1

Milestone	Target date in SOW	1st quarter	2nd quarter	3rd quarter	4th quarter	Delayed FY02 product updates
MONITORING AND ANALYSIS						
2.1 - Aquatic Vegetation Component						
Submit draft floodplain forest report for review.	30-Jun-2002					Submitted to Regulated Rivers
Complete year 2002 aquatic vegetation data quality checking and entry into the LTRMP database.	01-Dec-2002					
Complete statistical analyses of year 2002 aquatic vegetation data.	15-Jan-2003		Completed			
Complete DRAFT year 2002 Aquatic Vegetation Monitoring Section of the LTRMP year 2002 Summary (Annual) Report.	15-Feb-2003		Completed			
Complete FINAL year 2002 Aquatic Vegetation Monitoring Section of the LTRMP year 2002 Summary (Annual) Report.	30-Mar-2003		Completed			
Complete DRAFT 10-year report including outpool sampling results.	15-Apr-2003			Completed		
Final submission of the 10-year and outpool sampling report.	30-Jun-2003			Complete-in editorial review	Completed - revised and resubmitted to USGS management/copy to COE	
Complete field sampling in Pools 8 and 13.	01-Sep-2003				Completed	
2.2 - Fisheries Component						
Complete variance decompositions for selected species (Analysis Obj 1)	01-Mar-2002					Decompositions for 6 centrarchid species from Pools 4, 8, and 13 using a size structured approach are complete (Dan Kirby, Bellevue). Manuscript is in draft and has undergone friendly review. Report submitted as per items below - this was a methodology, not a product per se. Numerous products are expected from this approach.

# FY 2003, Fourth Quarter

Milestone	Target date in SOW	1st quarter	2nd quarter	3rd quarter	4th quarter	Delayed FY02 product updates
Begin fitting and testing generalized models (Analysis Obj 3)	01-May-2002					In progress (Ickes, Kirby, and Chick). An ongoing initiative. Draft reports and/or manuscripts expected December 2003. Reports submitted as per items below - this was a methodology, not a product per se. Numerous products are expected from this approach.
Complete and distribute project status reports on fish analysis.	31-Aug-2002					PSR submitted for UMESC management review 31 Oct. 2003.
Complete and distribute to COE draft technical report on fish analysis.	30-Sep-2002					Final report printed October 2002, LTRMP Tech Report 2002-T001.
Develop standardized 10-year databases and disseminate to each field station.	30-Nov-2002 (	Completed				
Develop standardized analytical modules for analyzing 1993 to 2002 LTRMP fish data and disseminate to each field station.	15-Dec-2002 (	Completed				
Complete analyses for the 10-year report. Submit a briefing paper on the scientific consequences of restricting LTRMP fish component monitoring effort to Period 3.		Completed	Analyses completed, briefing in draft Briefing submitted to UMESC management 8 August 2002, included much more than period 3 issues, please see UMESC management for details			
Complete year 2002 fish data quality-checking and entry into the LTRMP database.	01-Feb-2003		Completed			
Complete statistical analyses of year 2002 fish data.	30-Mar-2003		Completed			

# FY 2003, Fourth Quarter

Milestone	Target date in SOW	1st quarter	2nd quarter	3rd quarter	4th quarter	Delayed FY02 product updates
Submit a draft 10-year report on LTRMP fish monitoring.	30-Mar-2003		10-year report will capitalize on diverse analyses underway within the component to dovetail more cleanly into the Status and Trends report. Expect a draft by July 2003. Preliminary results of analyses will be provided in April for program planning.	First draft in co-author review presently (July 2003). Expect a final draft for UMESC review by August 31, 2003.	In final co-author draft, submission to UMESC review anticipated by 10 Oct 2003 Submitted to UMESC review 15 Oct 2003. Recognize that 2002 data (the 10th year) were not available for analysis until 1 Feb 2003 (see above in this scope).	
Complete DRAFT year 2002 Fish Monitoring Section of the LTRMP year 2002 Summary (Annual) Report.	30-Apr-2003		Completed	Completed		
Complete FINAL year 2002 Fish Monitoring Section of the LTRMP year 2002 Summary (Annual) Report.	30-May-2003		Completed - undergoing center review	Completed (2002), in review (2000, 2001reports) - web format	All submitted to UMESC review in April 2003 - awaiting comments and revisions (2 Feb. 2004)	
Submit draft technical report, "Habitat associations of UMRS fish assemblages across geomorphic and anthropogenic disturbance gradients."	30-Jun-2003			co-author review and	Held up slightly to coordinate with a parallel report / manuscript in draft by the same authors. Expect submission of both reports to UMESC review by Oct 31 Submitted to UMESC review 2 Dec. 2003	
Initiate fish community sampling in Pools 8, 13, and 26 using day electrofishing.	15-Sep-2003			Electronic data entry application tested and posted, field laptops distributed	In progress - data collection through Oct 31, 2003 COMPLETED	
Submit a draft progress report summarizing results of variance decomposition and habitat modeling efforts.	30-Sep-2003			In draft - will undergo co author review by July 31, to UMECS by	Report complete, awaiting finalization of graphics, expect submission by 31 Oct 2003 Submitted to UMESC review 24 Dec. 2003	

