mapping in FY05 funded through Project N. If funded through Project W in FY06, additional funds will be needed. Schedule to get to final DPR in 2006 is ambitious; funding will be tight especially in light of planned second round of public meetings.	\$119,000	
X. Backwater Restoration (Dredging) - Middle Peoria Pool Backwaters	Plan, design, and implement backwater restoration at Middle Peoria Pool Backwaters.	S. Whitney	M. Plumley	X.1.0.1 Plan	Outputs – decision document				\$100,000	
Z. Side Channel Restoration - Buffalo Island	Plan, design, and construct wing dam/dike alteration at Buffalo Island.	R. Astrack	B. Johnson	Z.1.0.1 Plan	Initiate Feasibility Study Complete Alternatives Analysis Complete Draft Report Feasibility Study Approved Complete Plans & Specs Complete Construction	26 Jan 05 23 Sep 05 14 Feb 06 17 Oct 06 31 Sep 06 30 Sep 07	QTR 1: Prepare RE Plan Prepare MCASES QTR 2: Conclude Year 1 Monitoring Draft EA & PDA QTR 3: Prepare Plans & Specs Finalize PDA QTR 4: Begin Year 2 Monitoring Plans & Specs to CT		\$300,000	
AA. Wing Dam/Dike Alteration - Herculaneum	Plan, design, and construct wing dam/dike alteration at Herculaneum.	R. Astrack	L. Hopkins	AA.1.0.1 Plan	Initiate Feasibility Study Initiate Pre-Construction Monitoring Complete Alternatives Analysis Complete Draft Report Feasibility Study Approved Complete Engineering & Design Complete Construction Complete Monitoring Complete Project & Final Report	Feb 05 Jul 05 Sep 05 Feb 06 Aug 06 Sep 06 Sep 07 Sep 10 Sep 11	QTR 1: Prepare RE Plan Prepare MCASES QTR 2: Draft EA and PDA ITR Review QTR 3: Conclude Year 1 Monitoring Prepare Plan & Specs Finalize PDA QTR 4: Initiate Year 2 Monitoring Plan & Specs to CT	Extra Capabilities- What we could accomplish in FY06 with a larger budget: Fully fund USACE work \$54,000 Fully Fund USFWS Coordination \$5,000 Fully Fun FY06 Biological Monitoring \$70,000 \$129,000	\$180,000	
AB. Wing Dam/Dike Alteration - Pool 2	Plan, design, and construct wing dam/dike alteration in Pool 2.	J. DeZellar	E. Stefanik	AB.1.0.1 Plan	Perform Pre-Construction Surveys Initiate FY06 Monitoring Program	15 Nov 05 01 May 06	QTR 1: Initiate Pre-Construction Surveys Final Coordination with the On-Site Inspection Team QTR 3: Initiate FY06 Monitoring Program		\$70,000	

Project Identifier & Name	Project Scope & Target Date for Completion	Project Manager	Team Leader	PMP Identifier & Phases/Stages	PMP Scope, Outputs & Date for Completion	Target	Quarterly Projections (key activities by quarter) FY 2006	Quarterly Progress Statement (progress and expenditures relative to plan and corrective actions)	Budget FY 2006
AC. Island Shoreline Protection	Plan, design, and construct shoreline protection in stages throughout UMRS.	S. Whitney	T. Kirkeeng	AC.1.1.1 Plan, Design, Construct for Stage 1.	Project Management Plan Real Estate Feasibility Report Engineering Analysis & Design Environmental Value Engineering Construction	Jun 05 Jun 05 Sep 06 Mar 06 Mar 06 Aug 05 Sep 06	QTR 1: Environmental Coordination- Six Initial Projects Initiate Draft Feasibility Report Begin Selection of Sites for FY07 Construction QTR 2: Work on Draft Feasibility Report Plans & Specs- Six Initial Projects Finish Site Selection for FY07 Construction QTR 3: Incorporate Comments to Feasibility Report Workshop- Meetin with PDT and Stakeholders Fieldwork for FY07 Sites QTR 4: Final Feasibility Report Construction- Six Initial Projects Initiate Plans & Specs for FY07 Projects		\$80,000
AD. Dam Point Control - L&D 25	Plan, design, and implement change to multiple point control (hinge point to dam point). Sep-11	R. Astrack	M. Kniep	AD.1.0.1 Plan	Initiate Feasibility Study Complete Alternatives Analysis Complete Draft Report Feasibility Study Approved Complete Engineering and Design Complete Project	26 Jan 05 31 Oct 06 30 Nov 07 30 Sep 08 30 Sep 09 30 Sep 11	QTR 1: Technical Scoping Meeting HEC-EFM Existing Conditions Model Complete QTR 2: GIS Database Complete QTR 3: Initiate Alternatives Evaluation	Extra Capabilities- with an additional budget of \$350,000 by 1 Jan we could: Complete Envir. Resource Inv: \$75,000 Evaluate Borings Data: \$43,300 Evaluate Slope Stability: \$35,000 Perform Underseepage Analysis: \$107,100 Perform first ITR: \$24,000 Initiate the Alternatives Evaluation: \$65,600	\$250,000
AE Dam Embankment Lowering - L&D 8	Complete the Definite Project Report (DPR)	J. DeZellar	J. DeZellar	AE.1.0.1 Plan	Public Information Meeting Initiate FY06 Monitoring Program Public Information Meeting Complete Definite Project Report	15 Oct 05 1 May 06 1 Aug 06 30 Sep 06	QTR 1: Public Info Meeting 15 Oct 05 QTR 3: Initiate FY06 Monitoring Program 1 May 06 QTR 4: Public Info Meeting 1 Aug 06 Complete Definite Project Report 30 Sep 06	Extra Capability- \$235,000. Additional capability for preparation of the DPR and additional monitoring. See PMP for more details	\$150,000
AF. Reduce Water Level Fluctuation - IWW	Plan, design, and implement water level fluctuation project on the IWW.	S. Whitney	K. Landwehr	AF.1.0.1 Plan	Project Management Plan Definite Project Report Monitoring Plan Construction E&D Construction	01 Feb 05 01 Feb 05 01 Mar 05 01 Mar 07 01 Jul 07	QTR 1: Ongoing Development of DDS Coordination of Ecosystem Goals and Objectives QTR 2: Translation of Ecosystem Goals and Objectives Completion of Draft DDS QTR 3: Initial Operation Testing of Draft DDS QTR 4: Aquatic Vegetation Sampling Refinement of DDS Draft DPR Independent Technical Review of DPR	Extra Capability- If additional aquatic vegetation sampling is needed, additional funds would be required. Results of FY05 sampling will be used to determine FY06 needs.	\$100,000
TOTAL PROGRAM FY05 COST ESTIMATE									\$11,917,500

Attachment 4

Navigation and Ecosystem Sustainability Program (NESP) for the Upper Mississippi River System (UMRS)



Science Panel Activities

Earlier national priorities dictated development of our water resources - - often times (as realized more recently) at the expense of the environment.

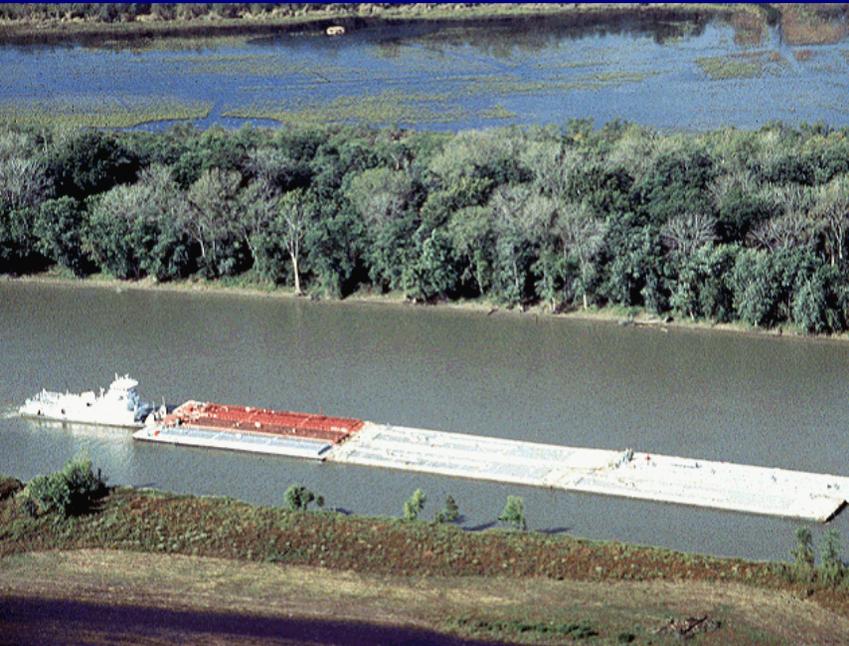


U. S. ENGINEERS
Miss. River Lock & Dam #15
(Dam)
Looking N.W. from Government
Bridge, showing progress of
construction in cofferdam #3.
533H-121.43 Oct. 12, 1935.

For more than 200 years the UMRS has been regulated for the purposes of improving navigational efficiency

Environmental consequences of river regulation –

- altered hydrology
- loss of floodplain connectivity
- backwater and side channel isolation
- altered geomorphology
- habitat loss and fragmentation



Societies needs and values have changed in recent years, and national priorities are now oriented towards environmental restoration.



Environmental Science Panel convened in 2003 by the Corps of Engineers to –

- Develop and refine UMRS conceptual models
- Identify appropriate evaluation tools that address ecosystem needs at multiple scales
- Refine ecosystem restoration goals and objectives provided by stakeholders
- Identify and evaluate management actions focused on the attainment of goals and objectives
- Assist with the development of alternative plans for ecosystem restoration

Recommendations of the 2003 Science Panel

- Planning for a formal adaptive management approach to river restoration should be accelerated
- Ecosystem goals & objectives should be further clarified and integrated
- Simulation modeling should be undertaken as a first step in the adaptive management process
- Management actions should be implemented with system-wide considerations
- Report card and appropriate monitoring program should be developed to track outcomes
- Initial management actions should be considered as experiments

Environmental Science Panel reconvened in 2005 by the Corps of Engineers to -

- Develop ecosystem restoration project evaluation and sequencing criteria
- Develop ecosystem restoration monitoring protocols over multiple spatial and temporal scales
- Develop a “report card” framework to track progress in restoring the UMRS
- Further evaluate and refine goals and objectives of ecosystem restoration
- Integrate numerical models for forecasting applications on the UMRS
- Define projected ecological outcomes (benefits) in terms of goods and services provided through ecosystem restoration

NESP Science Panel Team Members

John W. Barko

Steve Bartell

Charlie Berger

Robert Clevestine

Mike Davis

David L. Galat

Barry L. Johnson

Kenneth Lubinski

John M. Nestler

Larry Weber

NESP Science Panel Regional Support Team (RST)

Robert Davinroy

Jon Hendrickson

Tom Keevin

Kevin Landwehr

Charles Theiling

Dan Wilcox

Ecosystem Restoration Project Evaluation and Sequencing Team

- Science Panel Members
 - Barko (Lead)
 - Galat
 - Clevestine
- Regional Support Members
 - Wilcox
 - Keevin
 - Theiling
- Other Members
 - Korschgen
 - Garvey
 - Griffin

Objective – Develop ecosystem restoration project evaluation and sequencing criteria for applications to EMP-HREP and NESP projects.

Project Evaluation and Sequencing: Proposed Ecological Considerations (Leads)

- Ecological merit/benefits (Wilcox & Keevin)
- Attention to restoration of “natural processes & features” (Korschgen, Theiling & Keevin)
- Benefits over multiple scales (time and space) (Garvey, Galat & Keevin)
- Critical habitat gains (Korschgen, Johnson & Keevin)
- Sustainability projections (Perk & Clevestine)
- Contribution to learning process via monitoring and experimentation (Griffin & Theiling)
- Compatibility with existing plans (e.g., pool plans) in ecological context (Theiling & Wilcox)
- Other (All)

Accomplishments: Draft Criteria Developed to Date (July 05)

- **Natural Processes & Features**
 - Restores seasonal floodplain processes
 - Restores sediment transport regimes
 - Restores water quality
 - Restores biota
- **Benefits over Multiple Scales**
 - Improves access to habitats both laterally & longitudinally
 - Likely to achieve cumulative/synergistic habitat improvements (greater than additive)
 - Likely to contribute to dynamic stability/sustainability
 - Likely to result in multi-scale improvements
- **Contribution to Learning**
 - Incorporates an experimental approach
 - Incorporates effective monitoring plan
 - Likely to result in fundamental knowledge gain
 - Likely to result in management innovations
- **Critical Habitat Gains**
 - Replaces lost habitat (i.e. historical assessments)
 - Modifies or improves existing conditions
 - Changes the future projected conditions
 - Meets the desire future condition

Accomplishments: Draft Criteria Developed to Date (July 05)

- **Sustainability**
 - Requires minimal on-going intervention to maintain desired future state
 - Scale of maintenance activity is small relative to overall project activities.
 - Ecological indicators stay within a range consistent with desired future conditions over project life-span.
 - Restores natural river processes (e.g. channel movement, river-floodplain exchanges, scour-retention dynamics, biotic dispersal) of desired future condition/state.
- **Ecological merit/benefits**
 - Restores fluvial processes
 - Increases abundance of native plants and animals
 - Increases ecosystem services
- **Compatibility with existing plans (e.g., pool plans) in ecological context**
 - Ecosystem objectives of proposed project align with existing plans (e.g., pool plans, Refuge Comprehensive Conservation Plan)

Ecosystem Restoration Project Evaluation and Sequencing Team

- Projected products in FY05 & beyond
 - FY05 – Final criteria for project evaluation; finalize project evaluation process (HREP)
 - FY06 – Develop project sequencing process for system-wide considerations, and apply to NESP

NESP Monitoring Team

- Science Panel members
 - Johnson (Lead)
 - Davis
 - Galat
 - Lubinski
- Regional Support Team Members
 - Wilcox
 - Keevin
 - Theiling
- Objective: Develop a framework for monitoring to:
 - Address the level of success in achieving objectives at both local and large-scales,
 - Communicate that success (link with Report Card), and
 - Increase understanding of river function through data analyses, and improve ability to predict the effects of management actions

NESP Monitoring Team

- Projected products in FY05 and beyond:
 - Draft section on monitoring for Science Panel report in FY05, finalize in FY06
 - IF NEEDED, more specific guidance on developing monitoring plans for local and large scales in FY06
 - Assist in providing guidance to PDT's on existing monitoring plans (a job of the Science Panel as a whole).

NESP Report Card

- Science Panel members
 - Ken Lubinski
 - John Barko
 - Steve Bartell
 - Mike Davis
- Regional Support Team Members
 - Sandra Brewer
 - Chuck Theiling
- Other Members
 - Mark Harwell
 - Mike Reiter
 - Jean O,Neil
 - Paul West
 - Arthur Lubin
 - Kevin Bluhm

Report Card Group Objectives

- Draft framework for Report Card.
- Develop action plan and schedule.
- Fully vet reporting process in order to accommodate public input.

Integration with other groups

- Modeling Group key to indicator selection, metric establishment across scales, presentation of conceptual model(s).
- Monitoring Group key to filling necessary metrics/measurements for Report Card.
- Services Group key part of indicator selection.
- Sequencing Group key to supporting learning process in adaptive management.

Goals and Objectives Work Group Membership

- Science Panel Members
 - David Galat (Lead)
 - Ken Lubinski
 - Paul West
 - Bob Clevensine
 - Steve Bartell
 - Mike Davis
- Regional Support Team Members
 - Chuck Theiling
 - Dan Wilcox

Goals and Objectives Work Group Objective

- Refine, clarify and integrate the ecosystem restoration goals and objectives provided by stakeholders in FY03, as condensed by the First Science Panel.

