

vision of the  
future  
community



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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

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**Consent Decrees**



**Safe Drinking  
Water Act**

**Clean Water  
Act**



**Service Area  
Expansion**

**Regionalization of  
Services**



**Reliability  
Centered  
Maintenance**



**Title V Air  
Permitting**

**Asset  
Management  
Programs**

**Transportation  
Corridor  
Coordination**

**WHY ARE UTILITIES BUILDING  
INFRASTRUCTURE?**

## Competing Objectives

Balancing politics, environment, rates, and technology

## Population Reduction

People migrating away from the urban core

## Local Economic Conditions

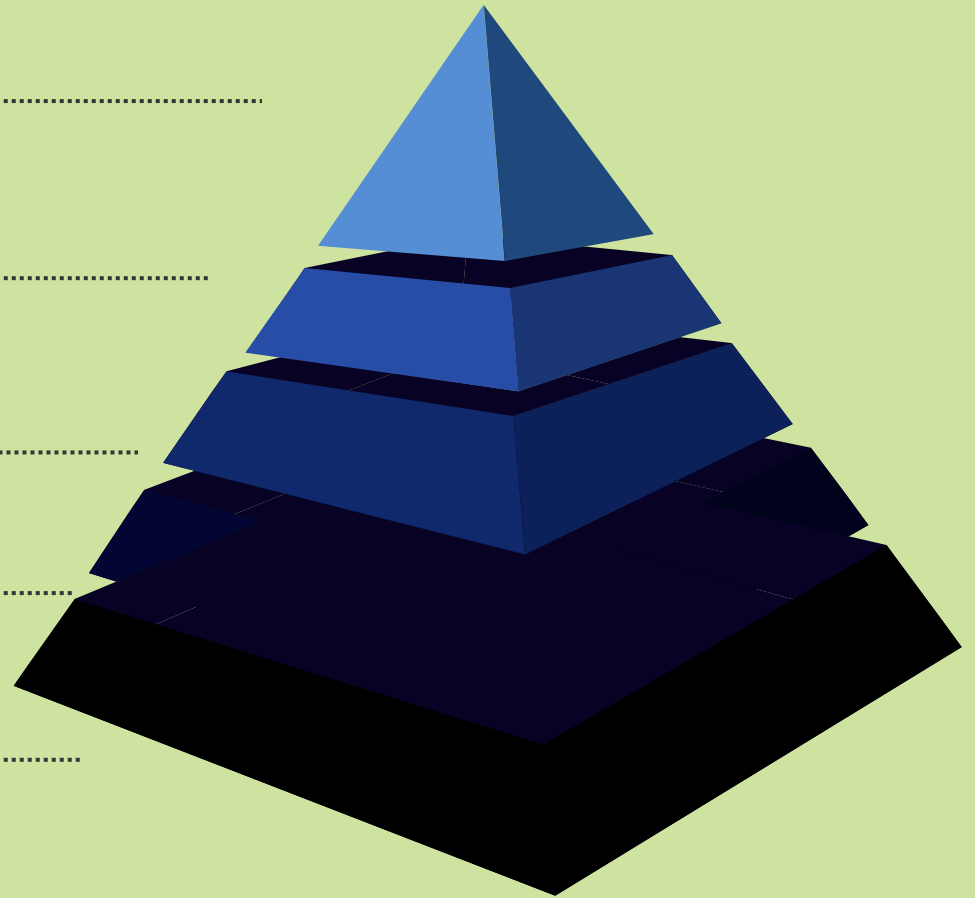
Unemployment & reduced revenue

## Consent Decree

Mandated capital improvements

## Aging Infrastructure

Components installed in late 1800s



**WHAT CHALLENGES ARE  
UTILITIES FACING?**



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**CURRENT ECONOMIC CONDITIONS**



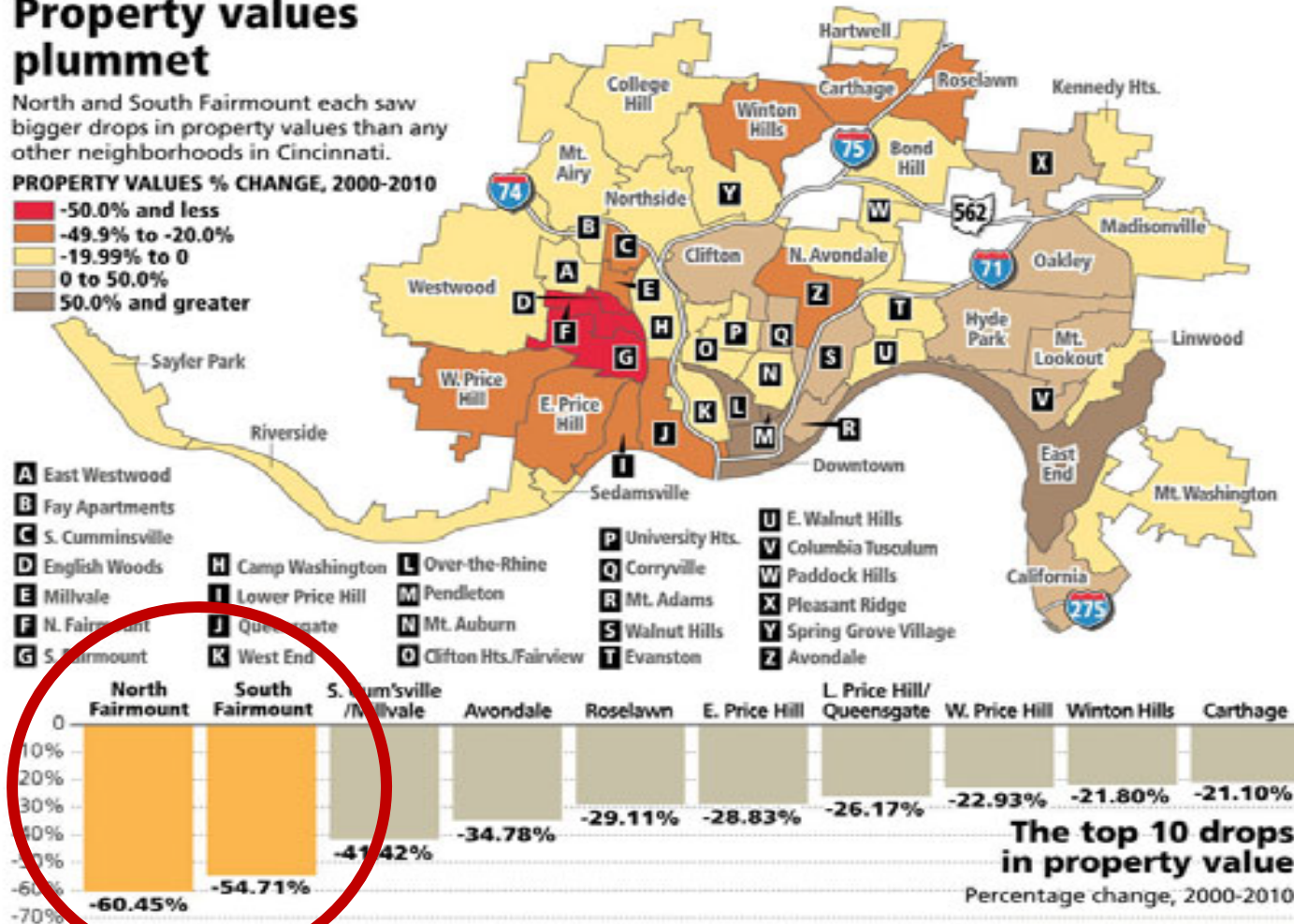
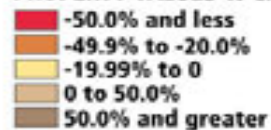
# Plummeting Property Values

