

# The New MS4 Permit and the ARC's SAW Funding

## How we can collaborate and save

Full ARC Meeting  
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*Modified based on comments provided  
at Full ARC meeting  
Changes shown in pink text*

## Outline

- Requirements of the new MS4 permit
- Content of the ARC's SAW grant application
- Estimated level of effort for compliance
- \$\$ Benefit



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## Value of being an ARC Member

MS4 Size	Permit Implementation Savings/year	SAW Grant/year	Average Dues (2010 census)	Benefit/year
Very Small	\$700	\$1,700	\$1,100	\$600
Small	\$3,100	\$7,700	\$3,400	\$7,400
Medium	\$11,100	\$27,400	\$12,300	\$26,200
Large	\$22,100	\$54,600	\$24,000	\$52,700



## MS4 Permit Application

- Due dates:
  - April 1, 2016\*
  - Issuance on Oct 1, 2017\*
- 87 questions/standard operating procedures to complete
- Estimated effort: \$5,000 - \$20,000

Application # and Item	
1	Enforcement Response Procedure
2-3	Public Participation
4-6	Public Education
7-27	IDEP
28-31	Construction SW Control
32-58	Post Construction SW Control
59-83	Municipal GH/P2
84-87	TMDL/Monitoring

*Collaboration allowed by MDEQ*



\*Auburn Hills, Orchard Lake and Rochester Hills which are due 1 year earlier.

\*Romulus and Van Buren due 1 year later.

## What is new in the Permit?

- Options for collaboration: PEP, IDEP, TMDL sections
- Option for eliminating discharge point screening
- Option to prioritize PEP elements
- Development of 30 Standard Operating Procedures
- Construction runoff requirements
- TMDL requirements





## What is new in the Permit?

### Stormwater ordinance requirements

- Water Quality Treatment
  - First 1 inch for 90% of storms
  - Site specific BMPs to reduced sediment by 80% or under 80 mg/L
- Channel Protection
  - Cannot exceed pre-development rate/volume for 2 yr 24 hr storm
- Site Specific
  - Address infiltration BMPs for contaminated sites
  - Require specific BMPs to address pollutants from certain sites (Ex: gas stations, repair shops, auto recyclers, scrap yards, etc.)



## What is new in the Permit?

### Stormwater ordinance requirements

- Long-Term O&M
  - Require long-term O&M and maintenance agreement
  - Conduct periodic inspections
  - Perform maintain/corrective actions on neglected BMPs
  - Track the transfer of O&M responsibility
- Options for sites that cannot infiltrate
  - Offsite mitigation
  - Payment in lieu programs



## What is new the Permit?

### Pollution Prevention/Good Housekeeping

- Facility-specific Stormwater Pollution Prevention Plans
  - High priority facilities
- Catch basin cleaning
- Street sweeping
- Maintenance of other stormwater controls
- Control runoff from applicant-owned sites consistent with the stormwater ordinance



## What is new in the Permit?

### Total Maximum Daily Loads (TMDLs)

- Specify BMPs that address *E. coli*, sediment, dissolved oxygen beyond the other permit requirements
- Monitor (instream or at outfalls) at a sufficient frequency to determine the effectiveness of BMPs



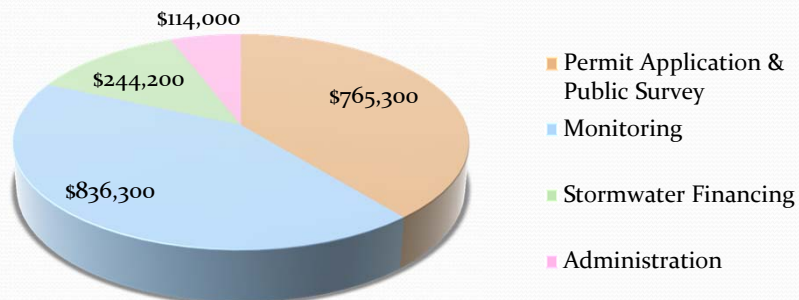
## SAW Grant Application Summary

- Anticipated issuance: Oct. 2015
  - Amount: \$2 M
  - Covers responses to 86 of the 87 questions for the new permit. Exception: Stormwater Ordinance
  - Scope of Work:
    1. Public Education/Participation Planning
    2. IDEP Planning
    3. Municipal GH/P2 Planning
    4. TMDL Planning
    5. Monitoring
- Stormwater Funding Planning



## Distribution of SAW grant

SAW Grant Funding



## Permit Elements that the ARC can Assist

Application # and Item		Application Preparation Costs	Implementation Costs
1	Enforcement Response	SAW	
2-3	Public Participation	SAW	ARC
4-6	Public Education	SAW	ARC*
7-27	IDEP	SAW	ARC*
28-31	Construction SW Control	SAW	
32-58	Post Construction SW Control	SAW, Except ordinance development	
59-83	Municipal GH/P2	SAW	
84-87	TMDL/Monitoring	SAW	ARC



\*Some individual community requirements, as well

## Cost of Permit Implementation for a Large Community without ARC assistance

Permit Item	Annual Effort (hrs)	Annual Cost**
Public Education	90	
IDEP	285	
Construction SW Control		
Post Construction SW Control	490	
Municipal GH/P2	204	
TMDL/Monitoring	80	
Reporting	40	
Oversight	310	
<b>Labor Total</b>	<b>1,519</b>	<b>\$135,000</b>
Street Sweeping & CB cleaning***		\$200,000
<b>Total</b>		<b>\$335,000</b>



\*\*At \$80/hr or \$120/hr.

