

Mechanisms for Funding Stormwater Management and ARC Membership beyond 2013

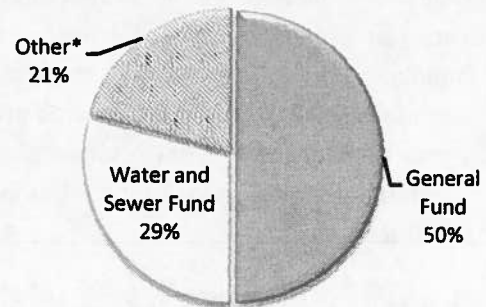
1.0 Introduction

The Alliance of Rouge Communities (ARC) has a current annual budget of \$530,000. An estimated 540,000 households are located within the watershed; of these 360,000 households are located within ARC member communities. The ARC is currently funded by federal grants to Wayne County and membership dues generally on a 50/50 basis. As of May 30, 2014, federal funding from Wayne County will no longer be available to support the ARC.

A survey of ARC members indicated that the sources of funds to pay ARC dues are 50% from General Fund, 29% from Water and Sewer Fund, and 21% from other sources¹. In the same survey ARC members were asked to identify funding sources for the operation and maintenance of their stormwater systems. The response indicated that 39% used their General Fund, 36% used Water and Sewer funds, and 21% used Act 51 funds^{2,3}.

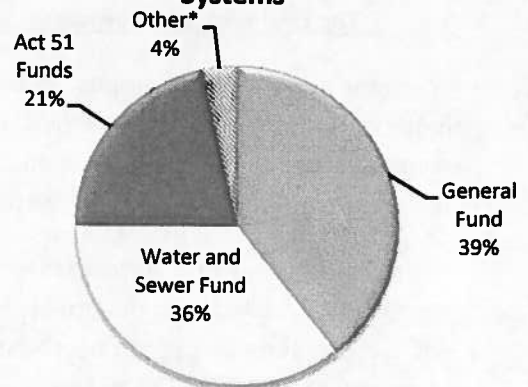
The purpose of this paper is to summarize the funding options available to local units of governments to pay for the growing responsibilities they have inherited as a result of evolving environmental rules and regulations. Use of a stormwater utility and the Michigan Drain Code are the funding options that are discussed.

Reported Funding Sources for ARC Dues



*Act 51 Funds, Drain millage, In-kind services, Water Resources Fund, Septic system permit fees

Reported Funding Sources for Operation and Maintenance of Stormwater Systems



*Drain millage

To support this purpose, this paper describes how stormwater systems have evolved from flood control projects to regulated opportunities for water quality improvements, Michigan's 2003 and 2012 stormwater permit requirements and associated level of effort, the ARC's current support services, the ARC's anticipated budget shortfall, an example community's expenditures for stormwater system

¹ 24 (60%) members responded to the survey.

² Some members use more than one funding mechanism.

³ Act 51 dollars are provided by the State of Michigan to local units of government and county road commissions to repair/construction roadways and associated infrastructure.

operation and maintenance, and the considerations for establishment of a stormwater utility and a Drainage District through the Drain Code.

1.1 Background

Municipal stormwater management for local governments has evolved over time from an urban flood control function, to a water resource management function, to an environmental protection and regulatory function. All three functions now co-exist as responsibilities of local government. This evolution has forced changes in how stormwater systems are planned, designed, constructed, operated, and financed. More specifically, the stormwater function has evolved from a basic capital construction and maintenance program supported primarily by local property taxes, to a program of integrated water resource management, environmental enhancement, and permit compliance. These changes have led community leaders to look for a multi-faceted benefit-based finance system to support stormwater activities.

This white paper provides an overview of the current and future stormwater regulatory requirements for municipalities and provides a framework on potential strategies to shift the burden of the associated new costs. The concept is to move costs from the municipality's general, water and sewer, and Act 51 budgets to a new source of sustainable funds dedicated solely to supporting ARC activities, other stormwater permit-required activities, and construction, maintenance and operation of stormwater infrastructure, if desired.

1.2 The Evolution of Stormwater Systems in Michigan

When the sole perceived purpose of the stormwater collection system was the rapid and efficient movement of runoff from developed land to the receiving waters, a patchwork approach for responsibility and funding was adequate. However as water quality became a priority, additional requirements and responsibilities were placed upon municipalities.

Municipal stormwater is surface water runoff from public and private lands in urban areas. Typically stormwater is collected in municipal separate storm sewer systems (MS4s) consisting of drains, pipes, and ditches, and conveyed to nearby streams, rivers, lakes, estuaries, basins, wetlands, and oceans carrying with it a variety of urban pollutants.

Stormwater has become a part of the total water resources picture and is the third leg of the local government water service stool consisting of 1) drinking water treatment, and distribution; 2) sewage collection, treatment, and disposal; and 3) stormwater conveyance and management for quantity and quality. Other more specific changes include recognition of stormwater as a resource; the need to restore streams and rivers; preservation of riparian areas and corridors; use of parks, playfields, and wetlands as stormwater detention areas; creation and/or restoration of wetlands to provide water quantity, quality, and environmental benefits; capturing stormwater to meet water supply needs; recognition that homes near greenbelts sell for a premium; and management of stormwater from a comprehensive watershed perspective.

Rouge River Watershed communities have managed the stormwater infrastructure as part of their normal activities for decades. Much of the activity was informally undertaken as part of other functions. Construction of local drainage facilities most often took place as part of subdivision development (funded by the private developer) or as part of a roadway construction project funded by the state or county. More rural or major urban drain projects were funded by the county drain commissioners.

Except for designated County Drains, maintenance of the drainage system most often took place as part of road maintenance activities or was sporadically performed by local community departments of public works using the general, water and sewer, and Act 51 funds. Since most drainage infrastructure had historically been part of the roadway system, the city and/or county department responsible for street maintenance became the de-facto maintenance entity for stormwater infrastructure.

The situation became more complex when newer developments were constructed within townships. Roads and streets within Michigan townships are under the jurisdiction of county road commissions. As development patterns became less rectilinear, internal drainage systems routinely were constructed both within and outside of road rights-of-way. Thus, after construction, those portions of the drainage system outside of the roadway were somewhat "orphaned" with no entity having formal ownership, maintenance and repair responsibilities.

2.0 Permit Required Stormwater Activities

In 1990, U.S. Environmental Protection Agency (EPA) began to include municipal stormwater discharges as pollutant sources under the National Pollutant Discharge Elimination System (NPDES) program. To minimize the impact of stormwater pollution from an MS4, operators are required to obtain a NPDES permit and develop a stormwater management program. In Michigan, the Michigan Department of Environmental Quality (MDEQ) issues and audits compliance with MS4 NPDES permits.

2.1 2003 Stormwater Permit Requirements and the supporting ARC Effort

Early on in Michigan's MS4 permitting program, communities were required to implement various activities. The 2003 MS4 permit, which all Rouge communities are operating under, includes the following requirements:

- A. Locating and mapping stormwater outfalls,
- B. Screening for and eliminating illicit discharges to waterways,
- C. Development and implementation of a watershed management plan (WMP),
- D. Development and implementation of stormwater pollution prevention initiatives for municipal properties and activities (SWPPIs),
- E. Educating the public on stormwater management techniques,
- F. Development of annual progress reports, and
- G. Water quality monitoring to determine the effectiveness of permit requirements.

The Rouge communities chose to collaborate on these efforts in order to conserve resources. The ARC and its predecessor, the Assembly of Rouge Communities, were established as formal

organizations to lead the planning and implementation of collaborative stormwater permitting efforts across the watershed.

The ARC has consistently assisted its members with permit compliance activities. In the past five years, the ARC has conducted the following core activities:

- A. Collected outfall locations and created a GIS layer for the watershed,
- B. Screened for and eliminated hundreds of illicit discharges and developed (and currently finalizing) a collaborative illicit discharge elimination plan;
- C. Developed and gained MDEQ and EPA approval on a WMP to guide restoration efforts;
- D. Provided templates, workshops and educational material to support SWPPIs;
- E. Educated municipal staff and the general public on numerous pollution prevention techniques including proper septic system maintenance, illicit discharge detection, site-level green infrastructure methods, vegetative invasive species management, detention pond maintenance, and native landscaping;
- F. Developed an online stormwater reporting system to aid in preparing permit-required progress reports;
- G. Conducted and summarized ecosystem monitoring which have measured the water quality and habitat improvements over time; and
- H. Implemented a green infrastructure campaign that included completion of a land cover survey to establish a baseline of impervious area coverage in the watershed, the design and installation of 30 grow zone projects covering more than 3 acres, and the sale of over 3,500 rain barrels to area residents.

The core budget for the ARC has been approximately \$530,000 annually since 2006 as shown in Table 1⁴. Each year, 40 – 50% of the ARC's core budget has been supplemented by federal funding awarded to Wayne County as part of the Rouge River National Wet Weather Demonstration Project (Rouge Project)⁵. This portion (48% in 2013) of the ARC's core budget will no longer be available to the ARC starting January 2014.

In addition to the core activities, the ARC has secured \$3.12 million in private foundation, state and federal grants to implement special projects that assist with permit compliance and advance the restoration of the watershed. The ARC's special projects for the past four years have included the following:

- Two dam removals to improve fish habitat in the Lower and Upper Branches;
- *E. coli* monitoring and pollutant source investigations to eliminate sewage sources in portions of the Main and Upper subwatersheds;
- Purchase and planting of 2,000 trees to mitigate the impacts of emerald ash borer and reduce stormwater runoff flows across the watershed;

⁴ The core budget does not include special projects which are grant funded.

⁵ The Rouge Project has provided communities \$351 million in funding since 1992 for hundreds of projects including combined sewer overflow control, ecosystem monitoring, nonpoint source control, public education activities, illicit connection investigations, as well as providing a substantial portion of the ARC's operating costs.

- Wetland restoration to reduce peak flows on the Main Branch;
- Green infrastructure installation along the Lower, Upper and Main Branches to improve upland habitat and mitigate stormwater runoff; and
- Development of a work plan to investigate the contaminated sediments in the lower 3 miles of the Main Branch.

Table 1. The ARC's Annual Budget for Core Activities*

ARC Watershed-wide Activities	Funding Source	
	ARC Dues	Federal
<u>Public Involvement and Education Committee</u>	\$57,000	\$60,000
<ul style="list-style-type: none"> • Coordination/Budgeting • Green Infrastructure Campaign • Public Education Materials • Website Maintenance • Workshops • Stewardship and Reporting • Information Requests • Communication with the media 		
<u>Technical Committee</u>		
<ul style="list-style-type: none"> • Coordination/Budgeting 	\$10,000	\$10,000
Illicit Discharge Elimination	\$25,000	\$25,000
<ul style="list-style-type: none"> • Training • Investigations 		
Ecosystem Monitoring	\$56,000	\$76,000
Permit and ARC Reporting	\$8,000	\$8,000
Pursuing Grant Funding	\$20,000	0
Liaison with EPA, MDEQ and Communities	\$20,000	\$20,000
Bookkeeping/Legal Services/Finance Committee	\$32,000	\$11,000
Administration, Full ARC, Executive and Organization Committee and SWAG Meeting Support, Communications, and Contractor Oversight	\$33,000	\$33,000
Total	\$261,000.00	\$243,000.00

*Based on the ARC's 2013 Annual Budget. Does not include special projects.

