

Chapter 6: Public education and outreach strategy

6.1 Information and Education Process

Process and role of the Cass River Information and Education (I&E) committee

The goal of the Cass River I&E Committee was create and implement a strategy that involves watershed residents and decision-makers in the watershed management planning process. This includes promoting and explaining the Cass River Watershed Management Project, pollution problems in the watershed, and best practices that improve water quality. The I&E committee will expand public participation in planning process and assist with developing the long-term outreach strategy for project implementation. The strategy was created using a three-fold process: (1) identify target audiences, (2) develop messages, (3) select methods of delivery.

Task 1: Identify Target Audiences

Target audiences are identified to narrow the scope of the I & E committee and reach out to populations in the watershed that have the greatest impact on water quality protection and pollution prevention. Target audiences in the Cass River Watershed may include:

- Agricultural Businesses/Community (Star of the West Milling Company), local farm landowners, implement dealers
- Users of the Rivers – recreational
- Outdoor clubs/conservation clubs/conservancies/conservation districts
- Riparian landowners
- Local decision-makers / municipal officials
- Septic system owners
- K-12 students
- General Residents

Task 2: Develop Messages

Concise communication messages are created for each of the target audiences concerning specific pollutants of concern and for general information sharing about the project. Examples of topics that messages will be developed for are:

- General watershed information
- Farming impacts
- Effects of sediment and nutrients
- Septic systems
- Wetlands
- Stewardship
- Land Conservation

Task 3: Select Methods of Delivery

Different methods for delivering messages will need to be created on a case-by-case basis depending on the target audience and the message we are trying to communicate. Common delivery methods include:

- direct mailings
- farm show
- county fair
- website – www.cassriver.org
- table display
- mail through township/city regular mailings
- township associations
- MSUE – digital newsletter / print
- Conservation district newsletters
- news articles/TV/radio (see Media Outlets list below)
- Farm Bureau in Lansing can put inserts into local newsletters “Michigan Farm News”
- FSA (Farm Service Agency) – sends out news to every farmer, partner with local county offices

Key Partners

- Cass River Greenway Committee
- County Soil Conservation Districts (Genesee, Lapeer, Huron, Sanilac*, Saginaw*, Tuscola*)
 - *Saginaw, Sanilac, and Tuscola counties represent the majority of the watershed area
- Saginaw Bay Resource Conservation and Development (RC&D)
- Star of the West Milling
- Michigan Milk Producers Association
- Michigan Department of Environmental Quality, Water Bureau

Media Outlets

Name of Outlet	Website	Email (or fax if no email avail.)	Phone
Frankenmuth News	http://frankenmuthnews.com/	Scott Wenzel swenzel@airadv.net	(989) 652-3246
Sanilac County News - Your Voice in Sanilac County	http://sanilacountynews.mihomepaper.com/	scneditor@mihomepaper.com	(810) 648-4000
Sandusky Tribune	http://sanduskytribune.com/	sanduskytribune@gmail.com	(810) 648-5282
The Marlette Leader	http://michigansthimb.com/marlette_leader/front/ or http://www.marletteleader.com	(989) 635-3769	(989) 635-2435
Huron Daily Tribune	http://www.michigansthumb.com/	kjerome@hearstnp.com	(989) 269-6416
Tuscola County Advertiser	http://www.tuscolatoday.com/	Judy Seifert seifert@tcadvertiser.com	(989) 673-3181
Cass River Trader Vassar	http://www.cassrivertrader.com/	(989) 823-2531	(989) 823-8651
Saginaw News	http://www.mlive.com/saginawnews/	Kathryn Lynch-Morin kmorin@thesaginawnews.com	(989) 752-7171
Bridgeport Birch Run Harold	http://www.myherald.net/	(810) 686-3840	(810) 686-9181
Vassar Pioneer Times		Megan Decker meganvpt@yahoo.com	
TV3	http://www.wvmt.com		
Delta College Television	http://www.deltabroadcasting.org/		

Name of Outlet	Website	Email (or fax if no email avail.)	Phone
ABC12 Television	http://www.abc12.com/		
NBC 25 Mid Michigan Television	http://www.minbcnews.com/		
AM790 Radio	http://tunein.com/radio/News-Radio-790-s22787/	Terry Hennie (Farm Program Director) on 5 days a week	
Tom Lounsbury, Sunday Radio Show	http://thumbnet.net/lounsbury.php	gtlouns@avci.net	

6.2 Overall Strategy and Leadership

The framework of the implementation of the education and outreach strategy is three-fold for the Cass River Watershed.

