

Regional Urban Water Management

Brookfield, Wisconsin

March 7, 2013



What is MMSD?

- Regional Agency
- Established by State Law
- Provide water reclamation and flood management

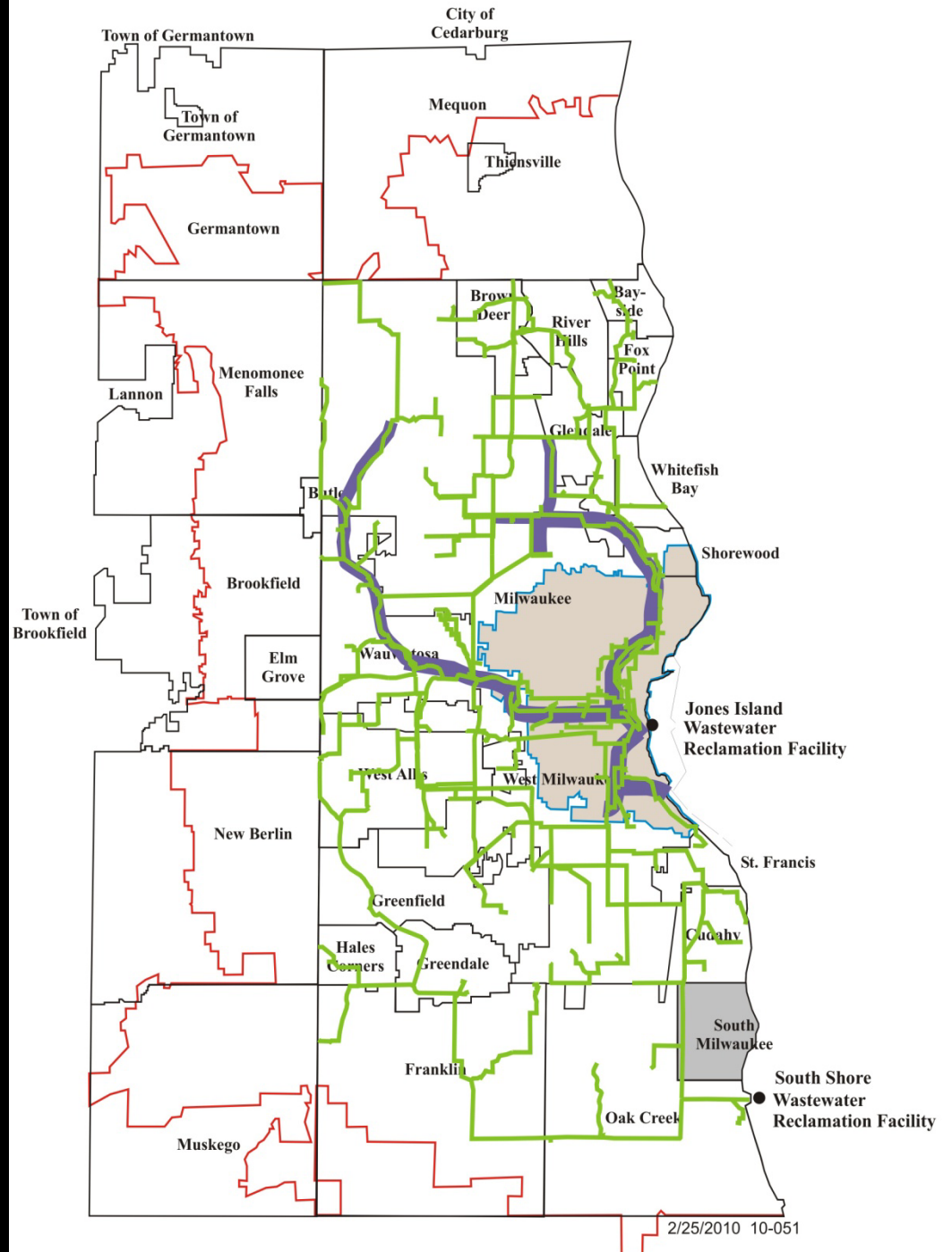


Sewers

300 Miles
MMSD Sewers

3,000 Miles
Municipality Owned Sewers

3,000 Miles
Private Laterals





Water Reclamation Facilities



Jones Island



South Shore



ORGANIC NITROGEN

Milorganite®

FERTILIZER

Deep Tunnels

A photograph of a large, circular tunnel under construction. The tunnel has a concrete lining with visible horizontal segments. A small vehicle is visible in the distance, and the tunnel is illuminated by bright lights. The perspective is from inside the tunnel, looking down its length.

