



vision

Improving the Environment and the Economy NACWA 2013 Summer Conference July 16, 2013

Metropolitan Sewer District of Greater Cincinnati
Tony Parrott, Executive Director



Agenda

- ◆ Current Economic Conditions
- ◆ Mitigating the Trend = Shared Services
- ◆ Our Wet Weather Challenge
- ◆ Reversing the Trend = An Integrated Solution
- ◆ Vision for the Future Community
- ◆ Investing in our Workforce
- ◆ Innovation through Technology

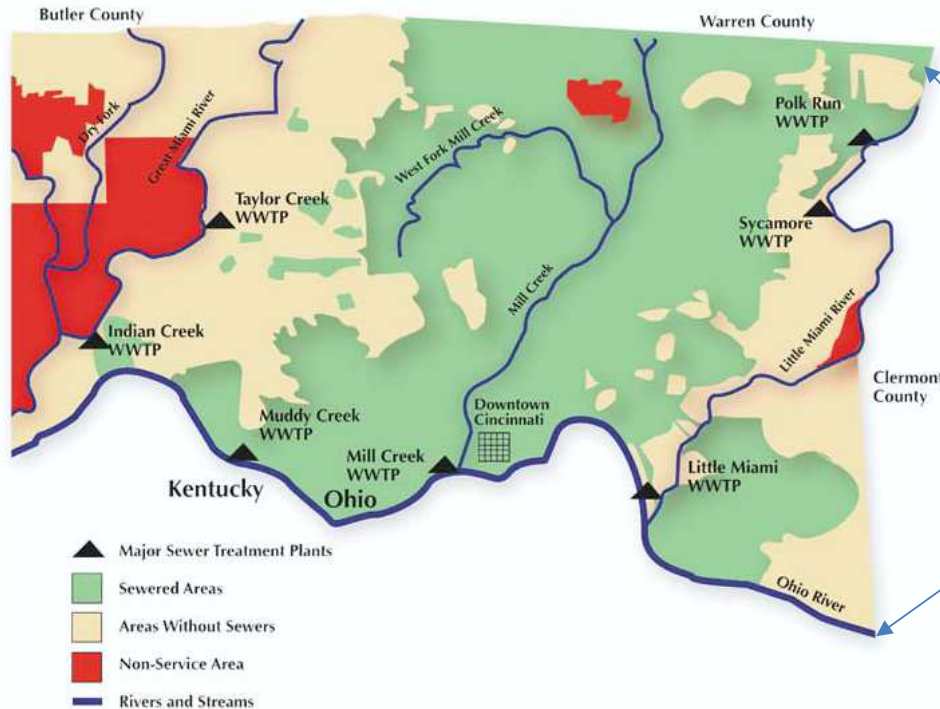


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Vision of the future community

CURRENT ECONOMIC CONDITIONS

Metropolitan Sewer District of Greater Cincinnati



- Publicly Owned/Operated Wastewater Utility Serving Southwest Ohio (Hamilton County)
- Serves a Population of about 855,000
- 230,000 Residential and 250 Industrial Users
- Operates 7 Wastewater Treatment Plants; treating 70 Billion Gallons/Year

A Community in Need of Transformation

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



Assuming current trends, the rate of household decline equates to a loss of 200 households within 1 mile, resulting in a **loss** of more than **\$5.7 million** (in 2008 dollars)

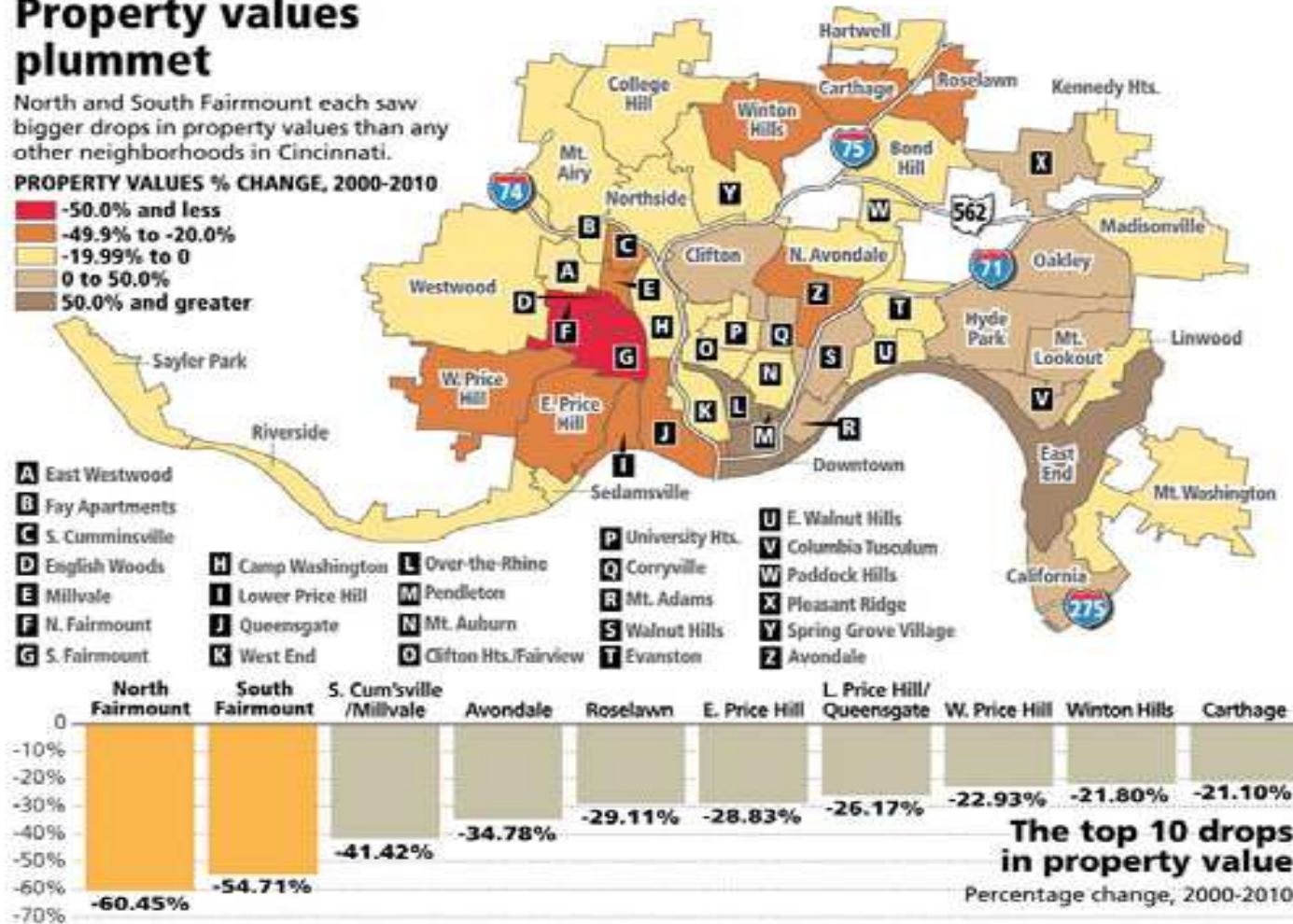
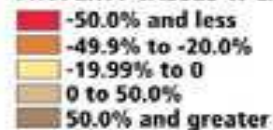
Plummeting Property Values