*Property values decreased by 55%  
between 2000 and 2010.*

## Property values plummet

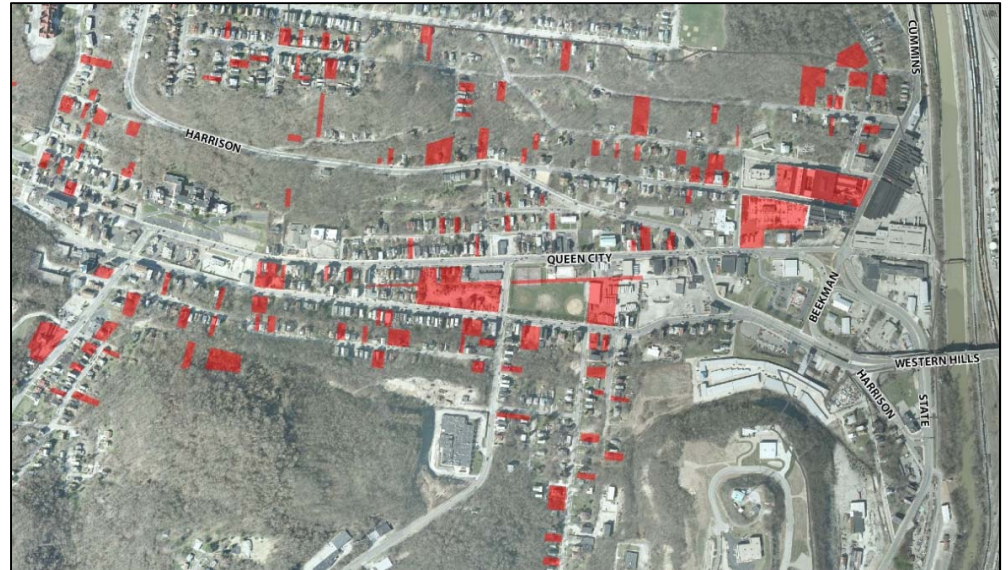
North and South Fairmount each saw bigger drops in property values than any other neighborhoods in Cincinnati.