Based on the ARC's funding from the Rouge Project and from state and federal grants, **ARC dues have generated \$3.60 in federal and state funding for every \$1 from the local communities over the past 4 years (2009-2012).** This excludes Rouge Project funding given directly to the communities or counties. Even without Rouge Project funding, the ARC is still expected to generate \$2.70 in grant funding for every dollar of dues based on their history of success.

With the anticipated shortfall in funding from the Rouge Project beginning June 1, 2014, the ARC is seeking grants to cover operating expenses in 2014. In addition, the ARC is reviewing its current budget

to see where services can be streamlined. This comes at a time when MDEQ is allowing more collaboration as described in the following section. While these collaborative efforts provide cost-efficient permit compliance opportunities for municipalities, they can't be continued at the current level without filling the gap left by the Rouge Project funding.

2.2 2012 Permit Requirements and Level of Effort

Based on the application, Michigan's current MS4 program (herein identified as the 2012 permit) has additional requirements that are equally or more onerous for communities to comply with when compared to the 2003 permit as shown in Table 2. The new permit requirements, which were finalized in late 2012, include developing and implementing a stormwater ordinance that limits the volume and quality of stormwater discharge from newly developed and redeveloped sites. Specifically, runoff rate and volume must not exceed pre-development rate and volume for all storms up to the 2 year – 24 hour storm. And the first 1 inch of runoff (or 90% of the storms) must be treated so stormwater discharges do not exceed suspended sediment concentrations of 80 mg/L. Additional water quality limits are required at certain industrial and commercial sites including gas stations, scrap yards, and vehicle repair shops.

The 2012 permit also requires that municipalities/counties 1) provide a mechanism for ensuring proper operation and maintenance of public and privately-owned structural stormwater best management practices (BMPs) to ensure they are functioning properly, 2) track the location and inspection frequency of BMPs, and 3) maintain and undertake enforcement measures for any neglected BMPs. Depending on the current level of maintenance, municipalities/counties may potentially need to perform additional maintenance on their MS4 including catch basin cleanings, street sweeping, and detention pond cleaning. Water quality monitoring will also need to be performed by the Rouge communities/counties because the watershed has approved total maximum daily loads (TMDLs) for *E. coli* and Biota.

Table 2. A Comparison of the 2003 and 2012 MS4 Permits

Permit Elements	2003	2012*
<u>General</u>		
Locate and map stormwater outfalls	Provide map	have map on hand
Develop/implement a watershed management plan (WMP)	X	
<u>IDEP</u>		
Screen outfalls and discharge points for and eliminate illicit discharges to waterways	X	Can prioritize. Can eliminate discharge pt. screening
Develop/implement an IDEP ordinance	content unspecified	content specified
<u>Public Education and Public Involvement</u>		
Obtain public input	X	X
Educate the public on pollution prevention	9 topic areas. Must cover all of them.	11 topics. Can prioritize efforts

Permit Elements	2003	2012*
Construction Runoff Control		
Notify developers of Part 91/Permit-by-Rule requirements		X
Notify Part 91 agencies/MDEQ of soil erosion issues		X
Post Construction Stormwater Control		
Draft/Pass/Implement a Stormwater Ordinance to control quality and quantity of runoff for new and redevelopment ≥ 1 acre.	required criteria unspecified	required criteria specified
Require long-term maintenance of BMPs including a maintenance agreement, allow for inspections, correct neglected BMPs and track BMP responsibility.		X
Optional ordinance elements: offsite mitigation and payment in lieu programs		X
Good Housekeeping/Pollution Prevention (P2)		
Map all facilities and structural controls that discharge stormwater		provide map
Develop/implement a stormwater pollution prevention initiative (SWPPI) for municipal properties and activities.	required content unspecified	
Develop/update Stormwater Pollution Prevention Plans (SWPPPs) for High Priority Facilities (this includes DPW and fleet maintenance areas)		X
Conduct Street Sweeping and Catch-Basin Cleaning based on self-determined (and approved) schedule		X
Employee training on Good housekeeping/P2 once every 5 years		X
Contractor training on P2		X
Reporting		
Submit progress reports	annually	biannually
Determine the effectiveness of permit requirements	X	X
TMDLs		
Implement BMPs to address TMDLs		X
Conduct Water Quality Monitoring in TMDL areas -- minimum twice per permit cycle		X

*Numerous standard operating procedures are also required with the permit application.

Rouge communities are required to submit an application package for the new permit by April 1, 2016. The application package requires the inclusion of numerous standard operating procedures and responses to 88 questions as outlined in Appendix A. After an 18-month review and negotiation period, individual permits will be issued to the communities by October 1, 2017.

The level of effort to implement the 2012 permit will vary greatly based on the amount of development/redevelopment occurring in a community and the size (area and population) of the community. Nonetheless, we have quantified the level of effort for the required activities for a typical large community as shown in Table 3. Without ARC support, it will take more than one full-time equivalent staff person plus \$200,000 laborer/contractual effort per city to conduct catch basin cleaning and street sweeping⁶. The effort for a typical township is expected to be less given that they generally

⁶Based on the 2013 street sweeping/catch basin cleaning budget of a 33 sq mile community.

operate only a small number of storm sewers. The effort does not include the initial application process which will take each community 80 - 150 hours to develop.

The ARC has been prioritizing and collaborating on Public Participation, Public Education, Illicit Discharge Elimination, Monitoring, and Report efforts for many years; and the MDEQ is formally allowing this type of collaboration in the 2012 permit. If sufficient funding is available, these activities, highlighted in red in Table 3, could be continued by the ARC in a collective manner making permit compliance more cost effective for member communities.

Based on the effort required for a large community, the amount of effort required to implement the permit was estimated for each community using weighting factors as shown in Appendix B. These weighting factors were applied to the activities for which the ARC could assist. This exercise revealed a collective savings of \$303,000 if the ARC continued assisting communities with permit compliance (See Table 4).

Lastly, it should be noted that ARC members collectively pay the state \$138,000 annually to administer the MS4 permit. If the membership agreed to conduct efforts under a single watershed-wide permit, and the MDEQ agreed to such an arrangement, this funding could be redirected toward permit implementation rather than permit administration.

Table 3. Annual Level of Effort to Implement the 2012 MS4 Permit for a Large Community without ARC Support(collaborative efforts in red)

Application Item	Permit Element	Labor Effort (hours)	Contractor Effort
General			
	Update map of stormwater outfalls (assuming existing GIS layer)	80	
1	Tracking enforcement of ordinances	*	
Public Education and Public Involvement			
2, 3	Obtain and incorporate public input into stormwater program	10	
4 - 6	Educate the public on pollution prevention	80	
IDEP			
7 - 19	Screen outfalls and discharge points for illicit discharges to waterways (based on the screening of 50 outfalls). Includes data management	125	
7 - 19	Investigate suspicious discharges and locate sources, as needed	100	
20 - 27	Enforce IDEP ordinance and Oversight	80	
	Administrative tracking and follow-up	80	
Construction Runoff Control			
28 - 30	Notify Part 91 agencies/MDEQ of soil erosion issues	*	
31 - 32	Notify developers of Part 91/Permit-by-Rule requirements	*	
Post Construction Stormwater Control			
33 - 43, 53	Initially adopt standards and setup tracking and inspection program [7]	100	

Application Item	Permit Element	Labor Effort (hours)	Contractor Effort
44 - 52	Set-up and implement a offsite mitigation or payment in lieu program (optional)		
54 - 56	Review plans for compliance with stormwater standards [1]	85	
57 - 59	Inspect BMPs [2]	240	
59	Correct failing BMPs	variable	
	Administrative tracking and follow-up	480	
Good Housekeeping/Pollution Prevention (GH/P2)			
60 - 62	Update map of structural controls that discharge stormwater	80	
63 - 64	Initially assess municipal facilities for potential impact to stormwater [3]	64	
65 - 70	Review/update/implement Facility Pollution Prevention Plans [4]	32	
71 - 81	Oversight of street sweeping, catch basin cleaning and maintenance of other controls	80	
71 - 81	Conduct street sweeping and catch basin cleaning and maintenance of other controls [5]		\$200,000
82	Provide pesticide applicator training, if applicable	10	
83	Provide and coordinate employee training on GH/P2 [6]	10	
84	Ensure contractor compliance with GH/P2 BMPs	*	
TMDLs			
85 - 88	Conduct water quality monitoring and interpret results	80	
Reporting			
	Submit progress reports	40	
	Subtotal	1,856	
	Program oversight	470	
	Total	2,326	\$200,000

Assumptions:

- [1] Individual community: 4 hrs x 15 major plans plus 1 hr x 25 minor plans.
- [2] Individual community: 6 hrs x 15 new major sites plus 2 hrs x 25 new minor sites plus 2 hrs x 50 existing sites.
- [3] 75% previously completed by SEMCOG. If not, Individual community: 2 staff x 4 hrs x 8 facilities.
- [4] Individual community: 4 hrs x 8 facilities.
- [5] based on the 2013 budget for a 33 square mile community
- [6] No charge for training video or attendance at a workshop
- [7] Assume adoption of county standards

*Effort included elsewhere

Number of outfalls (not discharge points) by community:

- Southfield has 256 outfalls per Brandy.
- Livonia has 725 outfalls per Don Rohraff. Average about 170 outfall inspections per year. 2012 IDEP effort = 430 hours per Paula Appel. This includes 15 days of field work, and data processing, tracking and organizing.
- Farmington Hills has 200 outfalls per Karen.
- Westland has 250 outfalls per Kevin.

Table 4. Comparison of Annual Level of Effort to Implement Select Permit Items with and without ARC Assistance

			Member Effort ARC-wide without ARC support	
Application Item	Permit Elements	ARC Cost	Labor Effort (hours)	Labor Cost (\$)**
Public Education and Public Involvement				
2, 3	Obtain and incorporate public input into stormwater program	\$60,000	158	\$12,640
4 - 6	Educate the public on pollution prevention		1,264	\$101,120
IDEP				
7 - 19	Screen outfalls and discharge points for illicit discharges to waterways (based on the screening of 50 outfalls). Includes data management	\$100,000	1,975	\$158,000
7 - 19	Investigate suspicious discharges and locate sources, as needed		1,580	\$126,400
83	Provide and coordinate employee training on GH/P2	\$5,000	158	\$12,640
TMDLs				
85 - 88	Conduct water quality monitoring and interpret results	\$100,000	1,264	\$101,120
Reporting				
	Submit progress reports	\$22,000	632	\$50,560
	Subtotal	\$287,000	7,031	\$570,000
	Program oversight	\$130,000	1,760	\$150,000
	Total	\$417,000	8,791	\$720,000
**based on \$80/hour			Savings to Members:	\$303,000

2.3 Future Permit Requirements

The EPA is revising the MS4 stormwater rules which may trigger additional requirements for the state to include in their MS4 program and therefore impact ARC members. The Water Environment Federation (WEF) Stormwater Committee has summarized the likely technical aspects of the EPA's Proposed Rule. The list of the most relevant new requirements for the ARC is provided below while WEF's complete summary is included as Appendix C.

