

COMMUNITY ACTION PLANS

ACTIONS	OBJECTIVES	ESTIMATED COSTS	OPERATIONAL COSTS	BENEFITS TO WATERSHED	Oakland County	Walled Lake	Village of Wolverine Lake	Village / Milford	Milford Twp	Highland Twp	Wixom	Commerce	White Lake	Lyon Twp	Waterford Twp	City of Novi	West Bloomfield Twp	Huron Valley School District
ORDINANCES/REGULATIONS																		
Water Resource Protection Ordinances	2-2; 5-2	\$5000 to \$10000 per community	Ongoing efforts by enforcement staff*	Reduction in quantity and improvement of quality of runoff to waterbodies from newly developed and redeveloped sites. Reduce number of point discharge pollutant sources.	N/A	C	LT	LT	C	ST	LT	C	ST	C	LT	C	C	N/A
Storm Water Standards for Redevelopment	1-3; 5-2	\$8000 to \$15000 per community	Ongoing efforts by enforcement staff*		C	C	LT	LT	W	ST	ST	C	ST	C	LT	C	C	N/A
Local Fertilizer Ordinance	3-1; 3-2; 3-3; 3-3	\$5000 to \$10000 per community	Ongoing efforts by enforcement staff*	Reduction in nutrients to waterbodies.	N/A	LT	LT	W	W	LT	W	C	LT	W	W	C	C	N/A
On-Site Sewage Disposal System Ordinance	3-1; 3-2; 3-3; 3-3	\$5000 to \$10000 per community	Ongoing efforts by enforcement staff*	Reduction in nutrients to waterbodies plus health benefits from reduced human exposure to raw or untreated sewage	W	N/A	LT	N/A	W	W	LT	C	W	ST	N/A	N/A	C	N/A
Native Landscaping Ordinances	2-1	\$5000 to \$10000 per community	Ongoing efforts by enforcement staff*	Native vegetation takes up excess nutrients, sequesters suspended solids and metals and reduces need for artificial irrigation	N/A	W	W	W	W	ST	W	W	LT	W	W	C	C	N/A
Natural Features Setback Ordinances	2-1; 2-2; 2-3	\$5000 to \$10000 per community	Ongoing efforts by enforcement staff*	Protects natural features from destruction or degradation due to development practices	N/A	W	W	W	W	ST	W	C	LT	C	LT	C	C	N/A
SESC Techniques/Ordinances**	3-1; 3-2; 3-3; 3-3; 5-2	\$8000 to \$15000 per community	Ongoing efforts by enforcement staff*	Protect water quality from impacts of uncontrolled sediment and erosion during construction and period of establishment of vegetation. Limit/reduce non-point discharge pollutant sources	C	C	**	**	**	**	ST	ST	W	**	**	C	C	**
SESC Inspection & Enforcement Practices**	3-1; 3-2; 3-3; 3-3;	\$8000 to \$15000 per community	Ongoing efforts by enforcement staff*		C	C	**	**	**	**	ST	C	W	**	**	C	C	**
Wetlands, Woodlands/Tree Replacement Ordinances	2-1; 2-2; 5-1	\$5000 to \$10000 per community	Ongoing efforts by enforcement staff*	Protect watershed by preserving wetlands and reducing the destruction of trees and woodlands that take up sediments, cool runoff and control erosion.	N/A	C	W	W	C	ST	C	C	LT	C	LT	C	C	N/A
		<i>Some costs of ordinance/regulation development could potentially be shared by partner communities</i>	<i>*many communities will be able to cover the enforcement effort with existing staffing levels. In this case, the true cost is an "opportunity cost" when staff priorities are reordered and other enforcement activities are not pursued as diligently.</i>															

C-current LT- Long Term W-Wish List **SESC enforcement provided by County for many communities
 ST – Short Term NA- Not Applicable

