

## EXHIBIT B - PROJECT ACTIVITIES AND SCHEDULE

WORK ITEMS - DESCRIPTION	RESPONSIBLE PARTY	ESTIMATED COMPLETION DATE
<b>TASK 1. PROJECT DEVELOPMENT AND ADMINISTRATION</b>		
<b>PRODUCT: NA</b>		
Submit quarterly reimbursement requests to MPCA	SWCD	Quarterly 2008, 2009, 2010
Submit semi-annual reports to MPCA	SWCD	August 1, 2008; February 1 & August 1, 2009; February 1, 2010, August 1, 2010
Data management, submission to STORET, analysis	SWCD	December 1, 2008, 2009, 2010
Correspondence & Coordination with MPCA Technical Staff, Project Manager, SWCD Manager	SWCD	Throughout
Correspondence & Coordination with Contractor(s)	SWCD	Throughout
Training: staff time, misc, mileage	SWCD	Throughout
<b>TASK 2: HISTORICAL DATA ANALYSIS &amp; MONITORING PLAN</b>		
<b>PRODUCT: Historical data compilation, monitoring plan</b>		
Stream water quality analysis	MPCA	Apr-08
Lake data analysis	MPCA	Jun-08
Develop box plots and line graphs for lake nutrient data (current monitoring)	MPCA	Jun-08
Analysis of temp / DO profile patterns	MPCA	Jun-08
Compile and summarize historical data - hydrology, water quality, climate, watershed land use, GIS, etc.	Walker/SWCD	Within 3 months of contract approval
Identify additional data needs for 2008 monitoring, determine sampling locations, frequency and procedure	Walker/SWCD	Within 3 months of contract approval
Develop monitoring plan	Walker/SWCD	Within 3 months of contract approval
Establish QA/QC, precision, accuracy, sampling constitutes for plan	MPCA	Within 1 month of monitoring plan completion
Meeting - Kickoff to visit site & refine scope; after preliminary review of the data	ALL	Within 3 months of contract approval
<b>TASK 3: CONDUCT 2008 FIELD STUDIES</b>		
<b>PRODUCT: Data and reports</b>		
Conduct 2008 Field Studies: Collect additional data to support model and TMDL development		Completed Dec 08
Stream and lake monitoring implementation	SWCD	
Sample collection; site visits; troubleshooting	SWCD	2008: Start June - every 2 weeks until Oct.
Deliver samples to laboratory /Speedee	Speedee	
Process samples (lab testing)	MN Dept. Health Lab	
Internal Phosphorus Loading Investigation		Within 2 months after ice out/completed by Dec 08
Task A: Internal loading and sediment characteristics	James & Eakin	4-5 weeks
Task B: Vertical variations	James	2 weeks
Task C: Reporting	James	5 days
Paleolimnological Sediment Core Investigations	Garrison	Start June 08; end by Dec 2008
Task A: Diatom Analysis	Garrison	
Task B: <sup>210</sup> Pb Analysis	Garrison	
Task C: Geochemical Analysis	Garrison	
Task D: Blue-green Fossils Analysis	Garrison	
Task E: Reporting	Garrison	
Hydraulic Analysis - Quantify exchange with Mississippi river over the period of historical water quality monitoring; output as daily/monthly time series; to support phosphorus mass-balance modeling	MPCA/DNR	Dec-08
Meeting/Conference call to review reports of monitoring studies	ALL	After completion of Task 3 work items

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<b>TASK 4: DEVELOP WATER QUALITY MODELS</b>		
<b>PRODUCT: Progress report</b>		
Analyze Data - Analyze historical & 2008 data; develop model input parameters	Walker	Apr-09
Develop Watershed Model - Develop simplified mass balance model to estimate annual watershed phosphorus loads as a function of land use, BMP's, hydrography, and other controlling factors. GIS database to extract inputs and display results. Explicit consideration of variability & uncertainty in model predictions to evaluate TMDL margin of safety	Walker	Apr-09
Steady-State Lake Model - Develop and calibrate simplified mass-balance model (BATHTUB, Canfield Bachman, MinLeap, or equivalent) to predict lake responses to reductions in external P load and inlake control measures. Steady-state model with approximation of input from Mississippi river. Explicit consideration of variability and uncertainty in model predictions	Walker	Apr-09
Develop Lake Model - Dynamic flow & phosphorus balance model (potentially needed in place of steady-state model, depending on results of the hydraulic analysis)	Walker	Apr-09
<b>TASK 5: ESTIMATE PHOSPHORUS LOAD REDUCTIONS</b>		
<b>PRODUCT: Progress report</b>		
Develop Lake P Targets - Develop alternative management goals for the TMDL, expressed as targets for the long-term average lake P concentration; based upon generalized ecoregion background conditions, unique features of the watershed/lake, simulated load/response relationships (e.g. bloom frequency vs. lake P), and attainability	Walker	Jul-09
Estimate TMDL's - Apply lake model to estimate external phosphorus loads required to achieve alternative lake P targets with and without implementation of inlake control measures. Expressed as probable ranges	Walker	Jul-09
<b>TASK 6: EVALUATE ALTERNATIVE LOAD ALLOCATION SCENARIOS</b>		
<b>PRODUCT: Progress report</b>		
Evaluate BMP Potential - Develop information on potential BMP's for reducing P loads from representative land uses in the watershed; applicability, effectiveness, linked to land uses identified in GIS database	SWCD	Aug-09
Evaluate Watershed Responses - Apply the watershed model to estimate the probable range of total P loads achievable with various degrees of BMP implementation. GIS database to display results.	Walker	Oct-09
Meeting/Conference call - Review modeling	ALL	After completion of Task 6 work items
<b>TASK 7: DEVELOP IMPLEMENTATION PLAN AND FUTURE MONITORING</b>		
<b>PRODUCT: Implementation and monitoring plans</b>		
Identify and describe potential restoration activities	SWCD	Oct-09
Estimate potential probable costs for implementation strategies	SWCD	Oct-09
Develop the implementation plan and future monitoring, based on the load reductions required	SWCD	Dec-09
<b>TASK 8: TMDL STAKEHOLDER OUTREACH</b>		
<b>PRODUCT: Materials developed, collected comments</b>		
Complete Stakeholder Involvement Activities	SWCD	Throughout
Presentation to Stakeholders (prep, presentation, follow up)	SWCD	
General correspondence - phone, email, etc	SWCD	
<b>TASK 9: FINAL PROJECT REPORTS</b>		
<b>PRODUCT: Final report</b>		
Modeling - Draft & Final; with model spreadsheet & GIS database	Walker	Dec-09
Prepare the submittal draft of the TMDL Report	SWCD	Dec-09
Meeting - Discuss submittal draft	SWCD	Jan-10
Submit the TMDL Report to MPCA for approval	SWCD	Jan-10
Review MPCA comments	SWCD	Feb-10
Incorporate applicable MPCA comments into TMDL Report	SWCD	Feb-10
Submit the TMDL Report to EPA for approval	SWCD	Feb-10
Respond to EPA comments	SWCD	Mar-10
Modify the TMDL Report to incorporate EPA comments	SWCD	Apr-10
Issue the final TMDL Report	SWCD	May-10