

## Chapter 5 Action Plans

### 5.1 ACTION PLANS BY LOWER 2 COMMUNITIES

Individual action plans were established on a community-by-community basis. These proposed actions were tabulated and became the foundation of the subwatershed plan. These proposed actions are also the basis on which each community will develop a SWPPI. The SWPPI will be the responsibility of each permittee.

In general SWAG members developed a list of management actions that included actions currently being carried out, planned actions and new initiatives. Short term actions are defined as those to be completed by 2005. These actions will likely become part of the SWPPI for each community. These lists were developed by a team that usually included a chief or deputy executive, the Director of Public Works, the City Engineer, and the Director of Parks and Recreation. Where possible both the cost and the completion date were estimated for each management action. Table 5-1 shows the Management Action Lists prepared by each city.

**Table 5-1: Management Action Lists**

NUMBER	ACTION	SHORT TERM	LONG TERM	NEW INITIATIVE?
<b>DEARBORN</b>				
D1	Ford Field bridge replacement	7/01		X
D2	Streambank stabilization/Ford Field multiple sections Brady to Military	10/03		X
D3	Ford Field pond restoration	10/03		X
D4	Storm dispersion at Military spread out southwest through woods	4/02		X
D5	Mailing to riparian land owners on BMPs with Rouge Repair Kit, 1,000 mailings at \$3 each	4/01		X
D6	IDEP testing/study	11/01	X	
D7	H/H modeling for bank stabilization	12/00		
D8	TV inspection for storm drain	12/05	X	X
D9	GIS – storm sewer database	10/02	X	X
D10	Public education Web site	4/01	X	X
D11	Increase Infiltration in Ford Field	7/01	X	X
D12	Study of Streambank in city-owned golf course			X
D13	Log jams -Buy/rent/lease/menzie muck -In-house manpower with volunteers	11/03 11/03	X	X
D14	Repair/restore erosion at major drainage structures	10/05	X	
D15	Catch basin cleaning/repair		X	
D16	Street sweeping	X	X	
D17	Leaf removal	X	X	

NUMBER	ACTION	SHORT TERM	LONG TERM	NEW INITIATIVE?
D18	HHHW program	X	X	
D19	Build new salt storage facility	Complete		X
D20	Yard waste composting program		X	
D21	Rain barrel project FOTR grant	Current		X
D22	Maintain green roof on city hall	X	X	
D23	CSO -Cured in place lining (In situ form)			
D24	TV inspection of CSO	X	X	X
D25	CSO – A, B and Roulo Creek			
D26	Dearborn share of DWSD – CSO			
D27	Down spout disconnection program/ordinance	X	X	X
D28	SSO identification	X	X	
<b>CITY OF WESTLAND</b>				
WL1	Mailings to every resident in Westland, watershed protection	X	X	X
WL2	Mailings to important people	X	X	X
WL3	Mailings to business people	X	X	X
WL4	Hire Consultant for public education	X	X	X
WL5	Hire Consultant for storm management	X		X
WL6	250 outfalls - checking	X	X	
WL7	Yearly outfall checks	X	X	
WL8	Pictures for outfalls	X	X	X
WL9	Signs for outfalls	X	X	X
WL10	IDEP for outfalls	X		
WL11	G.I.S. for storm database	X	X	X
WL12	T.V. inspection for storm	X		
WL13	T.V. inspection for sanitary	X	X	X
WL14	Repairs for T.V. inspection storm	X	X	
WL15	Repairs for T.V. inspection sanitary	X	X	
WL16	Catchbasin cleaning	X	X	
WL17	Catchbasin repair	88% complete	X	
WL18	Maintaining G.I.S. for catch basin clng., SSO, IDEP, T.V. inspection, leaf maps, outfalls, street sweeping	X	X	X
WL19	Street sweeping	Apr.-Sept	X	
WL20	Yard waste composing program	Apr.2 - Dec.15	X	
WL21	Remove leaves from streets	X	X	
WL22	SSO identification	X	X	
WL23	Outfall identification	X	X	
WL24	Cross connection program	X		
WL25	PPC (project performance certification) for CSO	X		