1. **Raise awareness** among regarding key pollution concerns, and the watershed overall among target audiences
2. Establish relationships with landowners and key constituents to **take action** to protect and restore the watershed
3. **Evaluate** the effectiveness of the education and outreach strategy by tracking changes in water quality and social indicators.

A Social indicators study design was created for the Cass River to aide in future evaluation and success of outreach and education programs within the watershed during and after implementation projects. A full description of these indicators is included in the Appendix.

A. Cass River Greenway Committee

Organized in 2007, the Cass River Greenway Committee (Committee) membership includes volunteer residents and municipal leaders from cities, communities and townships along the Cass River from Cass City downstream to Bridgeport. Expanding the volunteer base for work on the Cass River Greenway project is critical to achieving many of the Committee's goals. The Committee is strongly supported by federal, state and county agencies whose representatives are members of the committee. They include: MDEQ Water Bureau, US Fish & Wildlife Service, USDA/Saginaw RC&D, Saginaw Basin Land Conservancy, UM Flint-University Outreach, Saginaw Area Storm Water Authority and Saginaw County Conservation District.

The Committee has developed three goals: (1) Develop Recreation Opportunities on the Cass River and along its corridor, (2) Encourage Preservation of Wildlife Habitat and Critical Natural Lands and (3) Improve Water Quality of the Cass River (Web, 2012). The Committee is a key partner in the Cass River Watershed Management Plan, and support from its members will be critical during implementation given the committee's ability to organize stakeholders and secure funding and volunteers for projects.

B. Education of local boards and councils

The planning phase interacted routinely with local government boards and councils through presentations, news releases, phone calls, and in-person meetings. Continued interaction with this audience is needed to further implement the plan as recommendations to improve local codes for water quality protection and wastewater management are included in the plan. It is recommended that semi-annual updates be provided to local municipalities through a

combination of outreach strategies used during the planning phase. This ensures support for funding requests and projects within the communities of the watershed.

C. Management Partnerships

Implementation of all watershed activities (structural, managerial, vegetative, and educational) requires partnership or involvement between those who use the river and those who have management authority. Ongoing partnership will be required with county health departments, drain commissions, road commissions, conservation districts, local governments, landowners, and businesses to successfully secure funding, manage projects, and restore water quality. Partnerships will be maintained and developed as projects are planned and implemented. It is hoped the county Conservation Districts and the Saginaw Bay RC&D will lead these efforts. Land Conservancies are a great partner in protection of natural resources for the Cass River.

D. Data sharing via Website www.cassriver.org

The Cass River Greenway maintains a website that shares updates on their projects, and projects that benefit the Cass River. Press releases and presentations for the watershed management plan were included during the planning phase. These activities should continue to encourage membership and volunteer activity with the Cass River Greenway committee to further promote implementation projects.

E. Funding and sustained support

Ongoing support for coordination of projects and volunteers in the Cass River Watershed is a long term need for continued implementation of the watershed plan and restoration of water quality. Groups and organizations that have the ability to raise personal and monetary support are the Cass River Greenway committee and the Saginaw Bay RC&D. Continued partnership with these organizations should help sustain the network of people who regularly volunteer and support the Cass River.

F. Grant programs

Funding for many implementation projects will be through grant programs. The initial implementation grant will be sought from the Michigan Department of Environmental Quality under their Clean Michigan Initiative fund and the 319 fund (federal money from the Environmental Protection Agency). Regional funding options include the Bay Area Community Foundation, Saginaw Bay Watershed Initiative Network, Frankenmuth Rotary, and the Frankenmuth Jaycees.

6.3 Education Strategy by Target Audience

Target audiences have been developed for the Cass River Watershed based on the collective knowledge of the steering committee and inventory findings. The framework for reaching each target audience was adapted from the Information and Education Guidebook for the Lower Grand River 319 Project in Michigan. Six broad categories have been defined for target audiences addressing various known pollutants and issues of concern in the watershed:

- Local livestock producers
- Local growers
- Town Residents
- Large landowners
- Septic system owners
- Riparian landowners
- Anglers/paddlers/sportsmen

The following tables describe the rationale and approach for each target audience, and the personnel and monetary costs for engaging with each audience.