EPA Stormwater Rule Revision Summary

1. Expansion of MS4 areas/situations and programs which would draw more communities into the MS4 program. This could expand the number of communities eligible for ARC membership.
2. Establishment of a new development and redevelopment performance standards that will support or be further reaching than Michigan's new requirements.
3. Development of stormwater retrofit plans for some urban areas to be integrated with the community's capital improvement program.
4. Development of new regulations for transportation systems verses traditional MS4s.
5. Inclusion of combined sewer areas in the MS4 program. This also could expand the number of communities eligible for ARC membership.

It would be a reasonable assumption that in the future communities will be saddled by increasing levels of regulation coupled with an environment of constrained financial resources.

3.0 Community Stormwater Expenditures

The initial construction of stormwater infrastructure often took place as part of highway, road or subdivision construction. Maintenance is often performed as an ancillary task to other work by community departments of public works. And, certain costs for dealing with stormwater within the boundaries of Michigan communities are the responsibility of the County Drain Commissioner or the County Road Commission. For these reason there is no consistent method of accounting for all stormwater related costs incurred by cities, villages and townships. However, it is fair to say that the total cost of stormwater management is unknown, or under estimated, in many communities.

Two Rouge Watershed communities (a city and a township) provided their budget for operating and maintaining their stormwater system for fiscal year 2013 (see Tables 4 and 5). The communities are of comparable size, but their budgets varied. The annual city budget was \$1.95 million, while the township's budget was \$560,000. The fact that Act 51 (State Motor Fuel Tax) funding is not passed down to townships explains much of the differences seen in these budgets. It is likely that some of the same expenses were seen by the county road commission within the township.

These tables provide an idea of the amount of money spent on stormwater collection systems that could potentially be supported by a dedicated funding source.

Table 4. An Example City Stormwater Operations Budget for FY 2013

Community Size: 33 sq. miles Population: 80,400	
Act 51 Funding Items	All Roads
Street Sweeping and Culvert Flushing Labor, Equipment and Contractual	\$231,000*
Drain Structures Labor, Equipment, Materials and Contractual	\$491,000*
Ditching Labor, Equipment and Materials	\$372,000
Total Act 51 Funds	\$1,094,000
Capital Improvements (General Fund) Items	
Culvert Replacements	\$560,000
Misc. Drainage Projects	\$55,000
Open Channel Maintenance	\$100,000
IDEP	\$30,000*
SWPPI	\$50,000*
Master Planning GIS	\$25,000
ARC Dues	\$25,226*
MDEQ MS4 Annual Permit Fee	\$6,000*
Total General Fund	\$851,226
Total Budget for Stormwater	\$1,945,226

*Items partially or fully associated with permit compliance.

Table 5. An Example Township Stormwater Operations Budget for FY 2013

Community Size: 36 sq. miles		Population: 84,000
Description	Budget	Includes
Wages & Fringe Benefits	\$272,127*	1 supervisor, 2 operators (sweeper, vactor)
Miscellaneous Operating Supplies	\$4,800	
Fleet Maintenance Expenses	\$78,912	1 sweeper, 1 vactor, 1 pick-up
Pond & Drain Infrastructure Maintenance	\$93,500*	Drain assessments
Printing & Publishing Public Ed Materials	\$1,400*	
Stormwater Permit Fees	\$26,500*	ARC dues and State permit fee
Total O&M Budget	\$477,239	
Total Capital Improvement Budget	\$85,000	Basin inventory, pond retrofits, log jam removals
Total Budget for Stormwater	\$562,239	

*Items partially or entirely associated with permit compliance.

Notes:

- 1) Stormwater Supervisor also handles solid waste, mowing and other miscellaneous services
- 2) No overhead is allocated to stormwater operations
- 3) Additional expenses for Inspectors to inspect Township-owned facilities (not included above)
- 4) On large projects staff are borrowed from Water or Sewer Sections to supplement crews as required

4.0 Funding Options

Funding options for municipal stormwater programs in Michigan have been disputed for many years and some have resulted in multiple lawsuits and legal challenges. Thus, the available funding options within the Rouge River Watershed will most likely include the use of the Michigan Drain Code or the creation of stormwater utilities. These options are described below.

Beyond stormwater utilities and the Drain Code a number of other options may be available to communities. Many of these are most often applied to capital costs rather than ongoing operations and maintenance – and permit compliance—costs. These include:

- Continued use of General Fund Appropriations
- Use of Highway or Road Maintenance Funds
- Special User Fees
- Bonding for Capital Improvements
- In-lieu of Construction Fees
- Capitalization Recovery Fees
- Impact Fees
- Developer Extension/Latecomer Fees

Public Works professionals typically have avoided the controversy that can be generated by seeking

funding for stormwater management. However, the construction, operation and maintenance of a municipal separate storm sewer system can involve significant expense, especially when NPDES requirements, flooding concerns, water quality issues (including TMDLs) and population growth are factored in. As stormwater maintenance cost continue to rise and compete for general fund dollars with other critical municipal services, the members of the ARC are revisiting these funding options.

As funding options are considered, the scope of the funded effort needs to be defined. The scope can range from traditional ARC-led activities such as public education and participation, ecosystem monitoring, illicit discharge investigations, and stormwater permit reporting, to the design/construction and maintenance of various stormwater projects. In order to improve the likelihood of implementing a funding mechanism, the ARC suggests that the scope be limited to traditional ARC-led activities.

With either the Drain Code or stormwater utility, a significant public education and information effort needs to be undertaken. Citizens used to receiving “free” stormwater services will need to be educated and convinced that the new efforts are needed. Most people are unaware of the needed and cost of stormwater management and the fact that the cost is increasing. A well-funded stormwater program can help reduce flooding, improve drought conditions, create better fishing and recreational opportunities, and improve water quality. The following education & outreach activities need to begin well before establishment of a new funding mechanism and be carried on throughout and following implementation:

- Identifying key users and groups. Residential owners can be contacted through public meetings or presentations to neighborhood groups. Two key groups to target include (1) universities schools, churches and shopping malls that generate a significant amount of runoff; and (2) tax-exempt properties, such as universities, schools and churches, that do not contribute property taxes into the general fund, which traditionally has funded stormwater management;
- Establishing an advisory committee. Include a cross-section of the community including representation from the university, business, nonprofits, churches, developers and shopping center owners;
- Creating a stormwater program website. The website should post appropriate progress documents and develop a frequently asked questions page;
- Preparing pamphlets and presentations. A brochure describing the need for the stormwater program, funding method, and projected costs should be prepared as well as an electronic presentation for use at public meetings; and
- Meeting with key user groups and the media. Presentations to civic groups and the media should be given. One-on-one meetings with customers projected to receive the highest bills should occur.

4.1 Michigan Drain Code

The State of Michigan is fortunate to have in place the Drain Code of 1956. Because it was established before the various constraints on levying taxes and fees, it remains a powerful tool for generating needed funding. Because drain commissioners (or water resources commissioners as they are called in

Oakland and Washtenaw Counties) are (with the exception of Wayne County) elected officials, they typically rely on broad based approval before utilizing the Drain Code as a means of assessing fees on property owners. Still, the Drain Code puts a great deal of authority in the hands of the drain commissioner.

The Drain Code provides the legal authority to create a public corporation to address stormwater management, sanitary sewer overflows, drainage, flood control, and river and stream management. It also provides the mechanism to study, plan and address water quality and water use issues. The Drain Code also can be used to contract with private and public agencies or corporations to address, administer and fund all of the foregoing.

Thus the Drain Code can provide the mechanism to address the present and future stormwater mandates of the Clean Water Act. Under the Drain Code, funds for stormwater management can be generated through a special assessment to each parcel within the drainage district. This option relinquishes typical municipal authority/control to the county. Handing over control of local infrastructure to a county agency is often a difficult decision for a community to make. To address this issue communities have maintained a level of involvement and control over drain board actions through the establishment of an Act 471 agreement between the community(ies) and the drain board. The agreement can set strict limitations on the actions of the drainage district and may require input from the communities before specific actions are undertaken. An Act 471 agreement was established between the local communities and the Drain Board associated with the construction/operation of the George W Kuhn Basin in Oakland County. A copy of this agreement is provided in Appendix Das a successful example Act 471 Agreement.

There are currently numerous county drains established under the Drain Code in Oakland and Wayne counties. These drainage districts could potentially be consolidated if the Drain Code is to be used for stormwater compliance activities.

County drains could be established to deal with the issues outlined above on a community by community basis, on a county by county basis or on a watershed basis.

4.1.1 Implementing the Drain Code

Outlined below are the steps needed for communities to request the drain commissioner to establish a Chapter 20 Drain. Chapter 21 Drains, which cross county lines, have a slightly different process.

Pre-Petition Procedures: When a municipality (or group of municipalities) determines that it wishes to levy special assessments to properties benefited by the proposed drain project, it must:

1. Send the county drain commissioner a notice of intent to file a petition and request that the drain commissioner delineate a proposed drainage district;
2. Prepare a proposed plan for financing the project; and
3. Send each property owner within the proposed drainage district a notice which contains a general description of the proposed drain project, an explanation of the expected benefits of the proposed drain project, notification that the project is to be paid for by special assessment to the property owners in the proposed district, a statement that alternative plans of financing

the project will be on the meeting agenda, and a notice for a meeting to hear objections to the proposed project or special assessment.

After the public hearing is held, the municipality may (a) proceed with the proposed drain project and levy a special assessment; (b) determine to proceed with the project but not levy special assessments and pay for the municipality's portion of the assessment with general fund monies; or (c) withdraw from the proposed project. Any property owner in the proposed district may appeal the decision within 45 days after the determination.

Filing of Petition: A petition may be filed with the drain commissioner signed by two or more public corporations which will be subject to assessments to pay the cost of the drain improvements. The petition shall state that it is filed pursuant to Chapter 20 of the Drain Code, shall describe the location and route of the proposed drain sufficiently to determine with reasonable certainty the areas to be serviced by the drain, and shall include a certified copy of the resolution from the municipality authorizing the petition. An example of a petition for a County Drain is included in Appendix E.

Notification of Petition: The drain commissioner shall notify each public corporation which may be subject to an assessment or in which is located any of the areas to be drained that a petition was filed within 20 days.

First Meeting of Drainage Board: At the first meeting of the Drainage Board (Board) after the filing of the petition, the Board shall make a tentative determination as to the *sufficiency of the petition* and a tentative determination of the *public corporations to be assessed*. An Advisory Committee, set up under the Act 471 Agreement, can make recommendations to the drainage board as to the public corporations to be assessed for the project.

Second Meeting of the Drainage Board: After notice is provided under the statute and a hearing is held, the Board will determine: (a) the sufficiency of the petition; (b) the practicability of the project and; (c) the public corporations to be assessed. These determinations will be entered into the Final Order of Determination. Again, the Act 471 Advisory Committee would have the opportunity to make any recommendations as to these issues to the Drainage Board.