“Bottom-up” Approach

- Revised “original” list of 81 objectives
 - Condensed some similar or duplicate objectives
 - Added objectives
 - Identified applicable scales
 - Proposed corresponding quantitative “SMART” objectives
(specific, measurable, attainable, relevant, time-bound)

Proposed NESP adaptive ecosystem management process organized around objectives



Modeling, Integration, & Application

Workgroup Members:

- Science Panel
 - John Nestler (Lead)
 - Steve Bartell
 - Charlie Berger
 - Barry Johnson
 - Larry Weber
- Regional Support Team
 - Kevin Landwehr
 - John Hendrickson
 - Dan Wilcox
 - Chuck Theiling

Modeling, Integration, & Application

- Objectives:
 - Identify modeling tools
 - Hydrology
 - Hydraulics
 - Water Quality
 - Higher Trophic Levels
 - Describe/Suggest model integration methods
 - Propose modeling sites & applications

Products for FY05 and Beyond

- Aug 05 Prepare draft summary document based on June 05 workshop in Muscatine
- Sept 05 Finalize draft summary document and incorporate it into SP report
- FY 06 Develop model integration and application recommendations

Ecosystem Services Team

- Science Panel Members
 - Lubinski (Lead)
 - Clevenstine
 - Davis
- Regional Support Members
 - Sandra Brewer
 - Dan Wilcox
- Other Members
 - Paul West

Ecosystem Services

- Objective
 - To provide recommendations to the Science Panel, Corps, and River Management Council related to the incorporation of ecosystem services into future adaptive management.
- To include
 - Identification and prioritization of ecosystem services that are important to UMR decisions
 - Appropriate use of definitions
 - Synthesis of issues surrounding the use of ecosystem services in management decisions

Ecosystem Services

Definition:

“Ecosystem services are the benefits people obtain from ecosystems.”

These include *provisioning services* such as food, water, timber, and fiber; *regulating services* that affect climate, floods, disease, wastes, and water quality; *cultural services* that provide recreational, aesthetic, and spiritual benefits; and *supporting services* such as soil formation, photosynthesis, and nutrient cycling.

Source: U. N. Millennium Report

Integration: Three Entry Points where Ecosystem Services Information fits into the Adaptive Management Process



Elements of the Adaptive Management Process Being Developed For the UMR

Proposed Interactions of Science Panel with PDTs (from Hendrickson et al. 2005)

- Condensing the goals and objectives that have been developed through various planning efforts into a set of spatially and temporally explicit goals and objectives for the reach (i.e. multiple pool) spatial scale.
- Defining the physical/chemical/biologic parameters needed to achieve goals and objectives at the reach scale.
- Providing guidance to PDTs on a sequence of actions within a pool or reach that best suits ecosystem needs.
- Developing monitoring protocols that allow for learning so that adaptive management can be used.
- Developing ecosystem models (i.e. models that simulate the biologic response to physical change) that allow PDTs to make better decisions.

NESP-Science Panel in FY06 – Where do we go from here

- Develop a DSS that has both information technology and knowledge and information management components.
- Develop a data management plan
- Formalize interactions with PDTs
- Develop system-wide project sequencing criteria
- System-wide monitoring and management plan
- Formally identify specific models and their interconnectivity in a system modeling framework
- Interface with Corps System-wide Water Resource Program
- Seek input per requirements of River Management Council/NECC
- Other?

Attachment 5

INSTITUTIONAL ARRANGEMENTS

UPPER MISSISSIPPI RIVER SYSTEM

AUGUST 2005





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Purpose



- **Inform NECC/ECC on status of institutional arrangements for the UMRS**
- **Achieve mutual understanding of status of IA and clarification of information**
- **Get input on the objectives and format for a fall workshop**



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Topics



- **Summary of Comments on Concept Plan**
- **Formulation process for modified IA**
- **Next steps**
- **Current thinking**
 - **Assumptions & Constraints**
 - **Fall Workshop – objectives and participants**



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Summary of Comments



■ Comment themes

- Communication
- The Concept
- Element Coordination
- EMP
- EMP/NESP
- EMPCC Roles & Functions
- Flexibility in system goals
- IA Formulation / Implementation
- No NESP
- Oversight & Monitoring
- Public Involvement
- Regional Federal Principals Group
- River Management Council
- RMC & RMT's
- River Management Teams
- Roles of elements
- Science Panel
- Stakeholder Involvement
- Support for existing IA's
- UMRBA



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Summary of Comments



- Audubon
- EMPCC
- IL DNR
- FWS
- MRBA
- RRAT, RRCT, RRF
- TNC
- UMRBA
- USACE(MVD, MVR, MVS, MVP)
- USGS
- WI DNR
- **Statistics**
 - 136 formal written on concept
 - additional from meeting discussions
 - 39 COE



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Summary of Comments



■ Feedback from meetings and discussions

- Impact on EMP
- Role of NGO's
- Breadth of responsibility
- Change with and without NESP
- Level of participants
- Resource demands
- What does it mean internally for the Corps and FWS?
- Science panel only addresses ecosystem
- Impact on management of the UMRS



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Process to Developing Plan for Institutional Arrangements



- Start with the NAV Feasibility Report ... identifies need for integrated, adaptive management of the UMRS and presents a framework.
- Develop a concept through a volunteer team of stakeholders
- **Vet concept through existing institutional arrangements**
- Transform concept into proposal through more formal stakeholder meetings
- Present proposal to state and federal agencies
- Transition to new institutional arrangements – **late 2005**



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Next Steps



- Further tuning of ‘assumptions and constraints’ by Corps and FWS. Develop guidance acceptable to both agencies.
- Identify navigation contacts (state and industry) and conduct preliminary discussion on IA’s through teleconference and conduct a face to face meeting
- Draft workshop objectives and workshop participation list by early August



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Next Steps



- **Keep NECC/ECC informed of activities and begin developing communication and meeting methods with them that could be utilized with the River Council.**
- **Develop a Communications Panel through meetings with stakeholders experts in that field.**
- **Continue to actively support dialogue with and by stakeholders in preparation for a Fall Stakeholder Workshop**



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Current Thinking

Assumptions & Constraints



- The Federal Government through the Corps and the Fish & Wildlife Service (FWS) will facilitate integrated, adaptive management of the UMRS* in partnership with States (IL, IA, MN, MO, and WI).
- UMRS is defined as the entire floodplain area and associated physical, chemical, and biological components, over the 1200 miles of river (Mississippi, Illinois, and other tributaries) that comprises the 9-foot UMR-IWW Navigation System. The UMR-IWW Navigation System refers to the narrow 1200 miles of 9-foot navigation channel, 37 locks and dam sites, and thousands of channel training structures.
- Integrated, adaptive management will be achieved through focus on two primary purposes ... 1) navigation efficiency, reliability, and safety and 2) ecological health of the UMRS. *Connection to other purposes and uses of the UMRS will happen indirectly through association among organizations, communication with stakeholders and the public, and connection with UMRBA.*



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Current Thinking

Assumptions & Constraints



- **Institutional arrangements are forums for stakeholders to come together for purposes of collaboration, integration, and partnership on management of the UMRs. *Institutional arrangements will not decide how agencies manage their programs. Institutional arrangements will not establish mandatory time requirements for decision-making; and will not have veto authority or the ability to impose conditions over agency management. The discretion of an agency to act will not be compromised.***



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Current Thinking

Assumptions & Constraints



- The Corps and FWS will engage stakeholders and partners early and continuously in its processes to develop and manage their programs in the UMRS. The institutional arrangements are an element of this inclusion.
- Modification of institutional arrangements will build from the strengths of existing institutions. *Existing institutions, dating from the GREAT studies in the 1970's and start of the EMP in the 1980's, have proved to be effective forums for collaboration and flexible to changing needs.*
- Authorization of NESP is needed before implementation of the plan for modifying institutional arrangements. *This assumption should be revisited at completion of the plan. If NESP continues to receive PED funding, interim measures will be taken through NECC/ECC consistent with the plan for modifying institutional arrangements. No modification of EMPCC will take place during the interim period without agreement of the stakeholders.*



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UMRS Integrated, Adaptive Management

**Fisheries
Ecological
Refuges**

NESP

EMP

**9-ft Channel
Section 519**

Partnerships



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Concept Components



Components of institutional arrangements will include:

See diagram

- **River Teams**
- **River Council**
- **Science Panels (*est. through contracts w/ Corps*)**
- **Work Groups**
- **Communication Panel (*est. thru cont. w/ Corps*)**
- **Interaction between Project Delivery Teams and stakeholders, partners, and the public.**

Proposed institutions build from existing institutions



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Concept Components

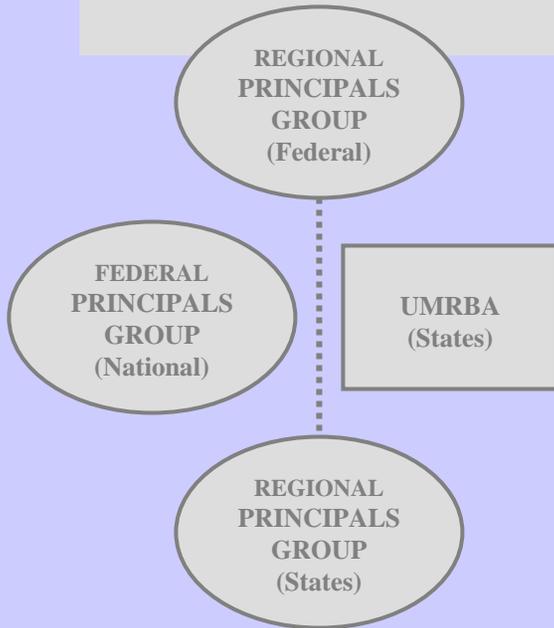


Components of institutional arrangements for connection to high level decision makers and broader basin management include:

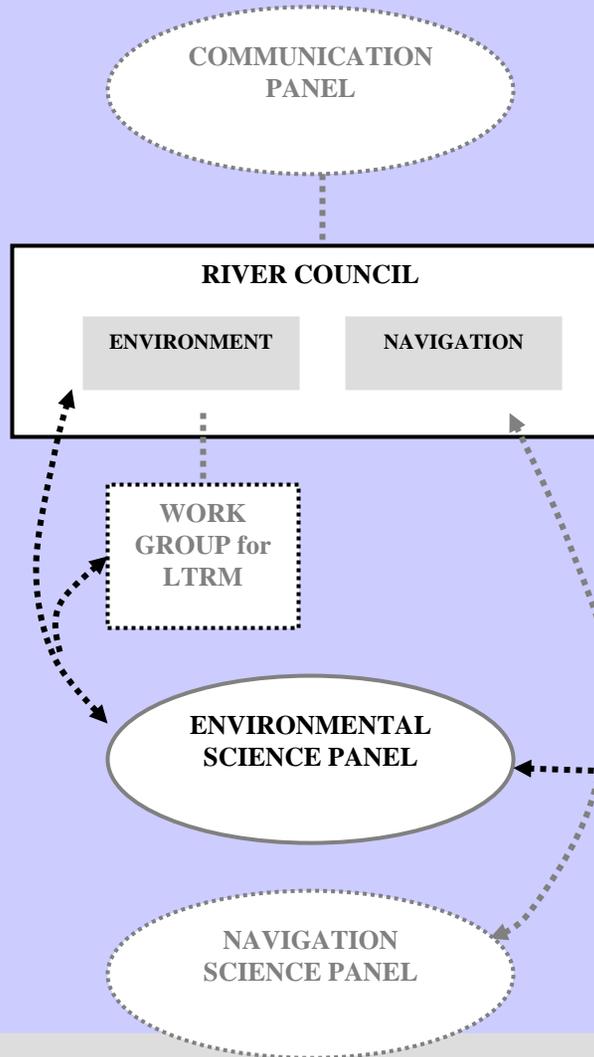
- ***UMRBA (an existing interstate organization)***
- ***Regional Principals (Federal and State)***
- ***Federal Principals Group***

*Collaboration by National Leaders
Concerning the Upper Mississippi
River Basin (UMRB) ...*

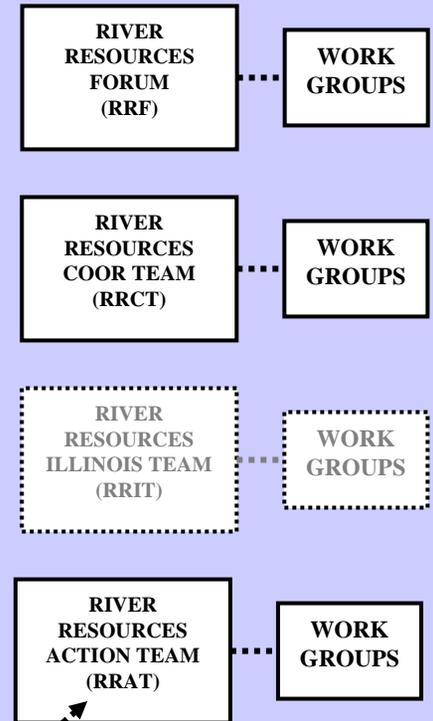
*Collaboration by Regional Leaders
Concerning the UMRB...*



*UMRS
System Planning ...
Operational Level*

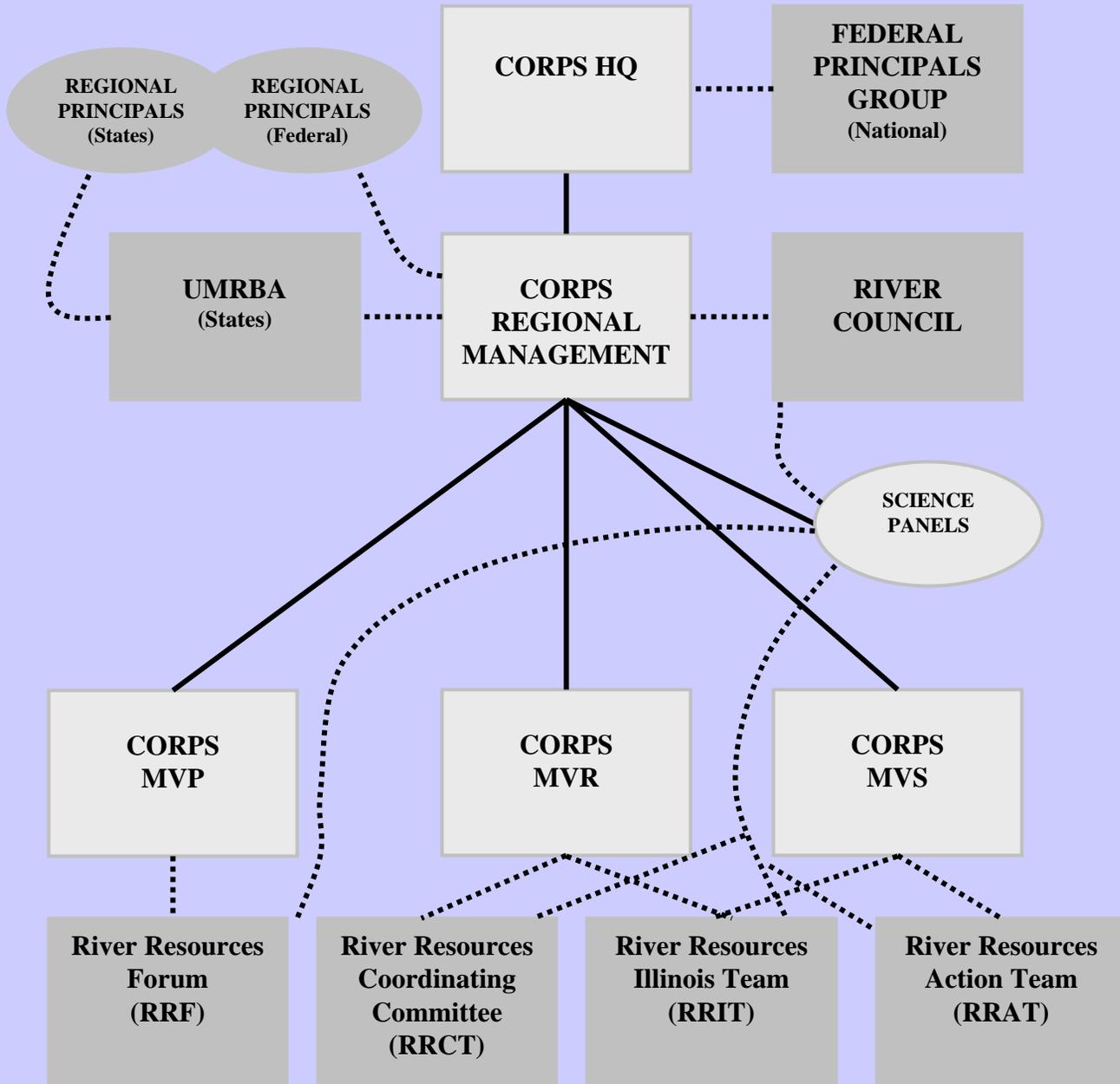


*UMRS
Reach Planning ...
Operational Level*



Information is shared among components of institutional arrangements.