Driving Force: (Why is this important) Nutrient runoff from livestock operations, improper manure storage / management				
Goal of Education Program: (What should be done about it) Work with established agencies and networks to raise awareness about benefits of BMP's and cost-share programs available for installation				
Objective: (What outcome do you expect to achieve? Include numeric targets where possible) Greater use of manure management and feedlot runoff mitigation for approximately 138 sites and 4,617 animals				
Barriers/Concerns of Audience: Capital costs for installation of practices, rental farmland is increasing in the watershed, hobby farmers can be hard to reach if not part of larger farm organization				
Target Audience:	Message:	Format:	Distribution:	Evaluation:
Local livestock producers	Economic and water quality benefits by properly managing manure and runoff	Presentations at existing events, articles/handouts at local mills; press releases and radio spots	Quarterly Work with existing professional and social networks to distribute information	Track number of practices installed, MAEAP livestock verified farms
Hobby farmers	Several programs and technical assistance providers are available to work with you and your business to create a plan that reduces your impact on water quality			
Potential Partners: Saginaw Bay RC&D, County Soil Conservation Districts, MSUE, MAEAP, NRCS-USDA, MMPA, Drain Commission				
Timeframe: Short (1-3 years) – Mid (3-5 years)				
Implementation Request: \$2,000 annually to support existing agriculture/outreach agents at CD's for presentations in the watershed and to work with landowners on education and installation of best practices \$5,000 for crafting of press releases, articles, and brochure printing and mailing				
Ongoing Efforts: Held focus groups with farmers in late August 2012 to discuss environmental and economic messaging				

Driving Force: (Why is this important) Sedimentation from cropland erosion, increased nutrients from fertilizers				
Goal of Education Program: (What should be done about it) Work with established agencies and networks to raise awareness about benefits of BMP's and cost-share programs available for installation				
Objective: (What outcome do you expect to achieve? Include numeric targets where possible) Greater use of filter strips, cover crops, and conservation tillage, target numbers for acreage are included in chapters 7-9. Upper Cass River – 4,486 acres; Middle Cass River – 1,770 acres, Lower Cass River – 14,275 acres.				
Barriers/Concerns of Audience: Capital costs for installation of practices, potential reduction in crop yield due to less acreage in rotation, rental farmland is increasing in the watershed				
Target Audience: Local growers and producers	Message: Benefits of cover crops, conservation tillage, and filter strips; Several programs and technical assistance providers are available to work with your business to create a plan that reduces your impact on water quality	Format: Presentations at existing events, articles/handouts at local mills; press releases and radio spots	Distribution: Quarterly Work with existing professional and social networks to distribute information	Evaluation: Track number of practices installed, MAEAP livestock verified farms
Potential Partners: Saginaw Bay RC&D, County Soil Conservation Districts, MSUE, MAEAP, NRCS-USDA, MMPA, Drain Commission				
Timeframe: Short (1-3 years) – Mid (3-5 years)				
Implementation Request: \$2,000 annually to support existing agriculture/outreach agents at CD's for presentations in the watershed and to work with landowners on education and installation of best practices \$5,000 for crafting of press releases, articles, and brochure printing and mailing				
Ongoing Efforts: Held focus groups with farmers in late August 2012 to discuss environmental and economic messaging; Potential model BMP auction program in place at Huron Conservation District				