300 Feet

Below ground

521 Million

Gallons of Storage

28.5 Miles

Long

17- to 32-feet

In Diameter

Designed to minimize
basement backups and for
I-2 overflows per year.

% OF VOLUMES CAPTURED & CLEANED

TOTAL
PERCENT CAPTURE
98.21%

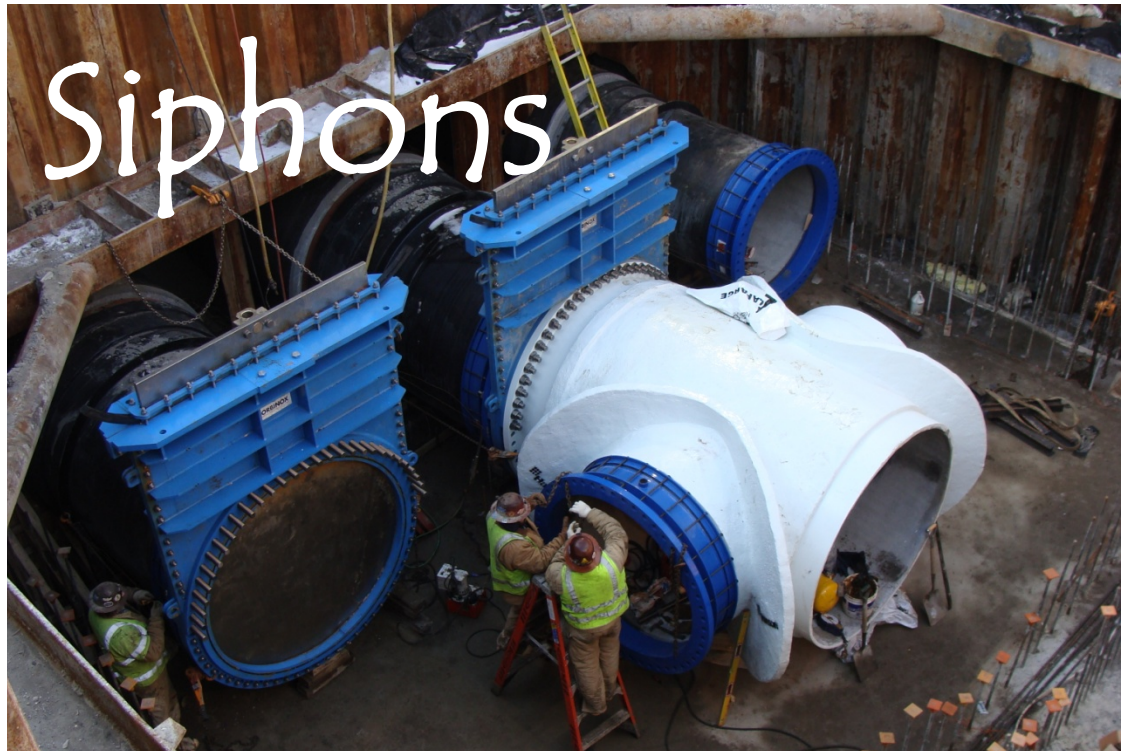
1994	99%	2000	95%	2006	99%
1995	98%	2001	99%	2007	99%
1996	99%	2002	99%	2008	95%
1997	97%	2003	100%	2009	98%
1998	99%	2004	97%	2010	96%
1999	94%	2005	99%	2011	99%