Connecting lines represent communication channels, not lines of authority.





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River Teams



- **Focus on subsystems and specific projects**
- **Be the RRF, RRCT, and RRAT for the three reaches of the Mississippi River. The fourth RT will be for the Illinois Waterway ... called the River Resources Illinois Team.**
- **Align geographically with specific river reaches (scale) at an operational level (i.e. district level for the Corps).**
- **Consist of representatives of federal and state agencies. Meetings are open.**



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River Teams



- **Focus on subsystems and specific projects**
- **Purpose is to share information and work toward common understanding on vision, goals, objectives, management priorities, performance, and communication concerning the ecological health of reaches of the UMRS and integration with O&M of the navigation system.**
- **May also share information and work toward common understanding regarding navigation efficiency, reliability, and safety.**



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River Council



■ Focus on the system level

- Aligns with UMRS (scale) and Corps Districts operating regionally (operational level).
- Purpose is to share information and work toward common understanding on integrated vision, goals, objectives, priorities, performance, and communication
- Consists of representatives of federal and state agencies and non-governmental organizations (NGOs) covering transportation, economic and ecological responsibilities. Meetings are open.



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River Council



- **Focus on the system level**
 - **Addresses two focus areas, one being the ecological health of the UMRS and the other navigation efficiency, reliability, and safety**
 - **Includes (if required by congressional authorization) an advisory panel as a subset that addresses specific responsibilities called out in legislation**
 - **Corps and FWS will co-chair**



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Science Panel



- **Consist of interdisciplinary and dynamic teams of scientists and engineers created under contract with the Corps for science and technical studies related to navigation efficiency and ecological health of the UMRS.**
- ***Are entities created by the Corps and are not collaboration forums like other components of institutional arrangements. Science panels should be neutral bodies, which exist to help river managers make informed decisions.***



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Science Panel



- Stakeholder input will be considered concerning purpose, membership and selection criteria for any additional science panels.
- Science panels address questions posed by the Corps, but which were formulated with consideration of stakeholder input. Results of work by science panels are vetted through stakeholders at appropriate levels and scales.
- *Composition and processes of active science panels will be reviewed periodically.*



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Work Groups



- **Consist of standing and ad hoc work groups created to support collaboration and partnership.**
- **Possible work groups: Existing work groups associated with the RRF, RRCT, and RRAT and the A-Team.**



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UMRBA



- **Upper Mississippi River Basin Association**
- **Existing interstate organization comprised of Illinois, Iowa, Minnesota, Missouri, and Wisconsin**
- **USACE, USFWS, USGS, NRCS, USCG, MARAD serve advisory roles**
- **Purpose of UMRBA is to facilitate dialogue and cooperative action regarding water and related land resource issues**
- **Meets quarterly**



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UMRBA



- **Include management of the UMRS by the COE and FWS as an agenda item at regular quarterly board meetings.**
- **Evaluate implementation from an interstate perspective; review vision, goals and objectives developed by the RC for the UMRS for compatibility with those of other basin components, interests, and purposes; and address unique issues related to States' sovereignty and statutory responsibilities.**
- **Assist States in calling meetings of regional principals (referred to as the *Regional Principals Group*).**



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Regional Principals Groups (State & Federal Agencies)



- **Consists of high level officials from state and federal agencies**
- **Meet individually (if necessary) and jointly at least once per year for :**
 - **General networking**
 - **Assessing the effectiveness and alignment of federal-federal, state-state, and federal-state management of the UMRS**



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Federal Principals Group (National Level)



- **Align national priorities among agencies**
- **Resolve policy and program issues**
- **Discuss and collaborate on broad river issues**
- **Existing Members –**
 - **Environmental Protection Agency (EPA)**
 - **Fish & Wildlife Service (FWS)**
 - **Maritime Administration (MARAD)**
 - **Department of Agriculture (DA)**
 - **Corps of Engineers (COE)**
- **This is a continuation of the Federal Principals Group supporting the Navigation Feasibility Study**



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EMP-NESP Transition Strategy



- Assumes EMP continues as a viable program
- Call for integrated management of UMRS programs
- Long Term Resource Monitoring (LTRM) assumed to continue under EMP ... included in both with and without project conditions in feasibility study
- Assumptions will be re-examined in 3-years
- Interpretation of authorization will be required to verify that LTRM could continue under NESP
- Funding for LTRM not included in NESP recommendation



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Expectations of Stakeholders

List of Activities Invested In



- Vision, goals and objectives
- System performance
- Needs assessment
- Criteria for prioritization and priorities established through application of criteria
- Proposed programs for upcoming fiscal years
- Progress on executing the current fiscal year programs
- Partnering opportunities



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Fall Workshop



- **Objective:** Design the River Council component of the Concept such that organizations can make resource allocation decisions and possibly have an implementation workshop/first meeting in February.
- **When:** October 19-21 2.5 day
- **Where:** Embassy Suites, St. Louis
- **Who:** Organizations to be notified by letter from Rock Island Col. To select their own representation able to address system wide concerns.



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WRDA 2005 - Senate 728

Advisory Panel

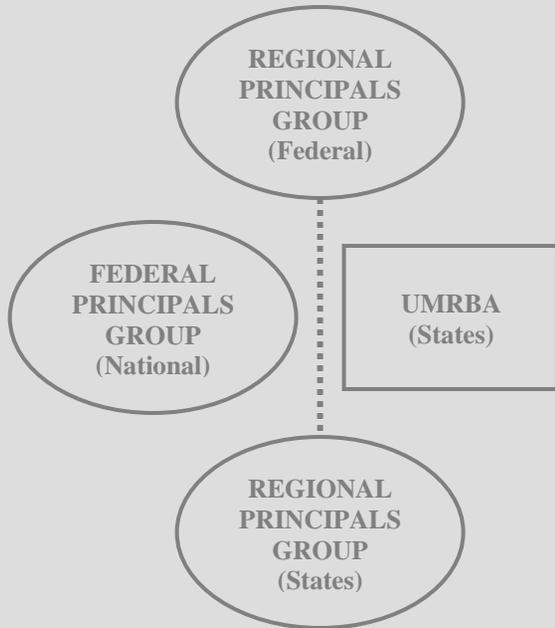


- **Panel members**
 - 1 rep each from IL, IA, MN, MO, WI
 - 1 rep each from DA, DOT, USGS, USFWS, USEPA
 - 1 rep of affected landowners
 - 2 reps of conservation and environmental advocacy groups
 - 2 reps of agriculture and industry advocacy groups
- **Co-chairs – Army and Interior**
- **Not considered an advisory committee under FACA**
- **Panel provides independent guidance in development of periodic implementation reports to Congress**
- **Secretary of Army in consultation with the Panel develops project ranking system**

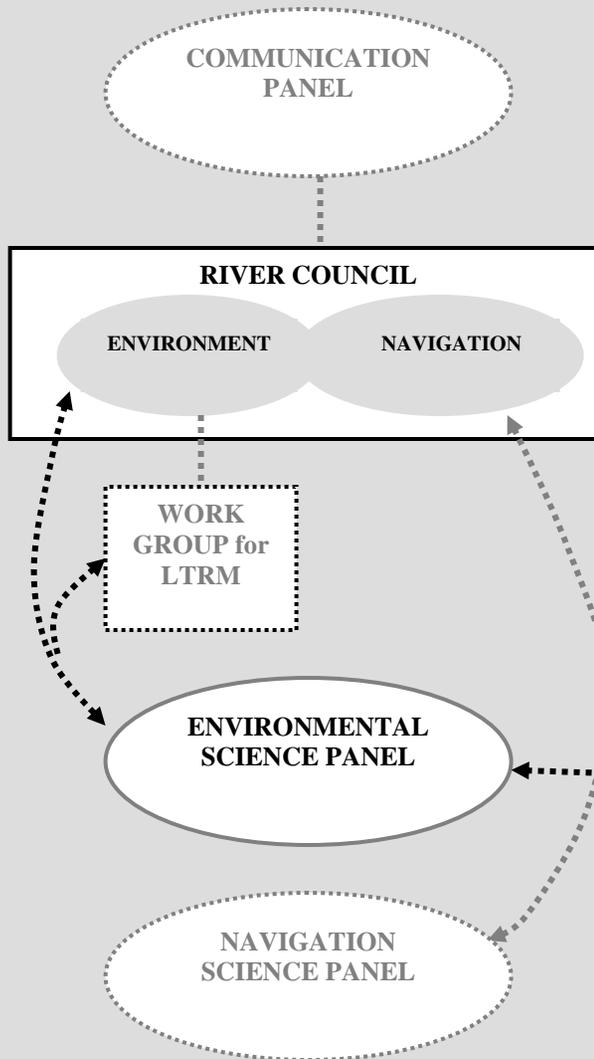
Attachment 6

*Collaboration by National Leaders
Concerning the Upper Mississippi
River Basin (UMRB) ...*

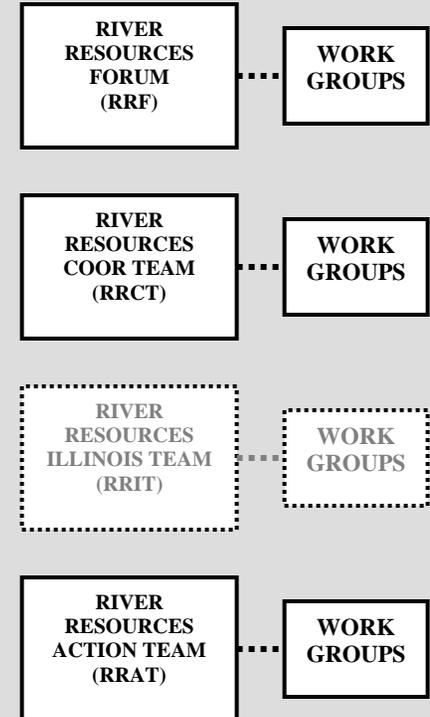
*Collaboration by Regional Leaders
Concerning the UMRB...*



*UMRS
System Planning ...
Operational Level*



*UMRS
Reach Planning ...
Operational Level*

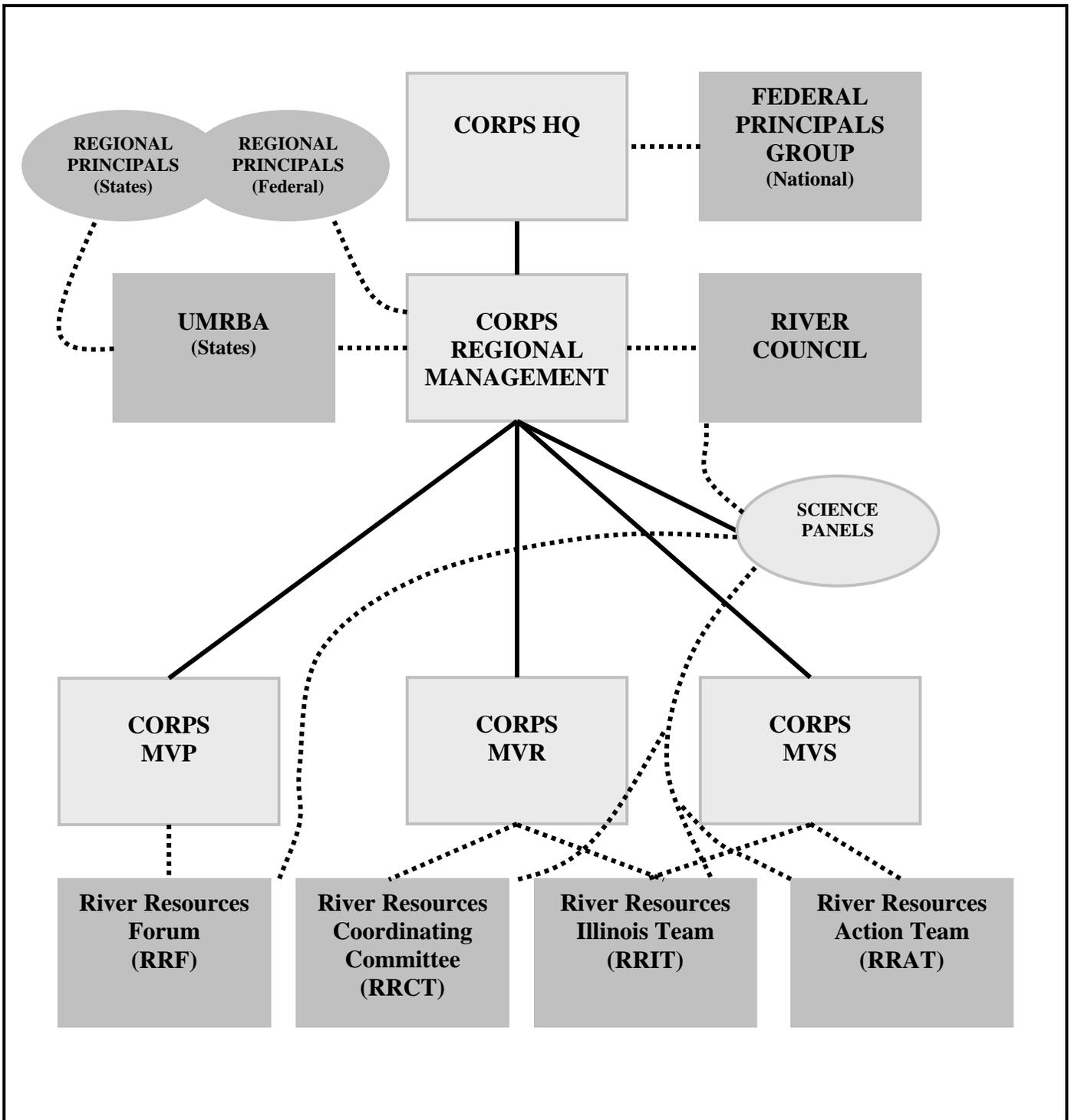


Information is shared among components of institutional arrangements.

Connecting lines represent communication channels, not lines of authority.

COMPONENTS OF INSTITUTIONAL ARRANGEMENTS FOR THE UMRS

Attachment 7



Conceptual representation of the relationship between the Corps and Institutional Arrangements (solid lines indicate formal relationship within Corps, dotted lines are communication channels with institutions for collaboration)

Attachment 8

(DRAFT ... 7/22/05)

Modifying Institutional Arrangements for Adaptive, Integrated Management of the Upper Mississippi River System

Assumptions & Constraints

1. The Federal Government through the Corps and the Fish & Wildlife Service (FWS) will facilitate integrated, adaptive management of the UMRS* in partnership with States (IL, IA, MN, MO, and WI).
 - UMRS is defined as the entire floodplain area and associated physical, chemical, and biological components, over the 1200 miles of river (Mississippi, Illinois, and other tributaries) that comprises the 9-foot UMR-IWW Navigation System. The UMR-IWW Navigation System refers to the narrow 1200 miles of 9-foot navigation channel, 37 locks and dam sites, and thousands of channel training structures.
 - The focus of integrated management of the UMRS is on the purposes of (1) ecological health and (2) navigation efficiency, reliability, and safety and the programs of the COE (NESP, EMP, O&M, MR, and Regulating Works) and FWS (Refuge Management, Ecological Services, and Fisheries). *It is anticipated that this primary focus will influence broader integration.*
2. Beyond the UMRS, States, individually and collectively, facilitate management of the Upper Mississippi River Basin (UMRB) in partnership with federal agencies.
3. Efficient and effective implementation of the Navigation & Ecosystem Sustainability Program (NESP) for the UMRS in the context of integrated, adaptive management requires modification of existing collaborative institutions.
4. Modification of institutional arrangements will build from the strengths of existing institutions. *Existing institutions, dating from the GREAT studies in the 1970's and start of the EMP in the 1980's, have proved to be effective forums for collaboration and flexible to changing needs. See page 6.*
5. Integrated, adaptive management will be achieved through focus on two primary purposes ... 1) navigation efficiency, reliability, and safety and 2) ecological health of the UMRS. *Connection to other purposes and uses of the UMRS will happen indirectly through association among organizations, communication with stakeholders and the public, and connection with UMRBA. See page 7 for Corps and FWS programs addressing these two purposes.*
6. Beyond the UMRS, UMRBA will facilitate connection and compatibility with management of the UMRB.