Driving Force: (Why is this important) Stormwater pollution, lack of awareness of watershed concepts, river is not viewed as an amenity to the community				
Goal of Education Program: (What should be done about it) Raise general awareness and identity of the Cass River Watershed and encourage behavior that reduces nonpoint source pollution				
Objective: (What outcome do you expect to achieve? Include numeric targets where possible) Reimagining of the Cass River Watershed by residents who have knowledge of their impact on the Cass River, and a reduction in nonpoint source pollution. Participation will be tracked during the course of implementation projects to verify an increase in awareness and positive behaviors.				
Barriers/Concerns of Audience: General lack of knowledge about the Cass River and nonpoint source pollution				
Target Audience: Residents in subdivisions and urbanized areas. Local Planning Commissions	Message: Reconnect with the Cass River. River is a community focal point and gathering place. We all live in a watershed, small actions by many residents can have a large impact on water quality. The Cass River is a productive fishery that impacts the water quality of the Saginaw River and the Great Lakes.	Format: Speakers bureau; Cass River Article Series; Map of bike/hike/paddle trails; Organized paddle and bike trips Storm drain stenciling	Distribution: Attendance at local meetings; local digital and print media; existing website; local parks departments; Middle/High School students for storm drain stenciling	Evaluation: Pre and Post-project random mail survey of watershed residents using SIPES/SIDMA framework
Potential Partners: Conservation Districts, local Parks Departments and Recreation Authorities, local government, Cass river greenway committee				
Timeframe: Short – term (1-3 years)				
Implementation Request: \$2,500 Speakers Bureau; \$6,000 Article Series; \$3,000 Printing of existing map; \$500 Per canoe/kayak trip with estimated 30 people per trip (one per year); \$1,500 for storm drain stenciling supplies				
Ongoing Efforts: Cleanups and monitoring organized by the Cass River Greenway Committee, press releases, Get to Know Your Cass River brochure, 2013 update to the bike/hike/paddle trail brochure and map, 2013 triathlon, annual swim/float on the Cass River				

Driving Force: (Why is this important) Loss of natural/wildlife areas, loss of wetlands has compromised hydrologic function; improvements forestry management				
Goal of Education Program: (What should be done about it) Establish relationships with landowners who support permanent-land protection on their property and implement conservation easements or other methods as appropriate				
Objective: (What outcome do you expect to achieve? Include numeric targets where possible) Permanent protection of high quality natural areas [see NLI and PCA], Sustainable network for the Cass River Forest Owners, Protected forested corridor along the Cass River.				
Barriers/Concerns of Audience: Many absentee landowners, majority of property may be used seasonally for hunting (North Branch), do not want to restrict future use or sale of property				
Target Audience: Landowners of high value natural lands greater than 40-acres	Message: See existing materials produced by the Saginaw Basin Land Conservancy	Format: Landowner meetings Brochures	Distribution: Meetings organized by landowners and Land Conservancy Direct Mail Prioritized by Natural Resource Committee	Evaluation: Pre and Post-project random mail survey of watershed residents using SIPES/SIDMA framework Tracking of contacts established by Land Conservancy & acres protected
Potential Partners: Little Forks Conservancy, Saginaw Basin Land Conservancy, MDOT, Michigan State Game Areas (DNR), USFWS, Michigan Forest Association				
Timeframe: Mid, 3-5 years				
Implementation Request: \$300 per landowner meeting (2 per year); \$1,000 per printing and mailing; \$600 per acre for conservation easements (1,500 acres of high priority sites)				
Ongoing Efforts: Michigan Forest Association – Cass River Forest Owners Network has held landowner meetings and workshops, Saginaw Basin Land Conservancy landowner outreach and the MSU Land Policy Institute – Local land use policy study have held landowner meetings, workbooks and brochures				

Driving Force: (Why is this important) Nutrients and bacteria pollution is being caused by failing and poorly constructed septic systems				
Goal of Education Program: (What should be done about it) Increase awareness about the maintenance needs of septic systems and the responsibility of homeowners who have a septic system				
Objective: (What outcome do you expect to achieve? Include numeric targets where possible) Septic system owners will know where the system is on their property, how often it should be pumped, and when the system is not functioning properly. Tracking of number of landowners reached and the number of permit requests to the health department for upgrades to the failing systems.				
Barriers/Concerns of Audience: Lack of funds to upgrade/replace failing systems, do not want to report on neighbors				
Target Audience: Septic system owners	Message: Septic systems do require routine maintenance and inspections to ensure they are working properly. Poorly managed septic systems can pollute groundwater, making it unsafe to drink; and can pollute surface water, making it unsafe to swim in.	Format: Incentive-based program with homeowners and commercial service providers Brochures	Distribution: One-on-one contact with homeowners Direct Mail in target areas	Evaluation: Number of homeowners engaged in the program; reduced bacteria levels in local waterways Pre and Post-project random mail survey of watershed residents using SIPES/SIDMA framework
Potential Partners: Health Departments, local commercial providers, homeowner associations/lake associations, MDARD, Septic Haulers Association, SVSU				
Timeframe: Mid to Long (3-7 years)				
Implementation Request: \$7,000 for program planning and implementation; \$8,500 for brochure design, printing and mailing, funding for Sanilac and Tuscola Counties to digitize landowner parcel records, funding for Genesee, Saginaw, Sanilac, and Tuscola County Health Departments to digitize their septic system records.				
Ongoing Efforts: SVSU working with Tuscola county for parcel mapping, Tuscola County Health Department is beginning to digitize septic system records / permits				