Preparation of Plans and Determination of Apportionments to Public Corporations: After the Final Order of Determination is issued, plans and specifications for the drain project can be prepared. The Board can then tentatively set the apportionments to the several municipalities in the Drainage District. The apportionment is based on the benefits to accrue to each municipality and the extent to which each municipality contributes to the conditions which make the project necessary. Entities assessed include all municipalities served by the drain, the county for benefit of county roads and Michigan Department of Transportation for benefit to state highways. The Act 471 Advisory Committee will have the ability to make recommendations as to the work to be performed.

Hearing as to Apportionments to Public Corporations: After hearing any testimony, the Board may confirm the apportionment or readjust the apportionment. If the apportionment is readjusted, any

entity whose assessment is increased must consent to the increase by resolution or another hearing must be held. After the apportionment is confirmed, the Board will issue a Final Order of Apportionment.

Preparation of Special Assessment Roll:After the Final Order of Apportionment is issued, and an estimate of cost has been prepared, the Drain Commissioner will prepare a special assessment roll against the public corporations in accordance with the confirmed apportionment.

4.2 Stormwater Utilities

Stormwater utility revenue can provide a dedicated funding source to provide for stormwater management and leave the other funding sources available for their appropriate services.

Throughout the country numerous stormwater utilities have been created. Their implementation has proven controversial. Many residents were unhappy about having to “pay” for a service that previously had been provided at no charge. Between 1984 and 1997, ten Michigan communities instituted stormwater utilities. They are Ann Arbor, Harper Woods, Adrian, St Clair Shores, Berkley, Marquette, Lansing (since rescinded), Chelsea, New Baltimore and Brighton (which has been on hold since 2004).

Litigation has caused certain complications to stormwater utility implementation in Michigan. The City of Lansing instituted a stormwater utility in 1995. A property owner (Bolt) challenged Lansing’s newly imposed stormwater utility fee, arguing that the fee was a tax levied without voter approval in violation of the Headlee Amendment to the Michigan Constitution (Part 9, Sections 25 and 31). Lansing had imposed the stormwater fee on virtually all properties in the city to pay for the city’s stormwater and sanitary sewer separation project costs as permitted under state statute. At issue was whether municipalities could fund certain costs as a fee imposed as a regulation or as a tax requiring voter approval under the Headlee Amendment.

The Michigan Supreme Court ruled that the stormwater service charge imposed by Lansing was unconstitutional and void on the basis that it was a tax for which voter approval was required and not a valid use fee. It is noteworthy, however, that the court was split. Ten judges heard precisely the same case.

However, the Bolt Opinion did not say that stormwater utilities are “illegal” in that it agreed with the following:

- “This is not to say that a city can never implement a stormwater or sewer charge.”
- “Where the charge for either storm or sanitary sewers reflects the actual cost of use...sewerage may properly viewed as a utility service for which usage-based charges are permissible...”

The Court established three criteria for distinguishing between a fee and a tax: 1) a user fee must serve a regulatory purpose rather than a revenue-raising purpose; 2) a user fee must be proportionate to the necessary costs of the service; and 3) a user fee must be voluntary—property owners must be able to refuse or limit their use of the commodity or service.

Lansing rescinded its stormwater utility based on the decision. No new Michigan stormwater utilities were created after 1997 until April 2011 when the City of Jackson implemented a stormwater utility to pay for services including street sweeping, catch basin cleaning, leaf pickup, and leaf mulching. In December 2011 a lawsuit was filed – by Jackson County and private business owners -- against the City over the utility. On August 2, 2013, the Michigan Court of Appeals ruled that City's stormwater utility ordinance violated the Headlee Amendment. Some of the rationale for their decision was as follows: 1) the fee would be used more for general revenue raising than for regulatory requirements, 2) the benefits to property owners could not be differentiated from the benefits to the general public, 3) an adequate level of precision was not used in determining the fee for residential parcel under 2 acres, and 4) the fee was considered compulsory because no property owner could opt out of paying 100% of it. The Court of Appeals ruling is attached as Appendix F.

The MDEQ defines a stormwater utility as a "source of funding for the construction and maintenance of stormwater management facilities. User fees are typically charged based on the amount of runoff that may be anticipated from a property." Like any public utility, it is an organization that maintains the infrastructure for a public service. Water supply and wastewater infrastructure and operations have historically been operated as utilities. However, municipal stormwater management has often been paid for through a community's general, water and sewer or Act 51 funds as previously described. It should be noted that general fund revenues are based on property values not on the quantity of runoff a parcel generates. And certain large contributors of runoff – such as hospitals, schools and state/county roadways – are exempt from property tax.

4.2.1 Implementing Stormwater Utilities

Define/Establish Structure: The first step to establishing a stormwater utility is to develop a feasibility study that provides the community with enough information to decide if it makes sense to proceed with implementation. The feasibility study will typically address preliminary revenue requirements (usually from current stormwater budgets), a preliminary assessment of the billing area to determine the single family residential (SFR) billing rate, the service fee method to use and credits to provide, the preliminary rate charge for each equivalent residential unit (ERU), and the responsible party for billing. The feasibility study is then presented to municipal staff and officials to decide whether to proceed with development of the utility.

The feasibility study should include at minimum the following components:

- Stormwater budgets
 - Capital Costs
 - Operations and Maintenance
 - Administrative
- Revenue requirements
 - Current expenditures
 - Anticipated cost of new regulations
- Organizational structure

- Data availability and database requirements

Data Compilation: Implementation of a stormwater utility requires a considerable amount of data to be compiled describing each parcel within the community and establishing its ownership and level of impervious cover. Often a Geographical Information System (GIS) is in place within the community upon which the utility database can be constructed. If no local GIS is available, county data may be able to be obtained and used.

Identifying impervious area is most often done through interpretation of aerial photography or satellite images. Usually an average percent impervious is established for single family residential areas that make up most of the community area. Commercial, institutional and industrial parcels are most often individually evaluated to determine percent impervious and identify any mitigating stormwater controls that may be in place.

Beyond what can be established from GIS, aerial photography, and satellite images, the effort will likely require a considerable amount of field reconnaissance to obtain and/or verify parcel data.

This spatial data must then be integrated with the available/selected billing system to assure that parcels are linked to the appropriate billing accounts. Parcel ownership and owners address must be verified, especially in cases where utility billings are sent to tenant renters.

Rate Structure & Analysis: There are three basic methods that stormwater utilities use to calculate service fees. These are sometimes modified slightly to meet unique billing requirements. Impervious area is the most important factor influencing stormwater runoff and is therefore a major element in each method.

- **Equivalent Residential Unit (ERU)** (Also known as the Equivalent Service Unit (ESU) method): More than 80% of all stormwater utilities use the ERU method. Parcels are billed on the basis of how much impervious area is on the parcel, regardless of the total area of the parcel. This method is based on the impact of a typical single family residential (SFR) home's impervious area footprint. A representative sample of SFR parcels is reviewed to determine the impervious area of a typical SFR parcel. This amount is called one ERU. In most cases, all SFRs up to a defined maximum total area are billed a flat rate for one ERU.
- **Intensity of Development (ID):** This stormwater cost allocation system is based on the percentage of impervious area relative to an entire parcel's size. All parcels (including vacant/undeveloped) are charged a fee on the basis of their intensity of development, which is defined as the percentage of impervious area of the parcel. Rates are calculated for several ID categories. An example is shown below.

Category (impervious percentage range)	Rate per month per 1,000 square feet of total served area
Vacant/Undeveloped (0%)	\$0.08
Light development (1% to 20%)	\$0.12
Moderate development (21% to 40%)	\$0.16
Heavy development (41% to 70%)	\$0.24
Very heavy development (71% to 100%)	\$0.32

- **Equivalent Hydraulic Area (EHA):** Parcels are billed on the basis of the combined impact of their impervious and pervious areas in generating stormwater runoff. The impervious area is charged at a much higher rate than the pervious area.

Billing & Database Systems: The three most common stormwater billing systems are (1) a stormwater user fee with an existing water/sewer user fee bill, (2) non-ad valorem assessments and (3) a stand-alone stormwater bill. Approximately 80% of stormwater utilities use the first approach mainly because it is cost-effective due to the fact that an existing water and sewer billing system is already in place.

The utility administration must be established to manage and maintain the billing system as well as the property database upon which the utility is structured. Staff and resources need to be in place to update the property GIS database on a regular basis, and respond to customer requests for adjustment in rate due to property improvements.

In developing the billing system the following issues need to be addressed:

- What frequency will bills be sent out?
- Billing database source?
- Who should receive the bill – owner or tenant?
- How will the database be managed in the long term?
- How will delinquencies be addressed?
- What is the process for appeal?

Ordinance Adoption & Utility Implementation: An ordinance will provide legal authority for establishment of the utility. The ordinance must be drafted to fit within the existing regulatory framework of the municipality. It must specifically codify the details of the rate structure developed for all classifications of property. Staff will usually require significant technical and legal assistance in development of the final ordinance. The City of Ann Arbor's stormwater utility ordinance is provided as an example in Appendix G.

Credits or exemptions are often built into the ordinance, and can be used to provide incentives for certain practices or relief from utility fees to certain types of land uses. Credits should be clearly described and can include installation of approved retention/detention best management practices (BMPs), installation of approved BMPs such as rainpout disconnections or porous pavers, and

educational programs for employees. Exemptions are often granted for undeveloped (100 percent pervious) parcels.

Once adopted, staff will need to implement a formal customer service process to deal with the questions, concerns and challenges forthcoming from community residents. The first bill is the most important—many customers do not focus on the new stormwater fee until they actually receive their first bill. Customers should be notified several months in advance of the date of billing initiation and their estimated fee. A telephone hot line, e-mail service and website should be created to address questions and concerns. In addition, the municipality should be prepared to address legal challenges to its stormwater fee. The municipality should also be prepared to maintain the master account file, including developing a process for updating the billing unit data for an existing customer and for entering the data for a new customer.

4.3 Drain Code and Stormwater Utility Comparison

There are advantages and disadvantages to establishing either funding mechanism. The importance of these pros and cons will vary from community to community. Some communities may find it easier to use the well-established Drain Code process, while other communities may prefer a stormwater utility to retain total control. A side by side comparison of the Drain Code and stormwater utility funding options is provided in Table 6.

Table 6. Comparison of Drain Code vs. Stormwater Utility

Parameter	County Drain	Stormwater Utility
Ordinance	Not required	Required
Controlled by	County Drain Commissioner, but could be advised by municipalities through establishment of an Act 471 Agreement	Municipality or Authority depending on how it is set up
Funded through	Apportionments to the communities, road commission, etc. or assessments to individual property owners.	Stormwater fees to property owners
Fee Structure	Based on taxable drainage areas, but some properties are exempt	Needs to be established. Based on impervious area. Will include all properties
Billing	Via Drain/Water Resources Office directly to the property owners or to the community. If to community, then the community would tap the general fund, water and sewer fund or assess property owners.	Likely add to water and sewer bill
Service Area	Variable: watershed-wide, county-wide or smaller	Entire municipality, but could be a larger geographic area
Scope of fundable activities	Could include any agreed upon activities, but all entities would need to agree on the scope. Therefore, only collaborative permit efforts would likely be funded rather than individual community projects.	Should be regulatory-required stormwater activities, but must allow users to limit their use of the service per the Bolt Decision.
Data collection needs	Minimal - Moderate	Considerable to justify fee structure and potential credits

Parameter	County Drain	Stormwater Utility
Administration effort	Minimal - Moderate	High
Outreach effort	High amount of outreach to obtain public and political buy-in.	
Subject to litigation	Less likely	Possibly

5.0 Conclusion

With the increasing stormwater regulations and the anticipated loss of Rouge Project funding, it is clear that the past mechanisms for funding permit compliance (general fund, water and sewer fund and Act 51 dollars) are no longer sufficient. No matter if a community chooses to establish a designated county drain, a stormwater utility, or some other sustainability funding source, it will take some effort to convince elected officials that they need to support a service whose expenses have not been historically separately defined from other municipal services. The general public must also be convinced that stormwater management is as necessary as maintaining drinking water systems and sanitary sewer systems and as such must be financed.

