

ST. JOSEPH RIVER WATERSHED PLANNING PROJECT
FRIENDS OF THE ST. JOE RIVER ASSOCIATION
10-15-02 TO 10-14-04

WORK PLAN

As part of our organization's mission, we anticipate that through the watershed management plan development process, we will focus on a range of broad-based needs and initiatives. These will range from ongoing volunteer river cleanups to facilitation and coordination of efforts to address nonpoint source pollution to the St. Joseph River, including contamination from atrazine and other agricultural pollutants. Our approach is embodied in the Work Plan presented below. Many pressing issues in the St. Joe River basin are clearly recognized problems which require basin-wide coordination and sustained local outreach and education to be undertaken in this Work Plan. It also will be necessary to overcome barriers posed by the watershed's large size and its bi-state nature. Friends of the St. Joe River Association, Inc. is ideally suited to overcome these barriers. It includes broad representation from throughout the watershed and is committed to working equally with both Michigan and Indiana.

An additional priority for the organization will be to coordinate local participation in TMDL efforts along the river. Numerous TMDL plans will be developed in coming years and Friends of the St. Joe River Association, Inc. can facilitate effective stakeholder involvement in this process. The proposed project will provide the technical and organizational foundation on which the group can effectively address these and other environmental challenges facing the river and its watershed.

The project will benefit from the collaborative support of numerous entities, including, among others, the Great Lakes Commission, Michigan State University/St. Joseph County Extension, Michigan Dept. of Environmental Quality, Indiana Dept. of Environmental Management, U.S. Environmental Protection Agency (U.S. EPA) Lake Michigan Team, USDA -Natural Resources Conservation Service, U.S. Geological Survey, Lake Michigan Monitoring Coordination Council, Lake Michigan Forum, Michigan Association of Conservation Districts, Michigan Agricultural Stewardship Association and the Conservation Technology Information Center.

The overall focus of the comprehensive Work Plan proposed herein, will focus on these important outcomes:

- Community stakeholder participation
- Assessment of water pollution concerns
- Building upon ongoing efforts
- Compilation of monitoring data capable of providing information necessary for effective watershed planning
- Development of solutions on a watershed basis through a stakeholder driven process
- Development of an approvable watershed management plan
- Capitalizing on objectives, needs and issues associated with current and future programs for participants
- Creation of a web-based approach to communicate all key project elements

These will be embodied in the following Tasks 1 - 9. Many of these tasks go substantially beyond recommended elements of an approvable watershed management plan, yet collectively, they embody all such recommendations. This illustrates the desire to accommodate needs for a watershed specific plan that includes flexible options. A page number corresponding to the MDEQ-required watershed management plan is included in parentheses.

Task 1. Steering Committee Formation & Background Information Collection & Evaluation (pages 3-6, 20-22)

- Formalize a core group of Steering Committee partners, elicit additional participation, adopt operating procedures and meet regularly (meet once every two months through year two or additionally as needed).
- Compile and confirm designated and desired uses (goals) of waters within the basin using existing published sources from Michigan, Indiana or Federal databases, subwatershed representatives to the Friends organization, Steering Committee input and other readily available sources that may have reported data showing impairments. The Steering Committee will determine how best to finalize this information once available to the Executive Director and Steering Committee. Other information may become available from yet unknown sources during the course of this Watershed Management Planning project. This would be expected and anticipated as an outcome of an initiative to engage a wider watershed audience. Thus, the Friends will consider how best to update desired and designated uses in a manner that supports the contention the management plan will be a ‘living’ document, suitable and adaptable to a process that relies on continuing efforts of restoring and protecting the beneficial uses of this system under the auspices of both the Clean Water Act and the watershed community.
- Assess known and identified threats and impairments to water quality (sites of contamination, etc.).
- Identify known contaminants impacting water quality and any standards violations.
- Develop electronic bibliography of existing reports (319, LaMP, local, other)
- Develop Project Database reference list (MS Access) citing (and linking to where possible) established electronic databases from: MDEQ/IDEM data (TMDL, other), STORET data, U.S. EPA BASINS program/model, Precipitation, Great Lakes Commission, USGS, Other local project data, discharge information (wastewater, cooling water).
- Create spatial linkages of the database information to an ArcView© GIS platform. This will be through a geo-referenced map with clickable links and accessible through an on-line GIS Applet on the project website. ArcView format data files will be transferred to the Friends at the conclusion of this project. The Friends will be able to use these data for longer-term opportunities if they purchase ArcView or to have such data available to others upon request.