2012



99.99999 %

Capture & Clean





Before



After

MMSD Flood Management

Another inch would make June 2008 the rainiest month on record in Milwaukee

Next: Flash flood watch

Swollen waters haven't receded, and more rain is forecast

By TOM HELD
thead@journal-sentinel.com



Before

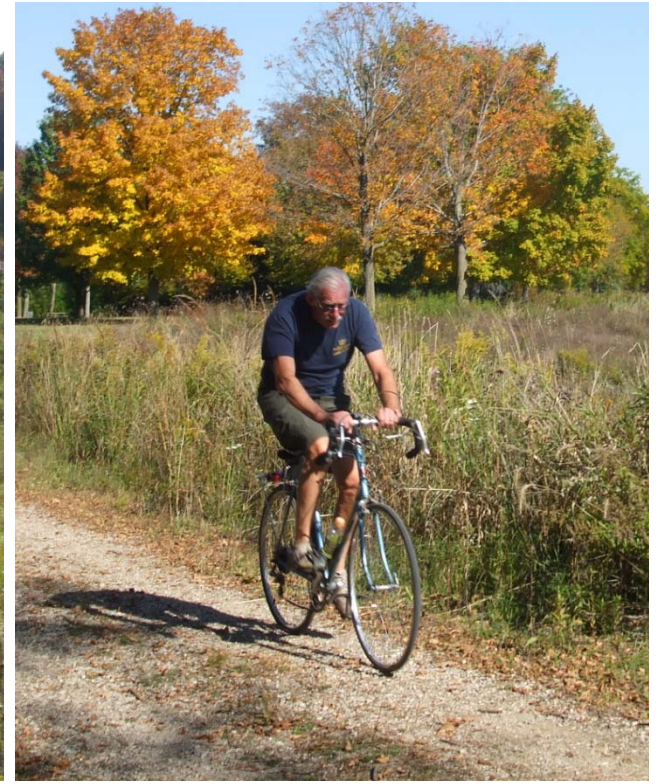


Lincoln Creek

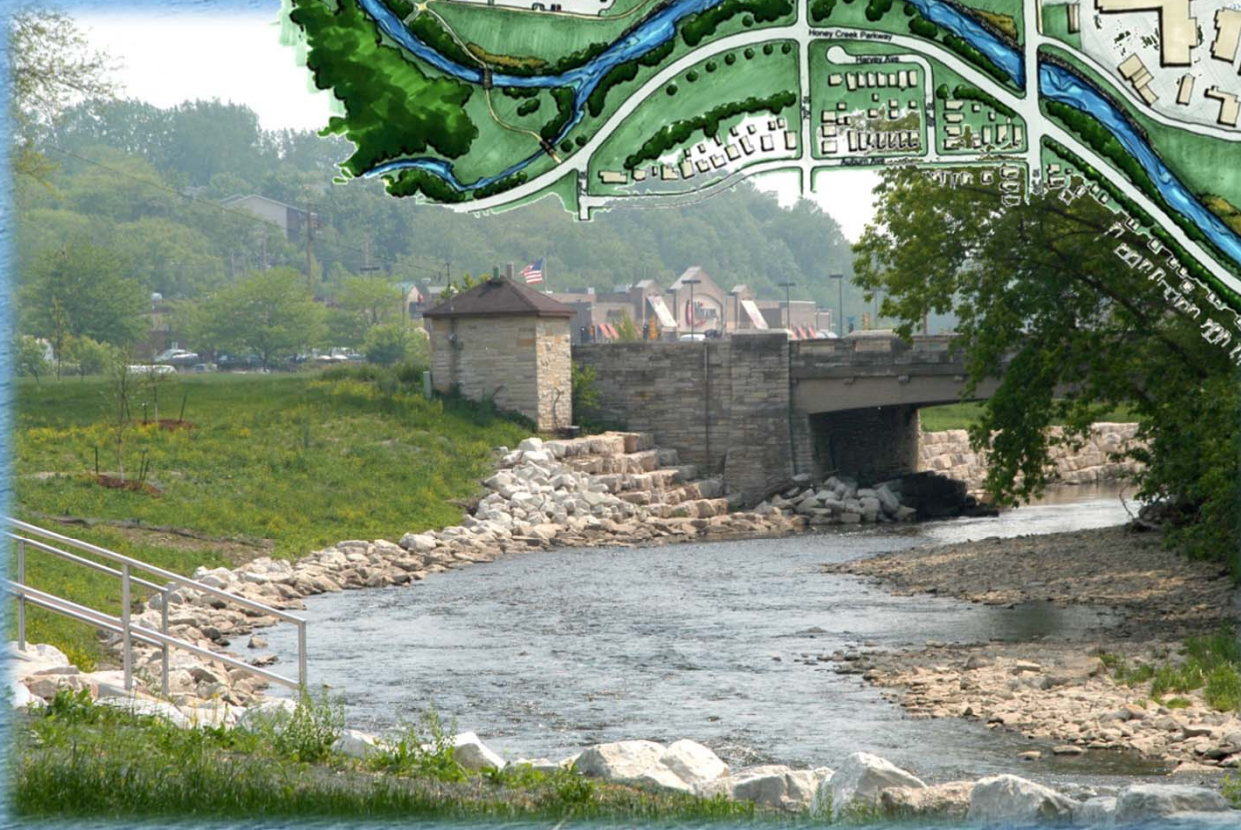
- Concrete Removal
- Minimized Floodplain
- Habitat Enhancement