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PLANNING PROJECTS																		
Continue Involvement in the General Storm Water Permit Program	4-1; 4-2	Staff Time	\$5000 to \$20000 per community annually	Maintain/Raise awareness of commitment to watershed protection activities	C	C	C	C	C	C	C	C	C	C	C	C	C	C
Identify & Prioritize Key Potential Recreational Areas and Activities	1-1; 1-3; 2-1; 2-2	\$5000 to \$10000 per community (generally included in current planning practices and programs)	Ongoing effort by planning staff	Help communities focus on opportunities to acquire and develop new open space. Promote community involvement in stewardship and awareness of watershed benefits by improving access to waterbodies. Improve public health by promoting exercise and outdoor activities.	C	C	W	W	W	ST	ST	ST	LT	C	LT	C	LT	W
Identify Areas for Recreation Enhancement	3-1; 3-2	\$5000 to \$10000 per community (generally included in current planning practices and programs)	Ongoing effort by planning staff		C	C	ST	LT	W	ST	LT	ST	LT	C	LT	C	LT	W
Conserve Riparian Land for Future Parks & Public Access	2-2; 2-3	Costs vary dramatically depending on value of property to be preserved. Some lands may be gifts to communities.	Continued investments as opportunities are presented		C	C	LT	W	W	LT	ST	LT	W	W	LT	C	LT	N/A
Encourage Conservation Easements to Protect Natural Features	2-3	Minimal costs	Ongoing efforts by planning staff and conservancy volunteers		C	LT	C	W	C	C	N/A	C	ST	C	LT	C	C	W
Integrate Natural Resource Protection into the Planning Process	2-1; 2-2; 4-2	Minimal costs	Ongoing efforts by planning staff	Protect natural features by identifying and prioritizing assets during planning process. Proper documentation of value of assets can be useful in supporting communities land use goals	C	C	LT	ST	C	ST	C	C	ST	C	LT	C	C	LT
Utilize Comprehensive Planning for Wastewater Treatment Systems	3-2, 4-2, 5-2, 6-1	\$5000 to \$10000 per community (generally included in current planning practices and programs)	Ongoing efforts by planning and utility staffs	Coordination of service boundaries with land use designations and natural features/site constraints can limit impacts to watershed by providing for proper wastewater treatment/ or limiting development of marginal areas.	C	C	C	ST	C	C	C	C	ST	C	LT	C	LT	N/A

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PUBLIC EDUCATION/ STEWARDSHIP PROGRAMS																			
Increase Public Awareness through print and other media campaigns	1-1; 2-2; 3-3; 4-1	Costs vary depending upon materials and distribution method selected, as well as population targeted. See http://www.semcog.org/OursToProtect/Materials/Materials.htm for one source and typical material costs. Huron River Watershed Council (http://www.hrwc.org) is another source of tipcards and similar publications. Community website pages can be developed at minimal cost provided the community already has an internet presence. News releases and community cable announcements can be provided at minimal cost (staff time to prepare)	Continued investment	Public education is the first step to changing individual behaviors and choices. Public education plans focus on teaching an awareness of watershed concepts and the benefits of protecting water quality, knowledge of detrimental effects of private behaviors such as lawn care practices, and raises awareness/interest in stewardship activities. A coordinated program reaches multiple audiences with a variety of messages that ultimately improve watershed and public health.	C	C	C	C	C	C	C	C	C	C	ST	C	C	C	ST
Lawn Care Behavior Change Programs	3-1; 3-2; 3-3; 3-3; 4-1	Varies by activity. Workshops are provided at minimal costs (providing facility and advertising) by the Michigan State University Extension Service (see http://www.msue.msu.edu) as well as publications on turf management and lawn care at no cost.	Continued investment	Public education programs should also increase public interest in/willingness for funding environmental protection measures.	W	C	ST	ST	LT	C	C	ST	ST	ST	ST	C	ST	LT	LT
Septic Systems Maintenance Programs	4-1	Varies by activity. Workshops are provided at minimal costs by the Michigan State University Extension Service	Continued investment.		C	N/A	ST	N/A	LT	C	N/A	LT	ST	ST	N/A	LT	ST	LT	LT
Animal/Pet Waste Management Programs	4-1	Dog-pots at parks cost \$150-300 each (see http://www.yuckos.com) plus signage	A 10 roll case of clean-up bags costs around \$100. Staff time to empty receptacles and replenish bags as part of normal park operations		C	C	ST	LT	LT	C	C	C	ST	C	W	C	ST	NA	NA