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

Property values plummet

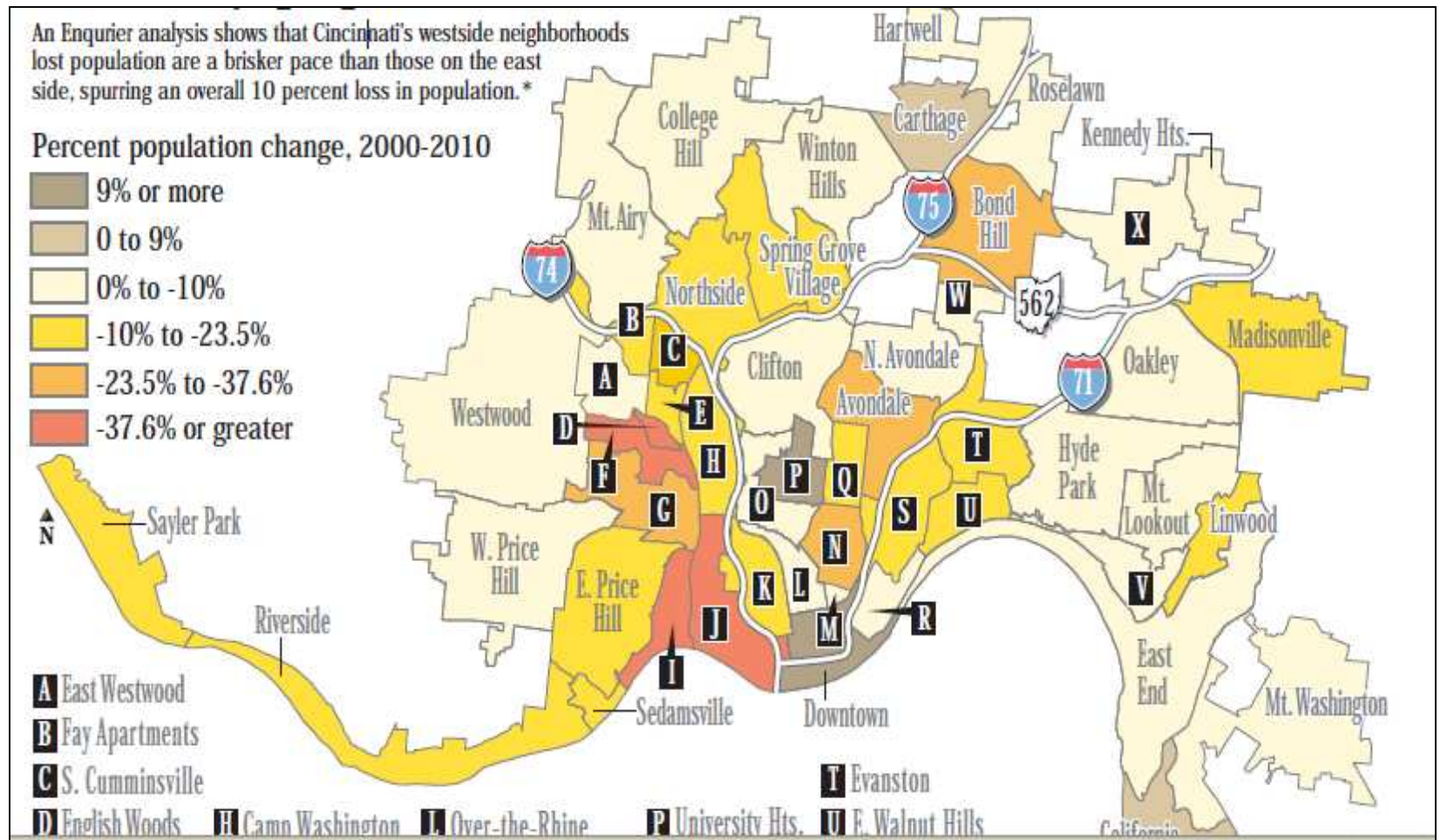
North and South Fairmount each saw bigger drops in property values than any other neighborhoods in Cincinnati.

PROPERTY VALUES % CHANGE, 2000-2010

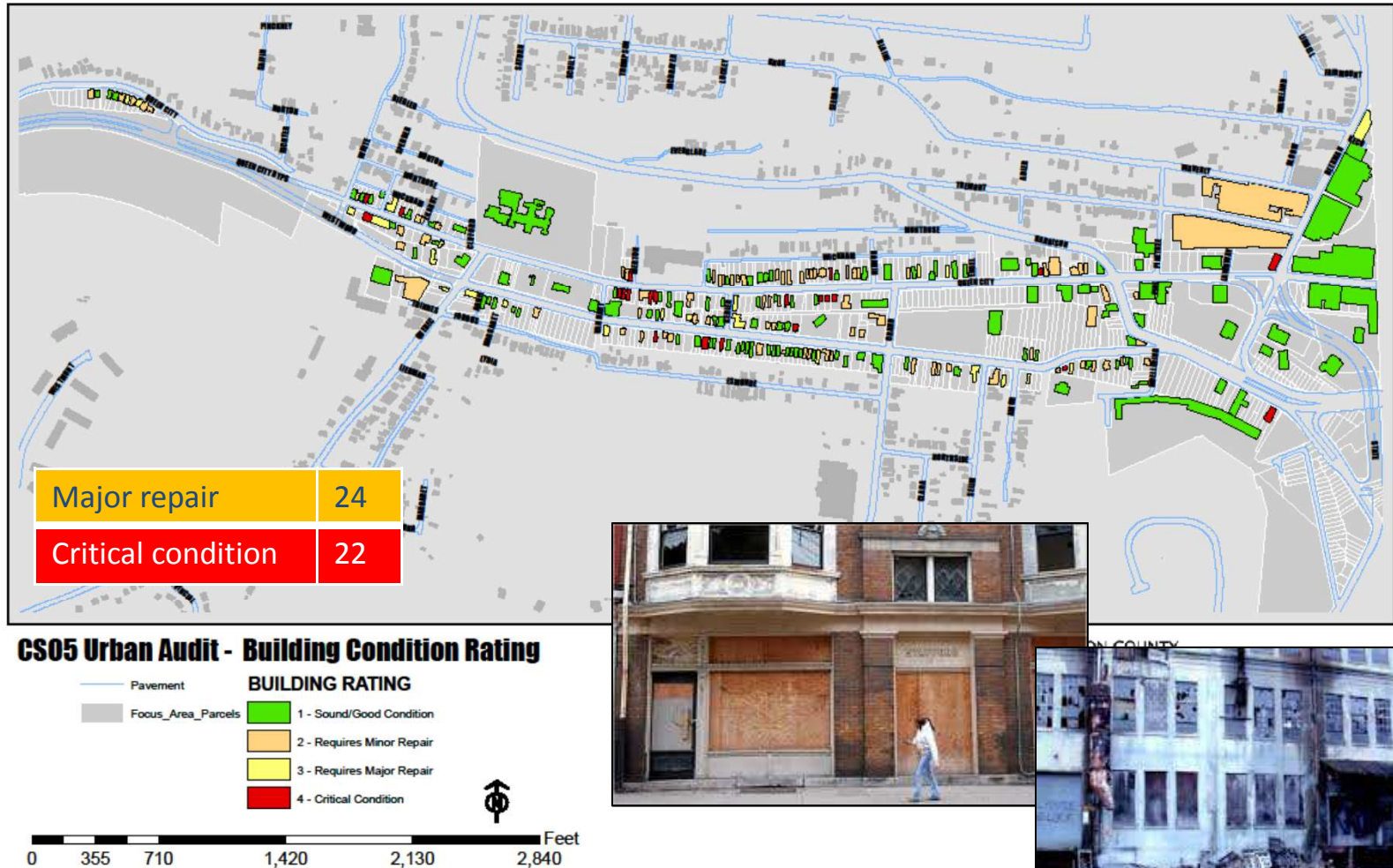


Declining City Population

*Overall City-Wide 10% population decline
between 2000 and 2010 with some areas
experiencing more than 35% decline.*



Buildings in Need or 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.