7. The Corps and FWS will engage stakeholders and partners early and continuously in its processes to develop and manage their programs in the UMRS. The institutional arrangements are an element of this inclusion.
8. The Corps and FWS will work with stakeholders and partners on development of shared vision, goals, and objectives for navigation efficiency and ecological health and for compatibility with goals and objectives for other purposes and uses of the UMRS.
9. The Corps and FWS will work with stakeholders and partners on navigation and ecosystem management priorities, and their compatibility with management priorities for other purposes and uses of the UMRS.
10. The Corps and FWS will work with stakeholders and partners in the UMRS to communicate vision, goals, objectives, trends, and management priorities.
11. Institutional arrangements are forums for stakeholders to come together for purposes of collaboration, integration, and partnership on management of the UMRS. *Institutional arrangements will not decide how agencies manage their programs. Institutional arrangements will not establish mandatory time requirements for decision-making; and will not have veto authority or the ability to impose conditions over agency management. The discretion of an agency to act will not be compromised.*
12. Components of institutional arrangements will operate at different levels and scales in facilitating integrated, adaptive management. *See page 8.*
13. Components of institutional arrangements will include: *See diagram attached to this document or in a companion computer file.*
 - River Teams
 - River Council
 - Science Panels (*established through contracts with the Corps*)
 - Work Groups
 - Communication Panel (*established through contracts with the Corps*)
 - Interaction between Project Delivery Teams and stakeholders, partners, and the public.
14. Components of institutional arrangements for connection to high level decision makers and broader basin management include:
 - UMRBA (*existing interstate organization, not a entity created by the Corps or FWS*)
 - Regional Principals (Federal and State)
 - Federal Principals Group

15. River Teams (RT):

- Align geographically with specific river reaches (scale) at an operational level (i.e. district level for the Corps). There will be four river reaches, three on the Mississippi and one for the Illinois Waterway. The three on the Mississippi will match the boundaries of the Corps Districts.
- Purpose is to share information and work toward common understanding on vision, goals, objectives, management priorities, performance, and communication concerning the ecological health of reaches of the UMRS and integration with operation and maintenance of the navigation system. River Teams may also share information and work toward common understanding regarding navigation efficiency, reliability, and safety.
- Consist of representatives of federal and state agencies. Meetings are open.
- Be the RRF, RRCT, and RRAT for the three reaches of the Mississippi River. The fourth RT will be for the Illinois Waterway ... called the River Resources Illinois Team.

16. River Council (RC):

- Aligns with UMRS (scale) and Corps Districts operating regionally (operational level).
- Addresses two focus areas, one being the ecological health of the UMRS and the other navigation efficiency, reliability, and safety.
- Purpose is to share information and work toward common understanding on vision, goals, objectives, management priorities, performance, and communication concerning navigation efficiency, reliability, and safety and the ecological health of the UMRS.
- Consists of representatives of federal and state agencies and *non-government organizations (NGOs)* covering transportation, economic and ecological responsibilities. Meetings are open.
- Includes (if required by congressional authorization) an advisory panel as a subset that addresses specific responsibilities called out in legislation.
- Corps and FWS will co-chair.

17. Science Panels:

- Consist of interdisciplinary and dynamic teams of scientists and engineers created under contract with the Corps for science and technical studies related to navigation efficiency and ecological health of the UMRS.

- Are entities created by the Corps *and are not collaboration forums like other components of institutional arrangements. Science panels should be neutral bodies, which exist to help river managers make informed decisions.*
- Stakeholder input will be considered concerning purpose, membership and selection criteria for any additional science panels.
- Science panels address questions posed by the Corps, but which were formulated with consideration of stakeholder input. Results of work by science panels are vetted through stakeholders at appropriate levels and scales.
- Composition and processes of active science panels will be reviewed periodically.

18. Work Groups:

- Consist of standing and ad hoc work groups created to support collaboration and partnership.
- Possible work groups: Existing work groups associated with the RRF, RRCT, and RRAT and the A-Team.

19. UMRBA:

- Include management of the UMRS by the COE and FWS as an agenda item at regular quarterly board meetings.
- Evaluate implementation from an interstate perspective; review vision, goals and objectives developed by the RC for the UMRS for compatibility with those of other basin components, interests, and purposes; and address unique issues related to States' sovereignty and statutory responsibilities.
- Assist States in calling meetings of regional principals (referred to as the *Regional Principals Group*).

20. Regional Principals Group (state) and Regional Principals Group (federal):

- Meet individually (if necessary) and jointly at least once per year for purposes of general networking and assessing the effectiveness and alignment of federal-federal, state-state, and federal-state management of the UMRS.
- Consist of high level officials from state and federal agencies.

21. Federal Principals Group:

- Consists of senior representatives of the Department of Interior, Department of Agriculture, Department of Transportation, Environmental

Protection Agency, and the Corps of Engineers for purposes of addressing issues of policy and alignment. *This is continuation of the Federal Principals Group supporting the Navigation Feasibility Study.*

- Corps of Engineers chairs the meeting. Meetings are called on an as needed basis.

22. Authorization of NESP is needed before implementation of the plan for modifying institutional arrangements. *This assumption should be revisited at completion of the plan. If NESP continues to receive PED funding, interim measures will be taken through NECC/ECC consistent with the plan for modifying institutional arrangements. No modification of EMPCC will take place during the interim period without agreement of the stakeholders.*

Existing Institutions for Collaboration
(Created by the Corps for Corps' programs)

- ❖ Federal Principals Group
- ❖ Governors' Liaison Committee (GLC)
- ❖ Navigation Environmental Coordination Committee (NECC)
- ❖ Economic Coordinating Committee (ECC)
- ❖ EMP Coordinating Committee (EMP-CC)
- ❖ Analysis Team (A-Team)
- ❖ River Resources Forum (RRF)
- ❖ River Resources Coordinating Team (RRCT)
- ❖ River Resources Action Team (RRAT)
- ❖ Work Groups of the RRF, RRCC, and RRAT

- ❖ Stakeholders and partners also inter-relate with individual Project Delivery Teams (PDT)

Upper Mississippi River Basin Association (UMRBA)

- ❖ UMRBA was created in 1981 as a successor to the former Upper Mississippi River Basin Commission for the purpose of “continuation of an interstate organization to maintain communication and cooperation among the states on matters related to water planning and management.”

- ❖ *The original Upper Mississippi River Commission produced the “Upper Mississippi River Master Plan”, which was seed for subsequent planning and action.*

Other Institutions

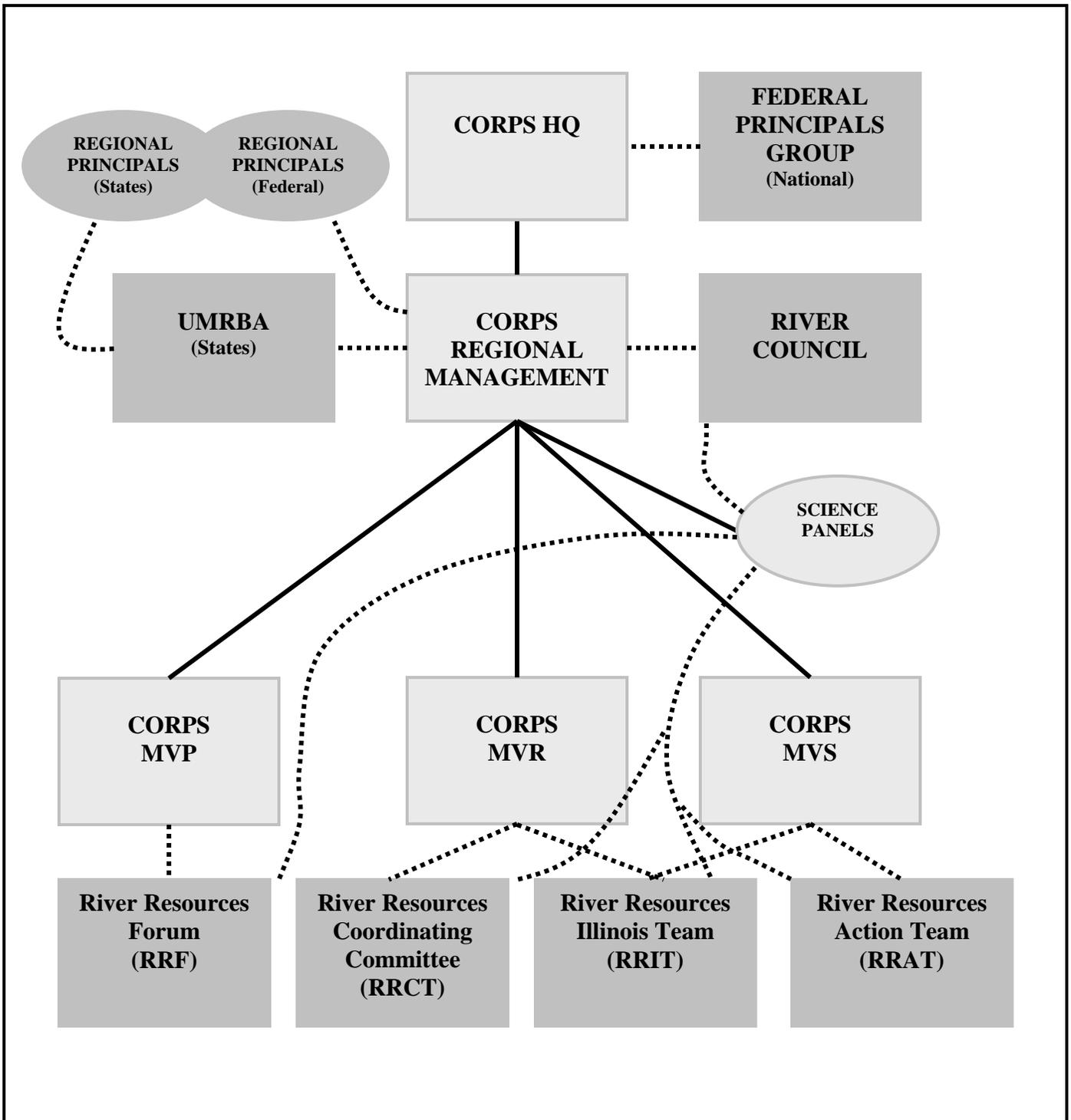
- ❖ Many other institutions facilitate collaboration related to management of the UMRS – UMRCC, UMIMRA, RIAC, IRC, MARC 2000, Nicollet Island Group, Governors' Illinois River Coordinating Team, MRC, LRMCC, MICRA, and MMRP.

UMRS Management	Purpose				Geographic Scope				
					UMR			IWW	
Corps Programs	Navigation	Ecosystem Restoration	Flood Damage Reduction	Recreation	MVP	MVR	MVS	MVR	MVS
Navigation and Ecosystem Sustainability Program (NESP – CG)	X	X			X	X	X	X	X
Environmental Management Program (EMP – CG)		X			X	X	X	X	X
Illinois River Basin Restoration (Section 519 – CG)		X						X	X
Operation and Maintenance of the 9-Foot Channel (O&M)	X	X		X	X	X	X	X	X
Regulating Works Project (CG)	X						X		
Major Rehabilitation Program (MR - CG)	X				X	X	X	X	

* O&M includes some environmental obligations that must be funded out of the general O&M fund ... such as endangered species, stewardship activities like forest management, and the “Avoid & Minimize” Program.

** Geographic scope of the Section 519 Program is the entire Illinois River Basin. Geographic scopes of all other programs are within the UMRS.

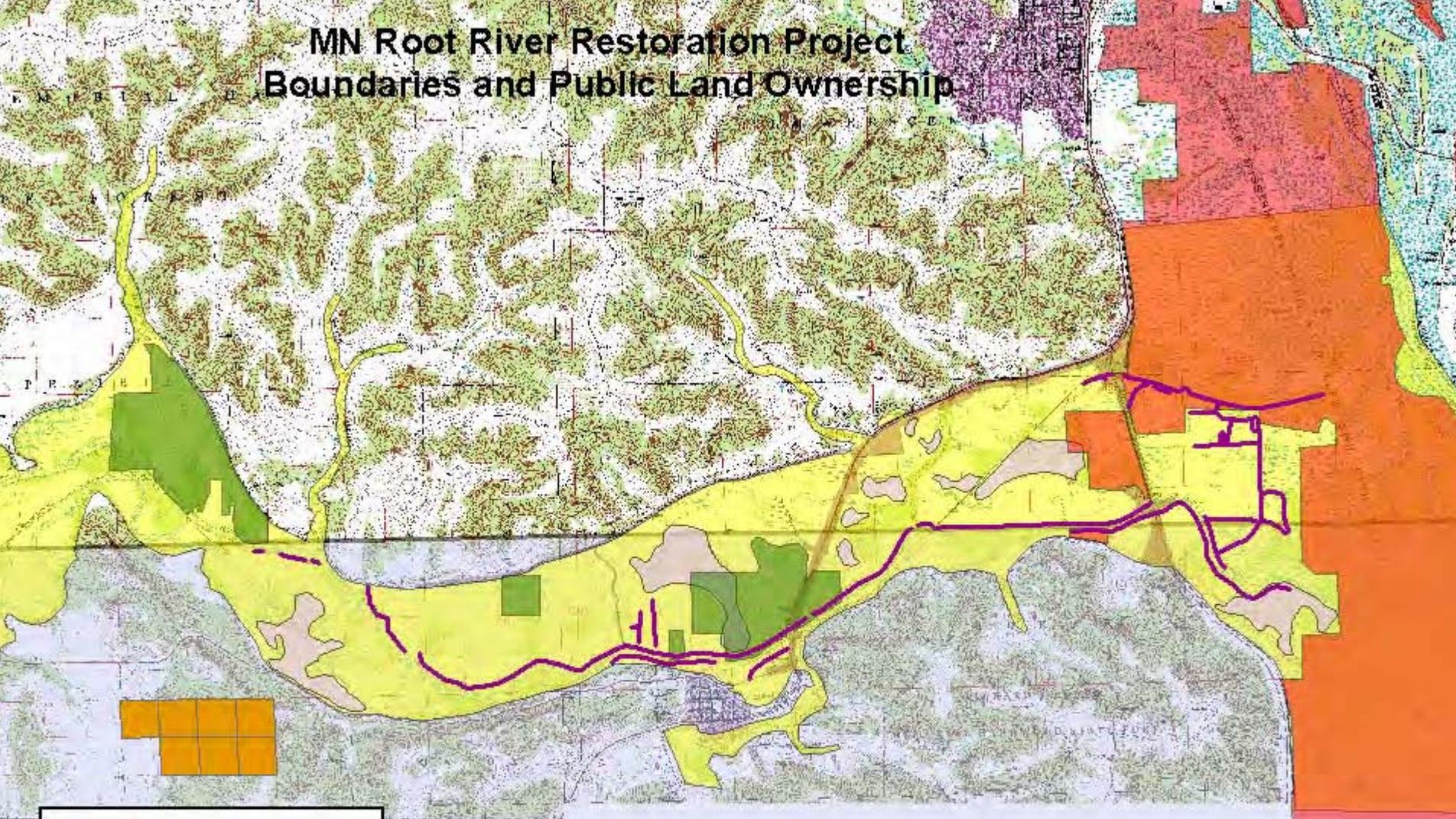
UMRS Management	Purpose				Geographic Scope				
					UMR			IWW	
FWS Programs					MVP	MVR	MVS	MVR	MVS



Conceptual representation of the relationship between the Corps and Institutional Arrangements (solid lines indicate formal relationship within Corps, dotted lines are communication channels with institutions for collaboration)

