Congressional Briefing
April 13, 2014

Metropolitan Sewer District of Greater Cincinnati
Greater Cincinnati Water Works
Tony Parrott, Executive Director
Briefing Agenda

- Why Utilities are Building
- An Integrated Solution
- Vision for the Future Community
- Investing in our Workforce
WHY ARE UTILITIES BUILDING INFRASTRUCTURE?
WHAT CHALLENGES ARE UTILITIES FACING?

Competing Objectives
Balancing politics, environment, rates, and technology

Population Reduction
People migrating away from the urban core

Local Economic Conditions
Unemployment & reduced revenue

Consent Decree
Mandated capital improvements

Aging Infrastructure
Components installed in late 1800s
CURRENT ECONOMIC CONDITIONS
Plummeting Property Values

Property values decreased by 55% between 2000 and 2010.
A Community in Need of Transformation

Declining population and households have resulted in physical decline, foreclosure, and vacancy.

Assuming current foreclosure trends, the rate of household decline equates to a loss of 200 households within 1 mile of our project area, resulting in a loss of more than $5.7 million (in 2008 dollars).
Buildings in Need of Major Repair or in Critical Condition

- Major repair: 24
- Critical condition: 22
Roadways in Need of Repair

**Community Transportation Concerns**
- volume of traffic
- high speeds
- undersized travel lanes
- on-street parking conflicts
- lack of pedestrian safety measures
- confusing connections to interstates
Aging Infrastructure & Flooding Events

Much of the sewer infrastructure is more than 100 years old. MSDGC continues to systematically replace aging assets.

Wet weather overwhelms our streets and our combined sewer systems.
Millions of Gallons of Sewer Overflows

212 Combined Sewer Overflows
72 Sanitary Sewer Overflows
Increasing Unemployment
Decreasing Water Usage

MSD continues to see an annual decline in usage per account
Vision of the future community

OUR WET WEATHER CHALLENGE
What’s the Challenge?

- Cincinnati is among the top 5 CSO communities in the US
- 772 cities in the United States with combined sewer networks
- 2010 Federal Court Approved Consent Decree
- Must reduce combined sewer overflows in Lower Mill Creek by **1.78 billion gallons per year by 2018**
STATE OF OUR NATION’S WATER & WASTEWATER INFRASTRUCTURE

Grade D means

- Systems mostly below standard
- Large portion exhibits significant deterioration
- Condition and capacity are of significant concern with strong risk of failure

Each category was evaluated on the basis of capacity, condition, funding, future need, operation and maintenance, public safety and resilience.

AVIATION | D  |  PORTS | C
BRIDGES | C+  |  PUBLIC PARKS AND RECREATION | C-
DAMS | D  |  RAIL | C+
DRINKING WATER | D  |  ROADS | D
ENERGY | D+ |  SCHOOLS | D
HAZARDOUS WASTE | D |  SOLID WASTE | B-
INLAND WATERWAYS | D+ |  TRANSIT | D
LEVEES | D+ |  WASTEWATER | D

ESTIMATED INVESTMENT NEEDED BY 2020: $3.6 TRILLION
WHAT IS THE FUNDING GAP?

Current levels of water infrastructure funding are forecasted to have a $0.6 trillion shortfall over the next 20 years.

- United States EPA
- Congressional Budget Office
- General Accounting Office
- American Water Works Association
- The Water Infrastructure Network

$600 billion shortfall
AFFORDABILITY IS TOP PRIORITY

• Even with the funding gap, utilities still have to build and they need to build smarter.
  – **WHAT** building = sustainable
  – **HOW** building = efficient
The Consent Decree is Costly

July 18, 2010
Cincinnati Enquirer

SUNDAY FORUM

RAIN WASHES BILLIONS OF GALLONS OF RAW SEWAGE THROUGH MILES OF PIPES RUNNING UNDER HAMILTON COUNTY. THE PROBLEM REQUIRES ...

A $3.5 BILLION FIX

Dec. 12, 2012
Cincinnati Enquirer

Local

Sewer rates to rise 5 percent

March 1, 2010 Broadcast
“Sewer Rate Hikes Expected for MSD Customers”
AN INTEGRATED SOLUTION

Vision of the future community
Will vs. Opportunity

“Will” must always be the dominant partner.
What if...

