Tomorrow’s Clean Water Utility Begins to Emerge

NACWA’s 2013 Winter Conference
February 5, 2013
What Drove Milwaukee to Strive toward Being a Clean Water Utility of the Future?

Permit?
Financials?
Politics?
Efficiencies?
The Environment?
Climate Change?
Public Pressure?
Public Pressure
Articles, Circa 2004

Barrett calls for overhaul of area district
If elected mayor, he says he would seek to stop dumping

By STEVE SCHULTZE
sschultze@journalsentinel.com
Posted: Jan. 16, 2004

MMSD hosts event to talk dumping
Officials to explain processes, take questions from public

By STEVE SCHULTZE
sschultze@journalsentinel.com
Posted: June 22, 2004

“Milwaukee is swimming in sewage”
In 2004, I decided I had to reshuffle the deck.

- Put aside the Permit
- Put aside the Budget
- Focus on the Environment
- Focus on Efficiencies
- Rely on Good Science
- Include Climate Adaptation
- Pray the Media Changes
- Build from our Strengths
<table>
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<tr>
<th>Year</th>
<th>Capture Rate</th>
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<tbody>
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<td>2010</td>
<td>96%</td>
</tr>
<tr>
<td>2011</td>
<td>99%</td>
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</table>

2012 Year to Date = 99.9999%
So, what did we do?

First, we changed our tone from defensive to one of “we need your help” and “we are not perfect”.
### SEWRPC’s Regional Water Quality Management Plan Update

Pollution Sources Summary

#### 1975

<table>
<thead>
<tr>
<th>Source Description</th>
<th>Percentage</th>
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<tr>
<td>Rural-Agricultural Runoff</td>
<td>21%</td>
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<td>Urban-Non-Agricultural Runoff</td>
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<td>Industrial Discharge</td>
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<td>WWTP</td>
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<td>CSO's</td>
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<td>SSO's</td>
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#### 2000

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<td>Rural-Agricultural Runoff</td>
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<td>CSO's</td>
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**Estimated Pollutant Reduction over 25-Year Period About 50 Percent**

CONCLUSION: Focus on abating stormwater runoff pollution

**Greater Milwaukee Watersheds Fecal Coliform Loadings**
Greenseams®

2,500 acres
Green Infrastructure

More than 14,700 SOLD Since 2002

Green Roofs

Rain Gardens
Permitting

Wastewater Permit

Watershed Permitting
The Tone is Starting to Change

MMSD Works
So Why Does Everyone Hate It?
LFG System Components

1. EPL Gas Processing Facility
   Compresses and conditions gas for the pipeline and turbines

2. Pipeline transports gas from EPL to JIWRF

3. New Metering Station
   Measures gas flow and quality exiting pipeline

4. Turbine Generators
   Produce electricity to power JIWRF and waste heat to produce Milorganite

Raw gas is drawn from collection wells into a vacuum header system

Gas flow and quality entering pipeline measured at EPL
Emerald Park LFG Processing Facility

- Raw gas from landfill
- Compressors, siloxane removal, metering and controls inside building
- Dehydration system
- Vacuum blowers
- After-coolers
- Off-gas flare
- Hydrogen sulfide removal
- Treated gas odorized and sent to pipeline
“MMSD enjoys sound fiscal health and appears well-positioned for the future.”

- Public Policy Forum

• Healthy operating budget
• Extensive and well-managed capital assets
• Sound performance
Rooftops to Rivers II
Green Strategies for Controlling Stormwater and Combined Sewer Overflows

EMERALD CITY CRITERIA*

☐ Long-term Green Infrastructure (GI) Plan?
☐ Existing requirement to use GI to reduce some portion of the existing impervious surfaces?
☐ Incentives for private-party actions?
☐ Retention Standard?
☐ Guidance or other affirmative assistance to accomplish GI within City?
☐ Dedicated funding source for GI?

Total Criteria Score
Out of a possible 6

5

Karen Sands
Manager of Sustainability, Milwaukee Metropolitan Sewage District

ROOFTOPS TO RIVERS
MILWAUKEE, WISCONSIN
Tomorrow’s Clean Water Utility Begins to Emerge

Questions!

MMSD
PARTNERS FOR A CLEANER ENVIRONMENT