After





Hart Park

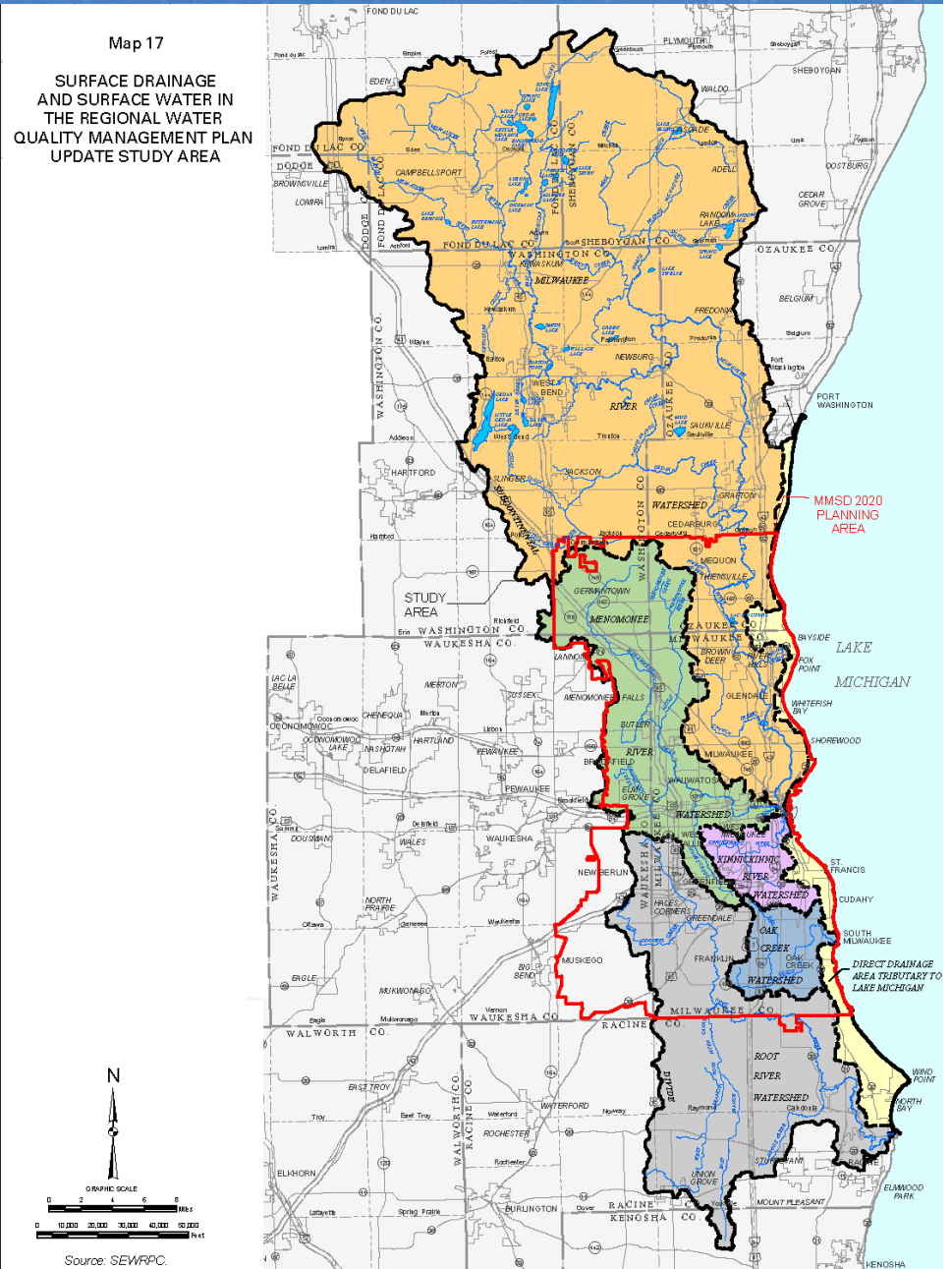


The Water Quality Initiative

A Watershed Approach

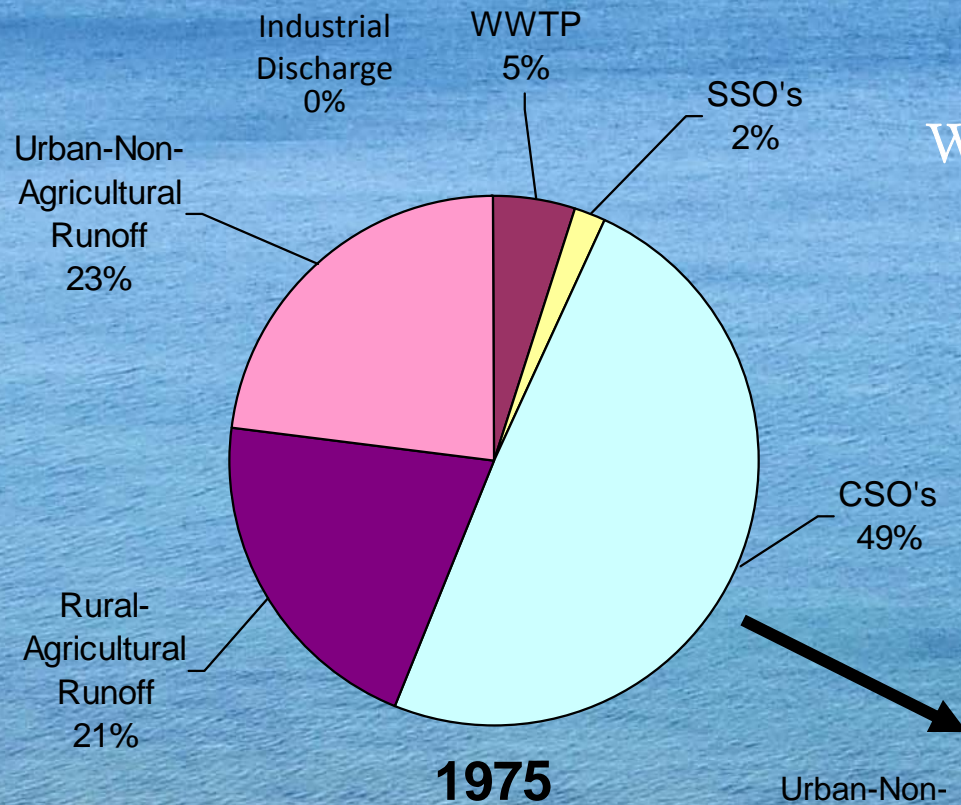
<u>Watershed</u>	<u>Area (square miles)</u>
Kinnickinnic River	24.7
Menomonee River	135.8
Milwaukee River	700.0
Oak Creek	28.2
Root River	197.6
Lake Michigan Direct Drainage Area	40.7
Total	1,127.0
Number of Counties	9
Number of Local Municipalities	83