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PUBLIC EDUCATION/ STEWARDSHIP PROGRAMS (cont)																			
Household Hazardous Materials Management Programs	3-3; 4-1; 4-3	\$20,000 to \$50,000 per community. Costs vary depending on population & participation. Communities can coordinate activities for cost savings and efficiencies.	Annual investment	Public education is the first step to changing individual behaviors and choices. Public education plans focus on teaching an awareness of watershed concepts and the benefits of protecting water quality, knowledge of detrimental effects of private behaviors such as lawn care practices, and raises awareness/interest in stewardship activities. A coordinated program reaches multiple audiences with a variety of messages that ultimately improve watershed and public health. Public education programs should also increase public interest in/willingness for funding environmental protection measures.	C	C	C	C	C	C	ST	C	C	C	ST	C	C	LT	
Litter and Debris Clean-Up & Recycling Programs	3-2; 3-3	Negotiated as part of a community's garbage collection contract. Approximate cost \$2.00 to \$4.00 per month per household.	Ongoing investment. Cost passed on to users.		C	C	ST	C	C	C	ST	C	ST	C	LT	C	ST	ST	
Ongoing Events And Stewardship And Involvement Activities	4-1; 4-2; 4-3; 6-1	Costs vary by activity.	Ongoing investment		C	C	C	ST	C	C	LT	C	ST	C	LT	C	ST	ST	
Support of Local Creek/Lake Protection Groups	4-1; 4-2; 4-3	Annual membership fees for HRWC are based on a voluntary scale. Costs to promote membership to community residents is minimal.	Ongoing investment		C	C	C	C	C	C	ST	C	W	C	LT	C	ST	LT	
Encourage Agricultural BMP's (GAAMPS)	3-1; 3-2; 3-3; 3-3; 4-1	Minimal cost to share training opportunities and materials with farmers in community.	Ongoing investment		N/A	N/A	LT	N/A	N/A	ST	N/A	W	W	W	N/A	N/A	N/A	N/A	
Golf Course Nutrient Management	3-1; 3-2; 3-3; 3-3; 1-3	Minimal cost to share training opportunities and materials with commercial operators.	Ongoing investment.		C	N/A	N/A	N/A	N/A	ST	N/A	N/A	LT	N/A	W	N/A	N/A	N/A	
Programs to Eliminate Sources of Bacteria That Prevent Desired Recreational Activities	1-2; 3-1; 3-2; 3-3; 3-3; 4-3	Costs vary significantly depending on program. Many programs rely heavily on volunteer efforts, such as the goose roundup program.	Ongoing investment.		C	C	LT	W	N/A	C	ST	ST	ST	ST	C	C	LT	W	

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MUNICIPAL HOUSEKEEPING																		
Implement Institutional Framework for Watershed-Wide Actions	2-1; 2-2	Minimal; costs to host meetings can be shared by communities. Most communication through email	Continued investment.	Provides means for communities to cooperate in efforts to provide for watershed management and resource protection	C	C	C	C	C	C	C	C	C	C	ST	C	ST	LT
Education for Land Use Decision Makers/Staff	1-1; 4-2	Costs vary. May include staff presentations to Board or Council at regularly scheduled meeting; attendance at offsite conferences and workshops.	Continued investment	Promote understanding of value/importance of watershed protection activities and encourage decision makers to adopt appropriate policies, ordinances and provide adequate funding levels	ST	C	ST	ST	C	ST	C	C	ST	ST	ST	C	ST	W
Implement Municipal Employee Training Programs	3-1; 3-2	Costs vary. May include training presentations to staff onsite or attendance at offsite conferences and workshops.	Continued investment.	Trained staff will utilize best management practices to protect watershed quality, and reduce pollutant and nutrient loadings from municipal sources	ST	C	ST	ST	ST	ST	C	ST	ST	ST	ST	C	ST	LT
Utilize RETAP and other resources to identify improvements to municipal housekeeping practices	3-2, 4-2	Minimal cost to invite RETAP volunteers to review practices	One time cost plus the cost of implementing recommendations. Could be repeated periodically (5 year cycle)	Improved housekeeping practices will reduce pollutant and nutrient loadings from municipal sources and potentially reduce operating costs.	N/A	LT	ST	LT	C	ST	C	LT	ST	LT	LT	C	W	W
Identify & Eliminate Illicit Discharges	3-1; 3-2	Approximately \$1,000 per stream mile for investigation; correction varies dramatically depending upon nature of problem. Communities may coordinate their activities with OCDC.	Continued investment	Correct improper discharges of pollutants and nutrients to waterbodies.	C	C	ST	LT	C	ST	C	LT	ST	LT	LT	C	LT	ST
Street Sweeping & Catch Basin Cleaning**	3-1; 3-2; 3-3; 3-3	Sweeping costs estimated at \$130-150/mile including disposal costs. (3 times per year) Catch basin cleaning estimated at \$70 each including disposal costs (source Wixom DPW)	Continued investment, including routine inspection (\$67/hour).	Reduce sediment and pollutant loadings to water bodies.	W	C	ST	ST	**	**	C	**	**	**	**	C	**	LT
Perform Storm Sewer System Maintenance & Drain Cleaning**	3-1; 3-2; 3-3; 3-3	Contracted sewer cleaning rates range from \$125-\$175 per hour and may or may not include disposal. A contractor can clean approximately \$1000-\$1500 LF/day, using jet cleaning or vactor equipment. (source Upper-2 Shiawassee River WMP)	Continued investment, including routine inspection (\$67/hour).	Reduce sediment and pollutant loadings to water bodies and protect from flooding actions due to damaged or restricted capacity of storm water conveyance components.	C	C	ST	ST	**	**	C	**	**	**	**	C	**	LT

C-current LT- Long Term W-Wish List **Townships/schools have little or no ownership/maintenance responsibility for streets
 ST – Short Term N/A- Not Applicable

