Chapter 10: Next Steps and Sustainability Strategy

The Cass River Watershed Management Plan provides a framework that outlines the scope of the nonpoint source pollution problems, highlights the unique natural resource opportunities, and identifies key partnerships needed to work on these issues. The watershed management plan, however, is only a snapshot in time. It identifies the known conditions today, but these conditions will change over time. The plan outlines a 10 year action agenda that needs to be continually reviewed to determine if the priorities and actions still reflect current conditions. The purpose of this section of the watershed management plan is to first, outline immediate priority next steps that should be taken to implement the plan, and second, to develop a framework that results in the long-term sustainable implementation of the plan.

10.1 Next Steps

The following next steps should be taken to further the implementation of the Cass River Watershed Management Plan:

1. **Lower Cass River WMP implementation proposal focused on E. coli impacts:** A recent DEQ evaluation of the lower Cass River identified the need to address E. coli issues and outlined potential sources of pollution to address. The watershed management plan inventory also has identified critical areas within this portion of the watershed and it is clear that addressing bacterial contamination is a high priority. The Cass River in this section is heavily used for recreational purposes and elevated E. coli counts are a major concern for local partners. It is recommended that the lower Cass River be the first priority sub-basin for implementation of the watershed management plan and a proposal should be submitted for funding corrective measures (Chapter 9).

2. **Upper Cass River WMP implementation proposal:** While the initial priority for implementing the Cass River watershed management plan is the lower Cass River, the Upper Cass River sub-basin should be considered concurrently as a critical priority area. Impacts from agricultural nonpoint source are significant in this sub-basin and have a significant impact on sediment and phosphorus levels in the Cass River system overall. Additionally, livestock operations have a significant effect on E. coli levels in this sub-basin leading to several subwatersheds being listed as non-attaining waterbodies. Funding should be sought to implement the watershed management plan for this sub-basin (Chapter 7).

3. **Middle Cass River WMP implementation proposal focused on Cass River Corridor stream bank erosion:** Much of the middle Cass River sub-basin centers around the Cass River corridor. A streambank erosion inventory conducted as part of the watershed management plan highlights the need for addressing streambank erosion throughout the corridor. Agricultural sources of erosion are also a contributor to water quality

problems in this sub-basin. It is recommended that funding be sought through the Great Lakes Soil Erosion and Sedimentation Control grants program to address these issues (Chapter 8).

4. **Middle Cass River WMP Forestry Initiative:** A second priority in the middle Cass River sub-basin is management of extensive forested areas. Currently, the Michigan Forest Association is working to set up a Forest Owners Network in the Cass River Watershed to provide technical assistance to private forest landowners to better manage their resource. Every effort should be made to coordinate and support this effort including seeking financial resources to implement this initiative (Chapter 5).

5. **Local Agency Action Summaries:** Watershed management plans provide a lot of site specific information on nonpoint source problem areas, however it is generally presented in a subwatershed context which is not typically how local agencies that would utilize this information are used to receiving it. In order to bridge this information sharing gap in the Cass River Watershed local agency action summaries of the site specific information need to be developed for the county health departments, drain commissioners, road commissions, and conservation districts to highlight priority sites for them to address. These action summaries were not part of the initial scope of the watershed management plan and funding will need to be sought to develop them. Once developed, they can be presented to the participating county agencies for discussion on how to best implement corrective measures to address the priority sites (Chapter 4 and priority areas from Chapters 7-9).

6. **Digital Parcel Mapping Layer Development for Tuscola and Sanilac Counties:** The ability to digitally map information at the parcel layer is important in developing a detailed understanding of critical areas for restoration. It allows organizations implementing a watershed management plan to develop targeted outreach to specific landowners on specific issues. For example, if information on septic system permits can be prioritized for potential risk of failure and overlaid onto a parcel mapping layer, a list of critical homeowners can be generated for outreach and education on their septic systems that may be at risk.

   In the Cass River only Tuscola and Sanilac Counties do not have digital parcel mapping. Currently, Tuscola County has expressed interest in developing this information and is evaluating various options to create this data layer. All efforts should be made to support their efforts and begin working with Sanilac County to determine their level of interest.

7. **Septic System Database Management:** Most Local health departments have their septic system permit information in hard copy files. To be integrated into a mapping system to evaluate critical areas for septic systems this information must be put into a digital format using a database. In the Cass River Huron and Tuscola Counties have a database and are beginning to put these files into this system, however resources are extremely limited and additional funding is necessary to fully convert this information. Sanilac, Saginaw, and Genesee health departments do not have a database with this information in it, and would need funding to purchase a database and for staff time to input this information into their system. Once this information is in digital form it can be used to do a more detailed evaluation of critical areas for high risk septic systems.

8. **Natural Resources and Recreation Plan:** The Cass River was initially considered for potential inclusion into the Michigan Natural Rivers program because of it beautiful forested river corridor. Several State wildlife game areas dot the landscape along the Cass River corridor which then enters into the Saginaw River in the Shiawassee National Wildlife Refuge. This corridor remains heavily forested and relatively natural. Protecting this corridor and expanding natural resource protection into adjacent tributaries is essential to the long term sustainability of water quality in this system. Resources were not available with the watershed management planning effort to fully evaluate and develop a strategy to protect the unique natural resources in the Cass River. It is a key priority that a Natural Resources and Recreation Plan be developed for this system that includes updating of the state wildlife game area master plans, prioritization of areas for protection at the parcel mapping level, and an evaluation of recreational access and use for the watershed (Chapter 5).