**PROPERTY VALUES % CHANGE, 2000-2010**



# 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





# 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.**

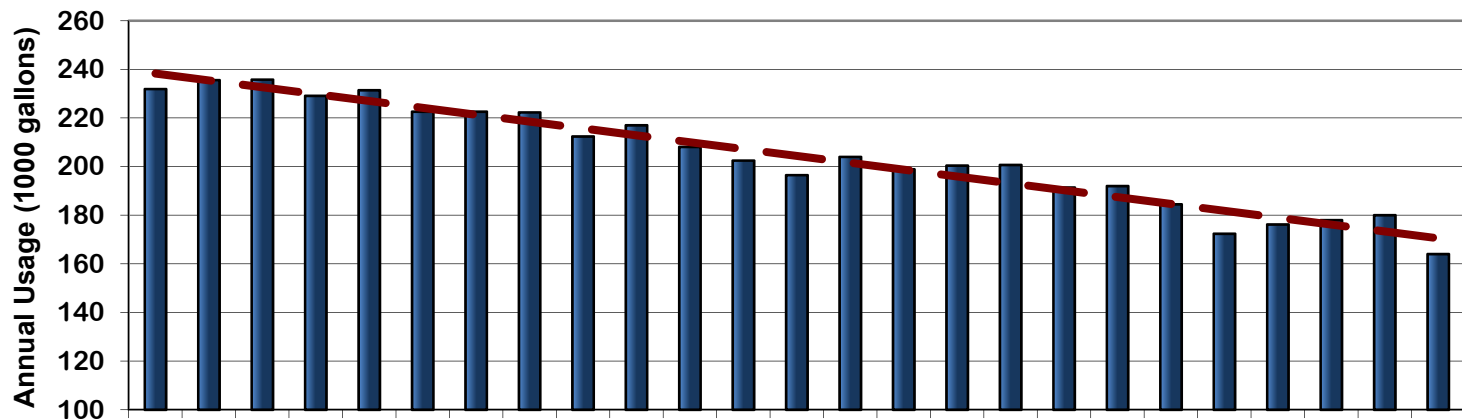
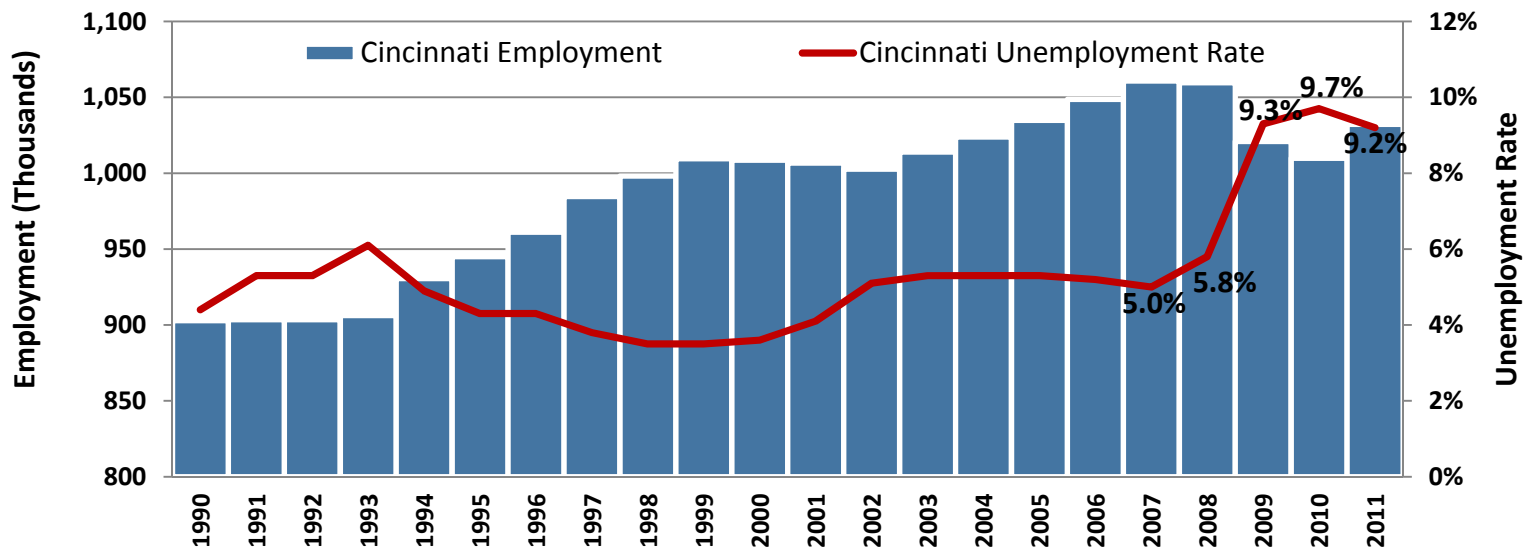


# Millions of Gallons of Sewer Overflows



**212 Combined Sewer Overflows  
72 Sanitary Sewer Overflows**

# Increasing Unemployment Decreasing Water Usage



**MSD continues to see an annual decline in usage per account**



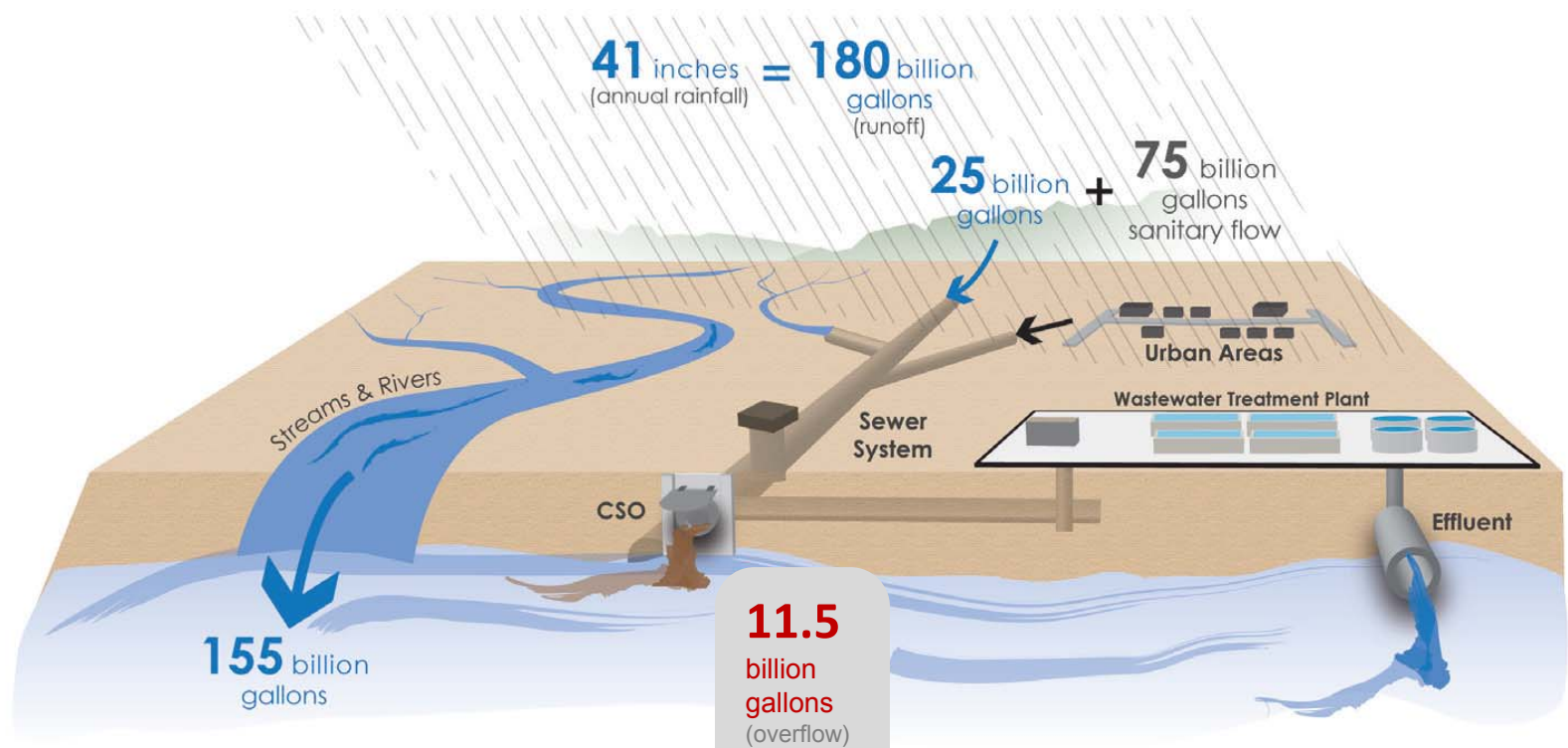


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# **OUR WET WEATHER CHALLENGE**

