

# Appendix B4. The Middle Huron River Watershed Management Plan, Section 2.

Malletts Creek Restoration Plan Activity Schedule and Malletts Creek Association Recommendations Combined

8/8/2011

Page # 1

Priority Level	Plan Reference #	Activity	Responsibility	Amount *	Possible Funding Source	Comments	sort #
0	1C - MCA	Construct a system of incentives for the installation of BMPs by single and two-family property owners through reductions in stormwater utility rates for those properties.				DONE - Storm Rates effective July 2007	0
0	5 - RP	Ordinance & Code Revisions for Stormwater Quality & Management		\$ 360,000.00		Chapter 63 revised 6/5/00 and 12/16/02, Fertilizer Ord. 02/06/06	0
0	14 - RP	Brown Park Pond Improvements - Design		\$ 250,000.00		Completed 2005	0
0	14a - RP	Brown Park Pond Improvements - Start Construction		\$2,244,163.00		Started 2006, completion spring 2008	0
1	1 - RP	Illicit Discharge Elimination Program		\$ 212,700.00		NPDES Requirement. Investigated 2006 (\$261K), also did DNA project (\$69K)	1
1	7 - RP	Public Education Program		\$ 720,000.00		NPDES Requirement. Ongoing by City, Twp., WCDC, and HRWC	1
2	1 - MCA	<b>Enact ordinance revisions of one or more of the following types to reduce runoff from single and two-family residences.</b>				Ord.	2
	1A - MCA	Require all new construction of single and two-family residences and remodeling which increases impermeable surface by more than 250 sq. ft., to include best management practices (BMPs) for stormwater retention/infiltration on site in proportion to the amount of added impermeable surface.				Ord. - Portland Example in MCA Appendix	2
	1D - MCA	On new construction and remodels, limit the amount of impermeable surface as a percent of lot size.				Ord.	2

Priority Level	Plan Reference #	Activity	Responsibility	Amount *	Possible Funding Source	Comments	sort #
2	2 - MCA	<b>Regulate maintenance of stormwater control facilities by requiring permits for their use and anniversary dates for inspections, maintenance, and permit renewals contingent on functional integrity of the structures.</b>				City SPU began an intern project to inventory all detention facilities within the City (300+) in 2005. Additional detention area information is currently being gathered as part of the City Stormwater GIS/Model Project. Inventory results suggest a detention pond retrofit program may be more effective than a maintenance inspection program at this time. MCCC recommends pursuing a retrofit program for detention facilities built prior to year 2000 and a maintenance inspection program for detention facilities built after year 2000. Pittsfield Twp. also doing an Inventory. <b>Coordinate with RP # 11 and # 11a.</b>	2
2	2a - RP	Sampling for Benthics		\$ 9,900.00		On-going since 1994. HRWC studies 4 sites on Malletts Creek annually. Reports are available. <b>Coordinate with MCA # 8</b>	2
2	3 - MCA	<b>Local governments should undertake a review of research on pervious surfaces with a view to establishing standards relevant to the local climate and soils for:</b>				Standards	2
	3A - MCA	Green roads				Statewide LID Manual with recommended standards will be completed spring 2008 by SEMCOG/MDEQ	2
	3B - MCA	Sidewalks and walkways				Statewide LID Manual with recommended standards will be completed spring 2008 by SEMCOG/MDEQ	2
	3C - MCA	Bicycle paths and non-motorized vehicle lanes				Statewide LID Manual with recommended standards will be completed spring 2008 by SEMCOG/MDEQ	2
2	3 - RP	USGS Stream Gage - Continue Operation	WCDC could assess the district	\$54,000 from RP, but USGS Gage would be about \$13,000 per year		Installed - <a href="http://waterdata.usgs.gov/mi/nwis/uv?041745">http://waterdata.usgs.gov/mi/nwis/uv?041745</a> <b>18; Coordinate with MCA # 8</b>	2
2	4 - RP	Enforce Existing Ordinances		\$ 450,000.00		City SESC Staff reduced ~50% since 2000; Pittsfield SESC handled by Stantec; <b>Coordinate with MCA # 5</b>	2