PRODUCTS: - List of designated uses/impairments, for the basin (to be posted on project web page)
- Electronic bibliography for web posting
- Electronic database for the Friends
- Electronic maps posted on the webpage and printable via a GIS Applet and/or as Adobe .pdf files. (Friends will be given these electronic map files at project end.)

Task 2. Drainage Basin Characterization (pages 7-13)

- Determine/confirm subdrainage areas (state designations, local delineations, digital elevation modeling).
- Land use/land cover analysis (1999 satellite data) with selected local field checks.
- Incorporate planning efforts completed or underway (i.e., TMDLs, River Basin Strategies, LaMP).
- Integrate available GIS formatted data from Tasks 1 and 2 into ArcView (a copyrighted GIS “platform”) using a data manipulation strategy that best serves the information communication needs (e.g., maps and figures) of the Friends.
- Compile information in a water quality summary.

PRODUCTS: - A Water Quality summary for the overall watershed consistent with the MDEQ Watershed Management Plan’s concise format. This will be posted electronically.

Task 3. Identification of Critical Areas/Needs (pages 14-15)

- Identify critical watershed areas based on: existing efforts, proposed efforts, suspected concerns, land cover sensitivity analysis (using Task 2 land cover data). These will be illustrated by maps, presented to the Steering Committee and posted electronically once discussed.
- Test a process for developing and institutionalizing a Road/Stream crossing inventory framework working initially with other ongoing subwatershed efforts already conducting these assessments and/or participating Road Commissions.
- The inventory will be conducted and tested on a minimum of two (2) critical subwatersheds. The adopted approach will be accessible through the project website to allow others to build upon a MSAcess database initiated through this project for the two subwatersheds. Data will be posted electronically minimally in a simplified (Adobe) format.
- Synthesize relevant information from existing sources and outline needs for further identification.
- Mobilize partnering organizations to confirm information with field surveys as needed for the two critical subwatershed.
- Conduct preliminary nonpoint source empirical modeling (similar to the Kalamazoo River TMDL; see www.kalamazooriver.net). (This will not include monitoring but will use 1999 landcover data, applicable event mean concentrations and localized rainfall data.)
- Conduct contributing area analysis of delineated subwatersheds and produce informative maps of these areas which might include land use, soils or other GIS information.

PRODUCTS: - Nonpoint source modeling report/results (posted electronically)
- Post summary of two critical subwatersheds on website

Task 4. Prioritization of Concerns (pages 16-19)

- Develop a prioritization scheme for: various watershed impairments, pollutants, geographic reach, sources, existing solutions/efforts/programs to address, potential costs/known available funding.
- Conduct prioritization based on Task 3 information that will become part of the watershed plan.

PRODUCTS: - List of the primary (minimally ten) prioritized needs for the St. Joe River watershed (posted electronically)

Task 5. Identify Improvement Opportunities (pages 23, 24-27, 28-30)

- Compile and review available studies/programs/projects/policies on St Joe River watershed initiatives through partner interviews and file reviews solicited from partners at meetings (post web links where applicable).
- Create a compendium of improvement projects by geographic reach, contaminant problems, funding sources, corrective measures, BMPs based on the prioritization scheme from Task 4 (post web links where applicable). A list of prioritized improvement projects will be identified by the Steering Committee from this compendium.
- Develop a broad-based but generalized menu for watershed stakeholders use to address relevant concerns, resources, funding, partnerships, options consistent with the prioritized issues from Task 4 (post electronically on the website).
- Assess expected water quality improvements with various options.
- Identify next steps necessary to move towards implementation and potential funding options.
- Conduct cost-benefit analyses for prioritized improvement options which utilize physical or biological BMPs and which are monitored by others for quantifying improvements (i.e., source area/loading information) such that direct costs are available for comparison. K&A will develop/compile these comparisons in menu form for partner use for the above priorities.