# 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

## AMERICA'S INFRASTRUCTURE G.P.A.

# D+

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

METHODOLOGY >

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

A = Exceptional  
B = Good  
C = Mediocre  
D = Poor  
F = Failing

ESTIMATED INVESTMENT  
NEEDED BY 2020:

\$**3.6**  
TRILLION

## ASCE 2013 Report Card for America's 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

# 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

SUNDAY, JULY 18, 2010 SECTION F

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

## A \$3.5 BILLION FIX



**Sewer: Projects estimated at \$3.5 billion**

**PROJECT GROUNDWORK**

**Widespread problem**

**ABOUT MSD**

**Sewer rate increases**

**bill**

**rate hike**

Dec. 12, 2012

Local Cincinnati Enquirer



EDITOR: RANDY ESSEX, ressex@cincinnati.com

WEDNESDAY, DECEMBER 12, 2012

## Sewer rates to rise 5 percent

Increase will pay for mandated upgrades

By Sharon Cozlidge

The cost of flushing the toilet and brushing your teeth is expected to jump 5 percent next year for the Metropolitan Sewer District of Greater Cincinnati's 880,000 customers. That's not as much as had been projected, but it still means the average yearly sewer bill will climb from \$76.80 this year to \$79.60 next year.

Since 2006, when the average rate was \$406.44, MSD's sewer rates have spiked 85 percent. Hamilton County commissioners must approve the 2013 rates and are set to vote on them Dec. 19.

A public hearing on sewer rates is scheduled during today's commissioner meeting. Assistant Hamilton County Administrator Jeff Alaxto said. In past years, the Metropolitan Sewer District has given commissioners a several-year rate projection. "As we're starting to ramp

### HAVE YOUR SAY

Republican Greg Hartmann (513) 946-4435 or greg.hartmann@hamilton-co.org; Republican Chris Monzel (513) 946-4479, or chris.monzel@hamilton-co.org; Democrat Todd Fortune (513) 946-4401 or todd.fortune@hamilton-co.org.

**A public hearing**  
Today at 7:30 a.m.: 138 E. Court St., Cincinnati, OH 45202  
Tell commissioners what you think using The Enquirer's new "Talk to your government" tool at the Politics Extra blog at Cincinnati.com.

Failure to comply with those federal mandates is not a discretionary option of the county or MSD as its operator, Alaxto said.

"The proposed rate hikes are the tragic outcome of federal policy run amok, where the same U.S. government that has been spending \$10 billion a month to promote U.S. policy abroad by building roads, bridges and sewers, instead is using its own citizens just because our sewers are old and in need of repair," Hamilton County Commissioner Todd Fortune said.

March 1, 2010 Broadcast  
"Sewer Rate Hikes Expected for MSD Customers"





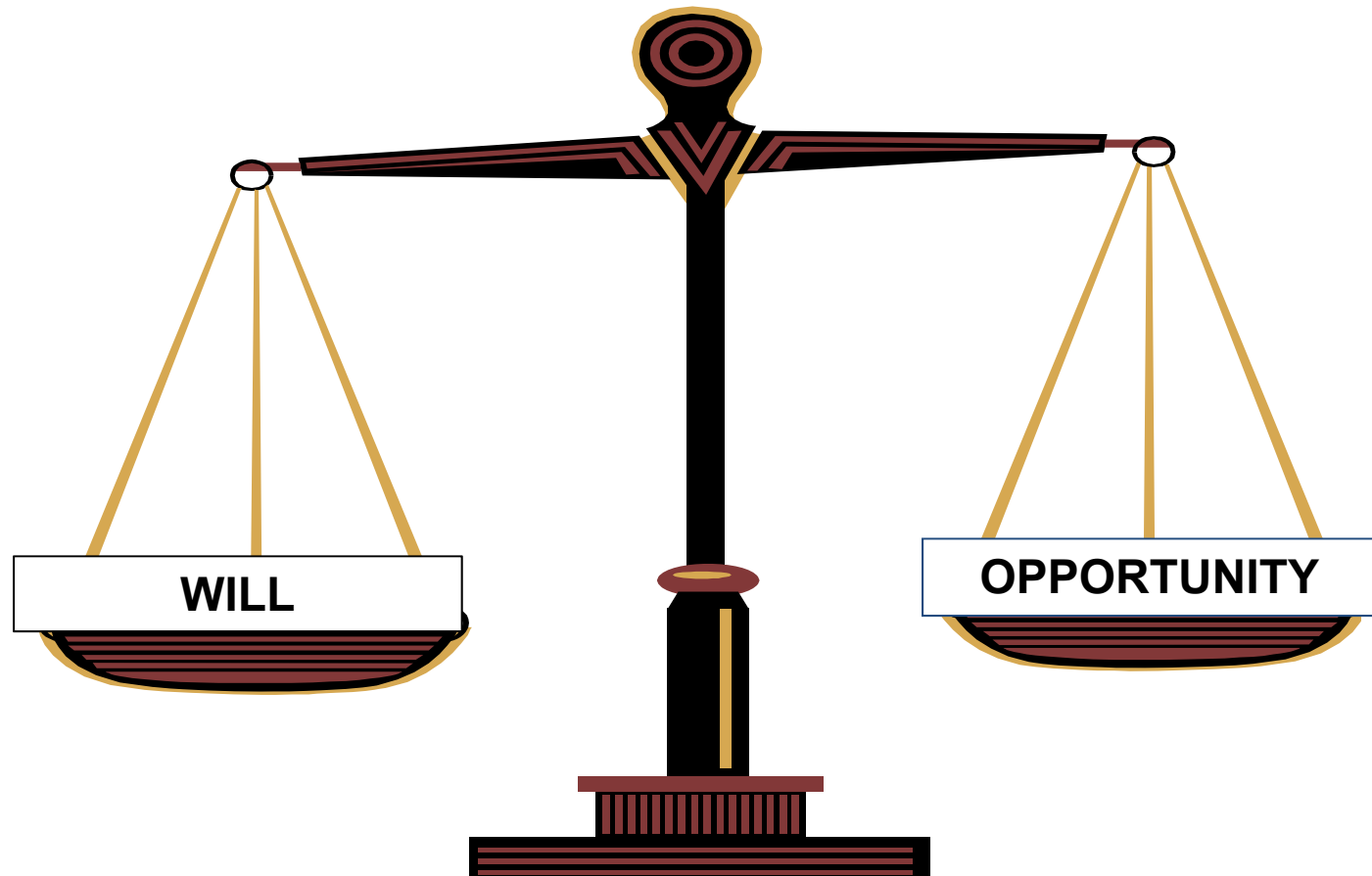
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**AN INTEGRATED SOLUTION**

