Tracking	Milestone	Target	Date	1st	2nd	3rd	4th	Lead
number		Date	Completed	quarter	quarter	quarter	quarter	
MINIMU	M SUSTAINABLE PROGRAM							
Aquatic V	egetation Component							
2008A1	Complete data entry and QA/QC of 2007 data; 1250 observations							
	a. Data entry completed and submission of data to USGS	30-Nov-07	✓ 7-Nov-07	Completed				Popp, Dukerschein, Bierman
	b. Data loaded on level 2 browsers	15-Dec-07	✓ 12-Nov-07	Completed				Schlifer
	c. QA/QC scripts run and data corrections sent to Field Stations	28-Dec-07	✓21-Nov-07	Completed				Sauer
	d. Field Station QA/QC with corrections to USGS	15-Jan-08	✓27-Nov-07		Completed			Popp, Dukerschein, Bierman
	e. Corrections made and data moved to public Web Browser	30-Jan-08	✓ 18-Jan-08		Completed			Sauer, Schlifer, Caucutt
2008A2	WEB-based annual Aquatic Vegetation Component Update with 200	7 data on Pub	olic Web Server	•			-	
	a. Develop first draft	28-Feb-08	✓ 9-Jan-08		Completed			Sauer
	b. Reviews completed	28-Mar-08	21-Jan-08		Completed			Popp, Dukerschein, Bierman, Sauer, Yin
	c. Submit final update	18-Apr-08	✓ 5-Feb-08	A	Completed			Sauer
	d. Placement on Web with PDF	31-Jul-08			Δ			Sauer, Caucutt
2008A3	Complete aquatic vegetation sampling for Pools 4, 8, and 13 (Table	31-Aug-08						Popp, Dukerschein, Bierman
2008A4	Final draft completion report: Developing submersed aquatic plant bioindicators and biocriteria for the Upper Mississippi River	30-May-08			8: le le les to av hor	70		Dukerschein, Langrehr, Popp, Moore
2008A7	Web-based: Creating surface distribution maps for aquatic plant species in Pools 4, 8, and 13; 2007 data	31-Jul-08						Yin
2008A8	Final draft OFR: LTRMP Aquatic Vegetation Program Review (2007A9)	30-Sep-08						Heglund, Sauer
2008A9	Draft manuscript: Aquatic vegetation in the UMRS	31-May-08						Popp, Moore
2007A9	Draft OFR: LTRMP Aquatic Vegetation Program Review	29-Feb-08						Heglund
2007APE1	Draft manuscript: Importance of the Upper Mississippi River Forest Corridor to Neotropical Migratory Birds	30-Mar-08						Kirsch
2007APE12	Draft LTRMP Report: Ecological Assessment of High Quality UMRS Floodplain Forests	29-Aug-08						Chick
Fisheries	Component							
2008B1	Complete data entry, QA/QC of 2007 fish data; ~1,590 observations							
	a. Data entry completed and submission of data to USGS	31-Jan-08	1-Feb-08		Completed			Popp, Dukerschein, Bierman, Chick, Sass, Hrabik
	b. Data loaded on level 2 browsers; QA/QC scripts run and data corrections sent to Field Stations	15-Feb-08	4-Feb-08		Completed			Schlifer
	c. Field Station QA/QC with corrections to USGS	15-Mar-08	5-Feb-08		Completed			Popp, Dukerschein, Bierman, Chick, Sass, Hrabik
	d. Corrections made and data moved to public Web Browser	30-Mar-08	✓ 14-Feb-08		Completed			Sauer and Schlifer

Milestone	Target	Date	1st	2nd	3rd	4th	Lead	
	Date	Completed	quarter	quarter	quarter	quarter		
WEB-based annual Fisheries Component Update with 2007 data on Public Web Server								
a Develop first draft	30- Apr-08	1/1-Feb-08		Completed			Sauer, Popp, Dukerschein,	
a. Develop that drait	30 7 pr 00	14 1 65 00		Completed			Bierman, Chick, O'Hara,	
	45.35						Sauer, Popp, Dukerschein,	
b. Reviews completed	15-May-08						Bierman, Chick, O'Hara, Hrabik, Ickes	
							Sauer, Popp, Dukerschein,	
c. Submit final update	31-May-08						Bierman, Chick, O'Hara,	
d. Placement on Web with PDF	31-Aug-08						Sauer, Caucutt	
Complete fisheries sampling for Pools 4, 8, 13, 26, the Open River,							Popp, Dukerschein, Bierman,	
and La Grange Pool (Table 1)	31-Oct-08						Chick, O'Hara, Hrabik	
, , ,	30-Sep-08						Sass, Irons	
