

CHAPTER 9 – SUSTAINABILITY

The recommendations in this Watershed Management Plan (WMP) are options that can be voluntarily implemented to achieve water quality goals. It will be important to sustain the voluntary implementation of the plan's recommendations to ensure that the conditions in the Black River Watershed (Watershed) improve, thereby avoiding the need for state regulations and mandates. Success of the WMP depends on consistent support from local governments, urban communities, citizens, and agri-business. Each of these communities has distinct needs that will require different strategies. However, to remain committed to a common water quality goal will require the coordination of all these groups.

The Sanilac Conservation District formed a Steering Committee that will be able to serve as the forum for discussing many of the needs and recommendations in the WMP. The Steering Committee is divided into the three groups: Policy, Technical, and Information & Education (I&E). Members of these committees provided information about existing water quality projects, programs, and ordinances in the Watershed throughout the planning process. The Michigan Thumb area has many organizations that are working toward a common goal of land and water conservation and improved water resources. Building upon and coordinating with these identified programs (See Section 9.5) will help meet the goals of this WMP.

Long-term sustainability is possible for restoring water quality in the Watershed if involvement in preserving and protecting this river system and its natural resources is strengthened. The Steering Committee will be able to join forces with these efforts to continue its own mission of providing direction for the development of a community-based, sustainable WMP.

9.1 LONG TERM PLANNING

The WMP outlines the actions that stakeholders can take to continue the implementation of the plan over the next 20 years. Immediate and short-term remedies need to fit into the overall long-term planning for a community. Growth and development can be guided in ways that are sustainable and appropriate for the community. Documenting past and present improvements can help communities envision future improvements and concerns. Specific rules and regulations can be implemented through zoning and other ordinances that address those long-term concerns.

Long-term improvements to water quality through physical improvement depend on the type of structures and the operation and maintenance plans. Often, ongoing maintenance is neglected, resulting in shortened life spans of Best Management Practices (BMPs) or even detrimental conditions depending on the type of BMP. Costs and responsibilities should be revisited on a regular basis, such as when annual budgets are recalculated. BMPs implemented on private land must have strategies to ensure that time and money is allocated to maintain structures and practices.

Information and education strategies and recommended systems of BMPs will be implemented (see chapter 7). Changing conditions in the Watershed may make it necessary to update parts of the WMP. The Sanilac and St. Clair Conservation Districts along with its partners should revisit the WMP at a minimum of once every five years. Before implementation of this plan, the Steering Committee will adopt a watershed vision and mission statement. These tools will be used to create a comprehensive action plan for implementation of BMPs and evaluating the completion of tasks.

9.2 EXISTING MANAGEMENT STRATEGIES

Prior to this Watershed project, organizations have participated in watershed management in the

Watershed with and without the use of a comprehensive watershed management plan. Since 2003, the St. Clair County Health Department has led watershed meetings for the Lower Black River watershed in an effort to help county agencies and regulated local communities comply with MS4 regulations. In 2006, the group completed a WMP for the "Northeastern Watersheds" which included three watersheds; one which was the Lower Black River. Since 2007, St Clair County has partnered with Friends of the St. Clair River Watershed to train volunteers and conduct monitoring of macroinvertebrates at Silver Creek and Stocks Creek. Volunteers have been coordinating the Mill Creek Volunteer Monitoring Project, another macroinvertebrate monitoring program, since the late 90s. In 2008, Sanilac County Commissioners allocated monies for a county wide watershed council. The coordination of all these efforts will build a stronger coalition to improve the Watershed and surrounding areas.

Sanilac and St. Clair County have the unique opportunity to preserve its rural character while improving its ability to add value to farming, recreation and tourism. The counties are unusual that they have maintained rural character while being very close to metropolitan areas. This WMP, as well as the counties master plans, wish to preserve, protect, and improve water resources as well as agricultural economies.