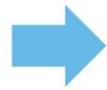
# Will vs. Opportunity

**“Will”** must always be the dominant partner.





Current Conditions  
in the Community



Leverage  
MSD's Investment



Community's Vision  
for the Future

THE CINCINNATI ENQUIRER

Property value at a substantial decline



Expand & improve  
parks and greenspaces

Opportunities for  
improved mixed use and  
affordable housing

Improve traffic flow,  
pedestrian accessibility  
and safety

Incentives for  
business retention  
or redevelopment

**MSD**

Metropolitan Sewer District

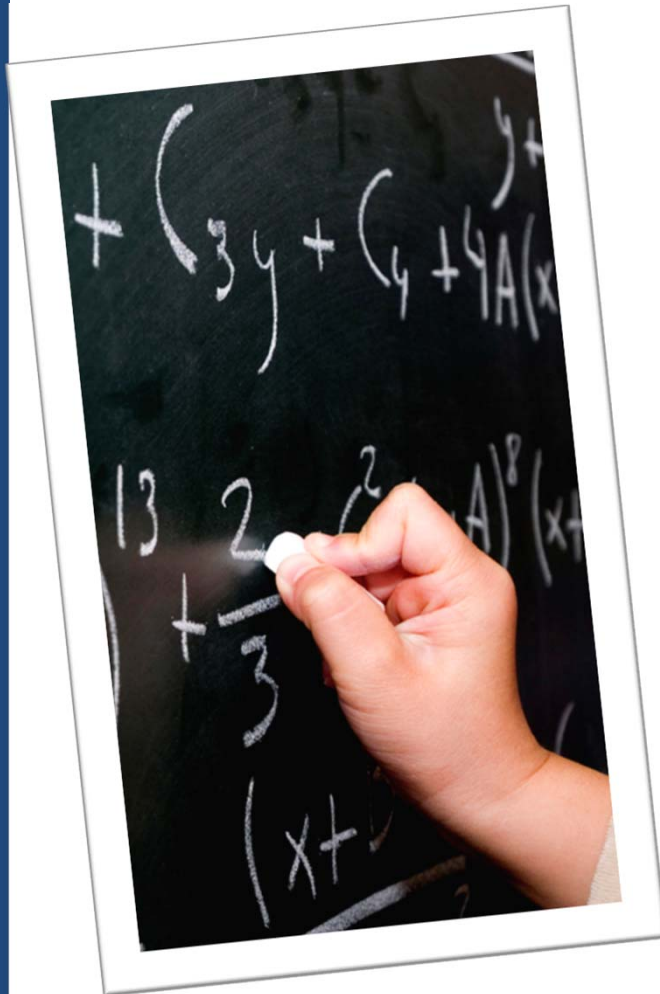
Investment to reduce sewer overflows  
and meet federal mandates

economics  
sustainability  
infill  
jobs  
bike trails  
smart growth  
safety  
recreational  
opportunities  
better  
education  
community  
gardens  
quality place  
community assets



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**

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# 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



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# VISION OF THE FUTURE COMMUNITY