The ARC still provides its members the most efficient way to comply with several components of the permit including Public Education and Participation, Illicit Discharge Detection, Monitoring and Reporting. However in the absence of Rouge Project funding, the ARC is facing a 50% loss in revenue beginning June 1, 2014. While the ARC seeks out grant funding to fill this gap, grants rarely provide a sustainable funding for an organization. It behooves members to consider a dedicated revenue source that will allow the ARC to provide permit compliance services in a manner which restores the uses of the Rouge River in a cost effective manner. Beyond funding the ARC, this revenue source could also be used to fund the operation and maintenance of stormwater collection systems depending on how the funding program is established.

Appendix A. Outline of the 2012 MS4 Permit Application

Appendix B. Weighing Factors used to Estimate the Level of Effort to Implement the Permit ARC-wide

Estimated Level of Effort to Comply with the New Stormwater Permit

Community/County	Member Dues (% of Total)**	County Watershed Area (acres)	Weighting Factor***	Community Level of Effort (without ARC support)	
				Community Staff Hours	Street Sweeping/ Catch Basin Contractor
Canton Twp.	9.2%		1	2,400	\$200,000
Dearborn	8.2%		1	2,400	\$200,000
Dearborn Heights*	3.0%		0.5	1,200	\$100,000
Garden City	2.3%		0.25	600	\$50,000
Livonia	9.9%		1	2,400	\$200,000
Melvindale*	0.9%		0.25	600	\$50,000
Northville	0.6%		0.25	600	\$50,000
Northville Twp.*	3.2%		0.5	1,200	\$100,000
Plymouth	0.8%		0.25	600	\$50,000
Plymouth Twp.	3.5%		0.5	1,200	\$100,000
Redford Twp.	4.1%		0.5	1,200	\$100,000
Romulus*	0.7%		0.25	600	\$50,000
Van Buren Twp.*	2.2%		0.25	600	\$50,000
Wayne*	1.8%		0.25	600	\$50,000
Westland*	6.9%		1	2,400	\$200,000
Wayne County		176,099	1.5	3,600	\$300,000
Auburn Hills*	0.1%		0.1	240	\$20,000
Beverly Hills*	1.0%		0.25	600	\$50,000
Bingham Farms	0.2%		0.1	240	\$20,000
Birmingham*	1.0%		0.25	600	\$50,000
Bloomfield Hills	0.9%		0.25	600	\$50,000
Bloomfield Twp.*	5.4%		0.5	1,200	\$100,000
Commerce Twp.*	0.2%		0.1	240	\$20,000
Farmington	0.9%		0.25	600	\$50,000
Farmington Hills	8.6%		1	2,400	\$200,000
Franklin	0.5%		0.1	240	\$20,000
Lathrup Village	0.4%		0.1	240	\$20,000
Novi*	5.3%		0.5	1,200	\$100,000
Pontiac*	0.2%		0.1	240	\$20,000
Rochester Hills*	0.6%		0.25	600	\$50,000
Southfield*	6.4%		1	2,400	\$200,000
Troy*	1.5%		0.25	600	\$50,000
Walled Lake*	0.3%		0.1	240	\$20,000
Wixom*	0.2%		0.1	240	\$20,000
Oakland County		100,052	1	2,400	\$200,000
Washtenaw County		22,275	0.25	600	\$50,000
Total Hours				37,920	
Total Effort (at \$80/hr staff time)				\$3,033,600	\$3,160,000

**Based on current ARC dues allocation

***Weighting Factor Rationale:

Weighting Factor	Portion of Member Dues to Total
1	6-10%
0.5	3-5%
0.25	1-2%
0.1	<1%

Weighting Factor	County
1.5	Wayne Co.
1	Oakland Co.
0.25	Washtenaw Co.

Appendix C. EPA's Proposed Stormwater Rule Changes

The Water Environment Federation (WEF) Stormwater Committee has summarized the likely technical aspects of the EPA's Proposed Rule. EPA has identified seven areas of the stormwater program to be updated. These areas are discussed below along with a brief overview on each topic.

1. Expansion of MS4 areas/situations and programs: Several options have been discussed, including expansions of area using standard watershed boundaries or expansions to include entire (instead of portions of) jurisdictions. Due to continued growth in the ex-urban areas (i.e., areas beyond suburban areas), there is an option to target "urban cluster" areas outside of regulated boundaries, which will depend upon population density and site. The intent of targeting these urban cluster areas is to capture those significant development activities that have occurred beyond the regulatory reach of past programmatic boundaries that, however, have significant impacts on water quality of receiving waters.

There has been discussions about expanding the requirements in MS4 programs, with a special focus on monitoring requirements and long-term goals to reduce impacts of development within, and downstream of, a regulated area.

2. Establishment of a new development performance standard: Past and current federal stormwater programs have relied on technology-based standards; however, the new program will likely have a requirement to capture and retain a volume based upon percentile exceedence (i.e., the 90% percentile storm). In many parts of the country, this translates to a change in stormwater management paradigm from capture, detain and release to capture and retain through infiltration or rainwater harvesting. Also, this new standard will establish a treatment volume that exceeds current standards for a number of states.

It should be noted that this new standard could be applicable to all development sites across the country, whether the site is located inside or outside of an MS4 area, that cross a certain size threshold (1-5 acres, most likely). There are outstanding questions for these situations, such as, who will overview the regulatory efforts for these areas outside of MS4 boundaries? One option suggested by EPA is that these sites might be tied to the Construction General Permit, which is similar in structure, as it applies to all sites above a certain size threshold. For these situations, states generally administer these programs, so it might be reasonable to transfer these sites to a similar post-construction program after the Notice of Termination is granted for each site, including the project/permit number used for tracking purposes.

3. Establishment of a redevelopment performance standard: The proposed rule will also include a new national standard for redevelopment activities. It is expected that this standard will be similar to the new development standard in framework, but less stringent, to provide more flexibility for urban infill, redevelopment and revitalization. For example, if the new development standard is on-site retention of the 90th-percentile storm, it is expected that the redevelopment standard would be to capture the 85th-percentile storm. To further incent redevelopment, EPA will propose that credits on stormwater will be given to redevelopment projects that incorporate smart growth, LEED, or other development frameworks that place a

strong emphasis on high-density, walkable, livable communities that are tied to public transportation systems.

4. Retrofit requirements for some areas: Many urban areas developed stormwater programs several decades ago under a different stormwater treatment paradigm. To address this, EPA will likely require some urban areas to develop retrofit plans that describe their current stormwater management systems and program and detail how they plan to upgrade this dated infrastructure. A variety of options have been proposed by EPA for these plans, including the establishment of long-term goals underpinned by specifics as laid out in their NPDES permit in 5-year cycles. This mix of long- and short-term frameworks is aimed to provide a clear overall direction for stormwater programs, yet include adaptive management aspects of the program to allow flexibility on how the overall goals are reached, with the understanding that technologies, practices and approaches will change over time.

It should be noted that EPA has been clear that this provision is likely to not be highly prescriptive (percentage removal of impervious cover, for instance), and has also pointed out that approximately one-third of Phase I communities already have a retrofit program of some kind. It is envisioned that retrofits would be integrated into other capital improvement programs that municipalities are already engaged in, such as roadway improvements or public park enhancements. Also, EPA has noted that this requirement would be for large communities that discharge to impaired waters – but it should also be noted that close to 90 percent of large municipalities discharge to impaired waters, most of which impaired to due urban stormwater impacts. This is important to point out, because MS4 permits require that the permittee include TMDL-specific actions, so this urban retrofit requirement may be redundant, and therefore, may not be included in the proposed rulemaking.

5. Regulations guiding transportation systems: Currently, state departments of transportation and municipalities that control roadways hold NPDES permits that regulate stormwater flows off of transportation systems in the same manner as all other types of project sites. Roadways may cross multiple jurisdictions as well as differing watersheds with changing characteristics. Also, the impacts from linear systems on the public differ from traditional development projects, as these projects often impact a variety of stakeholders in multiples municipalities and areas. It is expected that EPA will recognize the unique nature of transportation systems in the stormwater program by establishing “TS4” regulatory categories (Transportation Separate Storm Sewer Systems) that will likely have the same, or similar, performance standards, but may have different minimum control standards for public involvement among others.

6. Special provisions for critical water bodies: Chesapeake Bay, located in the Mid-Atlantic region of the East Coast, has become significantly degraded due to stormwater flows. This Bay is the largest estuary in the U.S. and has the largest land-to-water ratio (14:1) of any coastal water body in the world, which makes it highly susceptible to pollutants that are tied to the landscape, such as stormwater runoff. It is likely that EPA will include provisions that increased standards or regulatory requirements will be included in the stormwater rulemaking for the Chesapeake Bay watershed. It is unlikely that other sensitive water bodies will be included in

the rulemaking.

7. Inclusion of combined sewer systems: Currently, the stormwater program addresses separate sewer systems; however, in many communities where combined sewer systems comprise a portion of their overall sewer network, the entire jurisdiction, regardless of combined or separate, is included in the stormwater program. The belief is that this has been done out of a need for uniformity and simplicity in enforcing codes and standards related to stormwater. With this in mind, EPA may likely request feedback on the inclusion of combined systems into stormwater programs.

8. Other issues: EPA is still working to finalize several other aspects of the rule, including the implementation timeframe of the rule, equivalency of existing programs, and how other programs, such as TMDLs, will be tied into the new requirement. Also, there has been consideration of removing the Phase I/Phase II titles associated with the stormwater program in order to provide more flexibility on how programs for large communities (>100,000) are structured compared to small to mid-sized communities (<100,000).

Appendix D: Act 471 Agreement for the GWK Basin

EXHIBIT A

CHAPTER 20 SECTION 471 AGREEMENT

This Agreement dated the 5th day of May, 1999 by and between the the Drainage Board for the George W. Kuhn Drain ("Drainage Board"), the Village of Beverly Hills, the City of Birmingham, the City of Berkley, the City of Clawson, the City of Ferndale, the City of Hazel Park, the City of Huntington Woods, the City of Madison Heights, the City of Oak Park, the City of Pleasant Ridge, the City of Royal Oak, the City of Southfield, the City of Troy and the Charter Township of Royal Oak (the "Public Corporations").