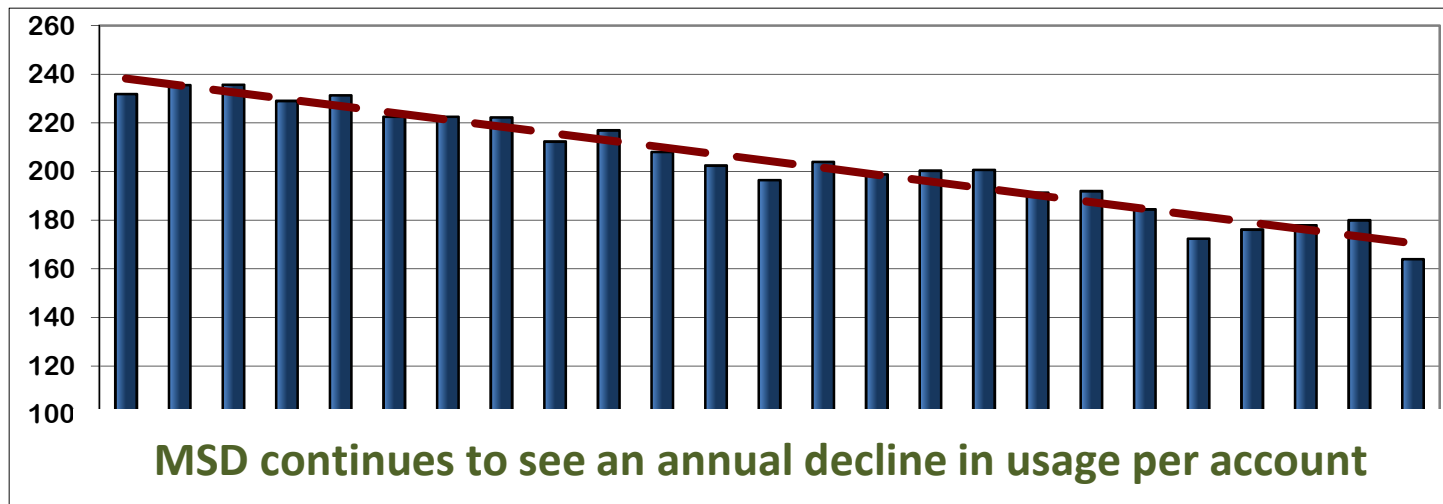
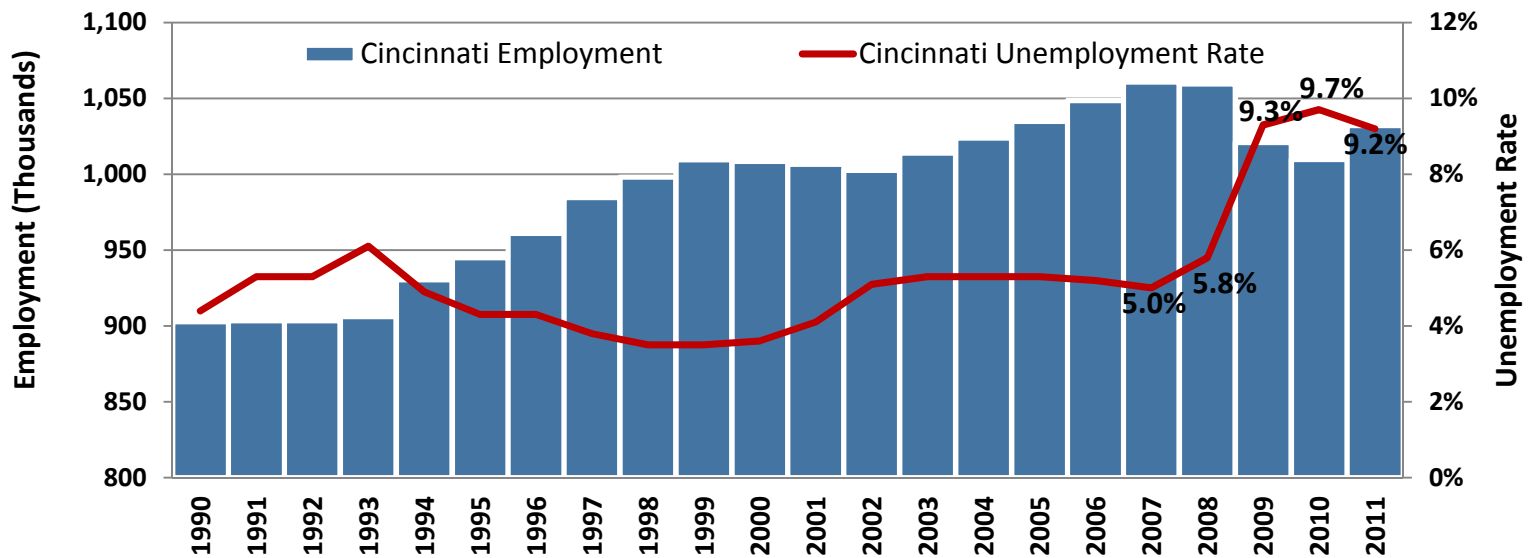
Wet weather overwhelms our streets and our combined sewer systems.

Millions of Gallons of Sewer Overflows

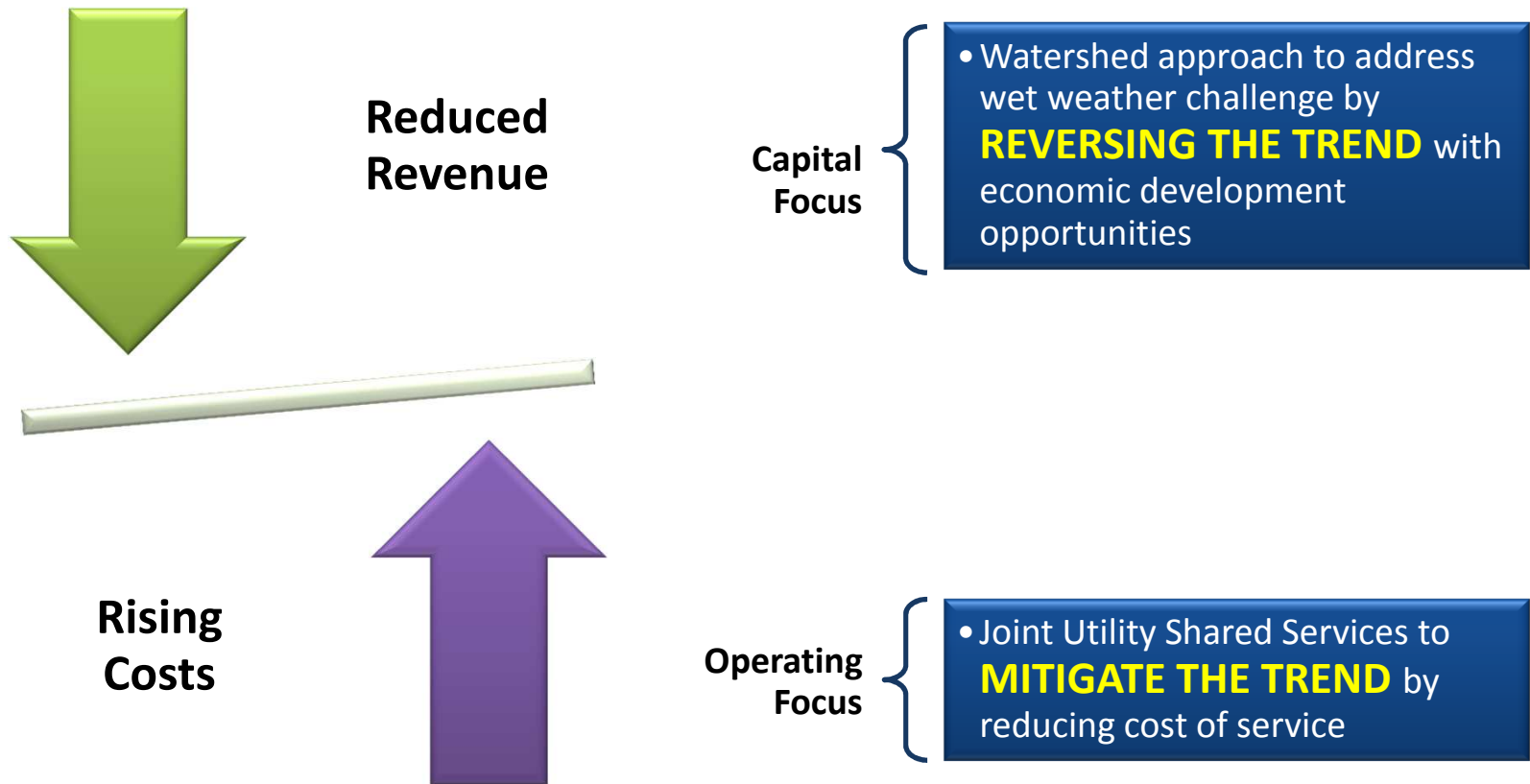


**212 Combined Sewer Overflows
72 Sanitary Sewer Overflows**

Increasing Unemployment Decreasing Water Usage



How do we reverse this trend and mitigate the impact to our Utility?





vision

Vision of the future community

JOINT UTILITY SHARED SERVICES TO MITIGATE THE TREND

Joint Utility Shared Services

- 💧 The Ugly Truth
- 💧 The Bad Perspective
- 💧 The Good Opportunity
- 💧 Tough Challenges
- 💧 Keys for Success

Utility
Integration

Cincinnati's Three Utilities



- ◆ Serves a County-Wide Population of about 1.1 million
- ◆ 230,000 Residential and 250 Industrial Users
- ◆ Operates 7 Wastewater Treatment Plants; treating 70 Billion Gallons/Year
- ◆ Operates 2 Water Treatment plants; distributing 40 Billion Gallons/Year

**Greater Cincinnati Water Works
Metropolitan Sewer District of Greater Cincinnati
Stormwater Management Utility**

Why have we historically been separate?