	30- Apr-08			In Press			Ickes	
	30-Apr-08		A.	111 F1C88			ickes	
empirical modeling of the Mississippi and Lower Missouri Rivers	30-Apr-08		review			Ickes		
(intended outlet Nature)				11/2				
				1/10	\sim			
	1-Jul-08			In prép			Ickes	
1 11 1	30-Jun-08			In prep			Ickes	
•	20 0411 00			ın prop			Toney	
Draft manuscript: Standardized CPUE data from multiple gears for	27 Jun 08						Chick	
community level analysis (re-worked 2006B5).	27-Juii-06						CHICK	
* *	20.0						CL: 1	
**	30-Sep-08						Chick	
2008B9 acceptance into journal)			Delayed to 2	May 2008:				
Draft I TRMP report: Trends in abundance of fish species linked to			Lead author pulled off					
	30-Mar-08						Popp, Delain	
100		-						
Draft manuscript: Proportional biomass contributions of Non-native	21 M 00						T-1	
fish to UMRS fish communities	51-May-08			ın prep			Ickes	
	30-Sep-08							
							Hrabik, McCain, Herzog	
	a. Develop first draft b. Reviews completed c. Submit final update d. Placement on Web with PDF Complete fisheries sampling for Pools 4, 8, 13, 26, the Open River, and La Grange Pool (Table 1) USGS Series: Non-native fishes in the Upper Mississippi River System: A Synthesis of Information from the Long Term Resource Monitoring Program (extension of 2005B8) Manuscript: Assessing habitat use by breeding Great Blue Herons (Ardea herodias) on the Upper Mississippi River National Wildlife and Fish Refuge, USA (intended outlet Waterbirds) Draft Manuscript: River engineering and flooding: Systemwide empirical modeling of the Mississippi and Lower Missouri Rivers (intended outlet Nature) Draft Manuscript: Effects of river engineering on flow conveyance and flood stages: Reach-scale empirical modeling of the Mississippi and Lower Missouri Rivers (intended outlet Water Resources and Draft manuscript: Fishes of the Mississippi River System: a 40 year synthesis of research on one of the world's great rivers (intended outlet Hydrobiologia) Draft manuscript: Standardized CPUE data from multiple gears for community level analysis (re-worked 2006B5). Draft manuscript: Spatial structure and temporal variation of fish communities in the Upper Mississippi River. (Dependent on 2008B9 acceptance into journal) Draft LTRMP report: Trends in abundance of fish species linked to vegetation	wEB-based annual Fisheries Component Update with 2007 data on Public Web St. a. Develop first draft b. Reviews completed c. Submit final update d. Placement on Web with PDF Complete fisheries sampling for Pools 4, 8, 13, 26, the Open River, and La Grange Pool (Table 1) USGS Series: Non-native fishes in the Upper Mississippi River System: A Synthesis of Information from the Long Term Resource Monitoring Program (extension of 2005B8) Manuscript: Assessing habitat use by breeding Great Blue Herons (Ardea herodias) on the Upper Mississippi River National Wildlife and Fish Refuge, USA (intended outlet Waterbirds) Draft Manuscript: River engineering and flooding: Systemwide empirical modeling of the Mississippi and Lower Missouri Rivers (intended outlet Nature) Draft Manuscript: Effects of river engineering on flow conveyance and flood stages: Reach-scale empirical modeling of the Mississippi and Lower Missouri Rivers (intended outlet Water Resources and Draft manuscript: Fishes of the Mississippi River System: a 40 year synthesis of research on one of the world's great rivers (intended outlet Hydrobiologia) Draft manuscript: Spatial structure and temporal variation of fish communities in the Upper Mississippi River. (Dependent on 2008B9 acceptance into journal) Draft LTRMP report: Trends in abundance of fish species linked to vegetation Draft manuscript: Proportional biomass contributions of Non-native fish to UMRS fish communities Draft manuscript: Proportional Size Density and Frequency of Occurrence of Flathead Catfish (Pylodictis olivaris), Channel Catfish (Ictalurus punctatus), and Blue Catfish (I. furcatus) in an impounded and unimpounded reach of the Upper Mississippi River.	