Map 17
SURFACE DRAINAGE
AND SURFACE WATER IN
THE REGIONAL WATER
QUALITY MANAGEMENT PLAN
UPDATE STUDY AREA

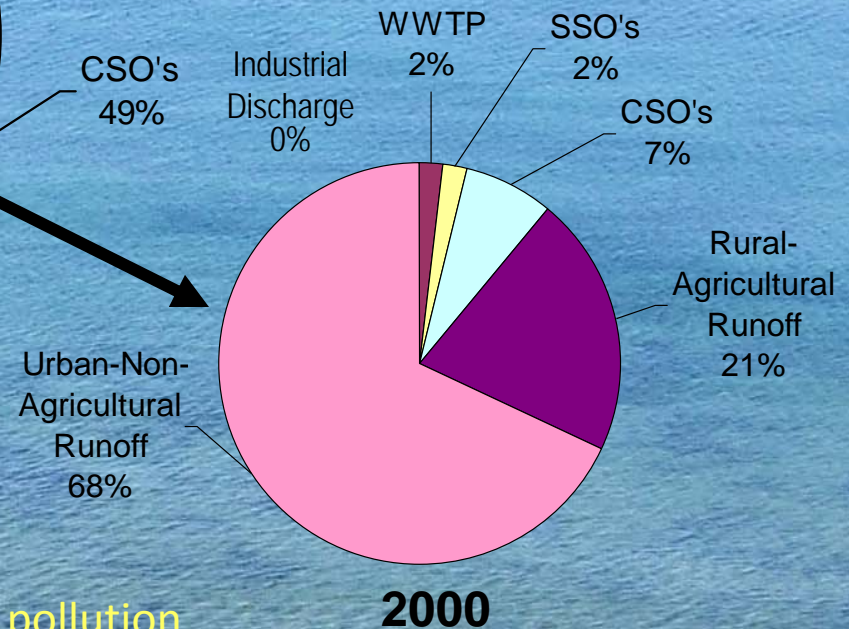


SEWRPC's Regional Water Quality Management Plan Update Pollution Sources Summary

Greater Milwaukee Watersheds Fecal Coliform Loadings



Estimated Pollutant Reduction over 25-Year Period About 50 Percent



CONCLUSION: Focus on abating stormwater runoff pollution



15,700 Plants Sold Since 2006

mmmd Rain barrels