Priority Level	Plan Reference #	Activity	Responsibility	Amount *	Possible Funding Source	Comments	sort #
2	5 - MCA	<b>Increase the frequency of inspections of construction sites specifically aimed at maintenance of strict erosion controls.</b>				SESC Staffing/Policy; MCCC to discuss with City Community Services Area Management; <b>Coordinate with RP # 5</b>	2
2	6 - MCA	<b>Adopt a policy requiring any development which is financed or subsidized a local government, or which is the recipient of a tax abatement, to meet those LEED (Leadership in Energy and Environmental Design) standards pertinent to stormwater management.</b>				Policy / Resolution - <b>Can be grouped with MCA #7 and #15</b>	2
2	7 - MCA	<b>Revise the Planned Unit Development (PUD) public benefits to include LEED building and stormwater standards.</b>				Ord. Amendment - <b>Can be grouped with MCA #6 and #15</b>	2
2	8 - RP	<i>Design In-System Storage Structures for Large Storm Drain Outlets</i>		\$ 75,000.00		<i>In City CIP - Design FY 08-09, Construction FY 10-11 Total cost \$1,273,000.00</i>	2
2	8a - RP	<i>Construction of In-System Storage Structures</i>		\$1,198,214.00		<b>See Project RP # 8</b>	2
2	11 - RP	<i>Start Detention Pond Study throughout the Watershed (Survey &amp; Design 40 ponds/year)</i>		\$ 696,360.00		<i>City SPU began an intern project to inventory all detention facilities within the City (300+) in 2005. Additional detention area information is currently being gathered as part of the City Stormwater GIS/Model Project. Inventory results suggest a detention pond retrofit program may be more effective than a maintenance inspection program at this time. MCCC recommends persuing a retrofit program for detention facilities built prior to year 2000 and a maintenance inspection program for detention facilities built after year 2000. Pittsfield Twp. also doing an Inventory. <b>Coordinate with MCA # 2</b></i>	2
2	12 - MCA	<b>Expand the Malletts Creek Coordinating Committee to include representatives of offices involved in street and road design, construction and repair at both the local and county levels, and to include representatives of Ann Arbor Public Schools and The University of Michigan.</b>				Request to City Council	2

Priority Level	Plan Reference #	Activity	Responsibility	Amount *	Possible Funding Source	Comments	sort #
3	2 - RP	Sampling for Bacteria & Phosphorus		\$ 27,720.00		Currently no action; Draft NPDES may require monitoring 50% of all 36" discharge points. <b>Coordinate with MCA # 8</b>	3
3	8 - MCA	Establish and operate a program of monitoring water quality and flow at strategic points in waterways, for purposes of accountability, management and evaluation, and issue annual reports to the public.				Staff/Budget/Contract implications; Draft NPDES may require monitoring 50% of all 36" discharge points. <b>Coordinate with RP # 2, # 2a, and # 3</b>	3
3	9 - MCA	Study locations along the Malletts Creek north of Mary Beth Doyle Park retention pond to identify public properties that could be used for overflow and diversion during periods of high water. Some examples are the areas between Mary Beth Doyle Park and Packard, areas near Redbud Nature Area and Scheffler Park, along Huron Parkway Nature Area, and the wetlands on the south side of East Huron River Drive opposite South Pond.				Study	3
3	11a - RP	Start Detention Ponds Retrofits - Outlet Structures, Wetlands and Sediment Forbay		\$2,218,250.00		<b>Coordinate with MCA # 2</b>	3
3	13 - MCA	Use opportunities provided by street/sidewalk, sewer and/or culvert construction and repairs, new development proposals and applications for construction permits at sites where creeks and roadways intersect to install small sitting areas and vestpocket parks for the use and enjoyment of the public, with signage regarding Malletts Creek, BMPs, and what members of the public can do to help protect the creek.				City/WCDC Standards/Public Ed. - Can be grouped with #15	3
3	15 - MCA	Models for using stormwater in public art works such as fountains, sculptures and landscaping water features have been developed in many cities; similar public art in Ann Arbor could contribute to both enhanced appreciation of water as a resource and to urban beautification.				Program/Policy - <b>Can be grouped with MCA #6 and #7, or #13</b>	3

Priority Level	Plan Reference #	Activity	Responsibility	Amount *	Possible Funding Source	Comments	sort #
4	4 - MCA	<b>Investigate whether there is adequate means for fish to pass from the Huron River through South Pond and into Malletts Creek.</b>				Study - 18" + 24" culverts under railroad	4
4	6 - RP	<i>Stream Maintenance (routine)</i>		\$ 195,000.00		\$70K - \$2500.00 per mile per year	4
4	9 - RP	<i>Remedy 10-yr. Storm Flooding Problem - Design Solution for Oakbrook Drive Crossing</i>		\$ 10,000.00		No action	4
4	9a - RP	<i>Remedy 10-yr. Storm Flooding Problem - Start Construction</i>		\$ 42,600.00			4
4	10 - MCA	<b>Develop coordination among City of Ann Arbor and Scio and Pittsfield Townships with regard to fertilizer ordinance administration through Act 7 Urban Cooperation Agreements.</b>				Urban Cooperation Agreement	4
4	10 - PR	<i>Investigate 100-yr. Storm Flooding Problems - Determine Responsibilities</i>		\$ 20,000.00		No action known, refer to Janis	4
4	11 - MCA	<b>Establish a single unit within city government, to include the following watershed management functions, in addition to those carried out by Systems Planning:</b>				Reorganization/Staffing; Many of these functions are or could be housed within the Systems Planning Unit	4
	11A - MCA	Water quality and flow monitoring and reporting					4
	11B - MCA	Operation of a database of stormwater control facilities					4
	11C - MCA	Public education				NPDES Requirement	4
	11D - MCA	Establishment and operation of a program of volunteer participation in waterway stewardship activities and projects (see Goal 4 below)				Draft NPDES may require this	4
	11E - MCA	Negotiations for the establishment of greenway "vestpocket" parks (see Goal 4 below)					4
	11F - MCA	Inspection of erosion controls on building sites				NPDES Requirement	4
	11G - MCA	Technical assistance on design/construction of BMPs					4
	11H - MCA	Provide a single point of public contact regarding stormwater management and responsibility for coordination with other branches of administration				NPDES Requirement, Currently Craig Hupy, Systems Planning Unit Manager	4
4	12 - RP	<i>Design Structural Repairs to Stream - To be done by Petition.</i>		\$ 150,000.00		No action	4
4	12a - RP	<i>Structural Repairs to Stream - Start Construction</i>		\$4,837,815.00			4