9.3 WATERSHED ORGANIZATION

A watershed organization operating in the Watershed would find that the needs of each group of stakeholders are very diverse. In the Lower Black River, communities are more urbanized and their economies depend on industrial manufacturing, tourism and seasonal recreation. In contrast, the Upper Black River, Mill Creek and north part of the Lower Black are very agrarian and have different needs to meet the goals of the WMP. It is recommended that the watershed implementation be broken into three sub watersheds 1. Lower Black River 2. Upper Black River 3. Mill Creek. These three sub watersheds will be covered under the umbrella of the larger watershed management plan. It is recommended that BMP implementation for the Lower Black River be conducted by the St. Clair Conservation District and St. Clair County Health Department. (SCCD focus on the agriculture, SCCHD on the urbanized area) The Mill Creek BMP implementation project will be conducted by the St. Clair Conservation District and the Upper Black River BMP implementation project implemented by the Sanilac Conservation District.

Coordination of existing watershed initiatives will take place by the three parties involved in implementation when practical. These three parties will form committees, or use existing watershed planning groups, to serve in the interest of each sub watershed. To achieve the goals in the WMP each sub watershed needs its own committee because of land use, political boundaries and regulatory laws (MS4). These committees will include people from the existing Steering, Technical, I&E, and Policy Committee and representatives from local governments, agribusiness, education, and community development agencies and organizations. The organizational structure that develops from these efforts will provide a venue for the stakeholders to discuss their current activities and needs as well as ideas for implementing the WMP.

9.3.2 URBANIZED COMMUNITIES

As authorized by the Clean Water Act, the National Pollutant Discharge Elimination System (NPDES) program controls water pollution by regulating point sources that discharge pollutants into waters of the United States. Individual homes do not need an NPDES permit; however, industrial, municipal, and other facilities must obtain permits if their discharges go directly to surface waters.

St Clair County has municipalities that are considered urbanized and are regulated by the state to obtain storm water discharge permits. The St. Clair County Health Department is the lead applicant on this permit and is covered under the State of MI Separated Storm Sewer System

(MS4's) General Storm Water Permit and the Federal Phase II National Pollutant Discharge Elimination System (NPDES) storm water permit program.

The regulated local communities in the Lower Black River include: the City of Port Huron, Fort Gratiot Twp, Port Huron Twp, Clyde Twp, and Kimball Twp. The regulated public education institutions are Port Huron Area School District and the St. Clair County Community College. These regulated entities will continue to work together on a watershed-based strategy to pursue compliance with these regulations.

9.3.3 INFORMATION AND EDUCATION COMMITTEE

A large amount of support is required for this WMP to be successful. Increasing public and government support for water quality protection is accomplished through public outreach and education. The I&E Committee has assembled newsletter articles, radio announcements, and press releases that have garnered increasing public support through the planning phase of this Watershed project. Chapter 5 of this WMP outlines how these efforts will be expanded and continued to increase public involvement and interest in the Watershed.

WATERSHED COUNCIL

The creation of a Sanilac County Watershed Council, from the existing Steering Committees, was envisioned during the early stages of the Sanilac County Lakeshore Watershed Project. This organization would be responsible for implementing activities outlined in the Black River WMP, identifying potential funding sources, and securing funding. A strategy for creating such a watershed council is outlined below.

The Sanilac Conservation District will be forming a formal watershed council to oversee the installation of best management practices for all watersheds of the county. Sanilac County consists of 5 watersheds. The three major watersheds which make up 99%+ of the land mass are the Lake Huron Watershed, the Black River Watershed, and the Cass River Watershed. The remaining two watersheds are the Flint River Watershed and the Pigeon-Wiscogon River Watershed. The watershed council will be able to serve as the forum for discussing many of the needs and recommendations in the watershed management plans to implement BMP's outlined for the various watersheds. This board will work with local organizations and programs geared toward reaching common goals of improved water quality for all of Sanilac County's bodies of water. Building upon and coordinating with these identified programs will help meet the goals of the Black River Watershed Management Plan.