WHEREAS, the Public Corporations and the County of Oakland are permittees under a current NPDES Permit ("Permit") concerning the Twelve Towns Retention Treatment Facility ("RTF"); and

WHEREAS, the present circumstances present a unique opportunity for Drainage Board and the Public Corporations to work cooperatively to achieve compliance with the requirements of the current NPDES Permit No. MI0026115, as is more detailed in the Petition ("Project"); and

WHEREAS, this Agreement is entered into pursuant to the authority extended in MCL 280.471 of Chapter 20 of the Drain Code ("Section 471 Agreement"); and

WHEREAS, the Drainage Board and Public Corporations acknowledge that the underlying purpose of this Section 471 Agreement is to enhance communication by and among the Drainage Board, the Oakland County Drain Commissioner and the Public Corporations; and to cooperatively work toward discharging the financial responsibility by maintaining necessary and reasonable costs during the construction of the project; and to carry out the fiduciary responsibility to the taxpayers in this County that construction costs will be kept at necessary and reasonable levels; and

WHEREAS, the Drainage Board and Public Corporations recognize that the success of the commitments set forth in this Section 471 Agreement are dependent upon a complete, timely and open disclosure of information by and among the Drainage Board, the Oakland County Drain Commissioner, and the Public Corporations; and

WHEREAS, the goals that are enunciated herein can best be achieved by a cooperative working relationship between the Drainage Board, the Oakland County Drain Commissioner and the Public Corporations during the entire project with an appreciation of the views and goals of the Public Corporations in keeping all costs necessary and reasonable; and

WHEREAS, the parties recognize that by working together they can implement a cost effective approach and a more efficient means of achieving compliance with the existing NPDES Permit.

Appendix E: Example Petition for a County Drain

EXHIBIT 1- WEIGHTED VOTE

Municipality	1961 App.	1970 App.	1991 SOCSDS	vote wt.
City of Berkley	6.35%	7.13%	6.05%	7 votes
Village of Beverly Hills	0.75%	0.68%	0.56%	1 vote
City of Birmingham	4.13%	4.42%	4.36%	5 votes
City of Clawson	5.08%	6.10%	5.69%	6 votes
City of Ferndale	8.69%	10.55%	10.05%	11 votes
City of Hazel Park	2.54%	2.49%	2.31%	3 votes
City of Huntington Woods	2.79%	3.04%	2.68%	3 votes
City of Madison Heights	5.33%	7.06%	10.29%	11 votes
City of Oak Park	10.98%	13.32%	12.20%	13 votes
City of Pleasant Ridge	0.80%	1.35%	1.37%	2 votes
City of Royal Oak	28.44%	31.82%	28.70%	29 votes
Charter Twp of Royal Oak	0.81%	1.83%	2.15%	3 votes
City of Southfield	8.29%	7.74%	7.28%	8 votes
City of Troy	2.70%	2.47%	2.00%	2 votes

Appendix F: Court of Appeals Ruling against the City of Jackson's Stormwater Utility

Street; thence easterly to Blue Star Highway; thence continuing easterly under Blue Star Highway to the upstream terminus.

Your petitioners further respectfully request that the following specific improvements be made within the Charter Township of South Haven: cleaning and regrading of the open drainage course between Blue Star Highway and Cherry Street.

BE IT FURTHER RESOLVED, That the Township Supervisor and Township Clerk are hereby authorized and directed to execute said Petition for and on behalf of this Township and to file the same with the Drain Commissioner.

BE IT FURTHER RESOLVED that this Township hereby consents to the foregoing described drain project and to an assessment at-large on the basis of public health benefit for a percentage of the total amount assessed for the cost of the proposed work.

ADOPTED: YEAS: Jessup, Pioch, Stern, Bertorelli, Depp, Fisher
NAYS: none

The Resolution was declared adopted.

Charter Township of South Haven

C. P. [Signature]
Township Supervisor

Brenda Bertorelli
Township Clerk

STATE OF MICHIGAN
COURT OF APPEALS

COUNTY OF JACKSON,

Plaintiff,

v

CITY OF JACKSON,

Defendant.

FOR PUBLICATION

August 1, 2013

9:05 a.m.

No. 307685

JACKSON COFFEE COMPANY and KLEIN
BROTHERS, LLC,

Plaintiffs,

v

CITY OF JACKSON,

Defendant.

No. 307843

Before: MURPHY, C.J., and HOEKSTRA and OWENS, JJ.

PER CURIAM.

Plaintiffs commence these consolidated original actions under Const 1963, art 9, § § 25-34, popularly known as the Headlee Amendment. The Jackson City Council adopted Ordinance 2011.02, pursuant to which the city created a storm water utility and imposed a storm water management charge on all property owners within the city to generate revenue to pay for the services provided by the utility, which include, amongst others, street sweeping, catch basin cleaning and leaf pickup and mulching. The question posed by these actions is whether the city, by shifting the method of funding certain preexisting government activities from tax revenues to a utility charge, ran afoul of § 31 of the Headlee Amendment¹, as construed and applied in *Bolt v*

¹ Although plaintiffs allege a violation of § 25, their enforcement actions implicate only § 31. See e.g., *Bolt v City of Lansing*, 459 Mich 152; 587 NW2d 264 (1998). Section 25 of the

Lansing, 459 Mich 152; 587 NW2d 264 (1998). We answer this question in the affirmative and hold that the city's storm water management charge is a tax, the imposition of which violates the Headlee Amendment because the city did not submit Ordinance 2011.02 to a vote of the qualified electors of the city. The charge is null and void.

I

The city maintains and operates separate storm water and waste water management systems. Various state permits authorize the city to discharge storm water through its separate storm water drainage system to the Grand River, as well as other waters of the state. Historically, the city has funded the operation and maintenance of its storm water management system with money from the city's general and street funds. The revenue in these funds is generated through the collection of ad valorem property taxes, gasoline taxes and vehicle registration fees. With revenue from these taxes and fees in decline, the city retained an engineering and consulting firm to study the feasibility of establishing a storm water utility for the purpose of funding storm water management through dedicated "user fees." As acknowledged by the City in its Stormwater Management Manual,

[w]hen subdivisions, roads and commercial developments are built or improved in the City of Jackson the City must pay for managing the resulting storm runoff. The City must install catch basins to capture storm water and storm sewers to convey the storm water to streams or rivers, ensuring it does not drain into the sanitary wastewater system and create sewer overflows. Furthermore the City must maintain the entire storm water collection system. In the past the City performed this work without a dedicated revenue source. The City used money from the general fund or the road budget, thus taking funds away from other critical programs. The storm water system is an expensive piece of the City's municipal infrastructure. The City's water and sanitary wastewater systems each have their own dedicated revenue sources derived from water and sanitary wastewater user fees. Water and sanitary wastewater users pay user fees that are partially calculated based on water consumption. However, this has not been the case with storm water management, which has had no user fees attached to it. Municipalities across the country are changing this. They now view their storm water systems as utilities similar to their water and sanitary wastewater systems. They are developing storm water user fee structures to pay for storm water planning, administration, construction and operation and maintenance.

Headlee Amendment summarizes the "fairly complex system of revenue and tax limits" imposed by the amendment, *Durant v Michigan*, 456 Mich 175, 182; 566 NW2d 272 (1997), and is implemented through the other sections of the Amendment, Const 1963, art 9, § 25. Additionally, we decline to address plaintiffs' claims that the imposition of the management charge violates Const 1963, art 4, § 32 and Const 1963, art 9, § 6 because these claims are outside the scope of our original jurisdiction conferred by § 32 of the Headlee Amendment, Const 1963, art 9, § 32.

Following the completion of the feasibility study, the city's Department of Public Works requested that the city create a storm water utility "to fund the activities currently included in the General Fund Drains at Large, Leaf Pickup, Mulching, Street Cleaning and Catch Basin Maintenance in the Major and Local Street accounts." The Jackson City Council adopted Ordinance 2011.02, known as the Storm Water Utility Ordinance, at its January 11, 2011 meeting.

Ordinance 2011.02 establishes a storm water utility to operate and maintain the city's storm water management program. The ordinance funds this program through an annual storm water system management charge imposed on each parcel of real property, including undeveloped parcels, located within the city. All revenues generated by the storm water management charge are deposited in a storm water enterprise fund and "[n]o part of the funds . . . may be transferred to the general operating fund or used for any purpose other than undertaking the storm water management program, and operating and maintaining a storm water system." More specifically, the money in the enterprise fund may be used only to pay the "costs to acquire, construct, finance, operate and maintain a storm water system."

The management charge is computed using a formula developed by the engineering consultant that roughly estimates the amount of storm water runoff of each parcel. Anticipated storm water runoff is computed in terms of equivalent hydraulic area (EHA). This method of computation involves an estimation of the amount of storm water leaving each parcel of property based on the impervious and pervious surface areas of each parcel. The Ordinance defines the phrase "impervious area or surface" as "a surface area which is compacted or covered with material that is resistant to or impedes permeation by water, including but not limited to, most conventionally surfaced streets, roofs, sidewalks, patios, driveways, parking lots and any other oiled, graveled, graded, or compacted surfaces." "[P]ervious area or surface" is "all land area that is not impervious."

The EHA base unit used to compute the amount of a management charge is the square footage for the average single family residential parcel. One EHA base unit is 2,125 sq. ft. The pervious and impervious areas of residential parcels with two acres or less of surface area are not measured individually. Instead, such parcels are assigned one EHA unit and charged a flat rate established by resolution of the city council, which is billed quarterly. For all other parcels, the management charge is based on the actual measurements of the pervious and impervious areas of each individual parcel. The number of EHA units for these latter parcels is calculated by multiplying a parcel's impervious area in square feet by a runoff factor² of 0.95 and the pervious area in square feet by a runoff factor of 0.15, adding these two areas and then dividing that total

² The runoff factors are defined as the approximate fraction of rainfall that runs off the property to the storm drainage system.

by 2,125 sq. ft. The number of EHA units is then multiplied by \$2.70³ to arrive at the monthly management charge.

The Ordinance allows property owners to receive credits against the management charge for actions taken to reduce storm water runoff from their respective properties. At the time plaintiffs commenced these original actions, the Ordinance allowed a residential property owner to receive a 50 percent credit against the charge by implementing city-approved "storm water best management practices" to capture and filter or store storm water. Such best practices include the creation of rain gardens or vegetated filter strips or the use of rain barrels or a cistern. The Ordinance also allowed an owner of a non-residential property to receive a credit against the service charge of between 37.5 and 75 percent for implementing best management practices designed to control storm water peak flows through the construction and use of detention or retention ponds. Schools could receive a 25 percent "education credit" for providing students with a regular and continuing program of education concentrating on the stewardship of the state's water resources. Finally, an owner of a parcel of real property, which is contiguous to the Grand River, could receive a credit of up to 75 percent for directly discharging storm water into the river. Subsequent to the filing of these actions, and through amendments to the Ordinance adopted by the city, the city increased the amount of credit allowed for certain property owners who engage in best management practices identified by the city.

Ordinance 2011.02 creates a right of administrative appeal, but limits the scope of that appeal to "the grounds that the impervious and/or pervious area of the property is less than estimated by the Administrator or that the credit allowable to the property is greater than that estimated by the Administrator." Additionally, the Ordinance authorizes the administrator of the utility to enforce payment of the management charge by discontinuing water service to the property of a delinquent property owner, by instituting a civil action to collect any unpaid management charges, and by placing a lien against property for the unpaid charges and enforcing the lien "in the same manner as provided for the collection of taxes assessed upon such roll and the enforcement of the lien for the taxes."