# Build the Right Project

*The “alternative” solution is less costly and has more benefits.*



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# Build the Right Project

*Balance water quality, capital investment, and community integration.*

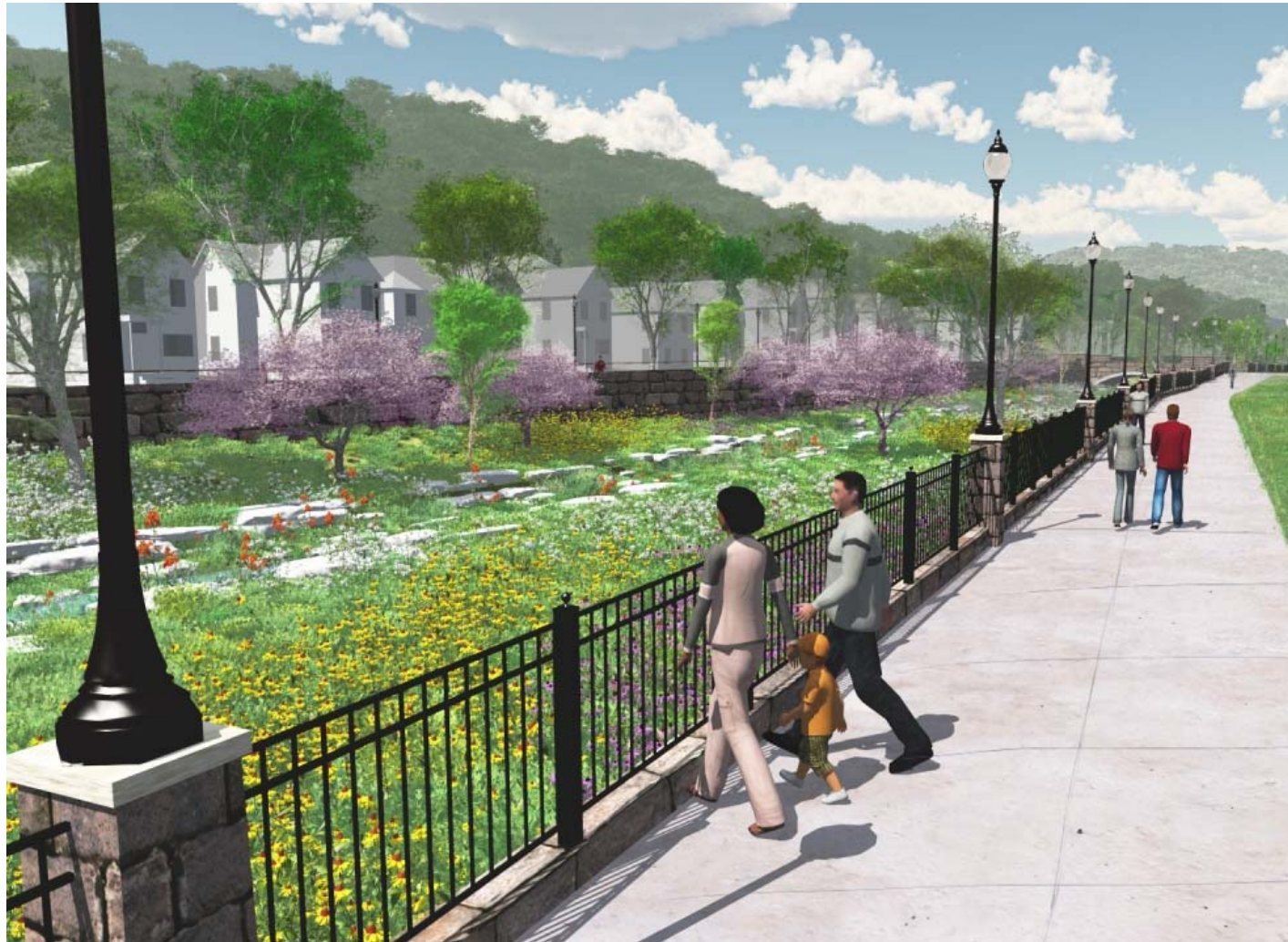


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# Build the Right Project

*Leave a legacy for the next generation.*



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# Build the Right Project

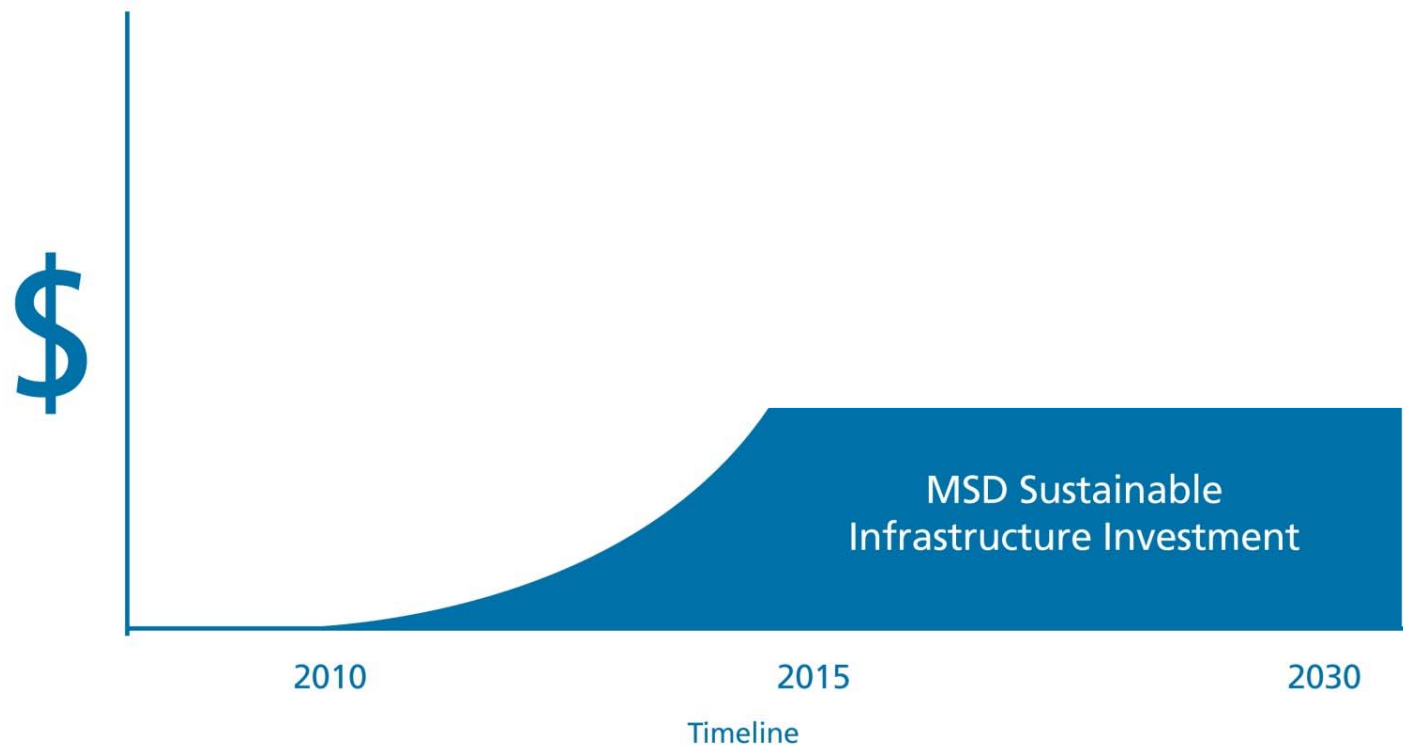
*Vision for the Future Community.*