- 💧 Sewer and Water Departments formed at different times
- 💧 Sewer District has two political governing bodies (County Commission and City Council)
- 💧 Stormwater and Sewer and Water Utilities have different jurisdictional boundaries

**DRINKING
water**

bridges

public
parks

aging workforce

mass transportation

Energy needs

solid waste

declining revenues

Flooding

roads

electric

pedestrian

pipe breaks

creeks

walkways

air

combined sewer overflows

storm water

National level trends are having big local impacts

THE UGLY TRUTH

The Ugly Truth

....our ratepayers are using less water



- 💧 Increase in single-person households
- 💧 High unemployment rates
- 💧 General shift from manufacturing economic base to service oriented industries

“Utilities also were not immune to the effects of the economic downturn. Last year, many continued to raise rates and scale back capital improvement projects because of the decline in revenues and limited federal funding.”

-- State of the Industry Report, Water Environment Federation

The Ugly Truth

...our communities have competing needs



**Transportation
Issues**



**Aging Utility
Infrastructure**

Budget Deficits

Aging Workforce



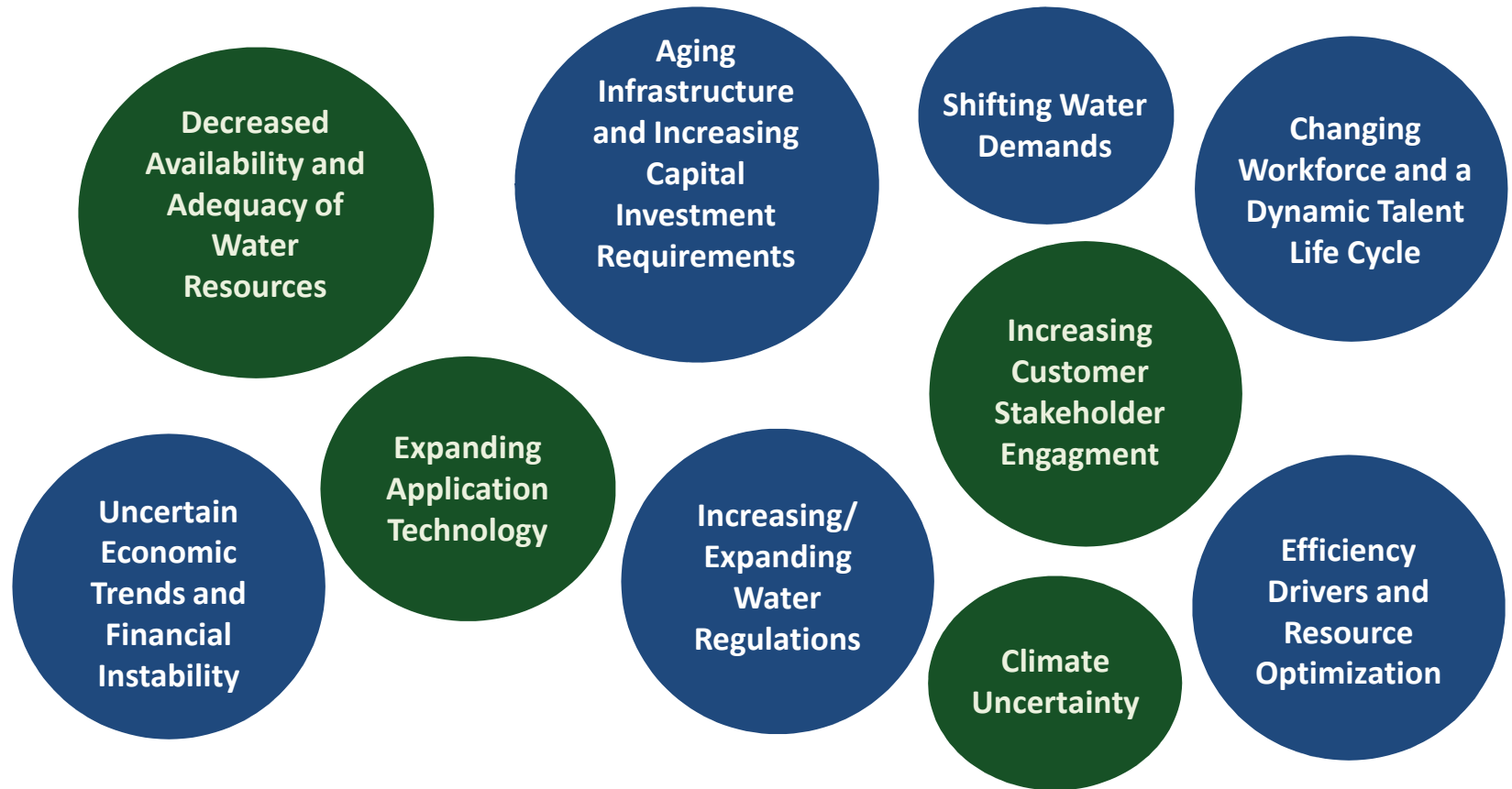
**Millions Gallons of
Sewer Overflows**



**Flooding in
Urban Areas**

The Ugly Truth

...these trends are happening at national level



Forecasting the Future: Progress, Change and Predictions in the Water Sectors

Water Research Foundation, 2011



What will your
utility look like
in 2050?

Business as usual will not position utilities for future sustainability

THE BAD PERSPECTIVE

The Bad Perspective

... "business as usual" is the answer

The Utility of the past added value by assuring customers that it would provide plentiful safe drinking water and adequate sewer service

But that isn't enough to handle the ugly truth...



What if...?

Joint Utility Management...

...could change how we do business?

- ... we could be better **stewards** of ratepayer money?

- ... we could find a way to **sustain public operation** of the Utility enterprise funds?

- ... we managed water resources in a complete **water cycle approach**?

- ... we leveraged what we do well and gained **additional benefits** ?

- ... we could **bring value** to the environment and the communities we serve?

- ... we started the path to become the **Utility of the Future**?



collaboration

Sharing services among Utilities having same rate payer base makes sense

THE GOOD OPPORTUNITY

The Good Opportunity

...to share utility services

cincinnatibusinesscourier.com

FEBRUARY 8, 2013 | 3



RESIDENTIAL BILLS SEE SURGE

The Metropolitan Sewer District residential rates average about \$7.50 per 1,000 gallons.



MILES AND MILES OF MAINTENANCE

MSD maintains 3,000 miles of sewers in a service area that covers 290 square miles in Hamilton and parts of Butler, Warren and Clermont counties.

Slowing rise of water rates

MSD chief looks for collaborative ways to cut costs

BY ION NEWBERRY
jnewberry@bizjournals.com

TONY Parrott is working to cut Hamilton County water and sewer bills by more than \$100 million, but ratepayers probably shouldn't run out and spend the money just yet.

Savings in operating expenses might be real enough for the 230,000 homes and businesses served by the Metropolitan Sewer District of Greater Cincinnati (MSD). But those savings will be more than offset by mounting infrastructure costs that have tripled sewer rates since 1999.

Customers now pay much more for sewer service than they do for tap water. Those rates are typical for urban areas in the Eastern U.S. and Great Lakes regions with aging sewer systems, according to water industry officials.

That's why Parrott, executive director of MSD, is leading an effort to combine functions of his organization with those of the Greater Cincinnati Water Works, which supplies clean water to most of the same customers. Both agencies are run by the city of Cincinnati. They have a combined annual budget of \$363 million and some 1,200 employees.

Parrott's quest began in 2011 with a request for a feasibility study from Cincinnati City Council. In response, MSD and the Water Works developed a shared-services plan that's projected to save between \$68 million and \$105 million over the next decade.

Spiraling costs of upgrading the county's aging sewer infrastructure – to improve water quality in the region's rivers – has made these moves critical.