WEB-based annual Fisheries Component Update with 2007 data on Public Web Server a. Develop first draft 30-Apr-08 14-Feb-08 b. Reviews completed 15-May-08 c. Submit final update 31-May-08 d. Placement on Web with PDF Complete fisheries sampling for Pools 4, 8, 13, 26, the Open River, and La Grange Pool (Table 1) USGS Series: Non-native fishes in the Upper Mississippi River System: A Synthesis of Information from the Long Term Resource Monitoring Program (extension of 2005B8) Manuscript: Assessing habitat use by breeding Great Blue Herons (Ardea herodias) on the Upper Mississippi River National Wildlife and Fish Refuge, USA (intended outlet Waterbirds) Draft Manuscript: River engineering and flooding: Systemwide empirical modeling of the Mississippi and Lower Missouri Rivers (intended outlet Nature) Draft Manuscript: Effects of river engineering on flow conveyance and flood stages: Reach-scale empirical modeling of the Mississippi and Lower Missouri Rivers (intended outlet Water Resources and Draft manuscript: Fishes of the Mississippi River System: a 40 year synthesis of research on one of the world's great rivers (intended outlet Hydrobiologia) Draft manuscript: Spatial structure and temporal variation of fish community level analysis (re-worked 2006B5). 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Placement on Web with PDF Complete fisheries sampling for Pools 4, 8, 13, 26, the Open River, and La Grange Pool (Table 1) USGS Series: Non-native fishes in the Upper Mississippi River System: A Synthesis of Information from the Long Term Resource Monitoring Program (extension of 2005B8) Manuscript: Assessing habitat use by breeding Great Blue Herons (Ardea herodias) on the Upper Mississippi River National Wildlife and Fish Refuge, USA (intended outlet Waterbirds) Draft Manuscript: Fiver engineering and flooding: Systemwide empirical modeling of the Mississippi and Lower Missouri Rivers (intended outlet Nature) Draft Manuscript: Fishes of the Mississippi River System: a 40 year synthesis of research on one of the world's great rivers (intended outlet Materbiologia) Draft manuscript: Standardized CPUE data from multiple gears for community level analysis (re-worked 2006B5). Draft manuscript: Standardized CPUE data from multiple gears for community level analysis (re-worked 2006B5). 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Placement on Web with PDF Complete fisheries sampling for Pools 4, 8, 13, 26, the Open River, and La Grange Pool (Table I) USGS Series: Non-native fishes in the Upper Mississippi River System: A Synthesis of Information from the Long Term Resource Monitoring Program (extension of 2005BB) Manuscript: Assessing habitat use by breeding Great Blue Herons (Ardea herodias) on the Upper Mississippi River National Wildlife and Fish Refrige, USA (intended outlet Waterbirds) Draft Manuscript: River engineering and flooding: Systemwide empirical modeling of the Mississippi and Lower Missouri Rivers (intended outlet Nature) Draft Manuscript: Fishes of the Mississippi and Lower Missouri Rivers (intended outlet Water Resources and Draft manuscript: Standardized CPUE data from multiple gears for communities in the Upper Mississippi River (Dependent on 2005B9 acceptance into journal) Draft manuscript: Standardized CPUE data from multiple gears for communities in the Upper Mississippi River. 