9.4 WATERSHED TECHNICIAN

A full time watershed technician was hired by the Sanilac Conservation District and part time watershed technician by St. Clair Conservation District during the planning phase of this project. These Conservation Districts hope to keep the watershed technicians hired to oversee the implementation of the plan. The primary role of the Sanilac technician was coordination of the Watershed committees, the nonpoint source pollution inventory, and drafting the I&E chapter. St. Clair's technician role was to help with the nonpoint pollution inventory. After the WMP is completed, the Sanilac Watershed technician will be meeting with landowners in the entire watershed to discuss conservation options for their property and possible implementation projects.

Sustainability of the WMP will be more likely if the Conservation Districts will be able to continue providing its services and planning of implementation projects without funding interruptions. Maintaining the status of technical positions will allow the implementation of the WMP without losing any of the momentum that has accumulated during the planning process. Conservation District responsibilities during the implementation phase would be as follows:

- Facilitate meetings necessary for implementation of BMP's and LID practices
- Develop an action plan to implement BMP's and LID practices
- Support and promote USDA farm bill programs concerning conservation programs
- Conduct workshops, tours and public meetings
- Create publications and announcements watershed projects
- Provide one on one technical assistance with landowners
- Create conservation plans to utilize available programs to landowners
- Seek funding for local watershed projects
- Work with landowners and private contractors installing BMP's
- Utilize the Michigan Department of Agriculture's environmental programs such as MAEAP and Groundwater Stewardship Program

9.5 ONGOING PROGRAMS AND OPPORTUNITIES

United States Environmental Protection Agency (EPA)

The EPA provides different funding sources to implement watershed management plans through the country. In the Great Lakes Region some funding sources that can be utilized are the Section 319 Non-point source grant program and the Great Lakes Restoration Initiative (GLRI). Each year the Section 319 program allocates money to the MDEQ to administer the grant program and have request for proposals (RFP) channeled to MDEQ. In 2010, the first RFP through the GLRI came out and it is anticipated that more RFP's will follow in the next few years. It is estimated that the United States Government will allocated \$475 million dollars to aid in restoration efforts.

Generally Accepted Agriculture Management Practices (GAAMPs)

This program is administered by the Michigan Department of Agriculture to provide education to producers and complainants about the relationship between the environment and agricultural operations. It provides legal protection to any producer who follows GAAMPs procedures. GAAMPs ensure compliance to environmental laws and supplies guidance for corrective measures.

Michigan Agriculture Environmental Assurance Program (MAEAP)

The MAEAP is a proactive strategy for producers to ensure compliance with Michigan s environmental laws. This voluntary program ultimately leads to a comprehensive evaluation of a farming operation's potential environmental risk. Completing the Farm*A*Syst program and a Comprehensive Nutrient Management Plan are tools associated with the MAEAP.

United States Department of Agriculture (USDA)

The USDA Farm Services Agency (FSA) and Natural Resources Conservation Service (NRCS) provides technical and financial assistance to landowners to address resource concerns of soil, water, air, plants, and animals. The agencies offer cost-share opportunities through many federal programs and coordinate with state and local programs to maximize benefits.

<http://www.mi.nrcs.usda.gov/>

Highly Erodible Land (HEL) and Wetland Conservation Compliance

The purpose of these provisions is to remove USDA benefits from landowners farming drained wetlands or HEL. These provisions define HEL as land that has potential erosion rates greater or equal to eight times which the soil can sustain productivity. To maintain the USDA commodity benefits and conservation program eligibility, fields designated as HEL must be protected from excessive soil erosion.

Environmental Quality Incentives Program (EQIP)

The EQIP is a voluntary compliance program administered by the FSA with technical support from the NRCS. Landowners with eligible land can receive technical assistance and cost share to

implement managerial and structural conservation practices. Contracts with the NRCS vary from 1 to 10 years and some landowners will be eligible for 90% cost share.