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# Funding Partnerships

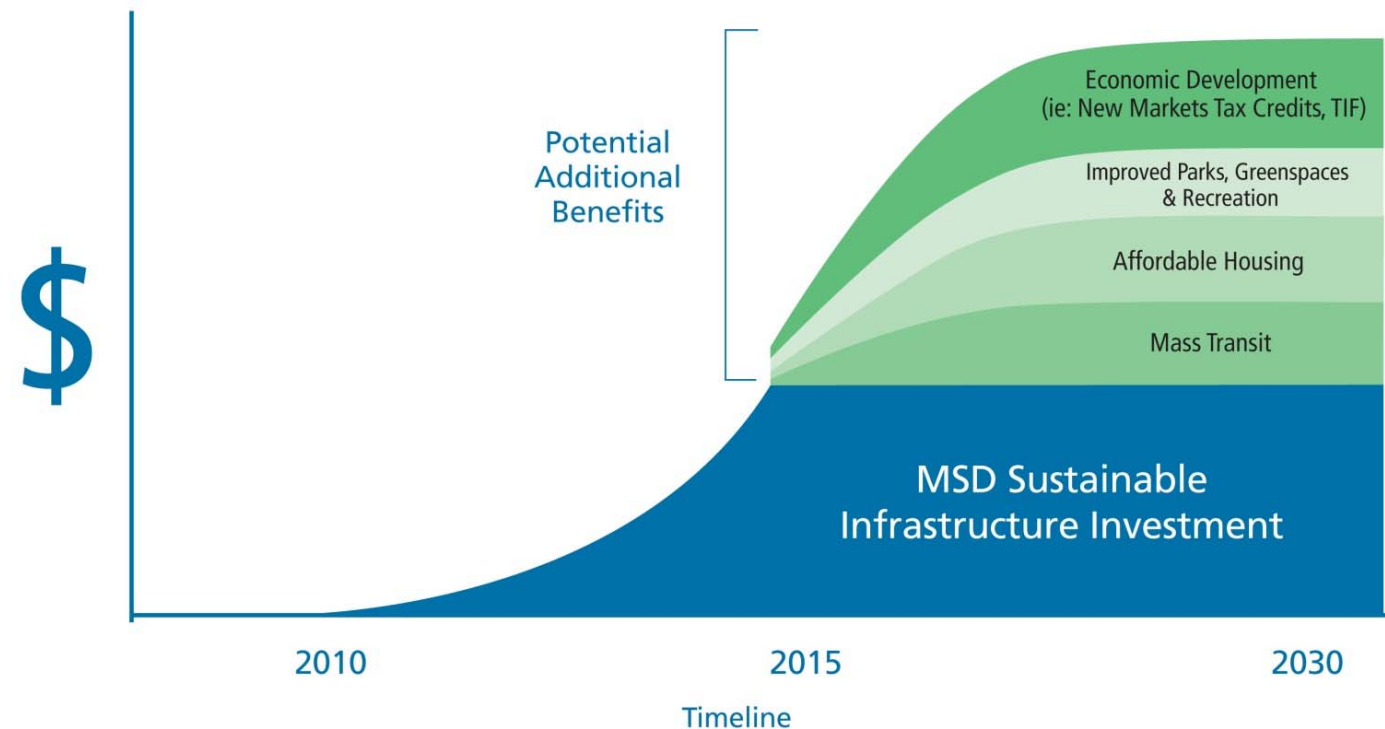
*Value Creation: Market Analysis of Sustainable Infrastructure Investment*



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## “Private Side Action”





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**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**

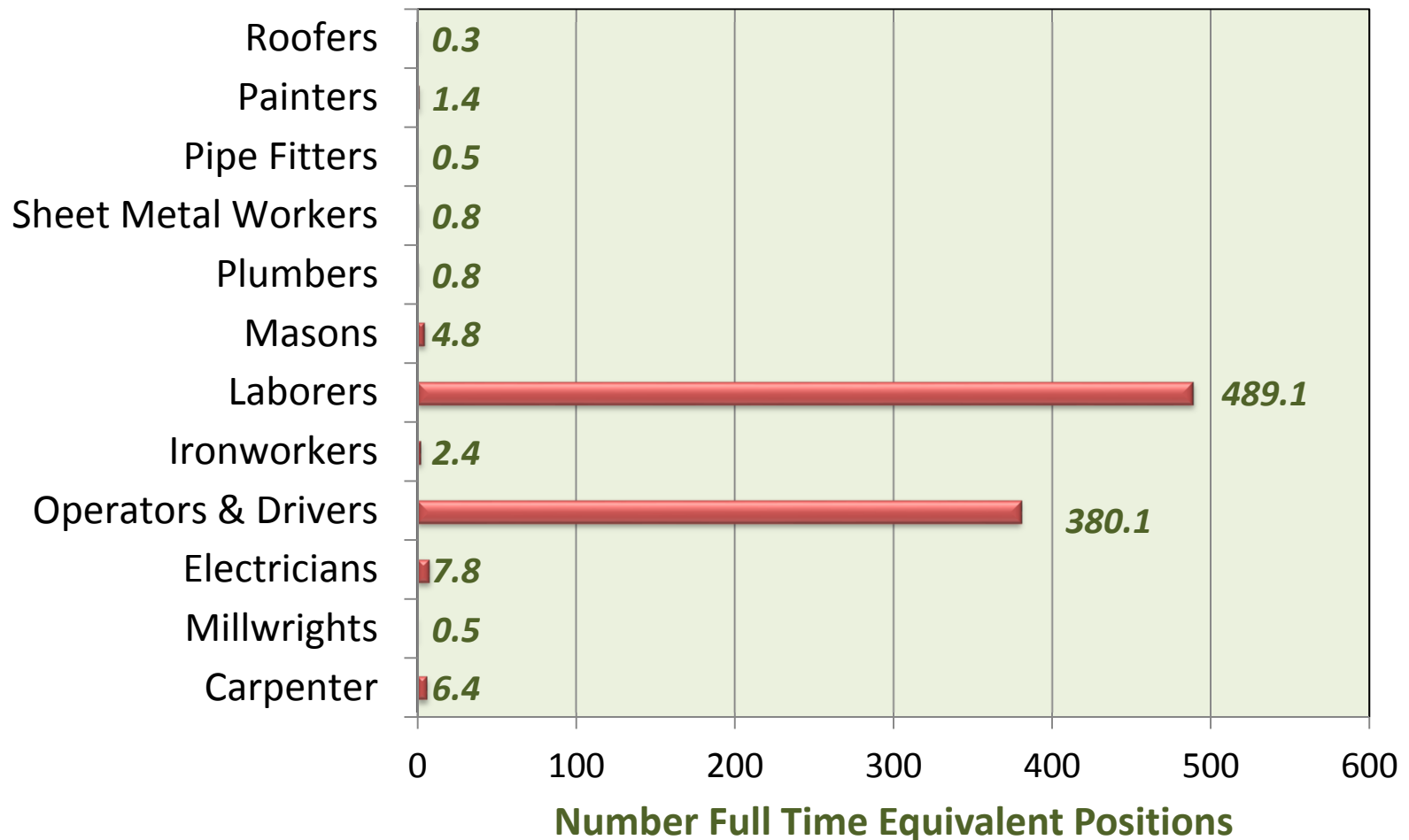
5,700 feet of storm sewer  
7,200 feet of new combined sewer  
1.5 million gallons combined storage  
at CSO 217  
3 SW detention basins  
Streambank Stabilization and  
restoration measures