NUMBER	ACTION	SHORT TERM	LONG TERM	NEW INITIATIVE?
WL26	Certification for sanitary	X		
WL27	Storage for sanitary	X		
WL28	Maintaining detention, retention ponds	X	X	
WL29	Public education for cable, schools, future web	X	X	
WL30	Household Hazardous Waste Program (HHHW)	X	X	
WL31	Drainage program	X	X	
WL32	Land use map – G.I.S.	X	X	
WL33	Future land use – G.I.S.	X	X	
WL34	Zoning map – G.I.S. & web	X	X	
WL35	Soil erosion program	X	X	
WL36	Enforce soil erosion	X	X	
WL37	Sanitary sewer extensions for elimination of septic systems	June – Sept.	X	
WL38	Sewer lead connection program to eliminate onsite septs	X	X	
WL39	Illicit connection program	X	X	
WL40	Evaluate costs to correct illicit connections	X	X	
WL41	Public participation program	X	X	
WL42	Tree ordinance program	X	X	
WL43	Participation in River Day	X	X	
WL44	Create cable T.V. programs	X	X	
WL45	Require retention/detention for new projects	X	X	
WL46	Develop subwatershed plan	X	X	
WL47	Identify SWPPI program costs	X	X	
WL48	Develop pollution prevention initiative	X	X	
WL49	Cost of general permit requirements	X	X	
WL50	Apply for State/Federal grants	X	X	
WL51	Sanitary Sewer Lining	X	X	
WL52	Sanitary Sewer for Relief	X	X	
<b>CITY OF ROMULUS</b>				
RM1	GIS Storm water Database Maintenance	X	X	X
RM2	Catch Basin Cleaning & Repairs	X	X	
RM3	Street Sweeping	X	X	
RM4	Leaf Removal	X	X	
RM5	Retention Pond Maintenance Agreement-Administration	X	X	X
RM6	Soil Erosion & Sedimentation Control Program-Administration	X	X	X
RM7	Outfall Identification & Inspection	X	X	
RM8	Public Education Mailings	X	X	X
<b>GARDEN CITY</b>				

NUMBER	ACTION	SHORT TERM	LONG TERM	NEW INITIATIVE?
G1	Mailing to non-residential land owners/tenants (businesses) on BMPs with Rouge Repair Kit.	X		X
G2	Mailings to residential owners/tenants on BMP/actions they can do to impact storm water quality.	X		X
G3	IDEP testing/investigations – (Consider contracting with County to assist in this).	X	X	
G4	TV inspection of storm drains – looking for problems (structural, illicit connections, etc.)	X	X	X
G5	Continue GIS Data Base Development – Field structure investigations, build & link data base.	X	X	
G6	Staff training in GIS usage – ArcView/ArcInfo.	X		
G7	Public Education – Web Site: Create & Maintain City Web Site, with links to County sites, etc.	X	X	X
G8	Catch Basin Cleaning/Repair	X	X	
G9	Site & Install In-Line and/or CB sited BMPs to reduce/control sediment, oil, & greases and floatables	X	X	X
G10	Apply for CWI/RPO Grants	X	X	
G11	Leaf Removal Program	X	X	
G12	Household Hazardous Waste Program – Expand & Public Information Efforts	X	X	
G13	DPS Site Improvements to Control runoff volume and characteristics	X	X	
G14	Yard Waste Composting Program	X	X	
G15	TV Inspection of Sanitary/Storm – look for possible cross connections.	X	X	
G16	Downspout disconnection program. Continue inspections/testing/enforcement. <b>Non City Owned Sites.</b>	X	X	
G17	Downspout disconnection program. Continue inspections/testing/enforcement. <b>City Owned Sites.</b>	X	X	
G18	SSO/CSO Identification. Identify, characterize (storm event that causes, quantify, quality characterizations).	X	X	
G19	Regional SSC/CSO Water Quality Sizing Criteria determination – through SWAG/RPO	X	X	
G20	Storm Water Ordinance – Adoption/Enforcement (Control quantity/quality impacts)	X	X	
G21	Eliminate (address) OSDS – Especially any that are failing.	X	X	
G22	Sewer System (storm & sanitary/combined) cleaning	X	X	