Attachment 9

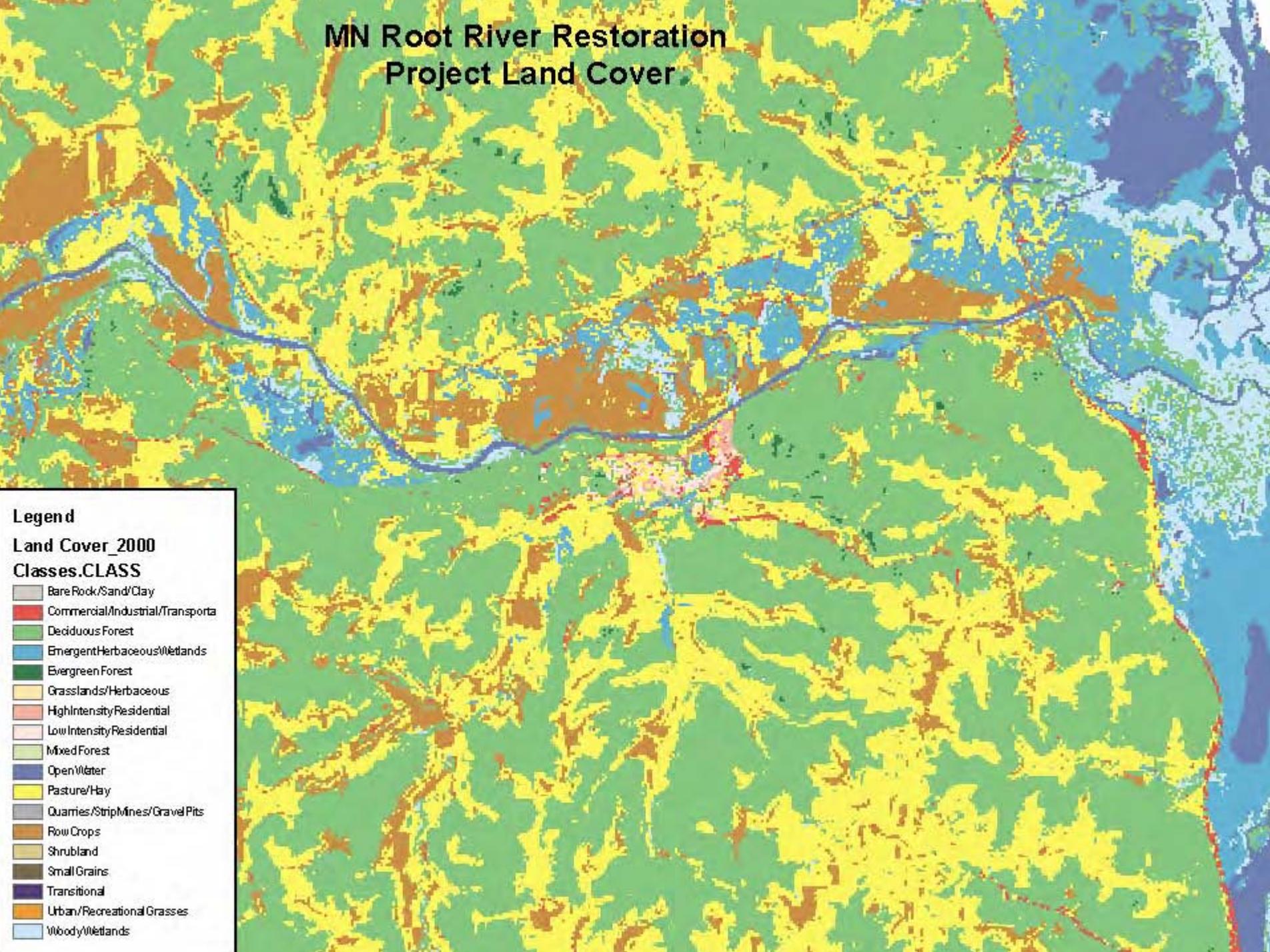
MN Root River Restoration Project Boundaries and Public Land Ownership



Legend

- Existing_Levees
- FWS Pool 8 Refuge
- MN State Wildlife Management Areas
- MN State Wetlands
- MNDOT_rightofway
- 500yr_floodplain
- MN State Forest
- MN State Ecological Services Land

MN Root River Restoration Project Land Cover



Legend

Land Cover_2000

Classes.CLASS

- Bare Rock/Sand/Clay
- Commercial/Industrial/Transporta
- Deciduous Forest
- EmergentHerbaceous/Wetlands
- Evergreen Forest
- Grasslands/Herbaceous
- HighIntensity Residential
- Low Intensity Residential
- Mixed Forest
- Open/Water
- Pasture/Hay
- Quarries/Strip Mines/Gravel Pits
- Row Crops
- Shrubland
- Small Grains
- Transitional
- Urban/Recreational Grasses
- Woody/Wetlands

**MN Root River Restoration
Project Aerial view of Boundaries**



Attachment 10

DRAFT FOR DISCUSSION PURPOSES ONLY 7/29/05

Root River Floodplain Restoration Project - MN DNR Recommendations for the Design Agreement

Comprehensive Plan: The Design agreement would outline the components of a Comprehensive plan that would be developed through the existing Root River Partnership. The plan would provide an analysis of the problems, opportunities, and alternatives (including cost:benefits) for restoration of the Root and Mississippi River floodplains. A public involvement and landowner participation strategy would be a critical component of the plan.

Project Boundary: The project boundary should include at least the 500-year floodplain and extend from the mouth of the Root River upstream approximately 10 river miles to Mound Prairie, MN. This area has a direct impact on sediment transport and deposition, water quality, and habitat connectivity within and between the Lower Root and Mississippi River floodplains.

Qualifying Activities: The following activities would be allowed as part of the Design Agreement and described in the Comprehensive Plan:

- 1) Fee title acquisition and purchase of permanent conservation easements from willing sellers on private lands within the Project Boundary. Acquired lands could be managed as state Wildlife Management Areas, State Aquatic Management Areas, State Scientific and Natural Areas, State Forest lands, US Fish and Wildlife Refuge lands, or Corps owned lands.
- 2) Restore floodplain forest, prairie, and wetland habitats on lands currently used for agriculture.
- 3) Improve existing floodplain forest, prairie, and wetland habitats through tree plantings, exotic species control, controlled burns, and other traditional management tools.
- 4) Breach, remove, or modify levees where feasible to restore natural floodplain conditions without impacting adjacent private property owners.
- 5) Return the Root River to its historical channel if it will not significantly affect adjacent landowners.

Cost Share: The following activities would qualify for non-federal cost share:

- 1) Recent acquisitions (past 5 years) and habitat restoration activities by non-federal partners within the project area that are described in the Comprehensive Plan.
- 2) In-kind services, in particular landowner contacts, planning and coordination meetings, and other actions requiring staff time to implement the

Comprehensive Plan. The same criteria used to cost share Corps of Engineers staff time could be applied to non-federal partners.

NGO's (like Pheasants Forever, TNC, Audubon, Deer Hunters Assoc., etc.) should be allowed to participate as non-federal cost share partners.

Attachment 11



Minnesota Department of Natural Resources

Southern Region
261 Hwy 15 South
New Ulm, MN 56073-8915
507-359-6010

July 1, 2005

Duane Gapinski
District Engineer
U.S. Army Corps of Engineers
Rock Island District
Attention: CEMVR-PM-A
P.O. Box 2004
Rock Island, Illinois 61204-2004

RE: Root River Floodplain Restoration Project

Dear Colonel Gapinski:

The Lower Root River in southeastern Minnesota (Houston County) has been significantly altered by agricultural development. Much of the once diverse floodplain comprised of wetlands, floodplain forests, and prairies has been converted to agricultural uses and is protected by earthen levees, constructed when the Root River was straightened and dredged in the early 1900's. These levees along with land use changes in the upland watershed have altered the natural hydrology of the lower Root River, causing increased flooding problems resulting in levee breaches requiring costly repairs and threatening local communities, as well as increasing sediment and nutrient delivery to the Upper Mississippi River. These changes have severely impacted fish and wildlife habitat and recreational opportunities in this area, including the confluence with the Mississippi River.

A variety of local, federal, and state partners, including the Minnesota Department of Natural Resources (MN DNR) have been working in partnership to restore the floodplain and hydrology of the Lower Root River. A modeling effort to describe restoration options to landowners in the areas has been partially completed. Several parcels have been acquired and restored and are being managed as state wildlife management areas, natural areas, or as part of the Upper Mississippi River National Fish and Wildlife Refuge. While efforts have been ongoing, funding has been limited and a number of acquisition and restoration opportunities have been missed.

On behalf of the MNDNR, I request the U.S. Army Corps of Engineers, Rock Island District, investigate a potential floodplain restoration project on the Lower Root River pursuant to the Recommendations of the UMR-IWW Navigation Feasibility study, which



included restoring 35,000 acres of floodplain in the initial 15 years of the project. The Root River project could encompass over 4,000 acres.

The MNDNR hereby expresses our willingness to serve as the non-Federal sponsor for the Lower Root River project. We understand this letter of intent does not represent a financial commitment at this time, but is an indication that MN DNR is interested in this effort and would pursue financial resources to provide cost share monies if the project proceeds beyond the Design Agreement phase.

We further understand that the Design Agreement will contain more specific elements of the project including scope of work—the type of work to be completed and project boundaries, estimated planning and construction costs, maintenance requirements and responsibilities, and specific cost share requirements. Activities that qualify for cost share, which we understand could include in-kind services as well as past work undertaken by the non-federal sponsor directly related to the overall project will also be addressed in the Design Agreement. We assume other non-federal partners that have been involved in the Root River might also participate as non-federal sponsors as the project moves forward over the next 15 or more years.

The MN DNR has been made aware that the Design Agreement must be executed prior to the Corps initiating preconstruction engineering and design (PED) studies and that these PED studies will initially be cost shared at a 75 percent Federal/25 percent non-Federal ratio. If the results of the PED studies are favorable and construction funds for the project are provided by Congress, a Project Cooperation Agreement (PCA) must be executed prior to initiation of construction. We are also aware that non-Federal work-in-kind for construction cannot be performed until the PCA is executed.

If you need additional information, please contact Tim Schlagenhaft from my staff at (507) 280-5058.

Sincerely,

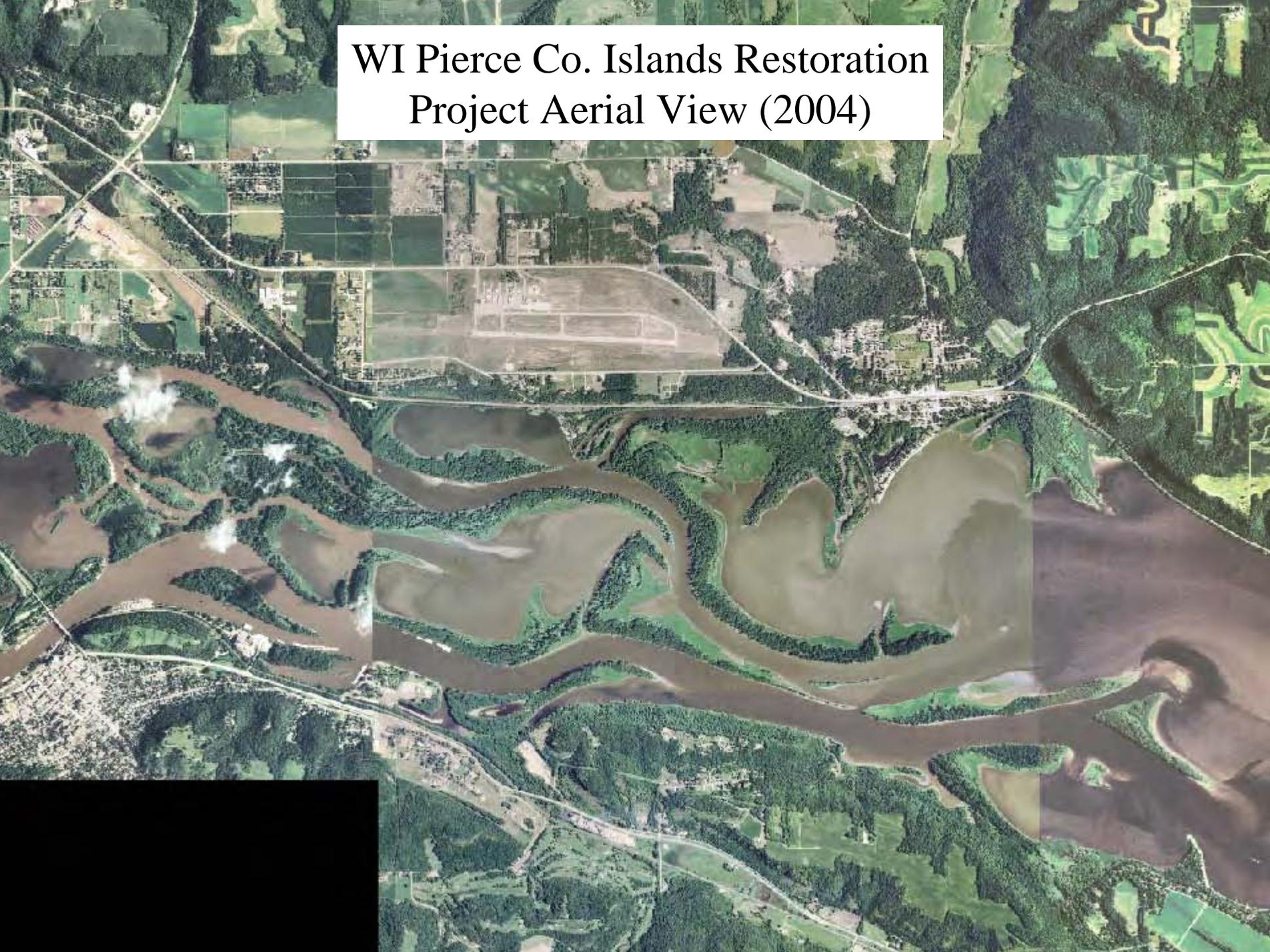


Cheryl Heide
Region 4 Director

Cc: Ken Varland
Huon Newburg
Walt Popp
Tim Schlagenhaft

Attachment 12

WI Pierce Co. Islands Restoration
Project Aerial View (2004)



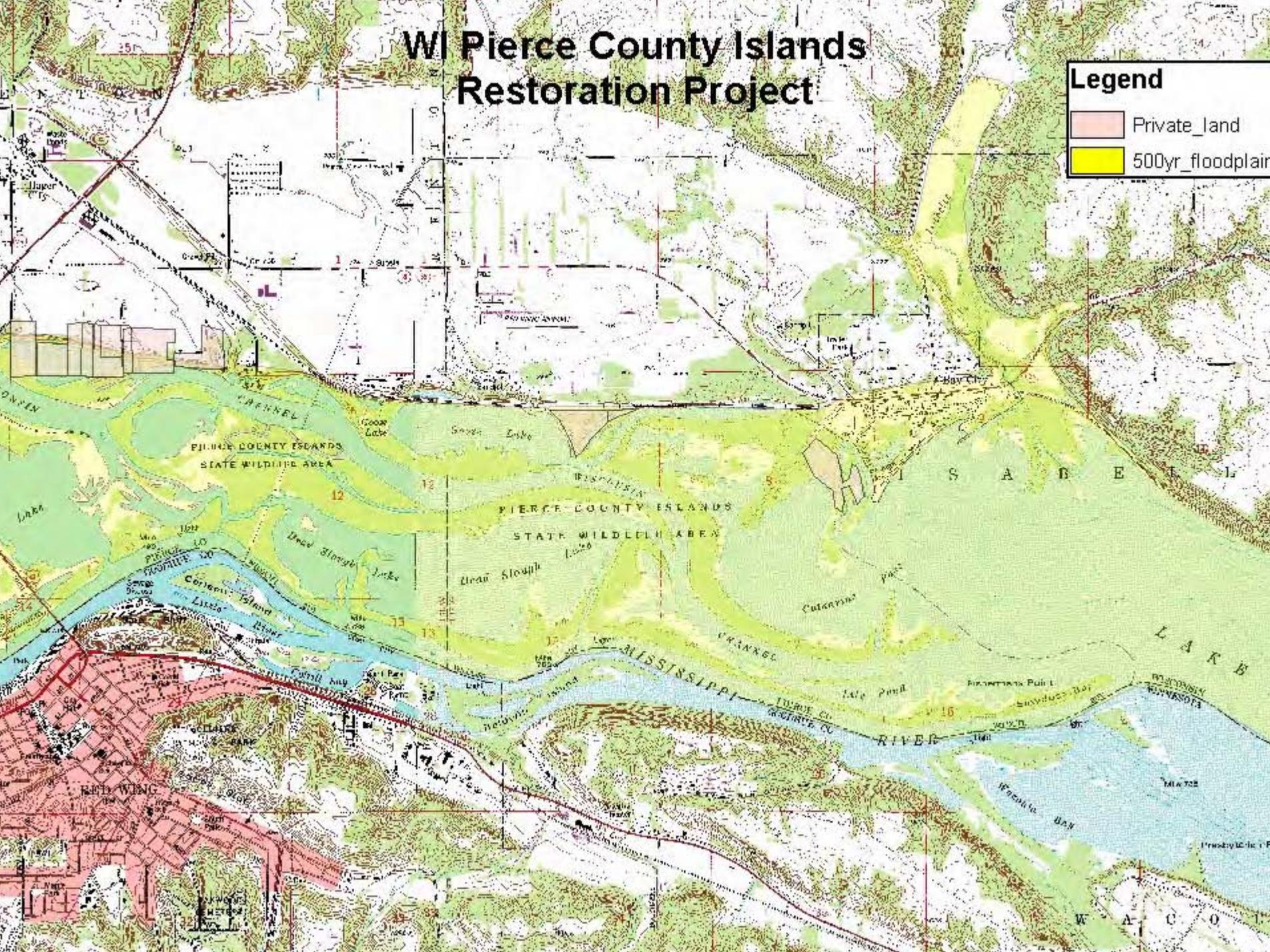
WI Pierce County Islands Restoration Project Aerial View (1951)