"The cost is becoming a financial burden for customers," Parrott said.

He thinks the savings over the next decade can grow once they implement the plan and eliminate redundant positions as people retire.

Of 190 full-time-equivalent employees who are nearing retirement at both agencies, Parrott said, 85 of them won't be replaced.

Whatever the savings, that money will be dwarfed by the \$200 million MSD plans to spend – each and every year for the next 20 years – to comply with U.S. Environmental Protection Agency mandates for sewer system upgrades.

"How do I sustain myself as a public utility and do that?" Parrott asked. "This is part of the answer."

More than 90 percent of the combined utilities' costs are fixed expenses, he said. So Parrott is focused on reducing the costs he can control and on developing other revenue streams to help offset the rising costs he can't.

"It doesn't do away with the need for rate increases," he said, "but they'll be lower than they would be otherwise."

That's something he said repeatedly during a recent one-hour meeting.

Cincinnati isn't alone there – or in the move to combine water and sewer services, said Adam Krantz, spokesman for the National Association of Clean Water Agencies in Washington, D.C. He cites two factors moving the industry – the EPA's aggressive push to reduce storm water overflows and steadily falling water usage as people become more environmentally aware and cost-conscious.

Rather than managing water in separate silos, the trend is to manage it as "one water, one resource" and look for the best way to address all the interrelated issues, Krantz said. Cincinnati deserves a lot of credit for its work in that regard, he added.

Parrott pulled out a chart showing a steady 25-year decline – accelerating over the past 10 – in the average amount of water used by Water Works customers. It has gone from 155,000 cubic feet per account in 2000 to 118,000 in 2011. A big factor is the loss of high-usage industrial



"The cost is becoming a financial burden for customers."

Tony Parrott
executive director of MSD

customers that have closed or moved.

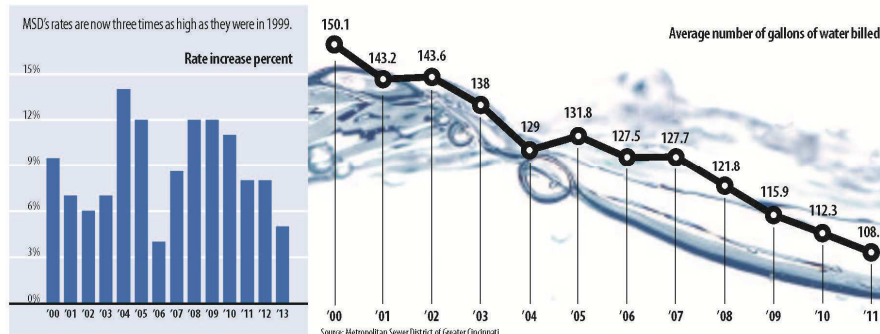
That's a big problem for MSD, because it charges for sewer service based on how much water a customer uses.

As a consequence, residential users now pay more than twice as much to get rid of a gallon of wastewater as they pay for a gallon of clean tap water. All of which gives high-usage businesses even more of an incentive to move elsewhere.

"At some point it becomes unaffordable and they have to move," said Jeff Rexhausen, an economist at the University of Cincinnati's Economics Center who has worked with cities on water and sewer issues. "The sewer district loses revenue and the county loses jobs. It's a double whammy."

USAGE EBBS

The average number of gallons of water billed by MSD, based on water usage, has declined steadily since 2000, forcing the utility to charge higher rates per gallon.



The Good Opportunity

...to share utility services

Water Works-MSD plan floats our boat

We have complained almost nonstop in this space about the city of Cincinnati's reluctance to cut costs, jobs or pension benefits, despite its increasingly precarious financial state.

But we'll take a break from grouching to praise two city agencies that are stepping up to remake themselves and in the process, save money and think creatively about how to make more of the same down the road.

Jon Newberry's page 3 story this week details plans by the Metropolitan Sewer District and the Greater Cincinnati Water Works to combine many operating functions, saving up to \$106 million over the next decade. It will also eliminate about 85 positions as workers retire, according to the story.

What has pushed these two agencies into action? The drastic rise in water and sewer rates, which places a burden on businesses and homeowners. That's happening because in 2004, the U.S. EPA ordered Cincinnati to fix its antiquated sewer system, which during heavy rain caused sewage to back up into people's basements, as well as rivers and streams.

MSD tried to go green, proposing solutions like rain gardens and wetlands to soak up the water in a more inexpensive way. But the EPA wasn't buying that, so the agency agreed to spend \$1.8 billion on repairs by 2018, and \$4 billion over 20 years.

So MSD and the Water Works are thinking out of the box, which should be encouraging to residents and businesses who have seen their quarterly water/sewer bills skyrocket over the past several years.

And they're not just thinking about cutting costs. Tony Parrott, executive director of the MSD, told Newberry that the agencies plan to start about a dozen new businesses over the next two years. Water Works is already providing billing services for a couple of cities, and MSD is shopping its incinerator services.

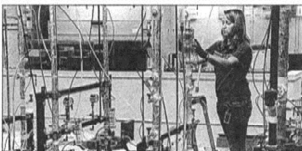
This is the sort of thinking that the *Business Courier* featured in June 2012 in a front-page story titled "Liquid Gold: Cincinnati's Water Economy." In short, areas like Cincinnati, which have a plentiful supply of fresh water, are sitting on a huge asset that the rest of the world will covet (and pay for) in the 21st century. And that doesn't

just mean pumping it into faucets, but developing water-related technologies that make money and boost the local economy.

If MSD and Water Works got into those lines of business, they'll be drawing innovative companies into Cincinnati and Hamilton County, rather than scaring away those that don't want to pay the high sewer and water bills.

And one of the primary goals is to bring in enough revenue, and save enough money to keep those bills from getting too high (although they're still going to rise).

So MSD and Water Works are definitely sailing in the right direction, and we hope their creative thinking will seep into the other crevices of city government where it is so desperately needed.



TOM HILMAN | COURIER

Cincinnati Business Courier

February 8, 2013

- MSD and Water Works are definitely sailing in the right direction, and we hope their creative thinking will seep into the other crevices of city government where it is so desperately needed.

The Good Opportunity

...to share utility services

Executive Director Deputy Director		
Shared Services		
Greater Cincinnati Water Works (GCWW)	Metropolitan Sewer District of Greater Cincinnati (MSD)	Stormwater Management Utility (SMU)

- 💧 Utility Administration
- 💧 Human Resources
- 💧 Financial Management
- 💧 Engineering
- 💧 Information Technology
- 💧 Laboratory Services