...we redo the math.

We could...
change our thinking

+ 1 Federally Mandated CSO Volume Reduction

+ $3.5B+ Investment by Rate Payers in New Infrastructure

X Private Participation, Boost to Local Economy, Community Revitalization

= Sustainable Utility & Livable Community
What could a Sustainable Solution Accomplish

Develop a solution that brings our historical water wealth normally below ground to the surface to create a benefit the community can see.

- Complies with USEPA requirements
- Provides lowest cost solution
- Utilizes stormwater as a community resource
- Creates new class of green jobs
- Improves water quality
- Offers potential to leverage private side actions
Vision of the future community

VISION OF THE FUTURE COMMUNITY
Build the Right Project

The “alternative” solution is less costly and has more benefits.
Build the Right Project

Balance water quality, capital investment, and community integration.
Build the Right Project

Leave a legacy for the next generation.
Build the Right Project

Vision for the Future Community.
Funding Partnerships

Value Creation: Market Analysis of Sustainable Infrastructure Investment

Timeline

2010

2015

2030

MSD Sustainable Infrastructure Investment
“Private Side Action”
Vision of the future community

INVESTING IN OUR WORKFORCE
MSD-Direct Job Creation

Full Time Equivalents

Lick Run

760 Construction Trade Jobs
54,300 feet of storm sewer
3,600 feet of relocated combined
8 detention basins/floodplain enhancements
8,700 feet of valley conveyance system
9,900 feet of natural conveyance, inlet sealing

Kings Run

72 Construction Trade Jobs
5,700 feet of storm sewer
7,200 feet of new combined sewer
1.5 million gallons combined storage at CSO 217
3 SW detention basins
Streambank Stabilization and restoration measures

West Fork

73 Construction Trade Jobs
500 feet of storm sewer
7,600 feet of basin discharge pipe
2 SW detention basins; approximately 23 acre feet of storage
Lick Run, Kings Run, & West Fork Projects
Predicted FTE Construction Jobs by Trade

<table>
<thead>
<tr>
<th>Trade</th>
<th>Number Full Time Equivalent Positions</th>
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<tbody>
<tr>
<td>Roofers</td>
<td>0.3</td>
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<tr>
<td>Painters</td>
<td>1.4</td>
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<tr>
<td>Pipe Fitters</td>
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<tr>
<td>SheetMetalWorkers</td>
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<tr>
<td>Plumbers</td>
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<td>Masons</td>
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<td>Laborers</td>
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<tr>
<td>Ironworkers</td>
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<tr>
<td>Operators &amp; Drivers</td>
<td>380.1</td>
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<tr>
<td>Electricians</td>
<td>7.8</td>
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<tr>
<td>Millwrights</td>
<td>0.5</td>
</tr>
<tr>
<td>Carpenter</td>
<td>16.4</td>
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Number Full Time Equivalent Positions
Small Business Enterprise Utilization

![Bar chart showing utilization of small businesses in different sectors over the years 2009 to 2013. The chart categorizes the data into Construction, Professional Services, and Supplies/Services. The vertical axis represents the utilization amounts ranging from $0 to $16,000,000.](image-url)
Building 21st Century Skills for 21st Century Challenges

Since 2007, nearly 275 high school students have spent 8 weeks of their summer break LEARNING and growing to become the next generation workforce.

- Training beyond the classroom
- Innovation
- Inventiveness
- Digital-age literacy in education
- Use of Technology in Construction, Engineering, Public Health and Business
- Sustainable Solutions

Student Intern Academy
Goals of the Student Intern Academy

- **Goal 1** Transform youth into young professionals prepared for 21st century careers

- **Goal 2** Build partnerships to sustain steadfast commitments to the foundation

- **Goal 3** Expand career and educational pathways to increase the workforce development pipeline

- **Goal 4** Create a model youth training program to be adopted globally

_In 2014, 85 students will participate in the Student Intern Academy._
Our Vision of the Future Community

- **CONSIDERS** Current Economic Conditions
- **ADDRESSES** Our Wet Weather Challenge
- **DEVELOPS** An Integrated Solution
- **MAINTAINS** Vision for the Future Community
- **INVESTS** in our Workforce
THANK YOU

Metropolitan Sewer District of Greater Cincinnati
Greater Cincinnati Water Works
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