\*\*\*Based on the 2012 budget for a 33 sq mile community



## Community/MS4 Sizes

<p><b>Large (1.0 LCE)</b></p> <ul style="list-style-type: none"> <li>• Dearborn</li> <li>• Livonia</li> <li>• Westland</li> <li>• Farmington Hills</li> <li>• Southfield</li> </ul>	<p><b>Medium (0.5 LCE)</b></p> <ul style="list-style-type: none"> <li>• Canton</li> <li>• Dearborn Heights</li> <li>• Novi*</li> </ul>
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\*Rouge portion only  
LCE = large community equivalent

## Community/MS4 Sizes

<p><b>Small (0.25 LCE)</b></p> <ul style="list-style-type: none"> <li>• Redford</li> <li>• Plymouth Twp</li> <li>• Northville Twp*</li> <li>• Bloomfield Twp</li> <li>• Garden City</li> <li>• Inkster*</li> <li>• Melvindale*</li> <li>• Northville</li> <li>• Plymouth</li> <li>• Romulus*</li> <li>• Wayne*</li> <li>• Beverly Hills</li> <li>• Birmingham</li> <li>• Bloomfield Hills</li> <li>• Farmington</li> <li>• Rochester Hills*</li> <li>• Troy*</li> </ul>	<p><b>Very Small (0.1 LCE)</b></p> <ul style="list-style-type: none"> <li>• Auburn Hills*</li> <li>• Bingham Farms</li> <li>• Commerce*</li> <li>• Franklin</li> <li>• Lathrup Village</li> <li>• Van Buren*</li> <li>• Walled Lake*</li> <li>• Wixom*</li> </ul>
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LCE = large community equivalent



## Permit Implementation Cost for all Communities w/o ARC assistance

MS4 Size*	Annual Labor per MS4 (hrs)	Annual Labor per MS4 **	Number of MS4s in ARC	Total Labor Cost
Very Small	150	\$13,500	9	\$121,500
Small	375	\$33,750	16	\$540,000
Medium	750	\$67,500	3	\$202,500
Large	1,500	\$135,000	5	\$675,000
<b>Total</b>			<b>33</b>	<b>\$1.54 M</b>

\*Excluding the counties and school districts

\*\*At \$80/hr or \$120/hr.

\*\*Excluding street sweeping and catch basin cleaning



## Permit Implementation Cost Assumptions

- IDEP Field Work: 205 hrs
  - Assumed 50 outfall inspections/year (125 hrs) plus 80 hrs for investigations
  - Actual number of outfalls (not discharge points)

Community	Number outfalls	Effort
Southfield	256	
Livonia	725	150 inspections/yr. 430 hrs in 2012
Farmington Hills	200	
Westland	250	



## Permit Implementation Cost Assumptions

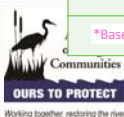
- Site Plan Review: 42 hrs =
  - 4 hrs x 8 major plans plus 1 hr x 10 minor plans.
- BMP Inspection: 108 hrs =
  - 6 hrs x 8 new major sites plus 2 hrs x 10 new minor sites plus 2 hrs x 20 existing sites.
- DPW Facility Inspection: 16 hrs =
  - 2 staff x 4 hrs x 4 facilities.
- Update Facility SWPPP's: 8 hrs/community.
- Stormwater ordinance: assume adoption of county standards



## Implementation Cost Savings with the ARC = \$200,000

Application Item	Permit Elements	ARC Cost	All Communities Labor Cost*
<b>Public Education and Public Involvement</b>			
2, 3	Obtain and incorporate public input into stormwater program	\$60,000	\$9,120
4 - 6	Educate the public on pollution prevention		\$72,960
<b>IDEP</b>			
7 - 19	Screen outfalls and discharge points for illicit discharges to waterways (based on the screening of 50 outfalls). Includes data management	\$100,000	\$114,000
7 - 19	Investigate suspicious discharges and locate sources, as needed		\$72,960
83	Provide and coordinate employee training on GH/P2 [6]	\$5,000	\$9,120
<b>TMDLs</b>			
85 - 88	Conduct water quality monitoring and interpret results	\$60,000	\$72,960
	Program oversight	\$75,000	\$140,000
	<b>Total</b>	<b>\$300,000</b>	<b>\$500,000</b>
		<b>Savings to Members:</b>	<b>\$200,000</b>

\*Based on 11.4 Large Community Equivalents



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## Permit Implementation Cost for all Communities with ARC assistance

MS4 Size	Annual Labor per MS4	Number of MS4s in ARC	Total Labor Cost	Savings/MS4
Very Small	\$12,600	9	\$116,100	\$900
Small	\$30,050	16	\$480,800	\$3,700
Medium	\$55,800	3	\$167,400	\$11,700
Large	\$119,000	5	\$595,000	\$16,000
Unallocated savings			(\$18,000)	
<b>Total</b>			<b>\$1.34 M</b>	





## Value of being an ARC Member

MS4 Size	Permit Implementation Savings/year	SAW Grant/year	Average Dues	Benefit/year
Very Small	\$900	\$3,100	\$1,700	\$2,300
Small	\$3,700	\$12,200	\$5,400	\$10,500
Medium	\$11,700	\$39,000	\$17,600	\$33,100
Large	\$16,000	\$53,300	\$22,700	\$46,600