Conservation Reserve Program (CRP)

The CRP was created in 1985 as part of the Food Security Act. A farmer may enter into a long-term contract to set aside land and establish a permanent cover. In return, the farmer receives an annual per acre rent and up to half the cost of establishing cover on land that has recently been farmed and is highly erodible or environmentally sensitive. In the first five years of the program, 33.9 million acres were enrolled in the CRP. Additional Acts in 1990 and 1996 have allowed continued enrollment and expanded the scope from reducing soil erosion to include habitat conservation. Participants may sign up at any time to perform the following practices on their land:

- Filter Strips
- Riparian Buffers
- Shelterbelts, Field Windbreaks, and Living Snow Fences
- Grass Waterways
- Shallow Water Areas for Wildlife
- Salt-Tolerant Vegetation
- Certain Approved Public Wellhead Protection Areas

Conservation Security Program (CSP)

Amendments to the Farm Security and Rural Investment Act in 2002 authorized the USDA to create the CSP. Not all details about general operating procedures for the NRCS to implement the CSP have been established. Once in place, the CSP will be a voluntary program that provides technical and financial assistance to farmers who show significant efforts toward resource protection. The intent of the program will be to identify those farmers who meet the highest standards and to encourage other producers to meet those same performance standards.

Wetland Reserve Program (WRP)

The WRP receives technical assistance through NRCS. The landowner controls access to the land and may use it for recreational activities such as hunting and fishing. There are three options for the WRP.

1. 10-Year Cost Share Agreement: This agreement is a cost share program where the NRCS pays 75% of the restoration costs and the landowner signs an agreement to keep the wetland in place for 10 years. This option is very similar to the U.S. Fish and Wildlife Service's Partners for Wildlife Program.

2. 30-Year Easement Option: The NRCS purchases a 30-year conservation easement over the property. The NRCS will pay 75% of all restoration costs and pay the landowner 75% of the appraised agricultural value of the property under the easement.

3. Permanent Easement Option: The NRCS purchases a permanent conservation easement over the property. The NRCS will pay 100% of all restoration costs and pay the landowner 100% of the appraised agricultural value of the property under the easement.

An example of a successful wetlands restoration is the Mullet Muck Farm Restoration in Sanilac County. The 836-acre restoration was originally under a 30-year easement, but has now been transferred to the MDNR. Serpentine channels were created in the previously leveled farm field, which resulted in more shoreline for wading birds. <http://www.nrcs.usda.gov/>

Today, the Environmental Benefits Index is used to prioritize land offered for enrollment. Scores are based on a cost factor, plus six environmental factors, as follows:

- Wildlife
- Water Quality

- Erosion
- Enduring Benefits
- Air Quality Benefits from Reduced Wind Erosion
- State or National Conservation Priority Areas. The Great Lakes, along with Long Island Sound, the
- Chesapeake Bay, the Longleaf Pine region, and the Prairie Pothole region comprise the national CPAs.

Farmland Protection Program

The Farmland Protection Program in the recently enacted Farm Bill has up to \$50 million in funds to assist in the purchase of development rights on agricultural lands. Development pressure on the urban fringe causes large amounts of land to be converted to non-agricultural uses. Proposals must be submitted to the NRCS state offices. The American Farmland Trust is an organization that works toward sustainable agriculture through education and financial assistance to communities and landowners. <http://www.farmland.org/>.

Michigan State University Extension (MSUE)

The MSUE utilizes the resources of Michigan State University and works on community outreach, especially with agriculture and families. MSUE offers a wide variety of technical assistance and employs individuals with high levels of expertise in their area of concentration to meet specific needs of producers. They are also involved with research to better the services and technology available. Demonstration plots and training workshops involve the landowners in the implementation of practices they can adopt to address resource concerns.

4-H

4-H is delivered locally by the MSUE with national support from USDA. The partnership with land grant colleges and USDA ensures that 4-H lessons are backed by strong scientific research. Agricultural management practices taught through 4-H have been very successful in changing the course of agricultural sustainability by teaching the future generation of farmers innovative skills that promote soil fertility and sustainability productivity.

Local Conservation Clubs

In Lapeer, St Clair and Sanilac Counties there are several conservation clubs that could serve as partners to implementation of this WMP. Such clubs could help with educational materials, provide input for restorations and promote recreation within the watershed. Such active clubs include Pheasants Forever, Ducks Unlimited, Bluewater Sierra Club and the Bluewater Sports Fishing Association.