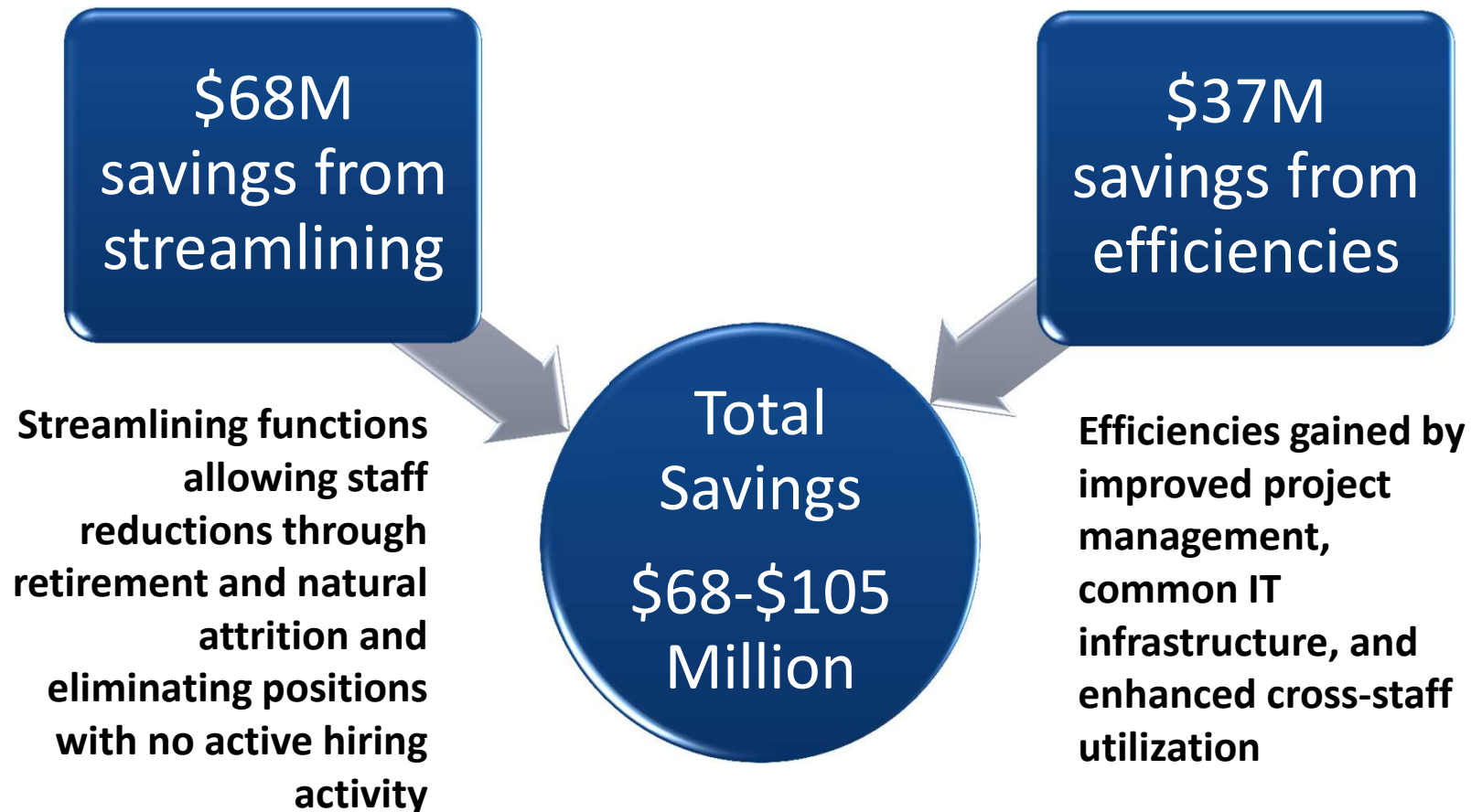
BRANDS

ENTERPRISE FUNDS

SETS OF ASSETS

The Good Opportunity

...to provide savings to ratepayers



The Good Opportunity

...to benefit employees

- 💧 Sustaining operations of the utilities in the public sector
- 💧 Cross training to learn new skills
- 💧 Leveraging technology to improve job performance
- 💧 Providing promotional opportunities





arrggh

Challenges require concise solutions

TOUGH CHALLENGES

Tough Challenges

...reconciling cultural differences

465 ● Employees attending Town Hall Meetings -Provide Transparency and Give Opportunity for Q&A with the Director



186 ● Questions from Town Hall Meetings Addressed by Leadership

62 ● Intranet site for all communications to 1,200 employees and a common place for the 62 task teams documentation

15 ● Combined monthly newsletter provides consistent message to all three utilities. Direct emails give updates and timely information from Director

Joint Utility
Newsletters
& Direct
Emails

SharePoint
team sites

Town Hall
Questions

Town Hall
Attendance

Tough Challenges

...maintaining focus on different drivers



Consent
Decree
Mandates



Customer
Water
Outages



Localized
Flooding

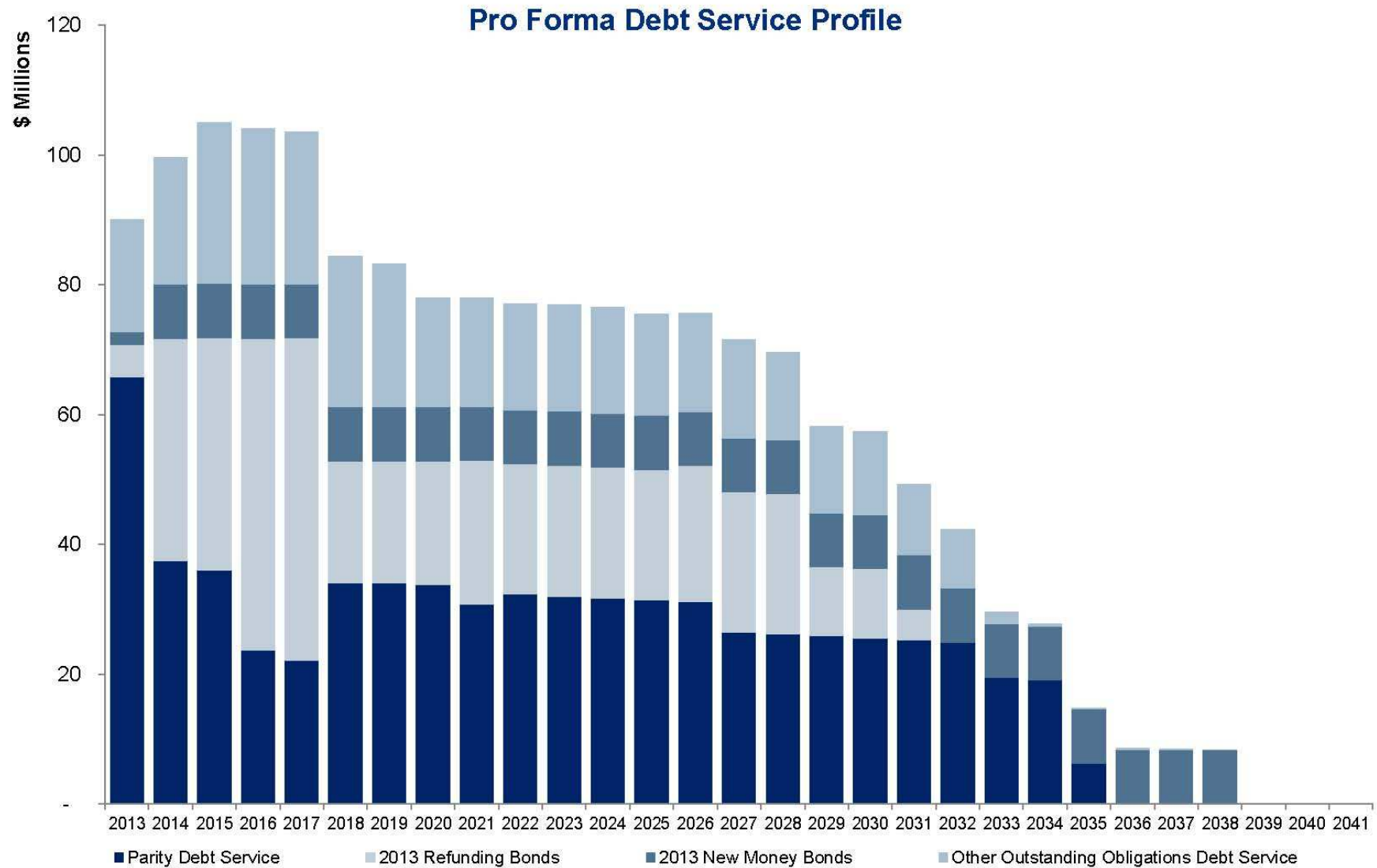
Tough Challenges

...managing financial liabilities

- ◆ Cincinnati's three utilities comprise **70% of the City's operating & capital budgets**
- ◆ Collective outstanding liability = **\$1.5 billion**
- ◆ Future liability projected to be nearly **\$3 billion**
- ◆ Utility integration is about **redoing the math** to sustain public operations