Milestone	Target date in SOW	1st quarter	2nd quarter	3rd quarter	4th quarter	Delayed FY02 product updates
2.3 - Macroinvertebrate Component						
Complete quality checking of macroinvertebrate data for the year 2002, calculate summary statistics, and enter data into LTRMP database.	31-Jan-2003		Completed			
Complete draft workshop report including recommendations on restructuring and 10 year review.	10-Mar-2003		Completed			
Complete 2002 Annual Status Report.	31-Mar-2003		Completed, in USGS review (2000, 2001, and 2002 reports) - web format		Completed: http://www.umesc.usgs.gov/report s_publications/ltrmp/macro.html	
Complete final workshop report including 10-year synthesis and recommendations on restructuring.	30-Apr-2003			Submitted to UMESC review on 1 July 2003	Submitted to USCOE review on 15 Dec. 2003	
Complete draft year 2002 Macroinvertebrate Monitoring Section of the LTRMP year 2002 Summary Report.	30-Apr-2003			Completed		
Complete quality checking of macroinvertebrate data for the year 2003, calculate summary statistics, and enter data into LTRMP database.	30-Aug-2003				Completed	
Complete draft of 2003 Annual Status Report.	30-Sep-2003				Final report on-line <http: re<br="" www.umesc.usgs.gov="">ports_publications/ltrmp/macro .html&gt;</http:>	
2.4 - Water Quality Component						
Publish procedures manual for water quality component (Objective 3)	31-Jan-2002					Revisions complete; in production with UMESC editorial staff.
Complete web-based reports summarizing water quality data for each of the six study areas during the 2000 & 2001 calendar years. (Objective 2)	30-Jun-2002					Delayed by departure of Senior Limnologist. Report format finalized. Tables & figures in production.
Draft report on review of component objectives and quality assurance to COE (Objective 3).	15-Sep-2002					Currently in internal review
Complete data entry to LTRMP database for fixed site sampling and stratified random sampling (Objective 1).	01-Jan-2003		Completed			
Complete analysis and error checking of 2002 water quality laboratory samples (Objective 1).	01-Feb-2003		Completed			
Complete verification of 2002 field data and transfer of calendar year 2002 analytical data from laboratory database to LTRMP database (Objective 1).	01-Mar-2003		Completed			
Complete draft of alternatives for restructuring water quality monitoring in FY04 (Objective 3).	01-Apr-2003			Completed		
Complete initial statistical examination of fixed sites as replacements for random sampling in each of the six LTRMP study reaches (Objective 4).	01-Apr-2003			Completed		
Complete first draft of tables and figures for 10-year report, distribute to authorship team for review and comment (Objective 5).	01-Apr-2003			Completed		
Complete transfer of water quality data to for inclusion in spatial query tool (Objective 9).	15-Apr-2003			Completed		