The city began billing property owners for the management charge in May, 2011. Plaintiffs, who are property owners within the city, received invoices from the city for the management charges assessed against their respective properties, with their respective invoices for water service to their properties.

On December 16, 2011, the County commenced the instant Headlee Amendment enforcement action. Plaintiffs Jackson Coffee and Klein Brothers commenced their enforcement action on December 28, 2011. Plaintiffs' claims for declaratory, injunctive and monetary relief are predicated on the belief that the storm water management charge constitutes a disguised tax and, therefore, the imposition of the charge by the city violates § 31 of the Headlee Amendment because the city imposed the tax without a vote of the city's electorate.

³ The city has reduced this figure to \$2.50 since the filing of these suits. The city also has reduced the flat rate charged to the owners of residential property of two acres or less from \$8 to \$7.50.

II

Plaintiffs bear the burden of establishing the unconstitutionality of the city's storm water management charge. *Adair v State of Michigan*, 470 Mich 105, 111; 680 NW2d 386 (2004); *Kenefick v City of Battle Creek*, 284 Mich App 653, 655; 774 NW2d 925 (2009).

Plaintiffs' enforcement actions implicate § 31 of the Headlee Amendment, 1963 Const, art 9, § 31. An application of § 31 is triggered by the levying of a tax. *Bolt*, 459 Mich at 158-159. "Section 31 prohibits units of local government from levying any new tax or increasing any existing tax above authorized rates without the approval of the unit's electorate." *Durant v State of Michigan*, 456 Mich 175, 183; 566 NW2d 272 (1997). Thus, a tax imposed without voter approval "unquestionably violates" § 31. *Bolt*, 459 Mich at 158. However, a charge that is a user fee "is not affected by the Headlee Amendment." *Id.*, at 159. "There is no bright-line test for distinguishing between a valid user fee and a tax that violates the Headlee Amendment." *Id.*, at 160. "Generally, a fee is exchanged for a service rendered or a benefit conferred, and some reasonable relationship exists between the amount of the fee and the value of the service or benefit. A tax, conversely, is designed to raise revenue." *Id.*, at 161 (internal quotation marks and citations omitted).

The seminal – and only – case addressing the distinction between a fee and a tax, in the context of storm water management, is our Supreme Court's decision in *Bolt*. In *Bolt*, the City of Lansing sought to limit the polluting of local rivers that resulted when heavy precipitation caused the city's combined storm water and sanitary sewer systems to overflow and discharge into those rivers combined storm water and untreated or partially treated sewage. *Bolt*, 459 Mich at 154-155. To this end, the city decided to separate the remaining combined storm and sanitary sewer system, at a cost of \$176 million. *Id.*, at 155. As a means to fund the costs of the sewer system separation:

[t]he Lansing City Council adopted Ordinance 925, which provides for the creation of a storm water enterprise fund "to help defray the costs of the administration, operation, maintenance, and construction of the stormwater system" The ordinance provides that costs for the storm water share of the CSO [combined sewer overflow] program (fifty percent of the total CSO costs, including administration, construction, and engineering costs) will be financed through an annual storm water service charge. This charge is imposed on each parcel of real property located in the city using a formula that attempts to roughly estimate each parcel's storm water runoff.

Estimated storm water runoff is calculated in terms of equivalent hydraulic area (EHA). As defined by the ordinance, EHA is "based upon the amount of pervious and impervious areas within the parcel multiplied by the runoff factors applicable to each." Impervious land area, which impedes water adsorption, thus increasing storm water runoff, is defined as

[t]he surface area within a parcel that is covered by any material which retards or prevents the entry of water into the soil. Impervious land area includes, but is not limited to, surface areas

covered by buildings, porches, patios, parking lots, driveways, walkways and other structures. Generally, all non-vegetative land areas shall be considered impervious.

Residential parcels measuring two acres or less are not assessed charges on the basis of individual measurements, but, rather, are charged pursuant to flat rates set forth in the ordinance. These rates are based on a predetermined number of EHA units per one thousand square feet. For residential parcels over two acres, commercial parcels, and industrial parcels, the EHA for an individual parcel is calculated by multiplying the parcel's impervious area by a runoff factor of 0.95 and pervious area by a runoff factor of 0.15 and adding the two areas.

Charges not paid by the deadline are considered delinquent and subject to delayed payment charges, rebilling charges, property liens (if the charge remains unpaid for six months or more), and attorney fees if a civil suit is filed to collect delinquent charges. The ordinance further provides for a system of administrative appeals by property owners contending that their properties have been unfairly assessed. . . . [*Id.*, at 155-157 (footnotes omitted).]

A taxpayer within the City of Lansing brought suit against the city on the ground that the storm water service charge constituted a tax disguised as a user fee that violated §§ 25 and 31 of the Headlee Amendment because the tax had not been submitted to or approved by a vote of the people. *Bolt*, 459 Mich at 154, 158. Our Supreme Court agreed, concluding that the storm water service charge was not a valid user fee, but, instead, was "a tax, for which approval is required by a vote of the people." *Id.*, at 154. The Court reached this conclusion after considering a multiplicity of factors pertaining to the characteristics of fees and taxes, including the three primary criteria of a fee, which are: (1) a fee serves a regulatory purpose, (2) a fee is proportionate to the necessary costs of that service, and (3) a fee is voluntary. *Id.*, at 161-162.

With regard to the first two criteria, the Court concluded that the storm water service charge neither served a regulatory purpose nor was proportionate to the necessary costs of the service. Rather, the Court concluded that the service charge served a revenue-raising purpose. *Id.*, at 163-167. According to the Court, "the 'fee' is not structured to simply defray the costs of a 'regulatory' activity, but rather to fund a public improvement designed to provide a long-term benefit to the city and all its citizens." *Id.*, at 164, quoting *Bolt v City of Lansing*, 221 Mich App 79, 91; 561 NW2d 423 (1997) (Markman, dissenting). The Court reached this conclusion, in part, because,

[i]n instituting the storm water service charge, the city of Lansing has sought to fund fifty percent of the \$176 million dollar cost of implementing the CSO control program over the next thirty years. A major portion of this cost (approximately sixty-three percent) constitutes capital expenditures. This constitutes an investment in infrastructure as opposed to a fee designed to simply defray the costs of a regulatory activity. [*Id.*, at 163.]

For this same reason, the Court concluded that the "revenue to be derived from the charge is clearly in excess of the direct and indirect costs of actually using the storm water system over the

next thirty years and, being thus disproportionate to the cost of the services provided and the benefits rendered, constitutes a tax." *Id.*, at 164, quoting 221 Mich App at 91 (Markman, dissenting).

The Court further concluded that the storm water service charge neither served a regulatory purpose nor was proportionate to the necessary costs of the service based on the following two related failings of the ordinance:

. . . First, the charges imposed do not correspond to the benefits conferred. Approximately seventy-five percent of the property owners in the city are already served by a separated storm and sanitary sewer system. In fact, many of them have paid for such separation through special assessments. Under the ordinance, these property owners are charged the same amount for storm water service as the twenty-five percent of the property owners who will enjoy the full benefits of the new construction. Moreover, the charge applies to all property owners, rather than only to those who actually benefit. A true "fee," however, is not designed to confer benefits to the general public, but rather to benefit the particular person on whom it is imposed. *Bray v Dep't of State*, 418 Mich 149, 162; 341 NW2d 92 (1983); *Nat'l Cable Television Ass'n v United States & Federal Communications Comm.*, 415 US 336, 340-342; 94 S Ct 1146; 30 L Ed 2d 370 (1974).]

The distinction between a fee and a tax is one that is not always observed with nicety in judicial decisions, but according to some authorities, any payment exacted by the state or its municipal subdivisions as a contribution toward the cost of maintaining governmental functions, where the special benefits derived from their performance is merged in the general benefit, is a tax. [71 Am Jur 2d, State and Local Taxation, § 15, p 352.]

In this case, the lack of correspondence between the charges and the benefits conferred demonstrates that the city has failed to differentiate any particularized benefits to property owners from the general benefits conferred on the public.

This conclusion is buttressed by the fact that the acknowledged goal of the ordinance is to address environmental concerns regarding water quality. Improved water quality in the Grand and Red Cedar Rivers and the avoidance of federal penalties for discharge violations are goals that benefit everyone in the City, not only property owners. As stated by the Court of Appeals dissent,

The extent of any particularized benefit to property owners is considerably outweighed by the general benefit to the citizenry of Lansing as a whole in the form of enhanced environmental quality. . . . When virtually every person in a community is a "user" of a public improvement, a municipal government's tactic of augmenting its budget by purporting to charge a "fee" for the "service" rendered should be seen for what it is: a subterfuge to

evade constitutional limitations on its power to raise taxes. [221 Mich App 96.]

The second failing that supports the conclusion that the ordinance fails to satisfy the first two criteria is the lack of a significant element of regulation. See *Bray, supra*, at 161-162; *Vernor[v Secretary of State]*, 179 Mich 157, 167-169; 146 NW 338 (1914)]. The ordinance only regulates the amount of rainfall shed from a parcel of property as surface runoff; it does not consider the presence of pollutants on each parcel that contaminate such runoff and contribute to the need for treatment before discharge into navigable waters. Additionally, the ordinance fails to distinguish between those responsible for greater and lesser levels of runoff and excludes street rights of way from properties covered by the ordinance. Moreover, there is no end-of-pipe treatment for the storm water runoff. Rather, the storm water is discharged into the river untreated. [*Bolt*, 459 Mich at 165-167.]

Next, the Court found that the charge lacked any element of voluntariness, which the Court found to be further evidence that the charge was a tax and not a user fee. The Court opined:

... One of the distinguishing factors of a tax is that it is compulsory by law, "whereas payments of user fees are only compulsory for those who use the service, have the ability to choose how much of the service to use, and whether to use it at all." Headlee Blue Ribbon Commission Report, *supra*, § 5, p 29. The charge in the present case is effectively compulsory. The property owner has no choice whether to use the service and is unable to control the extent to which the service is used. The dissent suggests that property owners can control the amount of the fee they pay by building less on their property. However, we do not find that this is a legitimate method for controlling the amount of the fee because it is tantamount to requiring property owners to relinquish their rights of ownership to their property by declining to build on the property. [*Bolt*, 459 Mich at 167-168 (footnote omitted).]

Finally, the Court found that the following factors also supported the conclusion that the storm water charge was a tax: (1) the revenue generated by the charge was to be used on that portion of the project that had been previously funded by general fund revenue; (2) the indebtedness generated by the levying of the charge could be secured by a lien on property; and (3) the charge was billed through the city assessor's office and may be sent with the December property tax statements. *Bolt*, 459 Mich at 168-169.

The Court closed its opinion with the following admonition:

We conclude that the storm water service charge imposed by Ordinance 925 is a tax and not a valid user fee. To conclude otherwise would permit municipalities to supplement existing revenues by redefining various government activities as "services" and enacting a myriad of "fees" for those services. To permit such a course of action would effectively abrogate the constitutional

limitations on taxation and public spending imposed by the Headlee Amendment, a constitutional provision ratified by the people of this state. In fact, the imposition of mandatory "user fees" by local units of government has been characterized as one of the most frequent abridgments "of the spirit, if not the letter," of the amendment.