Driving Force: (Why is this important) Sedimentation from eroding streambanks, increased nutrients from fertilizers, loss of wildlife/natural corridor				
Goal of Education Program: (What should be done about it) Work in identified priority areas in Upper Cass River (Sanilac County and Lapeer County)				
Objective: (What outcome do you expect to achieve? Include numeric targets where possible) Stabilizing only the high priority sites will reduce annual sediment loading by 53,860 tons.				
Barriers/Concerns of Audience: loss of property and land value due to erosion, want to manage property to maximize aesthetic appeal and minimize mosquitoes				
Planning Phase: inventory completed of streambank erosion issues, well-documented				
Target Audience: Riparian landowners	Message: Your decisions on how to manage your property can have a positive or negative effect on water quality. Riparian buffers and use of low/no phosphorous fertilizers are two things that you can do to protect the Cass River and Lake Huron	Format: Brochure Postcard Door Hangers – designed and distributed by local middle/high school students	Distribution: Direct Mail Direct Mail Door-to-door outreach	Evaluation: Requests for assistance with stabilization of stream banks
Potential Partners: Saginaw Basin Land Conservancy, USDA-NRCS, CD's, Saginaw Bay RC&D, MSUE				
Timeframe: Long (5-7 years)				
Implementation Request: \$10,500 for printing and mailing; \$1,500 printing of door hangers				
Ongoing Efforts: 2008 streambank inventory, completed loading estimates in 2011				

Driving Force: (Why is this important) PCB and mercury accumulation in wildlife restricts fish consumption in the Cass River watershed				
Goal of Education Program: (What should be done about it) Raise awareness amongst anglers and those who eat fish caught in the Cass River about fish consumption restrictions				
Objective: (What outcome do you expect to achieve? Include numeric targets where possible) Recreation users are aware of fish consumption guidelines; swimming and wading restrictions (if any); Increased participation in cleanup and stewardship activities by anglers, paddlers, and sportsmen				
Barriers/Concerns of Audience: Is the water safe to swim in? Can I eat the fish I catch?				
Target Audience: Anglers / Sportsmen / Paddlers	Message: If you eat fish caught in the Cass River watershed, or other waterways in Michigan, there are limits on how many fish you should eat per month to avoid ingestion of harmful chemicals	Format: Distribution of existing brochures developed by MDNR Posters	Distribution: Brochure placement where fishing licenses and bait are sold Posters displayed at local fishing locations	Evaluation: Pre and Post-project random mail survey of watershed residents using SIPES/SIDMA framework
Potential Partners: Sportsmen clubs, MDNR, Cass River Greenway committee, Conservation Districts				
Timeframe: Mid (3-5 years)				
Implementation Request: \$1,500 to print and distribute brochures; \$800 for poster design, printing and installation (estimated 50 posters)				
Ongoing Efforts: Water quality grant awarded to the Cass River Greenway committee, press releases, Get to Know Your Cass River brochure				

6.4 Overall I&E Budget Table

Task	Timeframe	Budget
Raise awareness about benefits of BMP's and cost-share programs to growers	Quarterly: 2014-2019	\$11,000
Promote feedlot runoff and manure management measures to livestock producers	Quarterly: 2014-2019	\$11,000
Raise awareness about watershed and behaviors that reduce NPS	2014-2017	\$14,500
Educate about permanent land protections	2017-2020	\$4,800
Educate about septic system maintenance	2016-2021	\$15,500
Parcel mapping (Tuscola, Sanilac Counties)	2016-2021	\$140,000
Digitizing Septic System Records (Genesee, Saginaw, Sanilac, Tuscola Counties)	2016-2021	\$160,000
Raise awareness for streambank stabilization	2018-2021	\$12,000
Raise awareness about fish consumption restrictions	2017-2020	\$4,800
Total Cost For All Education Programs		\$373,600