

## LTRMP FY10 Milestone Chart

Tracking number	Milestone	Target Date	Date Completed	1st quarter	2nd quarter	3rd quarter	4th quarter	Lead
<b>MINIMUM SUSTAINABLE PROGRAM</b>								
<b>Aquatic Vegetation Component</b>								
2010A1	Complete data entry and QA/QC of 2009 data; 1250 observations.							
	a. Data entry completed and submission of data to USGS	30-Nov-09	15-Sep-09	Completed				Popp, Dukerschein, Bierman
	b. Data loaded on level 2 browsers	15-Dec-09	1-Oct-09	Completed				Schlifer
	c. QA/QC scripts run and data corrections sent to Field Stations	28-Dec-09	5-Nov-09	Completed				Sauer
	d. Field Station QA/QC with corrections to USGS	15-Jan-10	9-Nov-09		Completed			Popp, Dukerschein, Bierman
	e. Corrections made and data moved to public Web Browser	30-Jan-10	19-Nov-09		Completed			Sauer, Schlifer, Caucutt
2010A2	WEB-based annual Aquatic Vegetation Component Update with 2009 data on Public Web Server.							
	a. Develop first draft	28-Feb-10	23-Dec-09		Completed			Sauer
	b. Reviews completed	28-Mar-10	25-Jan-10		Completed			Popp, Dukerschein, Bierman, Sauer, Yin
	c. Submit final update	18-Apr-10	2-Apr-10			Completed		Sauer
	d. Placement on Web with PDF	31-Jul-10	12-May-10				Completed	Sauer, Caucutt
2010A3	Complete aquatic vegetation sampling for Pools 4, 8, and 13 (Table 1)	31-Aug-10	31-Aug-10				Completed	Popp, Dukerschein, Bierman
2010A4	Web-based: Creating surface distribution maps for aquatic plant species in Pools 4, 8, and 13; 2009 data	31-Jul-10	31-Jul-10				Completed	Yin
2007APE12	Draft LTRMP Report: Ecological Assessment of High Quality UMRS Floodplain Forests	30-Dec-09	17-Aug-10		Completed			Chick, Guyon, Battaglia
<b>Intended for distribution</b>								
Completion report: LTRMP Aquatic Vegetation Program Review (Heglund; 2007A9)								
Manuscript: Patterns of forest succession and impacts of flood in the Upper Mississippi River floodplain ecosystem; <b>ECOLOGICAL COMPLEXITY, 6 (4): 463-472 Sp. Iss. SI DEC 2009</b>								
Manuscript: A spatial simulation model for forest succession in the Upper Mississippi River floodplain; <b>ECOLOGICAL COMPLEXITY, 6 (4): 494-502 Sp. Iss. SI DEC 2009</b>								
Manuscript: Importance of the Upper Mississippi River Forest Corridor to Neotropical Migratory Birds (Kirsch, 2007APE1)								
<b>Fisheries Component</b>								
2010B1	Complete data entry, QA/QC of 2009 fish data; ~1,590 observations							
	a. Data entry completed and submission of data to USGS	31-Jan-10	10-Jan-10		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-10	22-Feb-10		Completed			Schlifer
	c. Field Station QA/QC with corrections to USGS	15-Mar-10	29-Jan-10		Completed			Popp, Dukerschein, Bierman, Chick, Sass, Hrabik
	d. Corrections made and data moved to public Web Browser	30-Mar-10	2-Feb-10		Completed			Sauer and Schlifer
2010B2	Update Graphical Browser with 2009 data on Public Web Server.	31-May-10	5-Feb-10			Completed		Sauer, Schlifer, Popp, Dukerschein, Bierman, Chick, O'Hara, Hrabik
2010B3	Complete fisheries sampling for Pools 4, 8, 13, 26, the Open River, and La Grange Pool (Table 1)	31-Oct-10						Popp, Dukerschein, Bierman, Chick, O'Hara, Hrabik
2010B4	Draft revision and update of the LTRMP fisheries component procedures manual	30-Sep-10						O'Hara, Irons, Ratcliff
2008B9	Draft manuscript: Standardized CPUE data from multiple gears for community level analysis (a previous manuscript was submitted and rejected by the journal, 2006B5; 2008B9 is a revised manuscript)	30-Dec-09		30-Jul-10				Chick