Future Farmers of America (FFA)

The FFA involves youth in farming activities and teaches them skills they will need to be farmers including soil identification and livestock care. There is an opportunity to involve them in implementation of BMPs on farms in the Watershed.

Stream Leaders

Stream Leaders is coordinated by the SCC Health Department and the Friends of the St. Clair River Watershed. It conducts workshops to train volunteers in preparation for two monitoring events, one in the spring and one in the fall. Volunteers meet at selected stream locations. And monitor water quality through an analysis of the macroinvertebrates and habitat. www.scriver.org

Mill Creek Monitoring Project

The Mill Creek Volunteer Monitoring Project (MCVMP) is part of the Michigan Monitoring Project and was initiated in 1999 because of a long disputed dredging project. Local citizens volunteered to collect data from carefully selected sites to compare sections of the Mill Creek before and after dredging and river restorations. MDEQ had a core set of parameters for volunteers to collect. After ten years, the MCVMP is still active with participants still collecting data to keep the Mill Creek in its natural state.

9.6 Next Steps

Although this WMP is an approved plan for all of the Black River, the St. Clair CD, St. Clair HD and Sanilac CD will be seeking separate implementation. Each entity has described what its plans are below to bring forth implementation.

St. Clair Conservation District

- Apply for 319 implementation grants in 2010 for installation of BMP's in the Mill Creek.
- In 2010, begin discussions with the health department to apply for 319 implementation grants and sub-contract with them for the agriculture bmp's.
- In 2011 secure funding through 319/CMI grants to provide a full time position to begin implementation projects in both the Lower Black and Mill Creek Watersheds. This position would also assist NRCS to utilize USDA farm bill programs when applicable.
- The St. Clair CD is pursuing a small millage to support environmental functions within the county. With this millage the district can provide match money for grants, provide education and hold workshops, begin a no-till program for farmers, etc. This millage is targeted for a 2010 or 2011 vote.
- Work closely with NRCS to help secure EQIP money for the agriculture sector for 2010 and beyond.
- Work with the St Clair County Health Dept. to address two specific livestock access sites in the Lower Black River. These sites have been a priority for the NEW Watershed plan.
- In 2011 Pursue funding through the Great Lakes Restoration Initiative.

St. Clair Health Department

- Apply for 319 implementation grants in 2010 for installation of BMP's in the Lower Black River Watershed.
- Work with various county agencies to identify landowners for the Wetland Enhancement Reserve Program in the Plum and Silver Creek subwatersheds. Increased retention is needed for these streams.
- Implement Riparian and Low Impact Development BMPs on Public properties. Practices would include: stabilizing eroding shoreline, improve fishery habitat, improve recreational access to river.
- Use the public properties with LID BMP's as a public education tool. Identified properties that can be used for this opportunity include: Bakers Field, Port Huron Twp; Port Huron State Game Area; St. Clair County Community College; and various county drains in lower Black River Watershed.
- In summer 2010 the Health Department intends to participate in the development of a TMDL for bacteria, and continue to work with homeowners correct failing septic systems in the Howe Brandymore Drain and Stocks Creek.

Sanilac Conservation District

- In late 2010 the district would like to apply for implementation funding to do work in the Upper Black River Watershed.
- The district intends to retain its watershed technician to work with a new grant and also promote farm bill programs to qualifying landowners.
- Work closely with NRCS to help secure EQIP money for the agriculture sector for 2010 and beyond.
- Promote the Wetland Restoration Program, locate eligible landowners that may be looking for an alternative use of their property.
- In May of 2010, the first watershed council meeting will be held. This formation of the council will help guide implementation of BMP's within the watershed. It will also offer support through in-kind match for seeking future grants.

- In 2010 and 2011 continue to seek funding through the GLRI to implement identified projects needing funding.
- In 2011 work with county commissioners to utilize local funds designated for the environment to have educational activities outlined in the I&E strategy.