Priority Level	Plan Reference #	Activity	Responsibility	Amount *	Possible Funding Source	Comments	sort #
4	13 - RP	Residential Street Sweeping - Phase 1 - Area F -  Monthly Sweeping Recommended		\$ 10,100.00		Not Implemented - City currently sweeping all areas 2X annually and the Downtown area weekly as specified in City NPDES Permit	4
4	13a - RP	Residential Street Sweeping - Phase 2 - Area F & C -  Monthly Sweeping Recommended		\$ 27,000.00		Not Implemented - City currently sweeping all areas 2X annually and the Downtown area weekly as specified in City NPDES Permit	4
4	13b - RP	Residential Street Sweeping - Phase 3 - All Areas -  Monthly Sweeping Recommended		\$ 134,800.00		Not Implemented - City currently sweeping all areas 2X annually and the Downtown area weekly as specified in City NPDES Permit	4
4	14 - MCA	<b>The proposed stormwater management unit should initiate and develop a program of citizen participation in waterway stewardship, similar in concept to the city parks stewardship program. Stewardship activities could include trash cleanup, bank stabilization, bank plantings and beautification.</b>				Reorganization/Staffing/HRWC	4
4	14b - RP	Brown Park Pond - Monitoring		\$ 35,000.00		Pre-construction water quality, benthic and FQA complete. Where is the data?	4
4	16 - RP	Sweep Commercial Streets on a Monthly basis		\$ 68,800.00			4
4	17 - RP	Stream Bank Stabilization - Design		\$ 208,000.00			4
4	17a - RP	Stream Bank Stabilization - Implement		\$2,211,311.00			4
4	18 - RP	Habitat Improvements - Design		\$ 22,000.00			4
4	18a - RP	Habitat Improvements - Implement		\$ 174,000.00			4
4	19 - RP	Pilot Project - Catch Basin Restriction		\$1,169,329.00			4
4	20 - RP	Catch Basin Cleaning - Clean 2x/year		\$ 944,300.00		Higher level of service than currently provided - City currently cleans as specified in the City NPDES Permit on a once ever 5 year cycle, except water quality units that are cleaned 1X per year. Cycle likely to be modified based on recommendations of the 2007-2008 Stormwater GIS/Model Project.	4

Priority Level	Plan Reference #	Activity	Responsibility	Amount *	Possible Funding Source	Comments	sort #
x	1B - MCA	Given that it is only the Malletts creekshed that is under TMDL requirements, enact the above requirements through overlay zoning within the Malletts creekshed only.				Incorrect - Biota TMDL for Malletts and Swift Run - Determined Not Feasible	x
x	<i>15 - RP</i>	<i>County Farm Park Wetlands - Design</i>		\$ 50,000.00		<i>Determined Not Feasible</i>	x
x	<i>15a - RP</i>	<i>County Farm Park - Start Construction</i>		\$ 263,600.00		<i>Determined Not Feasible</i>	x
x	<i>15b - RP</i>	<i>County Farm Park Wetland Pond - Monitoring</i>		\$ 35,000.00		<i>Determined Not Feasible</i>	x
		<b>KEY</b>					
		RP = Malletts Creek Restoration Plan, Final Report, April 2000					
		MCA = Malletts Creek Association Watershed Recommendations, April 2007					
		<i>Italic</i> = RP recommendation					
		<b>BOLD</b> = MCA major recommendation					
		0 = Completed					
		1 = NPDES Permit Requirement					
		2 = High Priority					
		3 = Medium Priority					
		4 = Low Priority					
		x = Determined Not Feasible					
		* Dollar values listed are from the Malletts Creek Restoration Plan, Final Report, April 2000					