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Placement on Web with PDF Complete fisheries sampling for Pools 4, 8, 13, 26, the Open River, and La Grinage Pool (Table 1) USGS Series: Non-native fishes in the Upper Mississippi River System: A Synthesis of Information from the Long Term Resource Monitoring Program (extension of 200588) Manuscript: Assessing habitat use by breeding Great Blue Herons (Ardea heroddas) on the Upper Mississippi River National Wildlife and Fish Refuge, USA (intended outlet Waterbirds) Draft Manuscript: River engineering and flooding: Systemwide empirical modeling of the Mississippi and Lower Missouri Rivers (intended outlet Nature) Draft Manuscript: Effects of river engineering on flow conveyance and flood stages: Reach-scale empirical modeling of the Mississippi and Lower Missouri Rivers (intended outlet Nature) Draft Manuscript: Fishes of the Mississippi River System: a 40 year synthesis of research on one of the world's great rivers (intended outlet Hydrobiologia) Draft manuscript: Standardized CPUE data from multiple gears for community lead analysis (re-worked 2006B5). 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Tracking	Milestone	Target	Date	1st	2nd	3rd	4th	Lead
number		Date	Completed	quarter	quarter	quarter	quarter	
12007APE3	Draft LTRMP report: Testing the Fundamental Assumption underlying the use of LTRMP fish data: Does variation in LTRMP catch-per-unit-effort data reflect variation in the abundance of fishes?	30-Mar-08						Chick

Tracking number	Milestone	Target Date	Date Completed	1st quarter	2nd quarter	3rd quarter	4th quarter	Lead
2007APE7	Draft completion report: Association between fish assemblage and off-channel area type in the impounded reach of the Upper Mississippi and Illinois rivers: implications for habitat restoration at management-relevant scales	31-Jan-08	Completed	Delayed to 29 February	quarter	quarter	quarter	Knights
2007APE8	A Proposal to restore Specific Monitoring Elements to the LTRMP	30-Apr-08						Chick
		Estimated	distribution d	late				
_	report: Habitat-related factors that are potentially limiting backwater nities (2006B8; Bartels)	30-May-08						
Calculated fr Protocols (20	report: Exploratory Analysis of Index of Biotic Integrity Scores rom Datasets Obtained from Three Different Day Electrofishing 006B9; Bartels)	30-Jul-08						
NWR, Banne (2006APE17	ort: Investigate effects of newly completed HREPs (Lake Chautauqua er Marsh State Fish and Wildlife Area) in La Grange Pool 7b; O'Hara)	30-Sep-08			Approval from Reston 5 Feb. 2008			
	Evaluation of a Catch and Release Regulation for Largemouth Bass Lake, Pool 13, Upper Mississippi River (2007B7; Bowler)	30-Sep-08			_			
-	report: LTRMP Fisheries Component collection of six darter species 2004. (2006B13; Ridings)	30-Sep-08			DA	4		
Water Qu	Water Quality Component							
2008D1	Complete calendar year 2007 fixed-site water quality sampling	31-Dec-07	31-Dec-07	Completed	'7]	77		Houser, Popp, Dukerschein, Bierman, Chick, Sass, Hrabik
2008D2	Complete laboratory analysis of 2007 fixed site and SRS data; Data loaded to Oracle data base.	30-Mar-08	✓ 4-Mar-08		Completed			Yuan
2008D3	Complete data entry, QA/QC of calendar year 2006 fixed-site and SRS data.	30-May-08						Rogala. Popp, Dukerschein, Bierman, Chick, Sass, Hrabik
2008D4	Complete FY 08 fixed site and SRS sampling for Pools 4, 8, 13, 26, Open River, and La Grange Pool	30-Sep-08						Popp, Dukerschein, Bierman, Chick, Sass, Hrabik