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2006B6	Draft manuscript: Spatial structure and temporal variation of fish communities in the Upper Mississippi River. (Dependent on 2008B9 acceptance into journal)	30-Mar-10			30-Sep-10			Chick
2007B4	Draft manuscript: Proportional biomass contributions of Non-native fish to UMRS fish communities	30-Jul-10				30-Sep-10		Ickes
2007APE3	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-Apr-10			30-Jul-10			Chick
2007APE8	Final draft: Year 1 –Restoration of Specific Monitoring Elements to the Long Term Resource Monitoring Program	30-Mar-10	9-Jun-10		Completed			Team Leaders
<b>Intended for distribution</b>								
Completion report: Exploratory Analysis of Index of Biotic Integrity Scores Calculated from Datasets Obtained from Three Different Day Electrofishing Protocols (2006B9; Bartels) <b>13 Jan. 2010</b>								
Manuscript: Evaluation of a Catch and Release Regulation for Largemouth Bass in Brown's Lake, Pool 13, Upper Mississippi River (2007B7; Bowler)								
Completion report: LTRMP Fisheries Component collection of six darter species from 1989–2004. (2006B13; Ridings)								
Manuscript: O'Connell, M.T. with A.M. Uzee-O'Connell and Valerie A. Barko. (in press) Occurrence and predicted dispersal of bighead carp <i>Hypophthalmichthys nobilis</i> in the Mississippi River System: Development of a Heuristic Tool in D. Chapman and M. Hoff (editors). Asian Carp Symposium Proceedings, American Fisheries Society Symposium. (2005APE13; Barko)								
LTRMP Report: An Evaluation Of Macroinvertebrate Sampling Methods For Use In The Open River Reach of The Upper Mississippi River; Kathryn N. S. McCain, Robert A. Hrabik, Valerie A. Barko, Brian R. Gray, and Joseph R. Bidwell (2005C2)								
LTRMP report: Relationship of juvenile abundance of select fish species to aquatic vegetation in Navigation Pools 4, 8, and 13 of the Upper Mississippi River, 1998-2007 (2007B5; 2009B5; Popp and DeLain)								
Proportional Size Density and Frequency of Occurrence of Flathead Catfish ( <i>Pylodictis olivaris</i> ), Channel Catfish ( <i>Ictalurus punctatus</i> ), and Blue Catfish ( <i>I. furcatus</i> ) in an impounded and unimpounded reach of the Upper Mississippi River. (McCain, 2007B8)								
Manuscript: Fishes of the Mississippi River System: a 40 year synthesis of research on one of the world's great rivers. (2008B8, Ickes); <b>19 Jan. 2010; Hydrobiologia (2010) 640:125–144</b>								
<b>Water Quality Component</b>								
2010D1	Complete calendar year 2009 fixed-site water quality sampling	31-Dec-09	31-Dec-09	Completed				Houser, Popp, Dukerschein, Bierman, Chick, Sass, Hrabik
2010D2	Complete laboratory analysis of 2009 fixed site and SRS data; Data loaded to Oracle data base; level 2	30-Mar-10	30-Mar-10		Completed			Yuan
2010D3	Complete data entry, QA/QC of calendar year 2009 fixed-site and SRS data.	30-May-10	30-May-10			Completed		Rogala, Popp, Dukerschein, Bierman, Chick, Sass, Hrabik
2010D4	Complete FY09 fixed site and SRS sampling for Pools 4, 8, 13, 26, Open River, and La Grange Pool	30-Sep-10						Popp, Dukerschein, Bierman, Chick, Sass, Hrabik
2010D5	WEB-based annual Water Quality Component Update with 2009 data on Public Web Server.	30-Jun-10	1-Jun-10			Completed		Rogala
2010D6	Draft manuscript on changes in substrate, water quality, aquatic vegetation, zooplankton, and fish community from Geomorphic Reach 1 (above Lake Pepin) to Geomorphic Reach 3 (below Lake Pepin).	30-Sep-10						Popp
2008D8	Final draft manuscript: Primary production, and dissolved oxygen dynamics in UMRS backwater lakes and main channel. (2007D8)	30-Jul-10						Houser