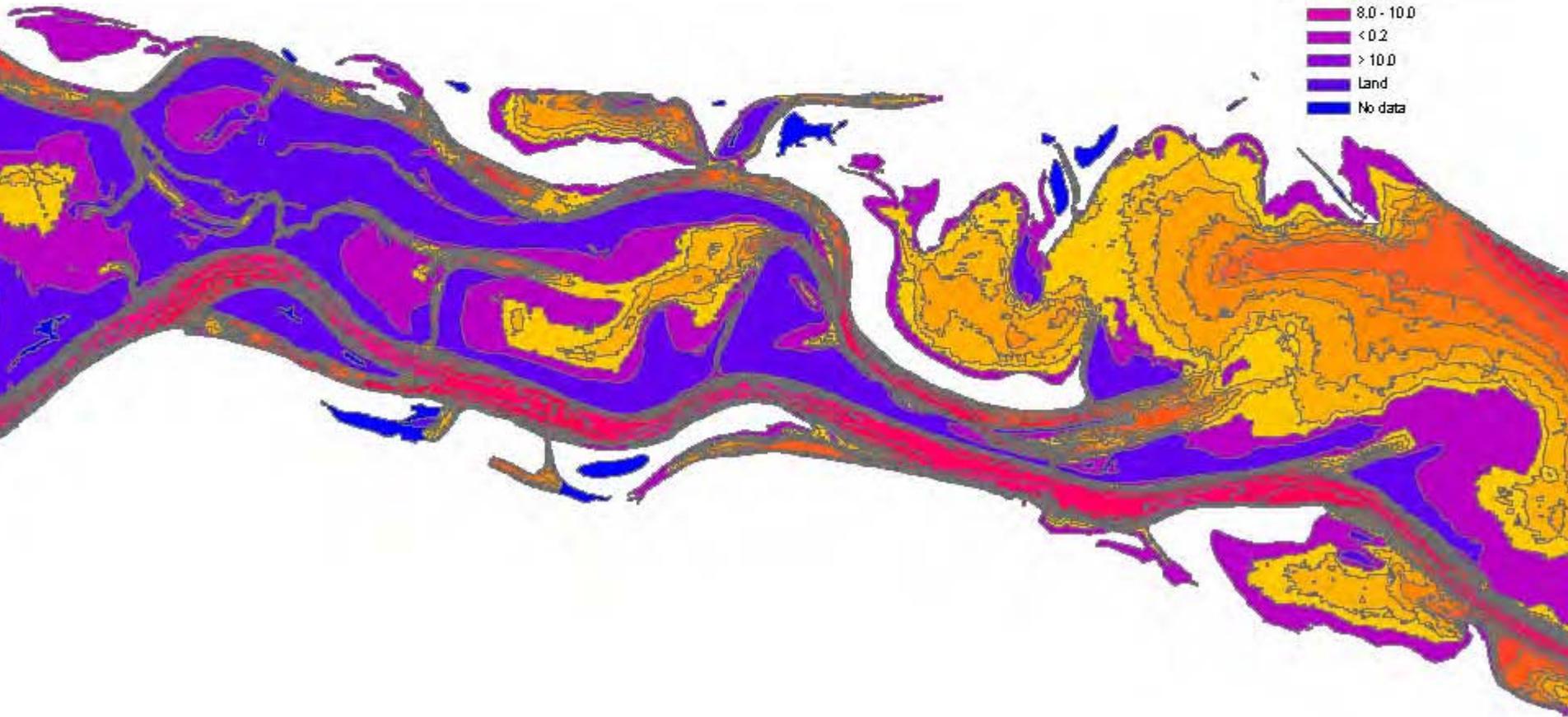
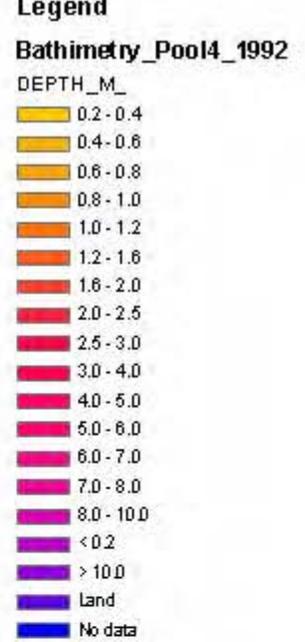
WI Pierce County Islands Restoration Project

Legend

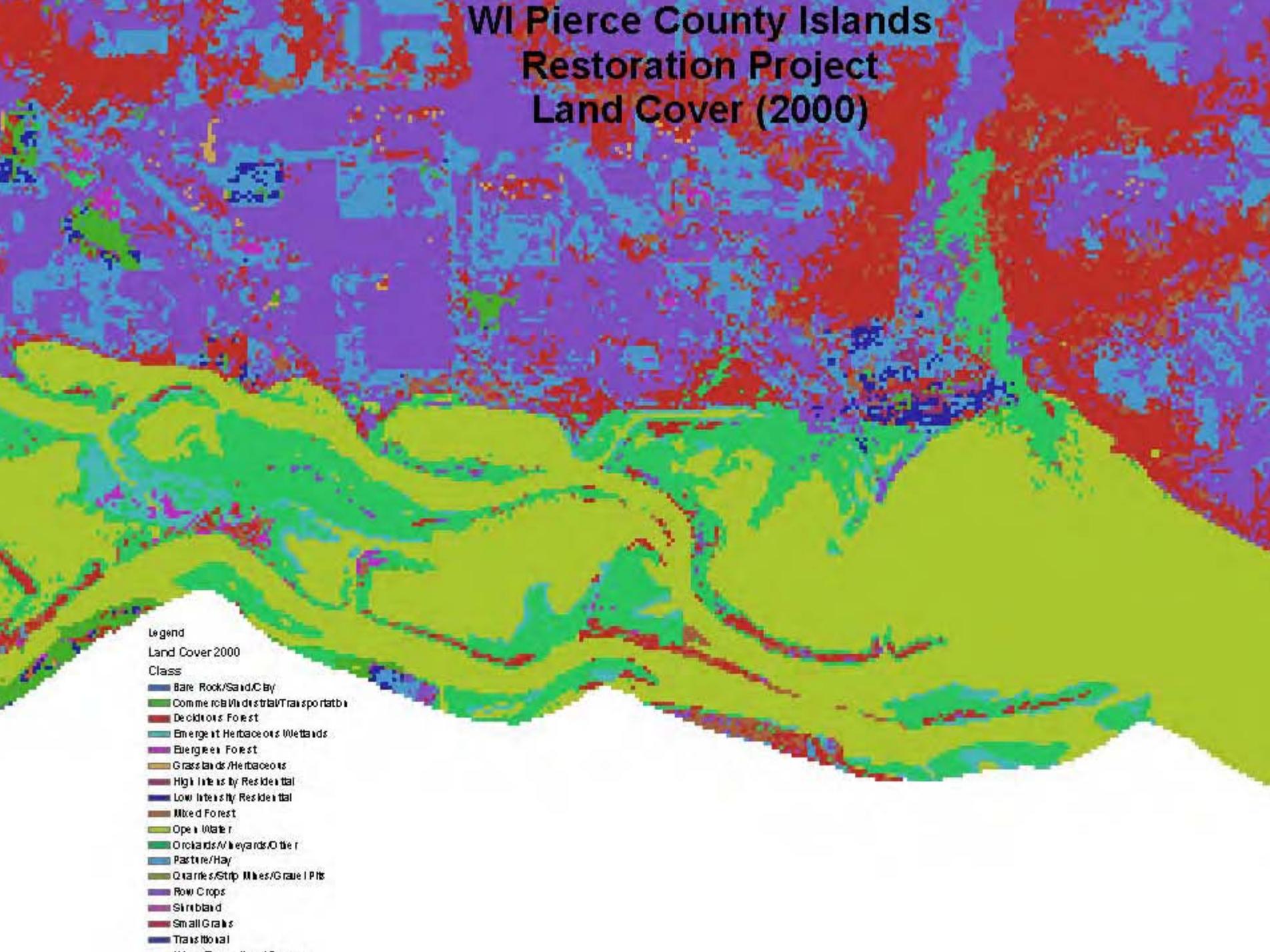
- Private_land
- 500yr_floodplain



WI Pierce County Islands Restoration Project Bathymetry



WI Pierce County Islands Restoration Project Land Cover (2000)



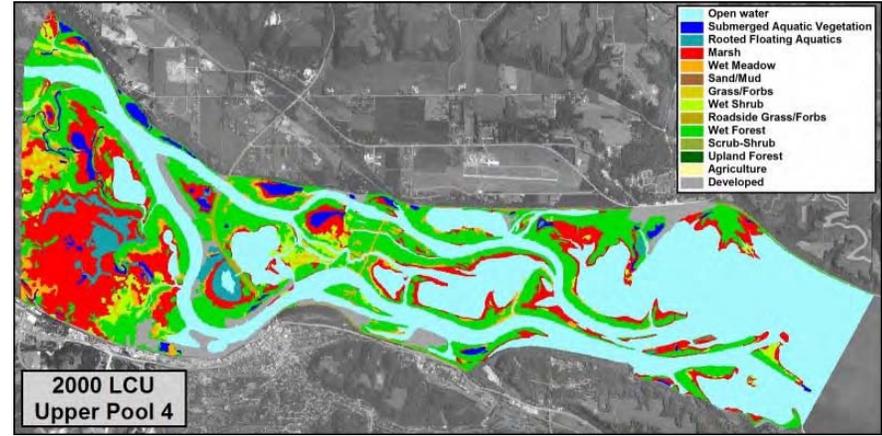
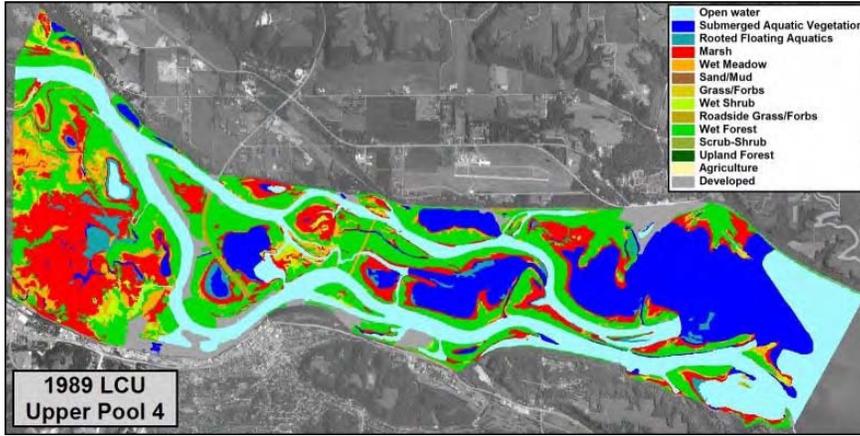
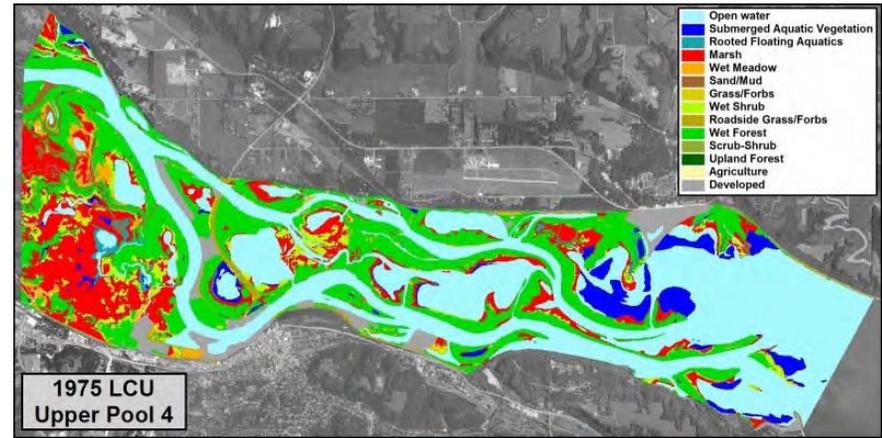
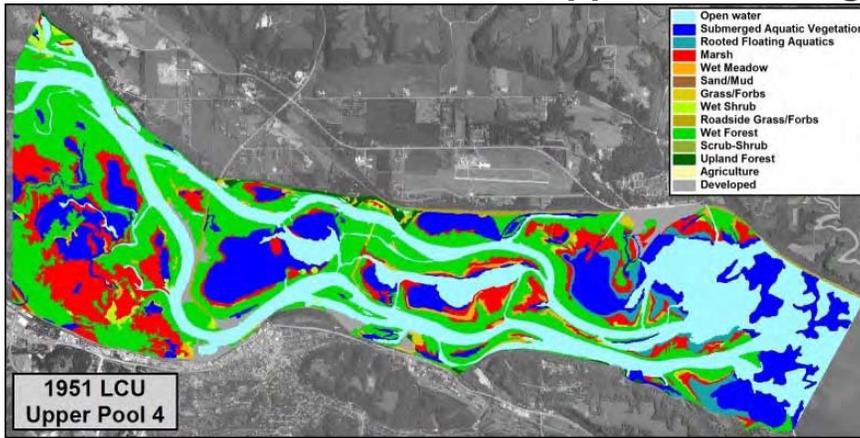
Legend