Milestone	Target date in SOW	1st quarter	2nd quarter	3rd quarter	4th quarter	Delayed FY02 product updates
Complete statistical analysis of fixed site as replacements for random sampling for each of the six LTRMP study reaches (Objective 4).	01-May-2003			Completed		
Complete water quality section of the 2002 LTRMP monitoring summary report (Objective 6).	15-Jun-2003			Completed		
Complete first draft of 10 year report, circulate for internal review (Objective 5).	01-Jul-2003				Two chapters in internal review. Remaining chapters in draft or being written by field station and UMESC staff.	
Complete PSR that summarizes findings on the use of fixed site sampling instead of random sampling (Objective 4).	01-Jul-2003				First draft completed. Delayed due to departure of Senior Limnologist	
Complete Web-based reports summarizing water quality data for each of the six study areas during the 2002 calendar year (Objective 2).	30-Jul-2003				Will be finished with other web reports	
Complete internal review of 10-year report, begin revisions (Objective 5).	01-Sep-2003				Two chapters in internal review.	
Complete collection of light regime data in Pools 8 and 13, in support of vegetation modeling (Objective 7). Complete collection of fixed-site sampling data (Objective 8).	29-Sep-2003			Fixed-site sampling data collection completed	Completed	
Complete collection of fixed-site sampling data (Objectiv	29-Sep-03				Completed ongoing	
2.5 - Annual LTRMP Monitoring Summary						
Report						
Draft report submitted for USGS review.	30-Jun-2002					2000 report under revision; 2001 in review
Final draft report completed and submitted to COE.	30-Sep-2002					Expected by Sept. 2004
2002 Draft report submitted for USGS review.	30-Jun-2003			Completed		
2002 Final draft report completed and submitted to COE.	15-Sep-2003				Reviews completed 9/29/03, COE reviewed draft and returned comments 9/28/03. Revisions completed 1 Nov. 2003 forwarded to LBH for signature, LHB signed and reported forward for web	Web 2002 report also ready to release, it is in final stages
2.6 - Statistical Evaluation of Monitoring Data						
Complete Pool 13 mayfly abundance report (Objective 2).	28-Feb-2003		In USGS review		Reviewed and returned for revision, revisions completed, up for mgmt approval	
Complete Pool 8 mayfly abundance report (Objective 2).	31-Mar-2003		In USGS review		Reviewed and returned for revision, revision completed, up for mgmt approval	
Complete draft fingernail clam abundance model report (Objective 2).	30-Aug-2003				Completed	
Complete final fingernail clam abundance model report (Objective 2).	30-Sep-2003				In USGS review	

Milestone	Target date in SOW	1st quarter	2nd quarter	3rd quarter	4th quarter	Delayed FY02 product updates
2.7 - Bathymetric mapping of the UMRS						
Complete PSR on information obtained by the	31-May-2002					In Review; Expect by
backwater transect surveys and recommended changes						August 2004
to the monitoring design.						
Complete draft report on sedimentation along backwater	30-Sep-2002					Completed
transects and have results served on the UMESC web						
site. Processing of FY2002 data completed.	31-Jan-2003		Completed			
Updated GIS data gap coverages and standard set of	28-Feb-2003		Completed			
Web-based products.	20100 2000		Completed			
APPLIED RESEARCH: LANDSCAPE & HAI	BITAT ANALYSES					
3.1 - Automation of 2000 Land Cover/Land						
Use and Vegetation Change Analysis						
Complete 2000 LCU for UMR Pools 20-21.	31-Jan-2003		Completed and served			
			on Web			
Complete 2000 LCU for UMR Pools 18-19.	30-Apr-2003			Completed and served on Web		
Complete 2000 LCU for UMR Pools 14-17.	31-Jul-2003			In Final QC - 95% complete	Completed and served on Web.	
Complete Vegetation Change Report.	31-Aug-2003			In Progress, 75%	90% complete. Draft report in	
				complete	review.	Report to be completed by 31 March 2004
Acquire aerial photography.	30-Sep-2003			Flights scheduled for late August.	Complete - Pools 4, 8, and 13 acquired in August 2003.	
Investigation of remote sensing technology for land						Completed
cover: Final report with recommendations						30 January 2003
HNA fish validation	15-May-03					Draft report completed
						and reviewed. Final
						version to be
						completed 15 March 2004
HNA Tool						Delivered to Mark
						Cornish, USACE
Science planning for the LTRMP						
Working group meets to define large scale science	15-Jan-2003		Completed			
questions and assign questions to sub-groups.						
Draft report circulated to partners for comment.	15-Mar-2003		Expect by 28 April 2003			
Final draft submitted for comment.	01-May-2003			75% complete. Step	Step down plans completed.	
				down plans being		
				drafted.		
Final report completed and submitted to COE.	30-Jun-2003			Report expanded to		
				include priority studies and implementation		
				plan. Expected April		
				2004 per draft FY04		
				SOW.		
Update of Spatial Query Tool						
Complete update of Spatial Query Tool.	31-May-2003			Delayed due to change		
· · · · · · · · · · · · · · · · · · ·	,			in staff.	Completed	
	1				- completed	