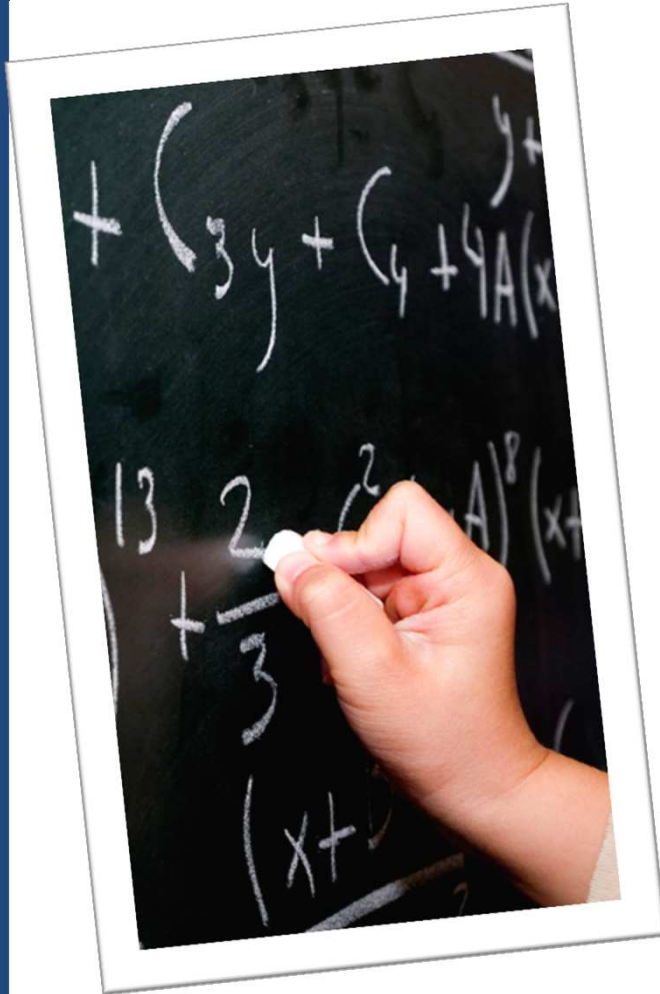


Annual Debt Service Requirements



Tough Challenges

...how can we redo the math



+ 1 Federally Mandated CSO Volume Reduction

+ \$2B+ Investment by Rate Payers in New Infrastructure

X Private Participation, Boost to Local Economy, Community Revitalization

= Sustainable Utility & Livable Community

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Success requires constantly remembering the vision for the future

KEYS TO SUCCESSFUL UTILITY INTEGRATION

Keys to Success

...How We Did It



Start
with
Political
Buy-In

Appoint a
Dedicated
Transition
Manager

Develop
Communications
Plan and Use
Consistent
Messaging to
Employees

Involve
Labor
Unions
and City
HR Early

Be
Nimble
and
Flexible

Keys to Success

...Have a Clear Implementation Plan

Long-Term “To-Be” Functionality

Restructure Around Joint Utility Needs

Envision a New Joint Utility from scratch in lieu of how to change or mold the current utilities

Mission & Vision
Work Flow Processes
ARCI Matrices
Functional Organizational Charts

Assess Skills Sets

Put the Right People in the Right Position

Rock the boat if necessary – changes are necessary to share services and consolidate positions over time

Put technical expertise in technical roles and managers in supervisory roles. Not all experts are good managers.

Empower Leaders

Work with Managers to Facilitate Buy-In

Critical to have all managers on board before rollout to general staff population

Recognize change is not easy and some folks need time to adjust to a new management position

Regarding Shared Services

...Cincinnati is well underway

Functions Integration Has Been Initiated

- Utility Administration
- Human Resources
- Information Technology
- Laboratory Services

On-Going Integration Functions

- Engineering

Upcoming Integration Functions

- Finance & Accounting
- Fleet Management

2013 Roadmap for Implementation

Activity	Jan – Mar	Apr – Jun	Jul – Sep	Oct - Dec
Joint Utility Communication Plan	Execute Joint Utility Communications Plan & Additional Tasks			
Prioritize Task Team Recommendations	Rank recommendations			
Organizational Structures	Make necessary organizational changes			
Functional Areas Assessments	HR, IT, Eng, Communications			
Relocate Employees	Relocate some employees as related to organizational changes			
Task Teams for New Assessments	Establish new task teams for additional assessments			
Report #2 for Approval		Share additional recommendations		
Human Resources	Create and establish Joint Utility policies			
Define Roles & Responsibilities	Create & finalize ARCI models			
Evaluate Classifications	Evaluate classifications in key functional areas			
Functional Area Action Items	Complete functional area assessment (cultural assessment) action plan			