Land Cover 2000

Class

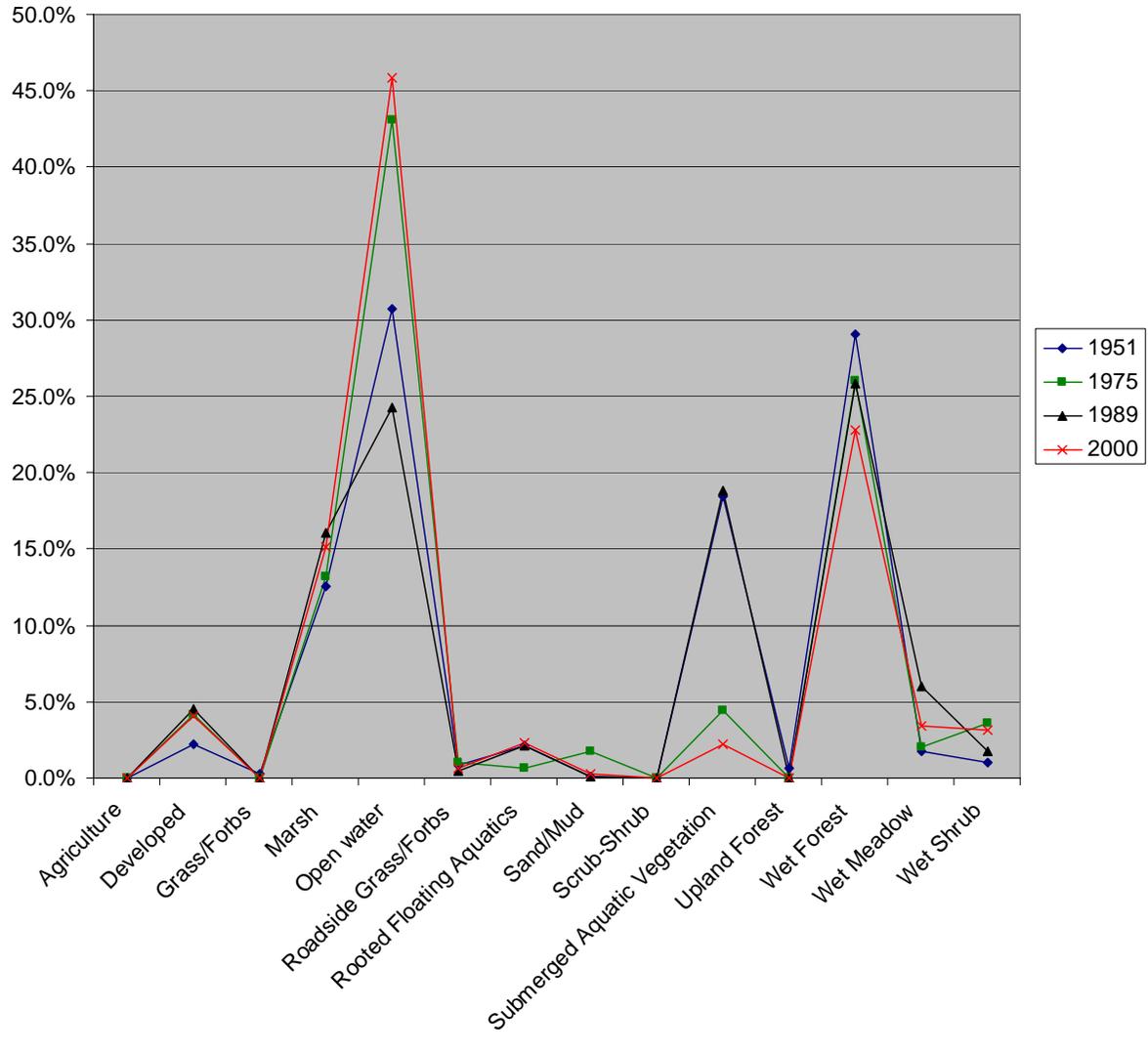
- Bare Rock/Sand/Clay
- Commercial/Industrial/Transportation
- Deciduous Forest
- Emergent Herbaceous Wetlands
- Emergent Forest
- Grasslands/Herbaceous
- High Intensity Residential
- Low Intensity Residential
- Mixed Forest
- Open Water
- Orchards/Vineyards/Olive
- Pasture/Hay
- Quarries/Strip Mines/Gravel Pits
- Row Crops
- Shrubland
- Small Grasses
- Transitional

Upper Pool 4 Vegetation Time Series

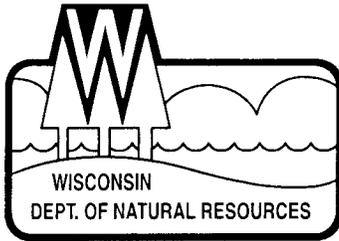


Upper Pool 4 Historical Class	1951			1975			1989			2000		
	Count	Acres	%	Count	Acres	%	Count	Acres	%	Count	Acres	%
Agriculture	1	0.1	0.0%	4	0.3	0.0%	0	0.0	0.0%	0	0.0	0.0%
Developed	7	213.7	2.3%	38	390.0	4.1%	23	426.2	4.5%	18	382.9	4.0%
Grass/Forbs	8	27.0	0.3%	0	0.0	0.0%	0	0.0	0.0%	0	0.0	0.0%
Marsh	92	1189.4	12.6%	489	1249.6	13.2%	228	1516.1	16.0%	184	1436.9	15.2%
Open water	12	2910.8	30.7%	67	4075.4	43.0%	35	2298.3	24.3%	8	4344.3	45.9%
Roadside Grass/Forbs	8	82.5	0.9%	12	96.8	1.0%	9	44.0	0.5%	8	60.6	0.6%
Rooted Floating Aquatics	10	204.4	2.2%	21	65.5	0.7%	51	202.3	2.1%	12	217.3	2.3%
Sand/Mud	3	5.3	0.1%	87	168.5	1.8%	23	11.8	0.1%	12	26.2	0.3%
Scrub-Shrub	0	0.0	0.0%	0	0.0	0.0%	0	0.0	0.0%	2	3.4	0.0%
Submerged Aquatic Vegetation	81	1751.5	18.5%	68	420.8	4.4%	90	1783.4	18.8%	54	213.9	2.3%
Upland Forest	19	63.5	0.7%	0	0.0	0.0%	0	0.0	0.0%	2	1.4	0.0%
Wet Forest	198	2754.4	29.1%	198	2463.8	26.0%	260	2446.9	25.8%	197	2160.9	22.8%
Wet Meadow	55	166.6	1.8%	148	194.4	2.1%	260	570.8	6.0%	116	323.4	3.4%
Wet Shrub	36	100.2	1.1%	234	344.3	3.6%	100	169.7	1.8%	132	298.3	3.2%
Totals	530	9469.4	100.0%	1366	9469.4	100.0%	1079	9469.4	100.0%	745	9469.4	100.0%

Upper P4 Vegetation: 1951-2000



Attachment 13



State of Wisconsin \ DEPARTMENT OF NATURAL RESOURCES

Jim Doyle, Governor
Scott Hassett, Secretary
Scott Humrickhouse, Regional Director

La Crosse Service Center
3550 Mormon Coulee Road
La Crosse, Wisconsin 54601
Telephone 608-785-9000
FAX 608-785-9990
TTY Access via relay - 711

June 20, 2005

District Engineer – Duane Gapinski
U.S. Army Corps of Engineers -RID
Attention: CEMVR-PM-A
P.O. Box 2004
Rock Island, Illinois 61204-2004

Dear Colonel Gapinski:

The Pierce County Islands Wildlife Area is a 957 acre property owned and managed by the Wisconsin Department of Natural Resources. This property is within the floodplain of Pool 4 of the Upper Mississippi River from river miles 785.0 to 790.2, (approximately 1 mile west of Bay City, Wisconsin in Pierce County and north of Red Wing, Minnesota). The Pierce County Islands Wildlife Area is the only publicly-managed waterfowl area and refuge along this section of the Mississippi River in Wisconsin, an area that stretches from lower Lake Pepin to Prescott, a distance of about 50 river miles.

Resource issues in Upper Pool 4 include channel and backwater sedimentation, island erosion and dissection, lack of bottomland forest regeneration and poor coverage of emergent vegetation. These issues have affected the quality of habitat for a variety of fish and wildlife species, including freshwater mussels. Several potential management actions have been identified for the Pierce County Islands Wildlife Area to restore habitat for a wide variety of aquatic and terrestrial species. These features include: island stabilization, island construction, backwater dredging, restoration of an historic moist soil unit, restoration of floodplain flow distribution, increasing topographic diversity, bottomland forest restoration and development of isolated wetlands and sand/mudflats. Some of the features (i.e. island construction, sandflats and moist soil unit berms) may be suitable for construction using channel maintenance dredged material.

I request that the U.S. Army Corps of Engineers, Rock Island District, investigate this potential floodplain ecosystem restoration project pursuant to the Recommendations of the UMR-IWW Navigation Feasibility study. The Wisconsin Department of Natural Resources hereby expresses our willingness to serve as the non-Federal sponsor.

I understand that a Design Agreement must be executed prior to the Corps initiating preconstruction engineering and design (PED) studies and that these PED studies will initially be cost shared 75 percent Federal and 25 percent non-Federal. If the results of the PED studies are favorable and construction funds for the project are provided by Congress, a Project Cooperation Agreement (PCA) must be executed prior to initiation of construction. We are capable of

fulfilling our financial obligation; in general, providing a minimum of 35 percent of the total project costs, including furnishing lands, easements, rights-of-way, relocation, and disposal area facilities and we will operate and maintain the project upon completion. In addition we understand that all PED costs are included in the total project cost and any additional funds needed to cover the non-Federal share of PED would be provided during the first year of construction. We are also aware that non-Federal work-in-kind for construction can not be performed until the PCA is executed.

If you need have any questions or need additional information, please contact me at 608-785-9982.

Sincerely,



Gretchen L. Benjamin
Mississippi River – Water Basin Leader

- C Jeff DeZellar, USACE, St. Paul, MN
- Ken Barr, USACE, Rock Island, IL
- Tim Schlagenhaft, MNDNR, Rochester, MN
- Bernie Schonhoff, IADNR, Muscatine, IA
- Butch Atwood, ILDNR, Greenville, IL
- Janet Sternberg, MODOC, Jefferson City, MO
- Jon Duyvejonck, USFWS, Rock Island, IL
- Gary Wege, USFWS, St. Paul, MN
- Holly Stoerker, UMRBA, St. Paul, MN
- Dan Baumann, WIDNR, Eau Claire, WI
- Chuck Burney, WIDNR, Madison, WI

Attachment 14



The Nature Conservancy in Illinois
8 South Michigan Avenue, Suite 900
Chicago, Illinois 60603

tel [312] 580-2100
fax [312] 346-5606

nature.org/illinois

July 12, 2005

Duane Gapinski, District Engineer
U.S. Army Corps of Engineers
Rock Island District
Attention: CEMVR-PM-A
P.O. Box 2004
Rock Island, Illinois 61204-2004

Dear Colonel Gapinski:

This letter indicates The Nature Conservancy's interest in cooperating with the U.S. Army Corps of Engineers and the U.S. Fish and Wildlife Service on a Preconstruction, Engineering, and Design study (PED) for a floodplain restoration project in the former Illinois River floodplain at Emiquon West. It is our understanding that the study would be initiated under existing authority of the Navigation and Environmental Sustainability Program (NESP). The proposed project would include properties currently owned by the Conservancy and the Service west of Illinois State Highways 78/97 in Fulton County Illinois. Such a project would address multiple recommendations of the recently completed UMR-IWW Navigation Feasibility study, which included restoring 35,000 acres of floodplain in the initial 15 years of the program.

The Emiquon area has a rich cultural history based on the phenomenal abundance and diversity of plants and animals that were here when the first European explorers arrived and that sustained Native American populations for over 600 generations (12,000 years). As recently as a century ago, this area was arguably one of the most important recreational and commercial fishing and waterfowl hunting areas in the Midwest. However, much of the river's floodplain was isolated by constructed levees and converted to agriculture by the mid-1920s. This, associated with numerous changes throughout the basin, significantly impacted the health of the Illinois River ecosystem. Numerous planning effort of the Conservancy, the Service, and other agencies and organizations have identified this area as having high potential for restoration and contributions to the ecological health of the Illinois River.

Since 1996, the Conservancy has acquired nearly 8700 acres at Emiquon and along with the Service and the Illinois Department of Natural Resources, we collectively own over 14,000 acres in this area. We believe, at Emiquon, that the restoration of ecological processes and the habitats they sustain will serve as a model for floodplain restoration, providing guidance and momentum for additional projects on the Upper Mississippi River System and around the world. We are currently working with your staff on Emiquon East, a Section 206 Ecosystem Restoration Project on nearly 6000 acres owned by the Conservancy. We are enthusiastic about partnering with the Corps, the Service, and others on a restoration project for Emiquon West; which project could restore nearly 1500 acres of additional floodplain habitat.

While we understand current authorization for the Navigation and Environmental Sustainability Program (NESP) does not allow the Conservancy, a non-government organization, to participate as a non-federal cost share sponsor for the project, we anticipate future authorization for the NESP will allow the Conservancy to participate in such a manner. Regardless of our eligibility to participate as a cost-share sponsor, we believe including some of our properties in the planning unit will provide for a more effective floodplain restoration project, and we are interested in cooperating with the Service and Corps on such a project.

We understand the existing cost-sharing responsibilities associated with NESP PED studies, and should authorization for the program be expanded to include non-federal cost share sponsors such as the Conservancy, we would be interested in playing such a role. It is our understanding that this current letter of intent does not obligate the Conservancy to contribute resources to this project; any such obligation(s) will require a separate agreement.

We look forward to working with you, your staff, and other partners to develop and implement this important model floodplain restoration project. Should you have questions or need additional information or other from us, do not hesitate to contact me or the Conservancy's UMR Floodplain Initiative Director, Doug Blodgett.

Respectfully yours,

A handwritten signature in black ink, appearing to read "Michael A. Reuter", with a long horizontal flourish extending to the right.

Michael A. Reuter
Chief Conservation Officer, Illinois Chapter

Cc: Ross Adams (Service)

Attachment 15



United States Department of the Interior

U.S. FISH AND WILDLIFE SERVICE
Illinois River National Wildlife and Fish Refuges
19031 E County Road 2110N
Havana, Illinois 62644
Phone: 309/535-2290 FAX: 309/535-3023
ross_adams@fws.gov

July 15, 2005

Colonel Duane Gapinski
District Engineer
U.S. Army Corps of Engineers – RID
Attention: CEMVR-PM-A
P.O. Box 2004
Rock Island, Illinois 61204-2004

Dear Colonel Gapinski:

On behalf of the U.S. Fish and Wildlife Service, I request that the U.S. Army Corps of Engineers, Rock Island Division, investigate this potential floodplain ecosystem restoration on Emiquon National Wildlife Refuge in Fulton County, Illinois pursuant to the recommendations of the UMR-IWW Navigation Feasibility study. The Service desires to partner with the Corps on restoration of this important habitat project. Inasmuch as the Service is a federal agency, the Corps will provide 100 percent of funding for preconstruction engineering and design studies. If results of the studies are favorable and construction funds for the project are provided by Congress, the Service will agree to maintain and manage the project after acceptance of the completed project.

The Emiquon National Wildlife Refuge was established in 1993 with an approved acquisition boundary of 11,000 acres in the floodplain of the Illinois River at its confluence with the Spoon River. Historically, this area supported vast concentrations of waterfowl and other wetland dependent birds and also supported a substantial fishery.

Presently, the Fish and Wildlife Service owns and manages 2,200 acres of floodplain habitat within the refuge boundary whereas The Nature Conservancy owns approximately 7,000 acres. Most of the property within the acquisition boundary was drained and converted to agricultural use in the early 1900's. This drainage is well documented in the publications *The Thompson Lake/Emiquon Story* and *Waterfowl of Illinois* by Dr. Steve Havera.

Wetlands and floodplain forest habitats have been severely impacted within the Illinois River floodplain over the past 150 years. Loss and degradation of this habitat resulted in declining populations of waterfowl, other migratory birds, fish and mussels. There is great potential for restoring the biological diversity and associated public use that existed in this area before 1900. The Service in partnership with the Illinois Conservation Foundation, the North American Wetland Conservation Office, Ducks Unlimited, the Illinois State Duck Stamp Program and others initiated habitat restoration on Refuge property. Approximately 200 acres were reforested and 100 acres were restored to prairie habitat. The Service has some passive water management capability but a project is needed to develop a good water distribution system for wetland management and to restore the floodplain function to these drained wetlands. Approximately 1,000 acres of wetland habitat would be restored with this project.

Sincerely,

A handwritten signature in cursive script that reads "Ross Adams".

Ross Adams
Refuge Manager

Attachment 16



US Army Corps
of Engineers®

Communications Panel Meeting



- Meeting held: July 21, 2005
- Meeting goal: Design a vision and possible function and structure for the Communications Panel
- Attendees: 10 Corps representatives; 6 agency/NGO representatives



US Army Corps
of Engineers®

Communications Thoughts/Visions



- National identity for UMRS
- “One voice” for river
- Communicate successes
- Look at other efforts
- Panel could help move the NESP forward



US Army Corps
of Engineers®

Possible Role of Communications Panel



- Create links between organizations
- Prioritize activities
- Add weight to what an individual group wants to do
- Review and/or create a communications plan
- Champion the program
- Create the significance of the Mississippi River on a national level
- Create synergy to communicate successes and to respond to negative press
- Find funding avenues



US Army Corps
of Engineers®

Possible Composition of Communications Panel – Who, What, How?



- **Who:** July 21st meeting agencies & organizations
- **What:** Panel structure
- **How:** Interaction with Institutional Arrangements



US Army Corps
of Engineers®

Meeting Results



- **Establish Communications Panel**
- **Write short-term contract**
- **Look at successes/problems of Everglades Study**

Attachment 17

Slide 1

Good afternoon. I'm Sue Simmons, a member of the Public Involvement Team, and am here today representing Kevin Bluhm, our Public Involvement Team Leader. Kevin is on a well-deserved vacation for the next couple of weeks.

Communicating to the public the importance of the Nav Study, now referred to as the Navigation and Ecosystem Sustainability Program, or NESP, and the importance of the Upper Mississippi River System, has become increasingly important to the Corps.