NUMBER	ACTION	SHORT TERM	LONG TERM	NEW INITIATIVE?
	program.			
G23	Construct Storm detention (flow reduction) facilities (ponds) at key City sites (i.e. City Hall complex, Sr. High Rise, DPS, etc.)		X	
G24	Build/maintain CSO/SSO retention/treatment facility(ies).	X	X	
G25	Sanitary/Combined system improvements to reduce volume and frequencies of overflows or storage required. (List of immediate improvements for City)	X	X	
G26	Continue/Expand/Advertise "Hot Line" for reporting potential problems, IDEPs, etc.	X	X	
G27	Additional CB Stenciling and/or signage.	X	X	
<b>CITY OF DEARBORN HEIGHTS</b>				
DH1	Recreational vehicle ordinance	X		X
DH2	SSO Identification	X		X
DH3	Streambank Stabilization/Ecorse Creek	X		
DH4	Illegal dumping coordination with fire and police	X		X
DH5	Educating residents about BMPs	X		X
DH6	IDEP pilot project	X		
DH7	TV Inspection for storm drains	X		
DH8	GIS/Storm sewers	X		
DH9	Public education Web site	X		
DH10	Illicit connection ordinance	X		X
DH11	Ecorse Creek clean-up	X		
DH12	Log jam removal/Rouge Rescue	X		
DH13	Repair erosion problems at /Ecorse Creek	X		
DH14	Catch basin cleaning/repair	X		
DH15	Annual HHW program	X		
DH16	GIS Study	X		
DH17	TV Inspection of CSOs	X		
DH18	Downspout disconnection program	X		
DH19	Weekly street sweeping	X		
DH20	Ecorse Creek drainage district assessment (per house)	X		
DH21	Storm and sanitary drain cleaning			
DH22	GIS grant for storm water management	X		
DH23	Household battery collection	X		
DH24	Assist RRAC with RAP development	X		
DH25	Bi-annual newsletter to residents and businesses	X		
DH26	Watershed Stewards Commission	X		X
DH27	TIFA support for Ecorse Creek clean-up			X
DH28	Support FOTR Education Center	X		X
DH29	River Oaks Pond restoration (w/Wayne County)	X		X

NUMBER	ACTION	SHORT TERM	LONG TERM	NEW INITIATIVE?
DH30	Lift station for SSOs(with other communities)			
DH31	CSO basin monitoring	X		
DH32	Septics monitoring program	X	X	
DH33	Flooding education	X		
DH34	Ecorse Creek flood mitigation plan	X		
DH35	Referrals to Wayne County hotline	X		
DH36	Rouge and Ecorse Creek Info on Cable TV	X		
DH37	Hired Storm Water Consultant	X		
DH38	Cross Connection Program	X		
DH39	Address 10 remaining CSOs		X	
DH40	Ecorse Creek detention pond			X
DH42	Tree planting program	X		
DH43	Broadcast Rouge Video	X		
DH44	Require retention/detention for new projects	X		
DH46	Develop P2 Initiative	X		
DH47	Sanitary Sewer Lining	X		
DH48	Apply for grants	X		
DH49	Install flood mitigation sensors in Ecorse Creek/reverse 911			X
DH50	Storm drain stenciling	X		
DH51	Dearborn Heights share of DWSD CSO			
DH52	Corrective Action Plan for increased sewer capacity	X		
DH53	Periodic council meetings on Rouge matters	X		
DH54	Citizens survey		X	X
DH55	Downriver sewer project (sanitary sewer relief)	X		
DH56	Annual Ecorse Creek operational maintenance	X		
DH57	Parkland Park improvements	X		
DH58	Environmental Awareness Center/parkland Park		X	X
DH59	Purchase land along Ecorse Creek to prevent development		X	X
DH60	Flood mitigation grant from FEMA	X		
DH61	Building Dept. and DPW Staff Training	X		
DH62	Develop Ecorse Creek Watershed Mgmt. Plan		X	X
DH63	Maintain watershed stewards commission	X	X	
<b>CITY OF INKSTER</b>				
IN1	IDEP testing/study	X		
IN2	IDEP correction	X		
IN3	TV Inspection of storm drains as required	X		
IN4	GIS- storm sewer database	X		
IN5	Provide support for Lower 2 public education web site	X	X	

NUMBER	ACTION	SHORT TERM	LONG TERM	NEW INITIATIVE?
IN6	Catch basin cleaning/repair	X		
IN7	Street sweeping	X	X	
IN8	Leaf removal	X	X	
IN9	Household hazardous waste program	X	X	
IN10	Planning to build new salt storage facility	X		X
IN11	Yard waste composting program	X	X	
IN12	Downspout disconnection program	X		
IN13	On-site sewage disposal system removal program	X		
IN14	CSO program implementation	X		
IN15	Storm water pollution prevention education in calendar, newspaper and Inkster Inprint	X		X
IN16	Business pollution prevention education- "Clean Business Group"	X		X
IN17	Streambank stabilization- if not Wayne County Parks	X		
<b>CITY OF WAYNE</b>				
W1	Continue street sweeping program	X	X	
W2	Developments discharging to Wayne County Systems will be required to meet the new Wayne County Storm Water Ordinance. Reviews for compliance will be coordinated with Wayne County.	X	X	X
W3	Continue to develop innovative methods of educating the public aimed at improving water quality	X	X	
W4	Encourage incorporation of BMPs into redevelopment projects	X	X	
W5	Continue to investigate and implement innovative methods of storm water retrofitting to improve water quality	X	X	
W6	Continue storm sewer structure cleaning based on maintenance schedule	X	X	
W7	As part of park improvement projects and other municipal projects, implement BMPs where practicable	X	X	
W8	Update stream bank erosion inventory, as needed.		X	
W9	Continue to maintain and modify the City's web site to provide public education opportunities	X	X	