9. **Stormwater Management Plans:** While most of the communities in the Cass River Watershed are relatively small and are not of a size requiring a municipal stormwater permit, they still have an impact on water quality in this system. Developing a plan to improve management of their stormwater and incorporating these concepts into local ordinances would ensure that a framework was in place to minimize impacts from urban sources in the watershed. Funding should be sought to develop individualized stormwater management plans for the urban communities (Village of Cass City, City of Caro, City of Marlette, City of Vassar, Village of Millington, City of Frankenmuth, and Bridgeport Charter Township) in the watershed (Chapter 4).

10. **Data gap monitoring:** Water quality data is collected on a regular basis throughout the Cass River Watershed system. This plan outlines some of the data gaps that should be further evaluated. In addition, a thorough data gap analysis should be done with the

concept of developing a comprehensive monitoring strategy for the watershed. Once completed, a discussion with monitoring organizations should be coordinated to fully vet the information and determine how best to monitor the system long term (Chapter 3).

11. **Upper Cass River Wetland Restoration Initiative:** The upper Cass River sub-basin is almost exclusively agricultural in land use. Much of this area used to be wetland and provided the entire system with ecological benefits. There has been a 78% loss of wetlands in this area. Long-term restoration of the Cass River will benefit from wetland restoration in upper Cass River. This transition will be very difficult and expensive. A wetland restoration initiative should be started to identify and restore critical wetland functions in this sub-basin. Developing a parcel mapping layer for Sanilac County is a starting point for this initiative. Using the Landscape Level Wetland Functional Analysis and overlaying parcel layer data would allow the generation of a priority land owner list for a targeted outreach strategy on these issues. Once this targeted strategy is developed funding should be sought to implement a wetland restoration initiative in the upper Cass River sub-basin (Chapter 5 and Chapter 7).

10.2 Sustainability Strategy

A watershed management plan is intended to be implemented over time. In order to ensure adequate progress is being made toward implementation there needs to be a process to sustain these efforts. Below are elements of a strategy to sustain the implementation of the Cass River Watershed Management Plan:

1. **Local watershed groups (Upper Cass River - Sanilac Watershed Advisory Committee; Lower/Middle Cass River - Cass River Greenways Committee):** Currently there are two primary local watershed groups that coordinate activities in the watershed. The Sanilac Watershed Advisory Committee is an advisory group to the Sanilac Conservation District on watershed management issues in Sanilac County. The geographic area that they cover corresponds closely to the Upper Cass River watershed, and this group would be a strong local advocate for activities to improve this watershed. The Cass River Greenways Committee is focused currently on the main Cass River corridor, but is coordinating various activities in the lower and middle Cass River corridor. These local watershed groups should act as the local driver for spurring action on the implementation and further development of the plan.

2. **Annual Watershed Plan Audit:** One mechanism that the local watershed groups should consider is developing an annual audit that they can conduct in conjunction with DEQ

and local agencies to determine the status of progress on implementation of the plan. It would be helpful to have the audit criteria developed at the beginning of the year and mutually agreed upon by all organizations and agencies so that they can include them as part of their annual work plans.

3. **Annual Cass River Watershed Summit:** Another mechanism for local watershed groups to continue implementation of the watershed management plan is to host an annual watershed summit. The summit provides an opportunity for organizations and agencies working on improving the watershed to talk about what they've done during the year. It is also a point of accountability.

4. **Annual Cass River Watershed Awards:** At the summit and other times during the year it is important to recognize people and organizations for their contribution to your efforts. Not only do these recognitions provide a sense of accomplishment for the one receiving the award, but often these simple recognitions help to generate interest from other partners and provide justification within organizations for continued support.

5. **5 year plan update:** A longer term mechanism for local watershed groups to ensure the sustainability of their watershed management plan is to revisit the identified priorities periodically. The five year mark is about the half-way point for the implementation timeline and provides enough time to assess improvements to date, and evaluate gaps in the plan or changes in priorities.

6. **Volunteer Monitoring:** Keeping local people involved in the process over the long haul is critical to success. Volunteer monitoring not only provides a way to fill data gaps and maintain good background knowledge of your watershed, but it also provides an opportunity for people to get out and participate in protecting the watershed. DEQ currently provides grant opportunities for these activities.

7. **Volunteer Clean-up:** Another way to keep people focused on the river is to host volunteer clean-up days. The Cass River Greenways Committee has done this for the past several years and they have been very successful at generating interest and good public relations.

8. **Recreational Activities:** Finally, one of the great benefits of a river system is recreational opportunity. Canoeing, boating, fishing, swimming, birding are all ways to get people out and active in the protection of the natural resource. Continued emphasis on developing, improving, and promoting access to the Cass River is a critical piece to maintaining local interest.

Many local, state, and federal agencies are available for assistance in implementing this plan and regularly attend the Cass River Greenway Committee and the Sanilac County Watershed Advisory Committee. The watershed management plan belongs to everyone and any committed organization or entity may take forward the initiatives set forth in this plan.

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