2005APE26	Final draft LTRMP report: retrospective, cross-component analysis for Pool 26	30-Mar-10			30-Sep-10			Chick
<b>Intended for distribution</b>								
LTRMP report: Sampling of light regime in support of aquatic vegetation modeling (2008D6; Dukerschein, Giblin, Hoff); <b>19 July 2010; <a href="http://pubs.usgs.gov/mis/LTRMP2010-T001/">http://pubs.usgs.gov/mis/LTRMP2010-T001/</a></b>								
Completion report: Examining nitrogen and phosphorus ratios N:P in the unimpounded portion of the Upper Mississippi River (2006D9; Hrabik & Crites)								
Manuscript describing results of analyses of spatial and temporal patterns in UMRS WQ. (2006D5; Houser) <b>Hydrobiologia Volume 651, Number 1 / September, 2010 DOI: 10.1007/s10750-010-0282-z</b>								

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Completion report: Lake Pepin zooplankton and water quality data (2006D7; Popp & Burdis)								
Manuscript: Comparison of zooplankton in the UMR between channel and backwater strata (2009D6; Burdis) (submitted to Hydrobiologia 26 August 2010 under the title "Zooplankton dynamics in main channel and backwater habitats of the UMR")								
LTRMP report: Main channel/side channel report for the Open River Reach. (2005D7; Hrabik)								
Completion report: Evaluation of Factors Influencing Metaphyton Abundance and Distribution on Navigation Pools 4, 8, and 13 of Upper Mississippi River (2009D7)								
<b>Statistical Evaluation of Monitoring Data</b>								
2010E1	Draft manuscript: Inferring decreases in among-backwater heterogeneity in large rivers using among-backwater variation in limnological variables (Elaboration on 2006APE13; See completion report 2006APE13)	30-Sep-10						Gray, Rogala, Houser
2010E2	Draft manuscript: Among-lake variability in limnological characteristics of backwaters of the Upper Mississippi River	30-Sep-10						Gray, Rogala, Houser
<b>Intended for distribution</b>								
Completion report that describes methods of estimating variance components from LTRMP water quality data (2008E1; Gray)								
<b>Data Management</b>								
2010M1	Update vegetation, fisheries, and water quality component field data entry and correction applications.	30-May-10	15-May-10			Completed		Schlifer
2010M2	Load 2009 component sampling data into Oracle tables and make data available on Level 2 browsers for field stations to QA/QC.	30-Jun-10	30-May-10			Completed		Schlifer
<b>Land Cover/Land Use with GIS Support</b>								
2010V1	Acquisition of systemic digital aerial photography ( <b>Pools....</b> )	30-Sep-10	30-Sep-10				Completed	Robinson and Lubinski (FWS)
<b>Intended for distribution</b>								
Assessment of high-resolution digital imagery for UMRS vegetation mapping and software-based vegetation classification (Robinson, 2007APE13)								
<b>Development of an Overall Science Plan</b>								
2010SP	Draft Science Plan for LTRMP	30-Jun-10				1-Sep-10		Johnson
<b>ADDITIONAL PROGRAM ELEMENTS--2008</b>								
2008APE4a	Draft completion report: FY05-07 data--Analysis and support of aquatic vegetation sampling data in Pools 6, 9, 18, and 19	15-Jan-10		30-Sep-10				Yin
2008APE1a	Draft completion report: Developing an empirical framework for reconstructing and modeling UMRS floodplain disturbance histories: Year 1, historic data extraction and summaries.	30-Dec-09		Data extractions completed; summaries and draft report in progress; 30 June 2010				Ickes
2008APE1b	Model development (2008APE1b)	30-Dec-09		See 2008APE1a				Ickes
2008APE2	Draft LTRMP technical report; Setting quantitative fish management targets for LTRMP monitoring	30-Mar-09	28-Jul-10		Completed			Sass