NUMBER	ACTION	SHORT TERM	LONG TERM	NEW INITIATIVE?
W10	Continue to provide storm water public education articles in the City of Wayne Update	X	X	
W11	Continue Household Hazardous Waste Program	X	X	
W12	Continue to monitor outfalls and remove illicit discharges, when found	X	X	
W13	Correct high priority stream bank erosion areas when adequate funding becomes available		X	
W14	Coordinate the removal of log jams which inhibit conveyance capacity of the River.	X	X	X
W15	Continue to replace aging sanitary sewers as per maintenance schedule	X	X	
W16	GIS storm sewer maintenance and street sweeping.	X	X	
W17	Continue tree planting programs.	X	X	
W18	Continue leaf collection program.	X	X	
W19	Continue battery collection program.	X	X	
W20	Continue downspout disconnection plan through site plan and housing ordinances.	X	X	
W21	Construct storm water detention for the interim fire department/permanent DPW facility.	X		
W22	Continue TV inspection for sanitary and storm sewer systems.	X	X	
W23	Continue operation and maintenance program for the sanitary sewer system.	X	X	
W24	Enhance zoning maps through GIS.	X	X	X
W25	Research and implement a centralized waste oil collection facility.		X	X
<b>WAYNE COUNTY</b>				
WC1	IDEP – Trained Staff	X	X	
WC2	IDEP – Inspected Public Owned Facilities	X	X	
WC3	IDEP - Inspected Public Storm Drains	X	X	
WC4	Local Ordinances/Enforcement	X	X	X
WC5	Hot Line Reporting System & Compliant Follow Up	X	X	X
WC6	Household Hazardous Management		X	X
WC7	Storm Water Development	X	X	X
WC8	Home Lawn and Garden Maintenance	X	X	X
WC9	Admin. Soil and Sedimentation Controls	X	X	X
WC10	Staff Trained/Planned Training	X	X	X

NUMBER	ACTION	SHORT TERM	LONG TERM	NEW INITIATIVE?
WC11	Storage/Loading/Unloading Operations	X	X	X
WC12	Outdoor Work Area Management	X	X	X
WC13	Vehicles and Equipment Management	X	X	X
WC14	Pavement Cleaning	X	X	X
WC15	Deicing Practices Review	X		X
WC16	Golf Course/Recreation	X		X
WC17	Audit of Chemical Use/Storage		X	X
WC18	Inspections at Time of Sale	X	X	X
WC19	Septage Disposal Reporting	X	X	X
WC20	Regional Septage Disposal	X	X	X
WC21	Catch Basin Cleaning	X	X	X
WC22	Sewer System Cleaning		X	
WC23	SSO Identification/Control	X	X	
WC24	System Master Planning/GIS	X	X	
WC25	Wet Detention Ponds	X	X	
WC26	Dry Extended Detention	X	X	
WC27	Off-Channel Storm Water Retention	X	X	
WC28	Constructed Wetlands	X	X	
WC29	Swales and Filter Strips	X	X	
WC30	Storm Water Infiltration Basin		X	
WC31	Storm System Media Filters	X	X	
WC32	Sediment Ponds	X	X	
WC33	Oil and Grease Trap Devices	X	X	
WC34	CSO Retention/Treatment Facilities	X	X	
WC35	Outlet Stabilization	X	X	
WC36	Engineered Streambank Measures	X	X	
WC37	Bioengineered Streambank Measures	X	X	
WC38	Biotechnical Streambank Measures	X	X	
WC39	Flow Obstruction Prevention/Removal	X	X	
WC40	Habitat Restoration	X	X	
WC41	Rouge Clean-up	X	X	
WC42	Rouge Education Project	X	X	
WC43	River Friendly Business Program	X	X	
WC44	Storm Drain Stenciling	X	X	X
WC45	River Signage	X	X	X
WC46	Brochures (Residential Car Washing, etc.)	X	X	X