## West Fork

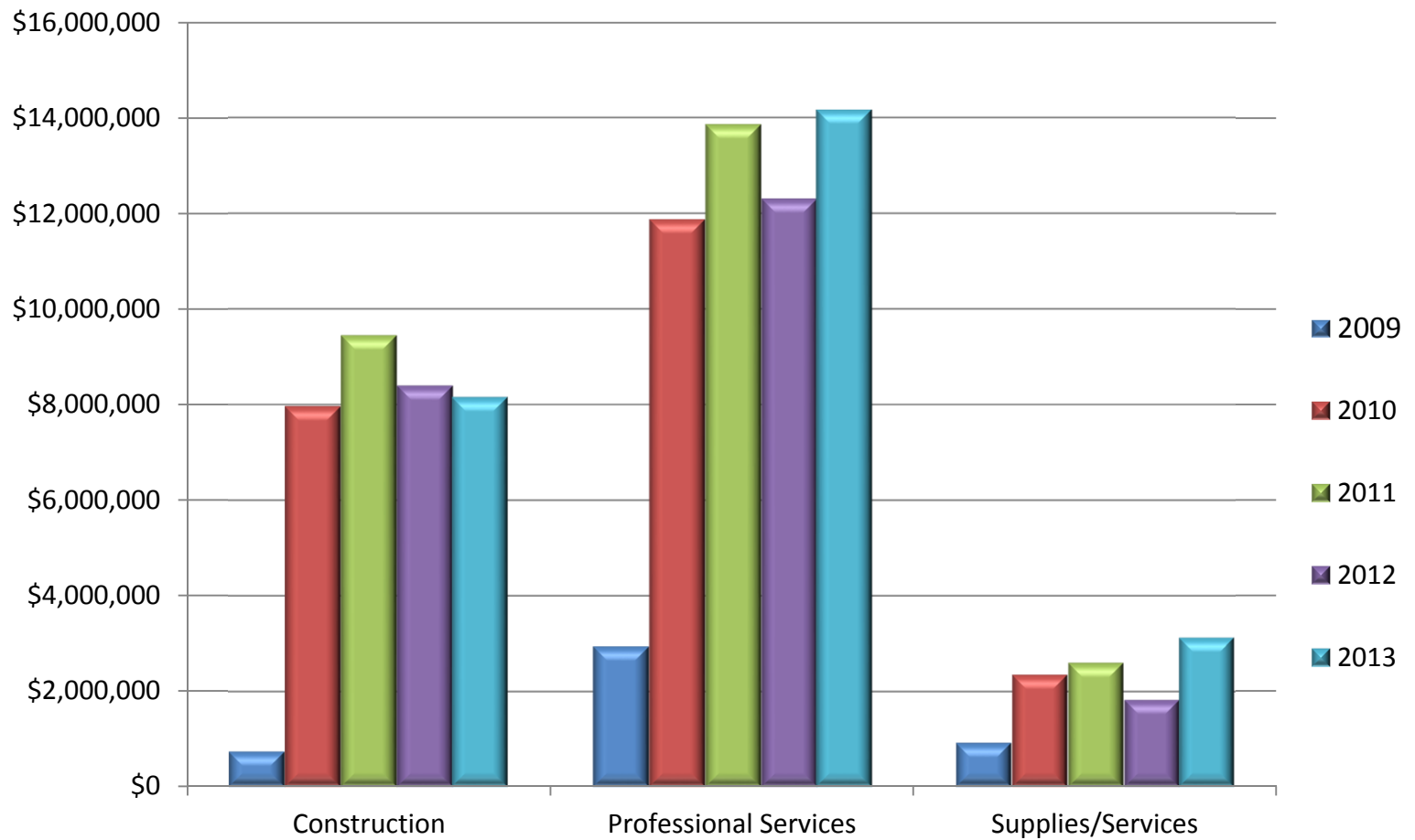
### **73 Construction Trade Jobs**

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



# Small Business Enterprise Utilization





# Building 21<sup>st</sup> Century Skills for 21<sup>st</sup> Century Challenges

*Student Intern Academy*

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



# Goals of the Student Intern Academy



- ◆ **Goal 1** Transform youth into young professionals prepared for 21<sup>st</sup> 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.*







**2013 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

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**THANK YOU**

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