2008APE5	Draft LTRMP Technical Report; Experimental and Comparative Approaches to Determine Factors Supporting or Limiting Submersed Aquatic Vegetation in the Illinois River and its Backwaters	30-Mar-10	11-Aug-10		30-Sep-10			Sass

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<b>ADDITIONAL PROGRAM ELEMENTS--2009</b>								
2009APE1a	Draft manuscript for USGS internal review: Have the recent increases in aquatic vegetation in Pools 5 and 8 been the result of water level management drawdowns, HREPs, or natural fluctuations?	15-Dec-09			30-Sep-10			Yin
2009APE1b	Submittal of manuscript to journal	1-Mar-10				30-Dec-10		Yin
2009APE3a	Draft completion report based on analysis of LTRMP water quality and vegetation data entitled "Associations between selected WQ variables, metaphyton, SAV and connectivity in backwaters as inferred from LTRMP data."	30-Jan-10	30-Jan-10		Completed			Houser
2009R1	Draft completion report, compilation of 3 years of sampling	15-Jun-10					30-Sep-10	Team Leaders
<b>Intended for distribution</b>								
Manuscript: The calculation of landscape metrics to derive measures of land change and the description of temporal changes in these measures (DeJager, 2009APE4a)								
Manuscript: Markovian analysis of land change (DeJager, 2009APE4b)								
<b>Visualization Tools</b>								
2009APE6a	Creating Squarified Tree Mapping Tool to Determine if Quantitative Goals Are Being Met							
	Active Web tool running with a couple of initial data queries	30-Dec-09	1-Apr-10		Completed			Schlifer
2009APE7a	Redesign of Long Term Resource Monitoring Program Web pages to enhance communication of information on the Upper Mississippi River System							
	Beta-version of redesigned LTRMP Web pages	30-Dec-09	20-Dec-09	Completed				Rogala and Sauer
<b>Operational Planning Ramp-Up</b>								
2009OP2	Detailed outline for Science Management Plan	30-Dec-09	29-Jan-10	Completed				Johnson
<b>Assessment and Training for the 2010 Systemic Land Cover/Land Use Acquisition and Processing</b>								
2009LCU1	Draft contract report: All photography and LIDAR testing will be documented and referenced for the 2010 systemic flight.	27-Feb-10				30-Jul-10		Dieck and Robinson
2009LCU2	Presentation to the EMP Partnership on LC/LU procedures. To include time table on process, classification system, and field verification.	27-Feb-10	24-Feb-10		Completed			Robinson
<b>ADDITIONAL PROGRAM ELEMENTS--2010</b>								
2010OUT2a	Draft completion report: Temporal evaluation of factors influencing metaphyton biomass, distribution and composition within Upper Mississippi River Backwaters	27-Feb-11						Giblin
2010OUT2b1	Draft manuscript: The influences of landscape variables across multiple spatial scales on the community composition of floodplain forests	27-Feb-11						DeJager
2010OUT2b2	Draft manuscript: The influences of landscape variables across multiple spatial scales on spatial and temporal variation in water quality measurements	27-Feb-11						DeJager
2010OUT2c	Draft summary report	31-Dec-10						Houser
<b>Develop 5-year focused research plans</b>								
2010OUT2d1	Aquatic vegetation research plan draft	28-May-10	28-May-10			Completed		Krieling and Yin
2010OUT2d2	Landscape patterns research plan draft	28-May-10	30-Sep-10			Completed		De Jager
2010OUT2d3	Native mussel research plan – final draft	1-Apr-10	1-Apr-10		Completed			Newton et al.
<b>Visualization Tools</b>								
2010VT1	Redesign of LTRMP Web pages (Continuation of 2009APE7A)	30-Dec-10						Rogala, Sauer
2010VT2	Maintenance and enhancement of LTRMP Graphical Browsers	30-Dec-10						Schlifer, Caucutt, Langrehr