STORM WATER SAW GRANT, ASSET MANAGEMENT UPDATE

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SAW GRANT PROGRAM

- January 2013, effective date of the program
- $450 million, $97 million per fiscal year
- Loans (three of them)
- Grant funding for:
  - Planning, design, and rate methodology development
  - Asset Management for Stormwater and Wastewater
- Stormwater Management Plans
  - Nonpoint Source (319), MS4, and SAW
  - Innovative wastewater or stormwater technology
  - Disadvantaged community construction costs
    - Needed an Asset Management Plan with application
SAW GRANT PROGRAM

- First come, first served – lottery process
- Over 600 applications received
- Over $450 million in funding requests
SAW GRANT PROGRAM

- Majority of Grant applications were for Wastewater Asset Management Planning.
- 1st and 2nd Rounds have ended
- 5th Round has just been awarded
SAW GRANT PROGRAM

• Total request of approximately $142,698,000 for Stormwater Projects and 388 applications

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<th>SWMP</th>
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<td>Funding Requested</td>
<td>$26,051,000</td>
<td>$116,647,000</td>
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<td>Applications</td>
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• Millions of feet of storm sewer will be televised
• Over one hundred stormwater systems will be evaluated
• Over two hundred stormwater asset management plans will be created
SAW GRANT PROGRAM

- 1st Round Stormwater Results: Completed May 31, 2017

1ST ROUND SWMPs

- SAW 6
- MS4 5
- Total 11

1ST ROUND SWAMPs

34
SAW GRANT PROGRAM

• Generally, the SAW SWMPs look good.

• Grant funding has been used to identify issues and projects that help in water quality improvement.

• A lack of funding is a common theme and Grant funding could not be used for construction/improvement projects.
SAW GRANT PROGRAM

• 1st Round Stormwater Results: Completed May 31, 2017

1ST ROUND SWMPs

1ST ROUND SWAMPs

34
SAW GRANT PROGRAM

• 1st Round SWAMP Results:
  - Summaries included inventory, condition assessment, expected useful life, level of service, criticality, capital improvement plan and funding information.
  - 23 Grantees discussed funding, 19 of which said OM&R funding comes from general or street funds.
  - Two communities ID-ed a funding gap of $2.9 million and $1.66 million.

**Sources of Stormwater Funding**

- General/Street Fund: 19
- County Drain Code: 3
- Sanitary Sewer Fund: 1
- Stormwater Utility: 1
SAW GRANT PROGRAM

- 2nd Round Stormwater Results: Completed October 31, 2017
SAW GRANT PROGRAM

• Example: Kent County Road Commission (2nd Round SAW Grant)
  • Stormwater Asset Management Plan - $1,000,000
  • Inventory of existing 399 miles of storm sewer, 6,401 manholes and 10,172 catch basins.
  • Updated GPS locations and connections within the system – all contained within a centralized AMP GIS system.
  • CCTV condition assessment of storm sewer pipe, optical scanner used on manholes.
SAW GRANT PROGRAM

• Example: Kent County Road Commission (2nd Round SAW Grant)
  • Pipe rating condition results: 41% good, 51% fair and 8% poor.
  • Culvert rating condition results: 59% good, 38% fair, 3% poor.
  • Criticality and level of service were evaluated and they established the following goals:
    • Maintain at least 95% of the storm sewer system in good or fair condition.
    • Repair any condition 5 spot defect within 6 months.
SAW GRANT PROGRAM

- Example: Kent County Road Commission (2nd Round SAW Grant)

- Funding for Stormwater asset OM&R comes from road funding sources:
  - $300,000/year through 2020;
  - $600,000/year starting in 2021.
SAW GRANT PROGRAM

• **Example: Kalamazoo County Drain Commissioner (1st Round SAW Grant)**
  • Stormwater Management Plan - $59,023
  • Under the SAW category
  • Specifically tailored the plan to identify sources of, and recommendations for, hydrocarbon pollution issues.
  • Activities included watershed delineation, hydrologic analysis, BMP inventory, review of water quality issues, hydrocarbon sampling
  • Findings: hydrocarbon pollution was under benchmark levels and is not as big of a problem as expected.
  • Recommendations spanned multiple pollution and structural issues. Funding identified as a problem.
SAW GRANT PROGRAM

Preliminary results:

- Great deal of positive feedback – many respondents love SAW!
- Firms estimated that economic stimulus in the millions.
- Some Grantees could use additional funding to complete activities.
- Municipalities who have not received grant funding could use it.
- Big support for a Drinking Water Asset Management Plan Grant Program.
- Positive: changed culture of MI.
- Negative: DEQ needs to be more consistent and communicative.
STATE REVOLVING FUND

- Loan funding available for Stormwater Projects
- Must be part of an approved watershed management plan and address a water quality problem
- Costly and complicated application process
- Principle forgiveness
- For more information:
  - michigan.gov/cleanwaterrevolvingfund
  - 517-284-5433
INSIDE THE STORM SEWER
CONDITION ASSESSMENT

Existing sediment levels of 10-20%  
Compromised assets
RECOMMENDATIONS

Condition assessment of 10% of the storm sewer system OR large diameter storm sewer pipes only (>18 inches)

Recommendation: Annually inspect a portion of the storm sewer system through a systematic approach
RECOMMENDATIONS

Rochester (2nd Round SAW Grant)

- 39 miles of storm sewer
- 1065 manholes
- 1632 catch basins

Total Replacement = $86 Million

**Recommendation:** Implement a systematic rehabilitation and replacement approach (e.g. complete streets)
RECOMMENDATIONS

Beyond the pipe…

• Detention basins are 20-40 years old

• Evaluate: Operating as designed

• Who takes the maintenance lead with private ownership?
OWNERSHIP

- City
- Unknown
- MDOT
- Road Commission
- Drain Commissioner
- Private
- HOA
SAW TOOLS

**Computerized Operation and Maintenance Management System**

- Documentation and recordkeeping of assets (GIS component)
- Quantifiable means to measure progress
- Clear path to resolve performance shortfalls
- Improved coordination and communication
- Regulatory compliance
MS4 PROGRAM

Quick Facts

Phase I MS4s
- Ann Arbor
- Flint
- Grand Rapids
- Lansing
- MDOT
- Sterling Heights
- Warren

300 Phase II MS4s
Transitioning from general permits to individual permits

Regulated MS4 Area
Serves a population of 6.5 million people
MS4 PERMIT
MS4 PERMIT

If you track it, you can fix it – Cityworks
POLLUTION PROBLEM

- Closing a Lake Michigan beach costs up to $37,000/day
- Closing all Lake Michigan beaches in Michigan could cost up to $2.7 billion
CAPACITY ISSUES

Ann Arbor precipitation totals from Bulletin 71 and Atlas 14 in inches.

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Reducing runoff volume for water quality through flooding
FUNDING GAPS

Additional costs if assuming ownership for all stormwater assets (right-of-way and privately-owned)
REVENUE STRUCTURE

Most communities charge between $4 to $7 per month for stormwater – the least expensive utility fee

Revenues generated are indispensable for those cities
REVENUE STRUCTURE

Stormwater utility revenue can be used for the drainage component of the road project (5-10% of the total cost).

Communities can stretch their scarce street/road budgets for actual road repair and replacement.
LESSONS LEARNED

• Engagement: Brings the conversation aboveground with elected officials
• SWAMP results used to recalibrate goals, priorities, and projects
• SWAMP results create a dashboard for identifying focus areas, setting expectations, and determining future expenses
• Focus on retrofitting the storm sewer system for water quality
QUESTIONS

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