The danger to the taxpayer of this burgeoning phenomenon [the imposition of mandatory user fees] is as clear as are its attractions to local units of government. The "mandatory user fee" has all the compulsory attributes of a tax, in that it must be paid by law without regard to the usage of a service, and becomes a tax lien of the property. However, it escapes the constitutional protections afforded voters for taxes. It can be increased any time, without limit. This is precisely the sort of abuse from which the Headlee Amendment was intended to protect taxpayers. [Headlee Blue Ribbon Commission Report, *supra*, § 5, pp 26-27.] [*Bolt*, 459 Mich at 169.]

In the present cases, the documents provided this Court reveal that the management charge serves a dual purpose. The charge furthers a regulatory purpose by financing a portion of the means by which the city protects local waterways, including the Grand River, from solid pollutants carried in storm and surface water runoff discharged from properties within the city, as required by state and federal regulations. The charge also serves a general revenue-raising purpose by shifting the funding of certain pre-existing government activities from the city's declining general and street fund revenues to a charge-based method of revenue generation. This latter method of revenue generation raises revenue for general public purposes by augmenting the city's general and street funds in an amount equal to the revenue previously used to fund the activities once provided by the city's Engineering and Public Work Departments and now bundled together and delegated to the storm water utility. Because the Ordinance and the management charge serve competing purposes, the question becomes which purpose outweighs the other. *Bolt*, 459 Mich at 165-167, 169. We conclude that the minimal regulatory purpose served by the ordinance and the related management charge is convincingly outweighed by the revenue raising purpose of the ordinance.

Ordinance 2011.02 suffers from the same lack of a significant element of regulation as the Lansing ordinance did. Although the Ordinance confers the power of regulation on the utility's administrator, the Ordinance contains few provisions of regulation and no provisions that truly regulate the discharge of storm and surface water runoff, with the exception of the provision that allows for credits against the management charge for the use of city-approved storm water best management practices. Moreover, as was the case in *Bolt*, the Ordinance fails to require either the city or the property owner to identify, monitor and treat contaminated storm and surface water runoff and allows untreated storm water to be discharged into the Grand River. *Bolt*, 459 Mich at 164-167. In these regards, the city's Ordinance suffers from the same regulatory weaknesses as did the Lansing ordinance struck down as unconstitutional in *Bolt*.

Further, the documents generated by and on behalf of the city and provided this Court clearly show that the desire to protect the city's general and street funds from the costs of

operating and maintaining the existing storm water management system constituted the most significant motivation for adopting the Ordinance and management fee. As previously noted, before the adoption of the Ordinance, the city paid the costs of operating and maintaining the storm water system, including the costs of street and catch basin cleaning and leaf pickup and mulching, with revenue from the city's general and street funds. In the documents supplied this Court, the city readily admits that the costs associated with maintaining the storm water system resulted in money from these funds being directed away from "other critical programs" and that budgetary pressures, including declining general fund revenue, necessitated the tapping of new sources of funding for the maintenance of the storm water system. Similarly, the storm water utility feasibility study commissioned by the city reflects that the primary purposes of study were to devise a method of calculating a storm water management charge of sufficient amount to fund the pre-existing services the city desired to delegate to the utility and to convince the city council that the imposition of the recommended management charge would not violate *Bolt* and the Headlee Amendment. The fact that the impetus for creating the storm water utility and for imposing the charge was the need to generate new revenue to alleviate the budgetary pressures associated with the city's declining general fund and street fund revenues, and the fact that the city's activities were previously paid for by these other funds are factors that support a conclusion that the management charge has an overriding revenue-generating purpose that outweighs the minimal regulatory purpose of the charge and, therefore, that the charge is a tax, not a utility user fee. The Headlee Amendment bars municipalities from supplementing their existing revenue streams by redefining various government activities as services and then enacting "user fees" for those services. *Bolt*, 459 Mich at 169.

Likewise, the lack of correspondence between the charge imposed and any particularized benefit conferred by the charge supports a conclusion that the charge is a tax and not a utility user fee. A true fee confers a benefit upon the particular person on whom it is imposed, whereas a tax confers a benefit on the general public. *Bolt*, 459 Mich at 165. Although a regulatory fee may confer a benefit on both the general public and the particular individuals who pay the fee and still maintain its regulatory character, a charge is not a regulatory fee in the first instance unless it is designed to confer a particularized benefit on the property owners who must pay the fee. *Id.*, at 165-166; *USA Cash #1, Inc v City of Saginaw*, 285 Mich App 262, 281; 776 NW2d 346 (2009). In the present cases, we cannot readily identify any particularized benefit the charge confers on the property owners that is not also conferred upon the general public. The city indicated in its original response to plaintiffs' complaints that the charge "assur[es] cleanliness and safety of the State's waters and watercourses." The city also indicated that the management charge enables the city to protect the public health and safety, to reduce the likelihood of flooding caused by excessive storm water runoff, to reduce the potential for land erosion, which can damage roads, bridges and other infrastructure and thereby endanger the public, and to prevent sewer overflows by providing a mechanism to collect and divert rain water runoff from the sanitary sewer system. We do not doubt that a well-maintained storm water management system provides such benefits. Nevertheless, these concerns addressed by the city's ordinance, like the environmental concerns addressed by Lansing's ordinance in *Bolt*, benefit not only the property owners subject to the management charge, but also everyone in the city in roughly equal measure, as well as everyone who operates a motor vehicle on a Jackson city street or roadway or across a city bridge, everyone who uses the Grand River for recreational purposes downriver from the city and everyone in the Grand River watershed. This lack of correspondence between

the management charge and a particularized benefit conferred to the parcels supports our conclusion that the management charge is a tax. *Bolt*, 459 Mich at 166.

Our conclusion regarding the proportionality of the charge further buttresses the conclusion that the management fee is a tax.

“Fees charged by a municipality must be reasonably proportionate to the direct and indirect costs of providing the service for which the fee is charged.” *Kircher v City of Ypsilanti*, 269 Mich App 224, 231-232; 712 NW2d 738 (2005). The fact that the fee only needs to be “reasonable proportionate” suggests that mathematic precision is not necessary in calculating the fee. *Graham v Kochville Twp*, 236 Mich App 141, 154-155; 599 NW2d 793 (1999). Thus, the fee need not generate an amount equal to that required to support the services the ordinance regulates in order to survive scrutiny; however, where the revenue generated by a regulatory “fee” exceeds the cost of regulation, the “fee” is actually a tax in disguise. *Westlake Transportation, Inc v Public Service Comm*, 255 Mich App 589, 614-615; 662 NW2d 784 (2003). This Court must presume the amount of the fee to be reasonable, “unless the contrary appears on the face of the law itself or is established by proper evidence . . .” *Graham, supra*, quoting *Vernor v Secretary of State*, 179 Mich 157, 168; 146 NW 338 (1914); see also *Wheeler v Shelby Charter Twp*, 265 Mich App 657, 665-666; 697 NW2d 180 (2005).

A permissible utility service charge is one that “reflects the actual costs of use, metered with relative precision in accordance with available technology, including some capital investment component . . .” *Bolt*, 459 Mich at 164, quoting 221 Mich App at 92. In the present cases, the management charge is predicated on the assumption that properties contribute to runoff, and, hence, storm sewer use, as a direct function of the size of a parcel’s impervious and pervious areas. Despite this assumption, residential parcels measuring two acres or less are charged a flat rate based on the average EHA of all single family parcels, and not on the individual measurements of each parcel’s impervious and pervious areas. Single family residential parcels account for 12,209 or 83 percent of the 14,743 the parcels within the city. According to the city, it is cost-prohibitive to calculate the EHA units for each single family residential parcel based on actual measurements of impervious and pervious areas of each parcel. In contrast, residential parcels measuring over two acres and commercial, industrial and institutional parcels of all sizes are assessed a management charge based on the individual measurements of each parcel’s impervious and pervious areas. This method of apportioning the management charges amongst all urban properties emphasizes administrative convenience and ease of measurement and, thereby, suggests an absence of a close proportional relationship between the amount of runoff attributable to a particular parcel and the management charge, as does the fact that the method of calculating the charge fails to consider property characteristics relevant to runoff generation, such as a parcel’s location in reference to storm gutters and drains and soil grade. This lack of proportionality is further demonstrated by the fact that the charge generates sufficient revenue to allow the city to maintain a working capital reserve of 25 to 30 percent of the storm water utility’s total expenses. Although maintaining a capital reserve is a common practice amongst rate-based public utilities that provides a degree of fiscal stability to utilities, see 73B CJS, Public Utilities, § 64; 64 Am Jur 2d, Public Utilities, § 107, those reserves are funded by true user fees closely calibrated to the actual use of the service or a price paid for a commodity. The management charge at issue in these cases is not such a fee. For these reasons, the actual use of the storm water sewer system by each parcel is not accounted for with the

requisite level of precision necessary to support a conclusion that the charge is proportionate to the costs of the services provided.

Finally, our conclusion that the city's management charge is a tax is bolstered by the fact that Ordinance 2011.02, like Lansing Ordinance 925, is effectively compulsory. Although Ordinance 2011.02 allows property owners to receive credits against the management charge for actions taken to reduce runoff from their respective properties, it does not guarantee all property owners will receive a 100 percent credit. Indeed, if the Ordinance realistically allowed for all property owners to receive a 100 percent credit, the credit system would undermine the central purpose of the Ordinance, which is to generate dedicated funding to maintain and operate the current storm water management system. The city would be left with a storm water sewer system to operate and maintain and no dedicated revenue source to fund street sweeping, catch-basin cleaning and leaf pickup, amongst other activities necessary to the city's stewardship of the system. More importantly, however, this system of credits effectively mandates that property owners pay the charge assessed or spend their own funds on improvements to their respective properties, as specified by the Ordinance and the city, in order to receive the benefit of any credits. In other words, property owners have no means by which to escape the financial demands of the Ordinance. Additionally, the Ordinance authorizes the administrator of the storm water utility to discontinue water service to any property owner delinquent in the payment of the fee, as well as to engage in various civil remedies, including the imposition of a lien and the filing of civil action, to collect payment of past due charges. All of these circumstances demonstrate an absence of volition. This lack of volition lends further support for our conclusion that the management charge is a tax. *Bolt*, 459 Mich at 168.

III

We enter a declaratory judgment in favor of plaintiffs. The city's storm water system management charge is a tax imposed in violation of § 31 of the Headlee Amendment. The city shall cease collecting the charge and shall reimburse only plaintiffs for any charges paid to date. *Bolt v Lansing (On Remand)*, 238 Mich App 37, 51-60; 604 NW2d 745 (1999). Plaintiffs may tax their costs, including a reasonable attorney fee. Const 1963, art 9, § 32; *Adair v Michigan*, 486 Mich 468, 494; 785 NW2d 119 (2010).

/s/ William B. Murphy

/s/ Joel P. Hoekstra

/s/ Donald S. Owens