

Implementation

Collaboration on Implementation

Teamwork is the key to achieving goals and strategies of this plan. Local government, agencies, organizations and landowners must work together to build partnerships that rely on each other's strengths and resources. The Watershed Steering Committee can be touted as a shining example of teamwork and has set the groundwork for building partnerships. Another example of partnerships can be found in watershed planning and management efforts in Northeastern Lower Peninsula of Michigan. NEMCOG, Huron Pines RC&D Council, County Conservation Districts, Natural Resource Conservation Service, Headwaters Land Conservancy, Michigan Department of Environmental Quality, Watershed Councils, local units of government and citizens have worked together to develop and implement a number of non-point source management plans.

Many organizations and agencies provide landowner technical assistance, education programs, regulate activity on land and water and offer incentives for long term preservation of critical areas. However, coordination of the existing multitude of options is lacking in the Grand Lake-Coastal watershed planning area, as well as the entire Northeastern Michigan coastal area. NEMCOG, as the regional planning agency for northeast Michigan, will continue to work towards implementing the watershed plan. NEMCOG will apply for grants to fund educational and technical assistance programs. However, to ultimately achieve desired outcomes recommended in the plan, local government, agencies and organizations must take an active role. This plan was developed as a blue print for preserving the resources of the Grand Lake - Coastal Watershed; to be used by any entity, public or private, to achieve this goal.

List of the Players During Implementation Phase

Grand Lake Watershed Steering Committee
Krakow Township
Presque Isle Township
Alpena Township
Presque Isle County
NEMCOG
District Health Department #4
Michigan Department of Natural Resources
Michigan Department of Environmental Quality
County Conservation Districts
US Fish and Wildlife Service
Huron Pines RC&D Council
Natural Resource Conservation Service
Great Lakes National Program Office of the EPA
Headwaters Land Conservancy
The Nature Conservancy
Grand Lake Association
Grand Lake Sportsman Club
Presque Isle Community Men's Club and Presque Isle Women's Club
Presque Isle Harbor Association
Real estate agencies, local businesses and industries

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Voluntary Conservation

The quality of the environment and the integrity of the ecosystem can, in large part, be attributed to the stewardship of landowners. The miles of undeveloped shoreline, undisturbed coastal wetlands and thousands of acres of forestland are present today because of the actions of the many landowners in the area. The best opportunity for long term conservation of the fragile and unique areas will be through voluntary conservation. The plan supports continued resource stewardship and recognizes the need to offer education and technical programs to assist landowners.

There are a number of existing programs that provide some level of technical assistance and resource education to landowners. Several of the agencies providing these services are: Michigan DNR, Huron Pines RC&D Council, Alpena and Presque Isle Conservation Districts, Natural Resource Conservation Service, NEMCOG, U.S. Fish and Wildlife Service. Services are provided on a walk-in basis or are project specific. A landowner targeting program that focuses on the watersheds would likely generate more interest than existing staffing and funding levels at agencies could accommodate. To implement the plan, additional funding will be necessary to support either existing staff or hire new staff to contact landowners, provide landowner assistance, conduct education programs, develop demonstration projects and coordinate with existing programs.

Long Term Preservation

Organizations and agencies have programs designed to protect special areas either through fee simple purchase or conservation easements. Examples of these are Michigan Department of Environmental Quality Coastal Management Program, Michigan Natural Resource Trust Fund, Headwaters Land Conservancy and The Nature Conservancy. Headwaters Land Conservancy and the Nature Conservancy can lead efforts to work with landowners and units of governments to achieve long term protection of critical and sensitive areas through conservation easements and fee simple purchases. Publicly owned lands such as Thompson's Harbor State Park and Rockport offer some level of long term protection. Both of these properties are home to many threatened and endangered species, in addition to numerous unique natural communities and geological features.