2008D5	WEB-based annual Water Quality Component Update with 2007 data on Public Web Server.	30-Jun-08						Rogala
2008D6	Final draft LTRMP report: Sampling of light regime in support of aquatic vegetation modeling (2007D6)	30-Aug-08						Dukerschein, Giblin, Hoff
2008D7	Final draft LTRMP report: Pool 5 water quality, pre- and post-drawdown	30-Mar-08		Delayed to 1 author on inj	1 April; Lead ured reserve			Popp, Burdis
2008D8	Final draft manuscript: Primary production, and dissolved oxygen dynamics in UMRS backwater lakes and main channel. (2007D8)	30-Jul-08						Houser
2008D9	Final draft manuscript describing results of analyses of spatial and temporal patterns in UMRS WQ. (2006D5)	30-Aug-08						Houser
2006D7	Final draft completion report: Lake Pepin zooplankton and water quality data	31-Jul-08						Popp, Burdis
2005D7	Final draft LTRMP report: Main channel/side channel report for the Open River Reach.	30-Sep-08						Hrabik
2005APE26	Final draft LTRMP report: retrospective, cross-component analysis for Pool 26	29-Feb-08						Chick, Johnson

Tracking	Milestone	Target	Date	1st	2nd	3rd	4th	Lead
number		Date	Completed	quarter	quarter	quarter	quarter	
		Estimated	distribution d	ate				
Completion 1	report: Evaluation of new Hydrolab Turbidity Probe (2006D6; Hoff)	31-Dec-07	✓21-Dec-07	Completed				
	ort: A decade of monitoring on Pool 26 of the Upper Mississippi							
River: Water	quality and fish data with cross component analyses (2005APE27;	30-Sep-08						
Chick)								
Completion 1	report: Effectiveness of wetland creation (2006D8; Bierman)	30-Sep-08						
Completion 1	report: Examining nitrogen and phosphorus ratios N:P in the	30-Sep-08						
unimpounded	d portion of the Upper Mississippi River (2006D9; Crites)	30-3ep-08						
Statistical	Evaluation of Monitoring Data							
2008E1	Draft completion report that describes methods of estimating	15-Sep-08			/h			Gray
2006E1	variance components from LTRMP water quality data	•		/	<u> </u>			Glay
		Estimated	distribution d	ate /	191			
Completion i data"	report: "An introduction to the analysis of LTRMP's vegetation rake	15-May-08		•	NFIF	70		
-	report: "Estimating temporal trends in data derived using LTRMP's quatic vegetation rake sampling design" (2007E1 & 2; Gray)	15-Jun-08						
	report: "Cumulative HREP effects on ecological characteristics of							
	regions of the UMR" (2007APE10; Gray)	15-Jun-08						
Data Man	nagement							
2008M1	Update vegetation, fisheries, and water quality component field data entry and correction applications.	30-May-08						Schlifer
2008M2	Load 2007 component sampling data into Oracle tables and make data available on Level 2 browsers for field stations to QA/QC.	30-Jun-08						Schlifer
Land Cov	ver/Land Use with GIS Support							
2008V1	Provide biannual updates to LTRMP management	Biannual	Ι					Robinson
	Assessment of high-resolution digital imagery for UMRS vegetation							
2007APE13	mapping and software-based vegetation classification	30-Mar-08						Robinson
Bathymetry								
2008T1	Provide biannual updates to LTRMP management	Biannual						Rogala
2008T2	Draft UMRS Bathymetric Data Acquisition Plan: Completion report	1-Aug-08						DeHaan
	Macroinvertebrate Component							
2005C2	Draft LTRMP Report: Open River macroinvertebrates	30-Sep-08						Hrabik
LTRMP Summary Report								
2007S1	2005 LTRMP Web-based summary report on-line	30-Jun-08	I		1			Johnson, Houser, Ickes, Yin
200701	2003 ETICHT WOO-based summary report on-time	50-Jun-00	l					Johnson, Houser, Texes, Till