NUMBER	ACTION	SHORT TERM	LONG TERM	NEW INITIATIVE?
WC47	Cable Broadcasts/Web Site	X	X	X
WC48	Video Tapes	X		X
WC49	Public Building Displays	X	X	X
WC50	Presentation to Local Organizations/Schools	X	X	X
WC51	PSA Radio Spots		X	X
WC52	Community Meetings on Subwatershed Plan	X	X	X
WC53	On-Site Storm Water Retention Required	X		
WC54	Direct Mailings to Homes	X	X	
WC55	Wayne County Wetland Banking	X	X	X

## 5.2 MATRIX OF ACTIONS VERSUS GOALS

The next challenge was to compare the list of proposed actions identified by each SWAG community with the long-term goals and objective identified by the SWAG as a whole, as well as the BMPs. Questions that needed to be addressed included:

- Have all the goals been addressed at some level?
- Collectively, will the actions identified “solve” the problem?
- Should additional goals be included?
- What other actions can be accomplished through collaboration among communities?
- What actions can/should be accomplished by others such as MDOT, County Parks, MDEQ, etc?
- Have the communities controlled storm water pollution to the **Maximum Extent Practicable (MEP)**?
- Are water quality standards going to be met?

Table 5-2 presents community actions in relation to both goals and BMPs. The alphanumeric designations, from the Action Tables above have been placed within the matrix to depict which goal and BMP that best corresponds to a particular action.



Table 5-2: Lower 2 Subwatershed Project Matrix

Vision Statement: A lower Rouge River and river corridor that is aesthetically pleasant and is clean, healthy and safe so that watershed residents and visitors can enjoy a variety of recreational opportunities including fishing, canoeing, and picnicking, and supports a healthy and diverse fish and wildlife community.	Table 5-2: Lower 2 Subwatershed Project Matrix																																				
	Reduce Peak Flows			Reduce Sediment Loads											Reduce Sanitary Wastewater Pollution						Preserve/Increase Habitat			Enhance Recreational Activities			Reduce Chemical Pollutants			Educate the Public							
	BMPs	1	2	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	25	26	27	28	29	30	31	32	33				
4. Enhance and Preserve Fish and Wildlife Habitat, especially along the River	a. Reduce flood and bank erosion damage to riparian properties and destruction of fish and wildlife habitat	D4 D11	DH34 DH40			D14 DH13	DH21																														
	b. Continue to seek grant funds to implement projects																																				
	c. Identify areas where public acquisition of lands or the use of conservation easements will benefit either public use of the waterfront and/or enhance fish and wildlife values																																				
	d. Maintain and protect identified meadows and wildlife corridors																																				
	e. Establish a vegetative buffer to protect riparian habitat along the River and its tributaries																																				
5. Minimize the Amount of Soil Erosion and Sedimentation	a. Continue and improve on effective maintenance of publicly controlled storm water catch basins, detention basins and related infrastructure, including the removal and disposal of accumulated debris and sediments			WL28	D3 RM5 WL28				WL17 RM2	D3 RM5 WL28																											
	b. Reduce solids loading to the river	D4 D11 WC29	WC25	WC26 WC27 WC30	G9	D1 D14 WL35 WL36 RM6 WC9 WC10 WC35	W6																														
	c. Stabilize banks that are significant sources of sediment loading to the river						DH13																														
6. Reduce Water Volumes and Velocities during Storm Events	a. Encourage on-site detention/retention of stormwater for those sites not under local requirements	D27 DH18 G17 W20	D27 DH18 G13 G23 WC53	WC25	G23 WC30 WC26 WL45																																
	b. Require on-site detention/retention of storm water and snow melt for new commercial, multifamily residential and industrial developments and redevelopments (where possible)	DH44 IN12 W4 G16	DH44 G20 W2 W4 WC27 W21																																		
	c. Encourage innovative site designs for new developments to reduce impermeable surfaces and encourage infiltration of water		D11 WC29 W5																																		
	d. Protect wetlands and other natural features that serve to store water during storm events		D4	DH29																																	

Communities reporting:  
D = Dearborn  
DH = Dearborn Heights  
G = Garden City  
IN = Inkster  
RM = Romulus  
W = Wayne  
WC = Wayne County  
WL = Westland