In addition, the concept of a Communications Panel has been mentioned at stakeholders meetings.

So on July 21st, Corps, agency, and NGO representatives met in St. Paul to discuss the possibility of forming a Communications Panel to better get the word out about the activities on the Upper Mississippi River System.

Ten representatives from the St. Paul and Rock Island Corps of Engineers Districts attended the meeting. In addition, we were pleased that six representatives from agency and NGO groups were able to participate in some or all of the meeting.

Agency/NGO representatives included:

- Gretchen Benjamin, WI DNR
- Robin Grawe – Mississippi River Citizen Committee
- Catherine McCalvin – The Nature Conservancy
- Dan McGuinness – National Audubon Society
- Dan Larson – River Resource Alliance
- and Steve Johnson – National Park Service.

A contractor was hired to facilitate the meeting. Throughout the day she kept the group in focus as we brainstormed to determine if a Communications Panel was needed at all, and, if so, the role and structure of the Panel.

No firm decisions were made, but we made progress towards determining what the Panel could look like. At the meeting's conclusion, the participants felt that a Communications Panel was worthwhile pursuing.

The next few slides provide a summary of some of the thoughts expressed during the day.

(For Sue's use – if asked, Corps attendees were:

St. Paul District: Chuck Spitzack, Kevin Bluhm, Rebecca Soileau, Jeff DeZellar, Don Powell, Mark Davidson, Jon Petersen

Rock Island District: Sharryn Jackson, Marsha Dolan, Sue Simmons)

Slide 2

Rebecca Soileau began the meeting by describing the meeting's purpose. Kevin Bluhm then summarized the various Public Involvement efforts that took place throughout the Navigation Study and provided a list of potential further outreach efforts that could occur with greater funding and/or possibly a collaborative effort.

Each participant then gave his or her thoughts on what they would expect from a Communications Panel or if a Communications Panel is needed at all.

Some of the comments heard were:

- It's important to raise the level of awareness of the Upper Mississippi River System on a national level.
- It would be good to have one strong voice about the river from all participants.
- Be more proactive with communications; communicate successes; e.g., the EMP; and show the benefits of a good navigation program on the river.
- Communicate more with the public before and after public meetings.
- Is the Panel necessary?
- Is someone already doing the functions of a Communications Panel?
- Need to keep tabs on what other organizations are doing in terms of newsletters and reports.
- Some groups are short staffed and don't need just another meeting to attend.
- Explore interpretive facilities.
- The Communications Panel could be a sounding board for the Corps to help focus messages and get an advance read of how information is received by the public.
- The Panel could help move the NESP forward, could be a help in giving public involvement more credibility and, with competing interests for funding, a voice to getting additional money.

Slide 3

Next, the meeting participants developed a list of what the possible roles of the Communications Panel might be. Among the thoughts were:

- The Communications Panel would coordinate its efforts to create links between organizations - we are all linked to creating a better river and finding common messages.
- The Panel could share ideas and prioritize activities.
- The Panel could add weight to what an individual group wants to do; likewise, the Panel would be an overarching group with smaller action groups.
- With the many restoration projects on the river, it will be good to have a larger network to review and/or create a communications plan. The Panel could be similar to the NECC – help with coordination, news sharing, and strategizing.
- Need to champion the program by communicating the importance of what we're doing on the river and creating the significance of the Upper Mississippi River System on a national level.
- Create synergy to communicate successes and to respond to negative press; link Communications Panel to other Institutional Arrangements groups to get media attention.
- Need to find ways for organizations to get money to partner with other agencies.

Slide 4

The group was asked to think about who needs to be represented on the Panel, what the Panel Structure might look like, and how the Panel might interact with other elements in the Institutional Arrangements. Many differing thoughts were presented in answers to these questions, including:

- Who should be on the Communications Panel? Agencies and organizations that participated in the July 21st meeting. Other invitees could include other Federal and State agencies, NGO's, and private citizens who are active on the river. Experience in communications is important. Some participants may or may not be able to provide funding. Some work may be contracted out.
- The Panel needs a framework for initiation. What might the Panel structure look like?
 - Two components of the Communications Panel structure and representation were suggested:
 - A Communications Panel, which would be a small working group of highly skilled experts in different aspects of communications such as public relations, marketing, public involvement, media, visual presentation, and communications technology. Specialists could come from partner organizations, academia, or private contractors.
 - The second component would be a Communications Network, which would be a network of people who are responsible for public communication and outreach for their organizations. The communications network would be open to federal agencies, state agencies, other government entities, and non-governmental organizations.
 - A person with a scientific background also may be included. The Panel could draw resources on a case by case basis, such as when there is need for a scientific expert on the Communications Panel.
 - The Panel will be a resource for public outreach teams.
 - We need to know the Panel's structure, but also need to know who our audiences are.
 - Kevin Bluhm, the PI Team Leader, would most likely chair the Communications Panel.
- How will the Communications Panel interact with the groups within the Institutional Arrangements?
 - The Communications Panel is to serve as a more focused group on communications with a link to the River Council, the Science Panel, and other elements of the Institutional Arrangements.
 - A survey of the public's perception of the NESP should be taken – the responses then linked to report cards being done in other groups.

Slide 5

The participants at the July 21st meeting felt that forming a Communications Panel would be helpful in spreading the word about the NESP and the Upper Mississippi River System, and that we are heading in the right direction.

Kevin Bluhm is preparing a Scope of Work to hire a contractor to determine levels of investment for a strategic Communications Plan for the next five years of planning on this project.

The NESP can be compared to other large studies, like the Everglades Study, where a variety of communications tools are being used to make their studies more visible to the public. Members of the Public Involvement Group, and possibly other agency or NGO representatives, are planning a field trip to Florida at the end of September. They will meet with the Everglades' public relations specialist at the Corps' Jacksonville District to learn about the study's communications plans and funding.

A date has not been set for the next Communications Panel meeting, but it will be held after the team returns from the Everglades trip.

Thank you.

Attachment 18



Management Systems for Inland Waterway Traffic Control

Final Report

July 2005

Principle Investigators:

Ray A. Mundy, Ph.D.

James F. Campbell, Ph.D.

Faculty Research Associates:

Robert M. Nauss, Ph.D.

Daniel L. Rust, Ph.D.

L. Douglas Smith, Ph.D.

Donald C. Sweeney, II, Ph.D.

**The Center for Transportation studies
University of Missouri-St. Louis**



The Simulation Model

- **A discrete event simulation model of the segment of the UMR composed of Locks 20 thru 25 and connecting pools.**
- **Vessels (large tows, small tows, and recreation craft) enter the system at one of ten entry points following seasonally estimated, independent interarrival time distributions.**



The Simulation Model

- **Vessels complete a lockage after system entry and then make a seasonally adjusted decision to: 1) continue to the next lock; 2) stop; or 3) re-configure their flotilla.**
- **All recreation craft are terminated after a single lockage.**
- **Vessel lockage times depend on vessel configuration, direction of travel, month of occurrence, and state of the lock.**



The Simulation Model

- **Pool transit times depend on the vessel configuration, the direction of travel, and month of occurrence.**
- **Periods of lock closure are modeled as independent occurrences with independent durations.**



Vessel Re-sequencing

- Mean annual reduction of approximately 4,400 total tow hours required to complete the same set of vessel itineraries.
- This reduction represents approximately a 2.5% decrease in the time needed to complete the movements.
- Some vessels “win” and other vessels “lose”.



Conclusions Summary

Alternative	Incremental Benefits	Incremental Costs	Market Disruption
1. Existing Conditions	none	none	none
2. Schedule appointments at locks			
Using existing available information	very small	very small	negligible
Using enhanced vessel tracking	very small	small	negligible
3. Re-sequencing vessels in local queues	small	very small	some
4. Re-sequencing vessels in extended queues			
Using existing available information	small	very small	some
Using enhanced vessel tracking	small	small	some
5. Re-sequencing in multiple lock queues			
Using existing available information	small	small	significant
Using enhanced vessel tracking	small	intermediate	significant
6. System-wide traffic management using enhanced vessel tracking	small	large	extensive



Findings

- **Economic benefits of new traffic management policies are likely to be small at current traffic levels.**
- **The economic benefits accrue differently across system users, and some users would be disadvantaged.**
- **The costs range from very small for management policies using existing data to very large for policies utilizing sophisticated real-time vessel tracking.**



Findings

- **Disruption of existing markets ranges from small to large.**
- **Real time and near-real time vessel tracking is feasible on the UMR.**
- **Integration of tow tracking and lock scheduling is feasible.**
- **Vessel tracking may provide collateral benefits for safety and security.**



Implementation Issues

- **Data issues**
 - **Ownership**
 - **Accuracy and timeliness:**
 - **Current information is not always accurate.**
 - **Cost increases with accuracy.**
 - **Availability:**
 - **Integration of dynamic information from locks or other sources can be added.**
 - **Availability of data for recreational vessels?**
 - **Responsibility and authority for traffic management needs to be clarified.**



Recommendations

- ***“New traffic management policies such as appointment and scheduling systems should not be implemented on the UMR at this time because of the small economic benefit they would create relative to their costs at existing traffic levels and the potential disruptions they would create in existing water transportation markets.”***



Recommendations

- ***“New traffic management policies such as appointment systems should be evaluated under conditions of both significantly increased traffic levels and significantly degraded operating characteristics of the locks comprising the UMR navigation system in order to ascertain the effectiveness of alternative management policies in those circumstances .”***



Recommendations

- ***“Any vessel tracking system for lockage or traffic management on the UMR should be designed in concert with the selection of a potential lockage or traffic management alternative.”***
- ***“The responsibility and legal authority for lockage and traffic management on the UMR should be clarified before implementing larger scale lockage and traffic management systems.***



Recommendations

- ***“Opportunities to partner with other agencies and private organizations in developing vessel tracking on the UMR should be explored.”***



Management Systems for Inland Waterway Traffic Control

Final Report

<http://www.ums1.edu/depts/cts/waterways/>



Navigation Perspectives on Re-evaluation Study

- **Longer –Term Forecasting Commodity Flows on the Mississippi River: Application to Grains and World Trade by Wilson and others.**
- **Tradable Permit Markets for Locks on the Inland Waterways by Plott and Cook.**
- **Shippers Responses to Changes in Transportation Costs and Times: *The Mid-America Grain Study* by Train and Wilson.**

Attachment 19

PROJECT R: SYSTEMIC BARGE FLEETING PLAN

The following critical assumptions and constraints apply to this project:

- The 9-foot channel project will continue to be operated and maintained for the life of the project
- Barge fleeting is an inherent activity of the navigation project
- In 1986, Congress declared that the UMR and IWW are both nationally significant as an ecosystem and as a commercial navigation system.
- Effective management strategies must be developed to preserve, protect, and enhance ecological resources while meeting the future navigation traffic increases and fleeting needs
- Ongoing real estate issues effecting Corps ownership and jurisdiction may limit the land based component of this plan
- Stakeholder and public involvement is critical for project success
- Formulation of the plan is dependent on receiving adequate funding
- The plan does not replace regulatory or real estate permits requirements as appropriate to each applicant

6. Product Delivery Team

The Product Delivery Team (PDT) for the project is comprised of Corps' personnel and agency stakeholders.

Corps of Engineers, Rock Island District

Dorie Bollman	Plan Management, Team Leader
Scott Whitney	Project Manager
Heather Rentz	CEFMS, P2 support
Nicole McVay	Environmental
Phil Cray	Natural Resources
Dennis Shannon	Navigation
Wayne Hannel	Regulatory
Mary Craig	GIS
Tim Fiscus	Real Estate
Sue Simmons	Public Involvement

Corps of Engineers, St. Paul District

Jeff DeZellar	Project Manager
Dan Kelner	Environmental
Dick Otto	Natural Resources
Paul Machajewski	Navigation
Bruce Norton	Regulatory
Keith LeClaire	GIS
Bill Vennemann	Real Estate

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Corps of Engineers, St. Louis District

Rich Astrack	Project Manager
Francis Walton	Environmental
Dan Erickson	Natural Resources
Tom Johnson	Navigation
Alan Edmondson	Regulatory
Keith Short	GIS
Lynn Hoerner	Real Estate

Non-Corps Stakeholders

Jim Fischer	Wisconsin Department of Natural Resources
Scot Johnson	Minnesota Department of Natural Resources
Bernie Schonhoff	Iowa Department of Natural Resources
Jim Mick	Illinois Department of Natural Resources
Janet Sternberg	Missouri Department of Conservation
Dru Buntin?	Missouri Department of Natural Resources
Ron Adams?	Wisconsin Department of Transportation
Dick Lambert	Minnesota Department of Transportation
John Hey	Iowa Department of Transportation
Tim Milam	Illinois Department of Transportation
Sherrie Martin	Missouri Department of Transportation
?	U.S. Coast Guard
Robert Goodwin, Jr.	Maritime Marine Administration
Jon Duyvejonck	U.S. Fish & Wildlife Service
Dick Steinbach	U.S. Fish & Wildlife Service
Sammy Dickey	River Industry Action Committee
Darren Melvin	Illinois River Carriers Association
Lynn Muench	American Waterway Operators
Paul Rhode	MARC 2000

Other names suggested by PDT members or others:

Larry Kieck	Wi DOT
BJ Nelson	Brennan Marine, LaCrosse
Steve Johnson	NPS, MNRRA
Lee Nelson	Pres. Upper River Services
Larry Daily	Pres. Alter Barge Line, Inc
Ed Henleben	Operations Manger Ingram Barge Line
James Patterson	Pres. Osage Marine Service.
George Foster	Pres. J B Marine Service, Inc.
Quint Harris	Illinois River Carriers Association

Attachment 20

BARGE FLEETING PLAN

NAVIGATION AND ECOSYSTEM SUSTAINABILITY PROGRAM

**All Pools on the
Upper Mississippi and Illinois Rivers,
All River Miles**

**Illinois, Iowa, Minnesota, Missouri,
and Wisconsin**

**Rock Island, St. Louis, & St. Paul,
Districts**

Systemic Plan

RESOURCE PROBLEM:

Incremental increases in barge traffic may lead to increased barge fleeing activities throughout the system. Existing fleeing areas may need to be expanded along with the development of new sites. Fleeting operations cause environmental impacts to forested resources, freshwater mussels, benthic fauna, bankline stability, cultural resources, and aesthetics. A systemic plan will be developed to guide the development of future fleeing areas with respect for industry needs and resource protection on Federal lands/waters.

PLAN FEATURES:

- Examine existing fleeing areas, fleeing capacity, and determine future fleeing location needs.
- Identify critical or sensitive habitats/areas of concern for the purposes of avoidance and protection.
- Identify suitable areas for development that avoid or minimize fleeing impacts to resources of concern.
- Determine the linkage between the fleeing plan and the Corps District's Master Plans and the FWS's Comprehensive Conservation Plans

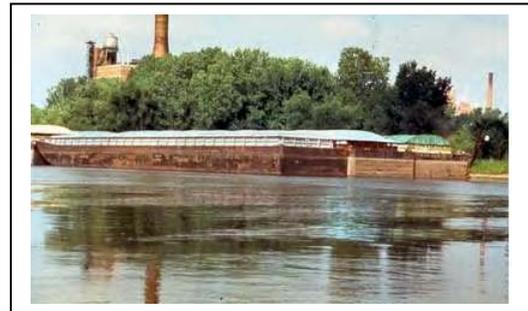
EXPECTED ECOLOGICAL OUTCOMES:

Development of fleeing operations in ecologically acceptable areas will contribute to increased system sustainability. In addition, any potential transfer of barges from areas of concern

to less sensitive sites allows the opportunity for restoration in formerly used areas.

ADAPTIVE MANAGEMENT OPPORTUNITIES

The fleeing plan will have a limited shelf life due to changing needs of the barge industry and the ever changing ecological conditions. However, this plan could lead to increased collaboration, resource protection, and fleeing certainty for the industry. Refinements of the plan, as necessary, would lead to beneficial management of both nationally significant systems.



FINANCIAL DATA: The estimated cost of this effort is \$400,000.00 at 100% federal cost. Participants to this effort include: the Corps, US Fish and Wildlife Service, Coast Guard, Maritime Marine Administration, state resource agencies, barge industry, and barge fleeing operators.

STATUS and SCHEDULE: The Plan will be a 3 to 5 year work effort. No tasks have been initiated to date..