Regulation and Policies

Local, state and federal regulations and policies afford some level of protection. Local communities hold the first level of responsibility in protecting the unique resources of the area through their land use planning and zoning responsibilities. Community master plans recognize the need to limit development in sensitive natural resource areas. Zoning also limits development in areas less suitable for intensive development. It is hopeful resource information and recommendations in the plan will be considered when communities update their master plans and zoning ordinances. Communities can apply for funding from the Michigan Department of Environmental Quality Coastal Management Program to update their master plans and zoning ordinances to reflect resource friendly planning. Some examples may be reviewing waterfront zoning standards and greenbelts, incorporating special areas overlay zones, environmental assessment requirements, fees for professional reviews, sensitive areas protection, PUD/cluster development, conservation cluster residential development, site plan review standards, shoreline protection provisions, recommended setback distances, stormwater management guidelines,

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greenbelt provision language, groundwater protection standards and coordinated permit review and approval procedures. Long term preservation can be achieved by communities adopting sustainable development and open-space conservation approaches in their planning and zoning.

One of the greatest challenges in the long haul is, watershed boundaries ignore political boundaries. Since the watershed planning area is under the jurisdiction of four autonomous planning and zoning entities (Alpena Township, Krakow, Presque Isle Townships and Presque Isle County) coordination and collaboration is critical. The watershed steering committee with representatives from these communities can play a key role in working towards collaboration and consistent planning and zoning across political boundaries. Again, there is an excellent opportunity for the four communities to join together and apply for funding to the Coastal Zone Management Program. The communities could develop common planning and zoning standards that will result in a holistic approach to conserving the ecological and biological integrity of the entire watershed planning area.

EPA's Nine Required Elements of a Watershed Plan

The scope and funding of this project did not allow for the EPA's Nine Elements to be fully addressed. In order to maximize the potential for receiving funding for implementation, the plan should be examined and possibly expanded to incorporate all the elements. It will require additional funding to accomplish this task and for the plan to meet the EPA's criteria. Below are the Nine Elements:

Element 1: Identify causes and sources of pollutants that need to be controlled to achieve load reductions within the watershed. Sources that need to be controlled will be identified at sub-category level when appropriate (i.e. Agricultural operation: number of dairy, livestock, orchard, row crop, etc. operations that need upgrading as well as estimates of number of cattle per facility, acres of crops needing improved nutrient management). Estimates at this level of definition will be calculated for all causes and sources of pollutants affecting the watershed. Estimates of the load reductions expected for the management measures recommended for all sub-categories will also be calculated.

Element 2: A description of the Non-Point Source (NPS) management measures that will need to be implemented to achieve load reductions and to achieve the watershed goals listed in the watershed plan, maps and detailed descriptions of the critical areas, in which those measures will be developed.

Element 3: Estimates of the amounts of technical and financial assistance needed for the completion of each of the watershed goals will be calculated, along with associated costs such as copying, printing and mailings. Funding sources will be pursued, such as Section 319 programs, State Revolving Funds, USDA's Environmental Quality Incentives Program and Conservation Reserve Program, US Fish and Wildlife grants, to assist in the transition and implementation of this plan. Information sources and authorities that will be relied on during the transition and implementation of this plan will be identified.

Element 4: An information/education component that will be used to enhance public understanding of the project and encourage their early and continued participation in selecting, designing and implementing the NPS management measures that will be implemented.

Element 5: A detailed schedule for implementing the NPS management measures identified in this plan will be developed and submitted for approval during this transition phase.

Element 6: A description of interim measurable milestones, for determining whether NPS management measures or other control actions are being implemented, will be developed in anticipation of receiving possible implementation funding.

Element 7: Once the recommended NPS measures for controlling nonpoint pollution have been implemented, a meeting will be held with project partners to develop a set of criteria that can be used to determine whether the desired reductions are being achieved over time. If it is determined that progress has not been made, a set of criteria for determining whether the watershed plan needs to be revised will be developed.