More than
18,000
SOLD
Since 2002

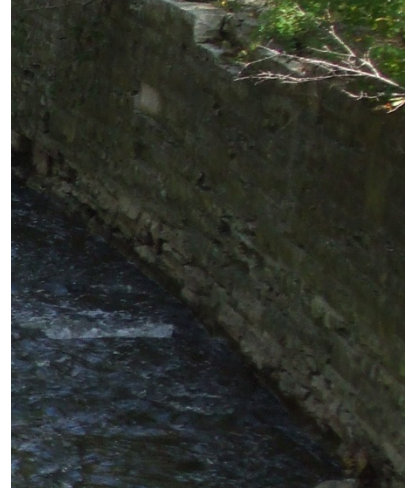
Green Roofs



8 acres since 2003

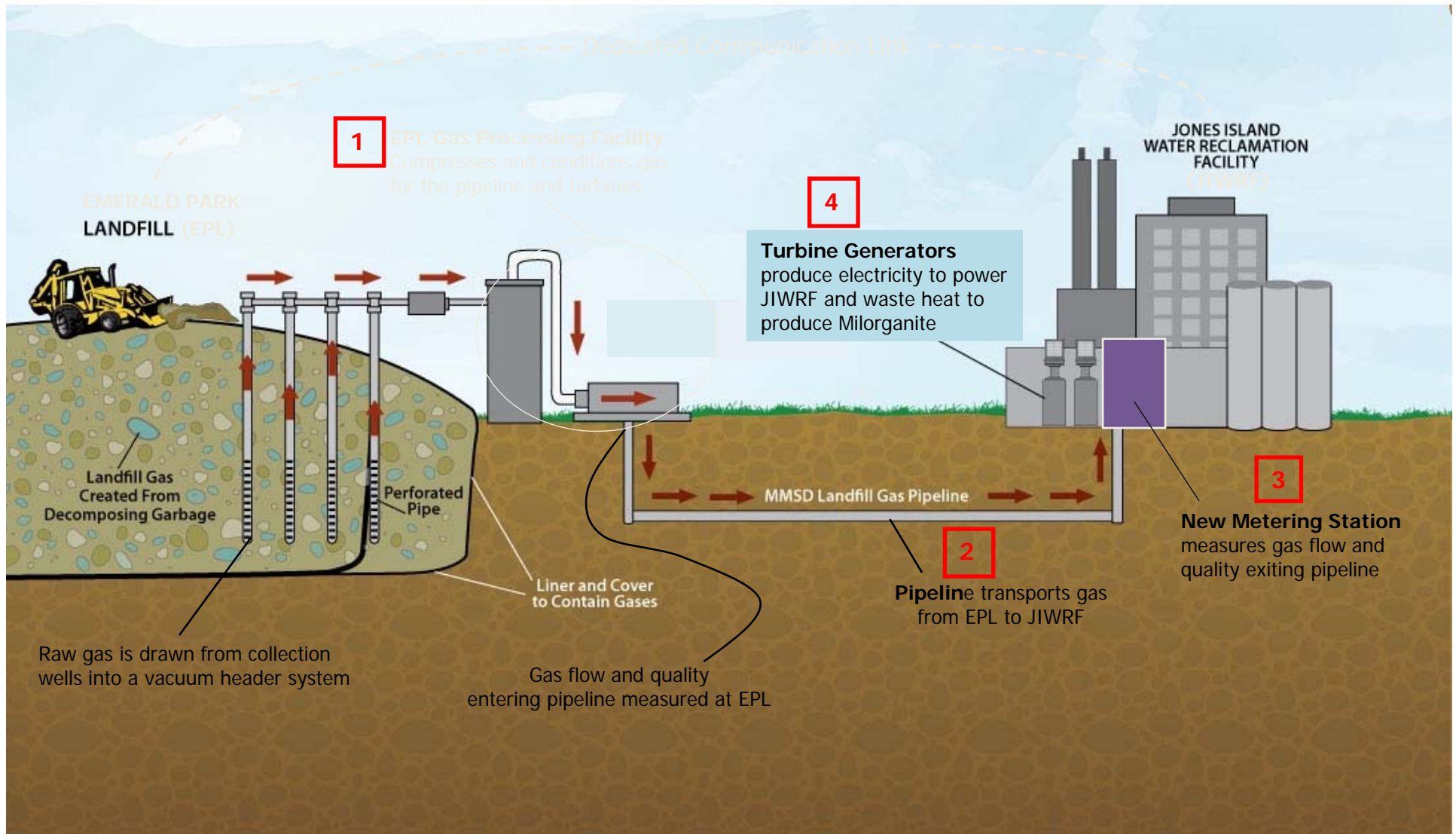


Menomonee River

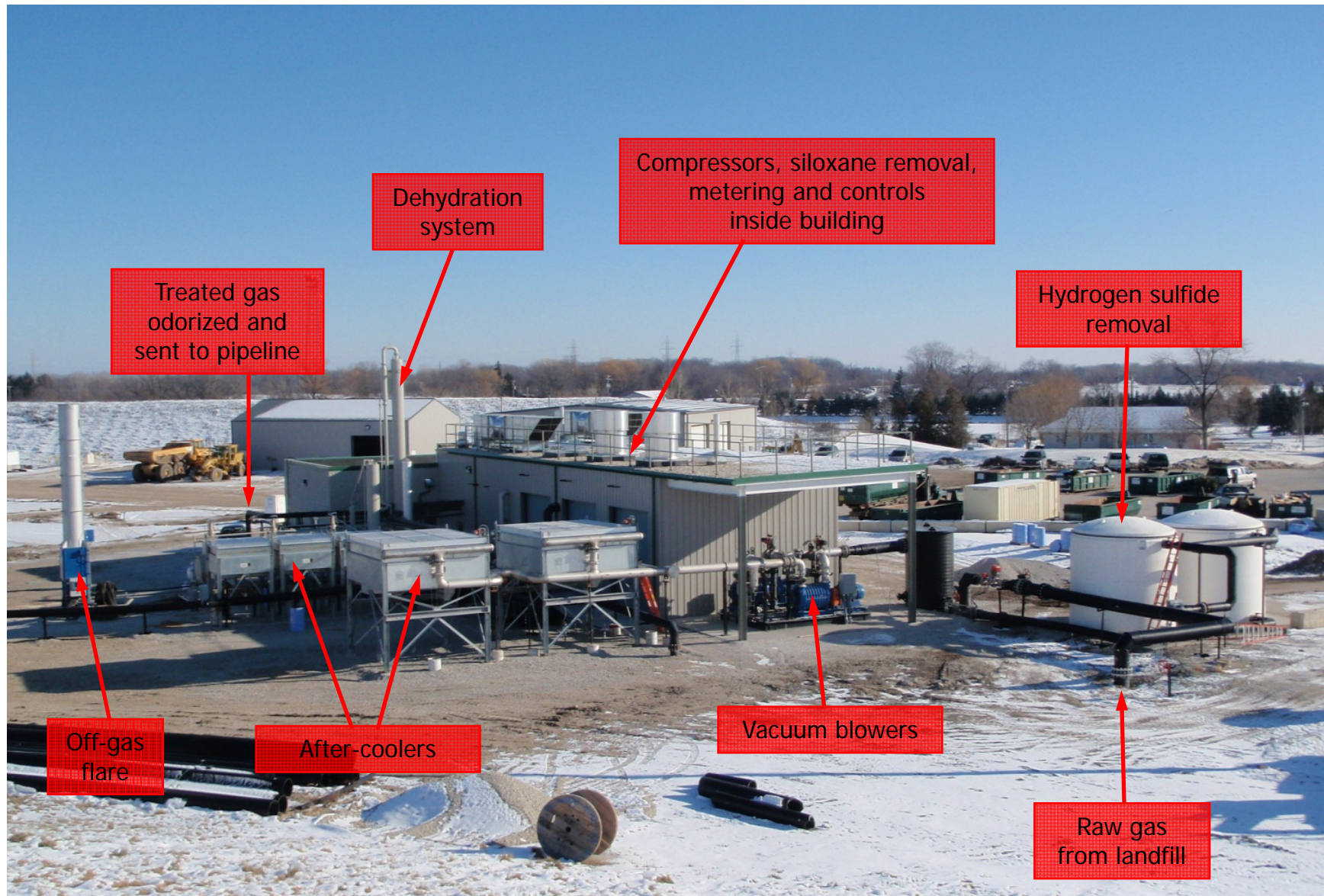


Watershed Permitting

LFG System Components



Emerald Park LFG Processing Facility







Milwaukee Metropolitan Sewerage District's
Fiscal Condition:

**DOWNSTREAM ACCOMPLISHMENTS,
UPSTREAM CHALLENGES**

An independent third-party analysis

 Public Policy Forum
moving the region forward

“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

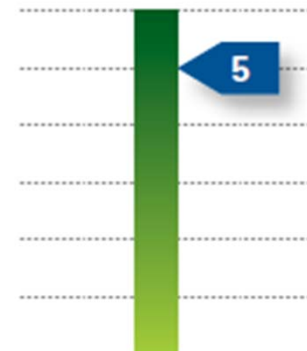


NATURAL RESOURCES DEFENSE COUNCIL
THE EARTH'S BEST DEFENSE

Rooftops to Rivers II

Green Strategies for
Controlling Stormwater and
Combined Sewer Overflows

MILWAUKEE, WISCONSIN



Total Criteria Score
Out of a possible 6

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?





Questions

99.9999 %

2012 Capture & Treat