PRODUCTS: - BMP menu/Implementation Options for priorities

Task 6. Information Dissemination & Communication (via the Website) (pages 31-35)

- Develop and maintain Project Website to assure up-to-date communications, project visibility and an open, readily viewable, watershed initiative.
- Website inclusion of all technical information (direct downloads, indirect uploads) as cited above.
- Compile and post maps of various important watershed attributes from above tasks.
- Post Steering Committee information distribution (via website).
- Collect and compile Steering Committee and electronic community feedback on various plan elements.
- Electronically post meeting schedules.
- Obtain public feedback, solicit participation and disseminate information through website.
- Include website elements such as: Links to other programs/sites, Current news/updates, Message board, Website search tools and On-line mapping (clickable image maps). No web pages will be developed for non-Friends projects or those not specifically related to the watershed management planning efforts in this Work Plan.

PRODUCTS: - Operating website

- Web page content will be turned over to the Friends at project end with the intention that the Friends will continue the site following the project end and therefore, they and the public will retain the ability to print out maps produced for the project. Friends will receive all data from these products in a format that can be manipulated in ArcView when the time is appropriate, Friends will have the ability to manipulate data as necessary with their separate purchase of proprietary GIS software.

Task 7. Public Education/Participation (pages 31-35)

- Obtain, discuss and integrate public comments into final plans when agreed upon by Steering Committee.
- Develop and promote educational programs through existing partnerships and programs targeting general audiences as well as those for critical areas.
- Develop and distribute project brochure/flyers.
- Coordinate with regulatory agencies on new efforts (e.g., TMDLs).
- Conduct two watershed-wide meetings per year for project updates and communication of progress.

PRODUCTS: - Educational Programs: two workshops per year (schools and/or general audiences)

(programs and dates to be scheduled to address issues that the project has identified) i.e., buffer zones/ag areas, information about school and adult volunteer monitoring for which Friends has an existing separate program, homeowner, riparian BMP's, municipal land use planning, etc.

-Watershed-wide meetings: (two/year/to be scheduled)

Initially to inform and identify issues through public input and then to communicate progress.

- Project brochure/flyer (1,500 copies)

Task 8. Watershed Management Plan Development (pages 36-38)

As a Steering Committee-driven process facilitated with technical information by the Executive Director, along with input by the Friends Board, the plan will provide a comprehensive view of the watershed and how varying political jurisdictions and stakeholders can enhance the plan. This will be accomplished by the following evaluations.

- Determine jurisdictional interests, needs and objectives for watershed management. (Some of these may be voluntary while others are regulatory-driven. Because both are present, both must be considered in the overall context of a watershed plan.)
- Determine overlap of various programs for water quality protection.
- Identify needs/opportunities for planning and improvements.
- Define water quality improvement and management options in relation to overlapping programs.
- Identify overlapping jurisdictional opportunities.
- Assess cross-state programs opportunities to leverage cooperative improvement efforts & agreements.
- Identify needs/opportunities for planning and improvements (preliminary design feasibility).
- Compile model ordinances and other tools that can be used by stakeholders in various applications.
- Identify mechanisms to institutionalize watershed protection (policy statement, local ordinances, cooperative agreements, etc.).
- Develop framework for a flexible watershed management plan.
- Establish system for determining measures of success and tracking.
- Define funding opportunities (Implementation grants, etc.).
- Determine future monitoring needs (frequency, location, parameters).
- Identify funding options and attempt to secure long-term support for sustained monitoring.
- Develop and facilitate implementation of the consistent road/stream crossing inventory for use, adoption or compilation by County Road Commissions and others.
- Facilitate partnering relationships to more effective program implementation.
- Complete an approvable watershed management plan following recommended MDEQ planning framework.

PRODUCTS: - Watershed Management Plan (DRAFT) (posted electronically)
- Watershed Management Plan (FINAL)(posted electronically; 5 hard copies, 15 CD Roms)

Task 9. Reporting

- Reports will be provided on a quarterly and final report basis:
- Draft products will be provided to the DEQ Project Administrator for review prior to finalization.
- An electronic copy for general review will be submitted and one (1) hard copy will submitted to the DEQ Project Administrator and four (4) copies to the NPS Administration Unit or electronic copies approved by the Project Administrator.
- Continual updates and tracking of project on the website will provide continuous real time reporting
- Release of Claims statement will be provided at the end of the project
- Project Fact Sheet prepared at the conclusion of the project

PRODUCTS: - Quarterly Summary Reports
- Final Report (DRAFT)
- Final Report (FINAL) (required hard copies and posted electronically)
- Project Fact Sheet (required hard copies and posted electronically)