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Element 8: A monitoring component to evaluate the effectiveness of implementation efforts over time, measured against the above-mentioned criteria, will be established during the transition phase of the watershed plan.

Element 9: Monitoring components to evaluate the effectiveness of the improvement measures recommended for the plan has been developed and are listed in the goals and strategies section of the watershed plan. A monitoring component to evaluate the effectiveness of implementation efforts over time, measured against the above-mentioned criteria, will be established during the transition phase of the watershed plan.

Evaluating Success

In order to determine the overall effectiveness of the watershed management plan, an evaluation process is essential. An effective evaluation process will indicate whether watershed management efforts are successful. Implementation methods can be modified or improved as information gathered from evaluations is analyzed. A sound evaluation program will increase the likelihood of continued support from partnering agencies, community organizations and community members if accomplishments are well documented and made available to the public. Listed below are the evaluation methods for the Grand Lake-Coastal Watershed Initiative, as recommended in the DEQ Handbook: *Developing a Watershed Management Plan for Water Quality*.

- ◆ Physical water quality monitoring
- ◆ Chemical water quality monitoring
- ◆ Biological life measurements
- ◆ Photographic or visual evidence, before and after photos
- ◆ Documentation of site BMP's installed
- ◆ Pollutant loading measurements
- ◆ Stakeholder surveys to evaluate knowledge or change in behavior
- ◆ Focus group sessions to determine effectiveness of project activities

Detailed evaluation methods for each task are outlined above in the goals section. Several different evaluation methods were incorporated into the plan to accommodate the variety of strategies recommended for implementation. In order to document the installation of BMP's, before and after photos will be taken at road/stream crossings, streambank restoration sites, newly installed greenbelts and livestock crossings. Focus groups, interviews and surveys will be used when changing viewpoints and management strategies needed to be documented and structural BMP's were not recommended. A timeline for the completion of the evaluations is included in each recommendation table. **Table 9.1** below summarizes the evaluation process for the Grand Lake-Coastal Watershed Initiative: Phase Two.

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Table 9.1 Evaluation Process				
Evaluation Method	Watershed Concern	Property Measured	Characteristics of Method	Strategy
Public Surveys	Shoreline/Streambank Protection; Information/Education Program	Knowledge & Awareness, Current Practices, Concerns	Moderate cost; Low response rate	Before & after implementation. Distribute through mailings, displays
Written Evaluations	Land Use Program; Voluntary Land Protection; Information/Education	Knowledge & Awareness	Good response rate; Low cost	Brief evaluations completed on site after event; questions on strengths/weaknesses of program, suggestions for improvement
Field Surveys	Streambank Protection; Agricultural & Road/Stream Crossing Programs	Extent of buffers, flow, erosion, impacts & trends	Time consuming, Moderate cost, Provides current & detailed data	Record observations on inventory sheets, Take Before & After photos, Analyze data
Documentation	All Projects & Programs	Participation; aesthetics; pre-& post-conditions	Low cost; Easy; Provides quick review of progress	Before & after photos, trend tables, database
Communication Records	All Projects & Programs	Public concerns; problem areas; level of community interest/participation	Information is subjective; Limited number of contacts	Keep records of phone calls, e-mails, letters; track trends, concerns, suggestions, complaints
Participation Tracking	All Projects & Programs	Numbers & Geographic distribution of participants, results of participants' efforts	Low cost; Easy to document, Easy to understand	Sign-in/evaluation sheets, document with photos, end results
Focus Groups	Streambank Protection; Land Use Program; Information/Education	Knowledge & Awareness, Perceptions, Current practices	Medium to high cost; Motivations/barriers to change readily identified; Instant feedback	Select 6-8 people randomly from watershed area. Draft questions, facilitate discussion. Record session.
Agency Reviews	Shoreline Protection; Information/Education	Accuracy/validity of data collected, Observations	Low Cost; Valuable insight from experienced professionals	Partnering agency will review data, BMPs, level of improvement & offer input on methods/results