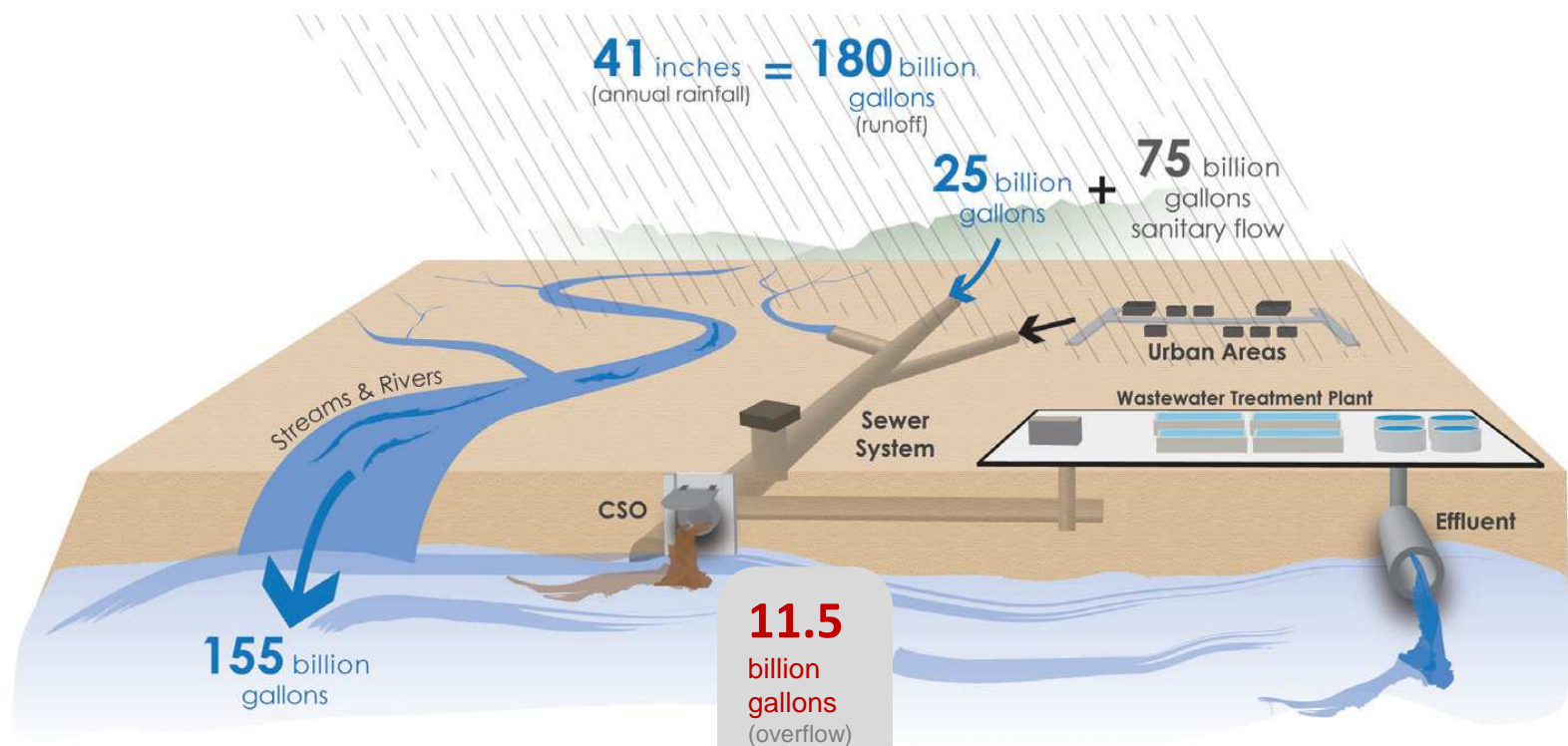


Vision of the future community

OUR WET WEATHER CHALLENGE KEY FOCUS OF CAPITAL PROGRAM

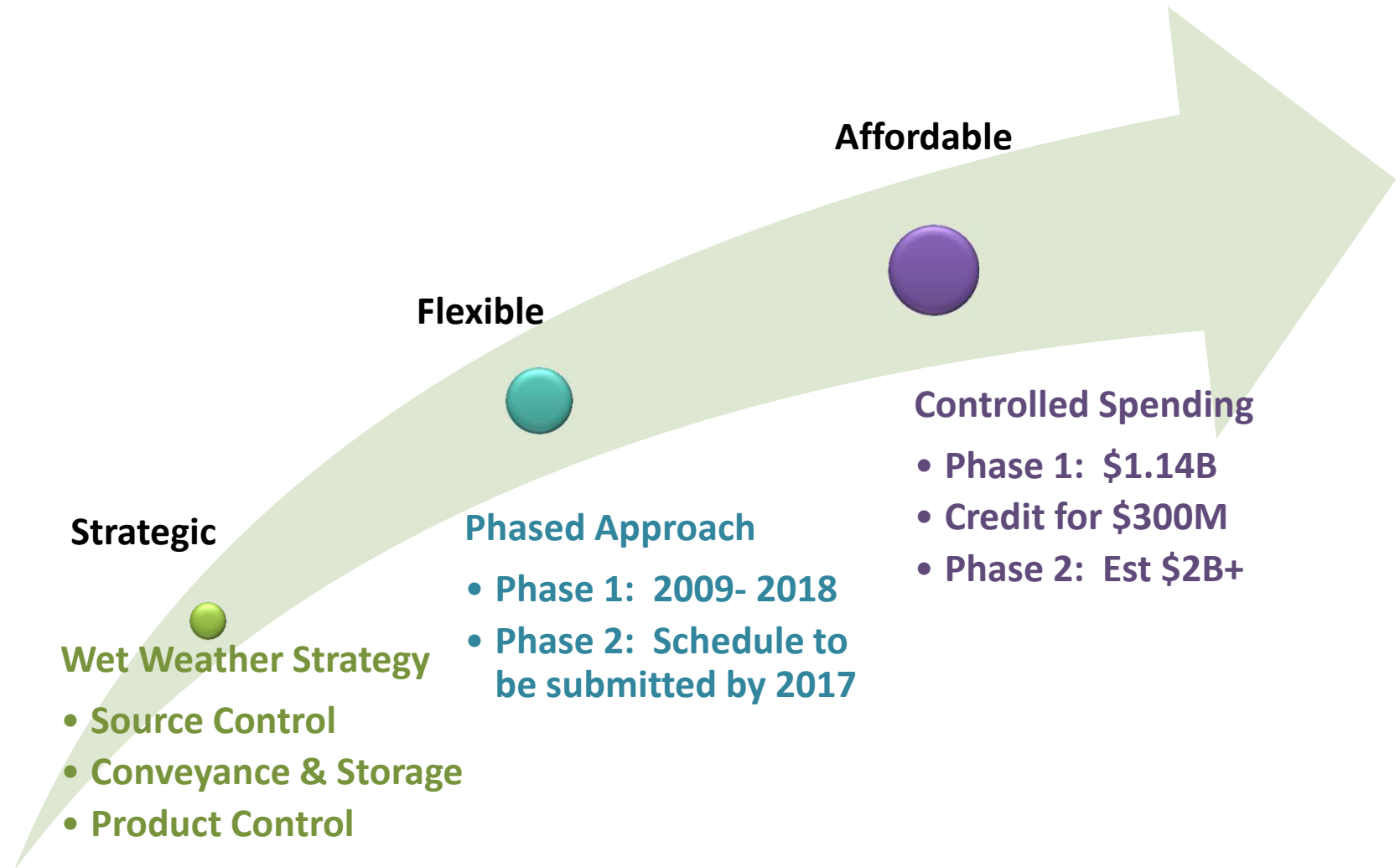
What's the Challenge?

- ◆ 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**



Federal Mandate

Cincinnati's Consent Decree Elements



The Consent Decree is Costly

July 18, 2010
Cincinnati Enquirer



SUNDAY FORUM

SUNDAY, JULY 18, 2010 ■ SECTION 1

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

Local

Cincinnati Enquirer



EDITOR: RANDY ESSEX, ressex@enquirer.com

WEDNESDAY, DECEMBER 12, 2012

Sewer rates to rise 5 percent

Increase will pay for mandated upgrades

By Sharon Cassidie
scassidie@enquirer.com

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 600,000 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 \$60.44, MSD's sewer rates have spiked 83 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) 946-4406 or greg.hartmann@hamilton-county.org; Republican Chris Menzel (513) 946-4403, or chris.menzel@hamilton-county.org; Democrat Todd Portune (513) 946-4401 or todd.portune@hamilton-county.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 Politico 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 Portune said.

up our capital program, a lot of policy decisions need to be made," Alaxto said. "In the future, the prospect for a higher rate increase is likely."

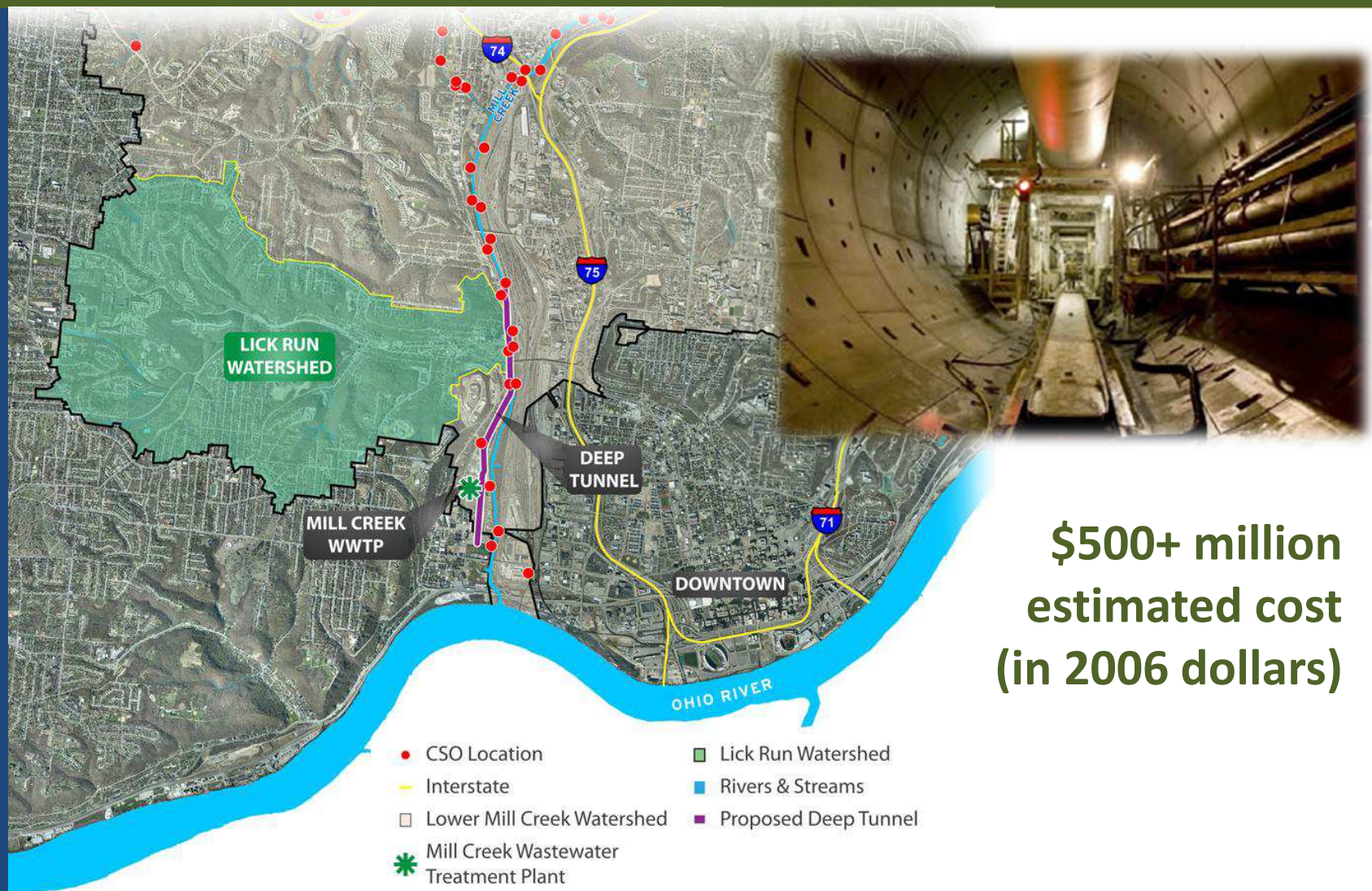
Sewer rates are spiking to pay for a \$3.2 billion sewer upgrade mandated by the federal government.

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



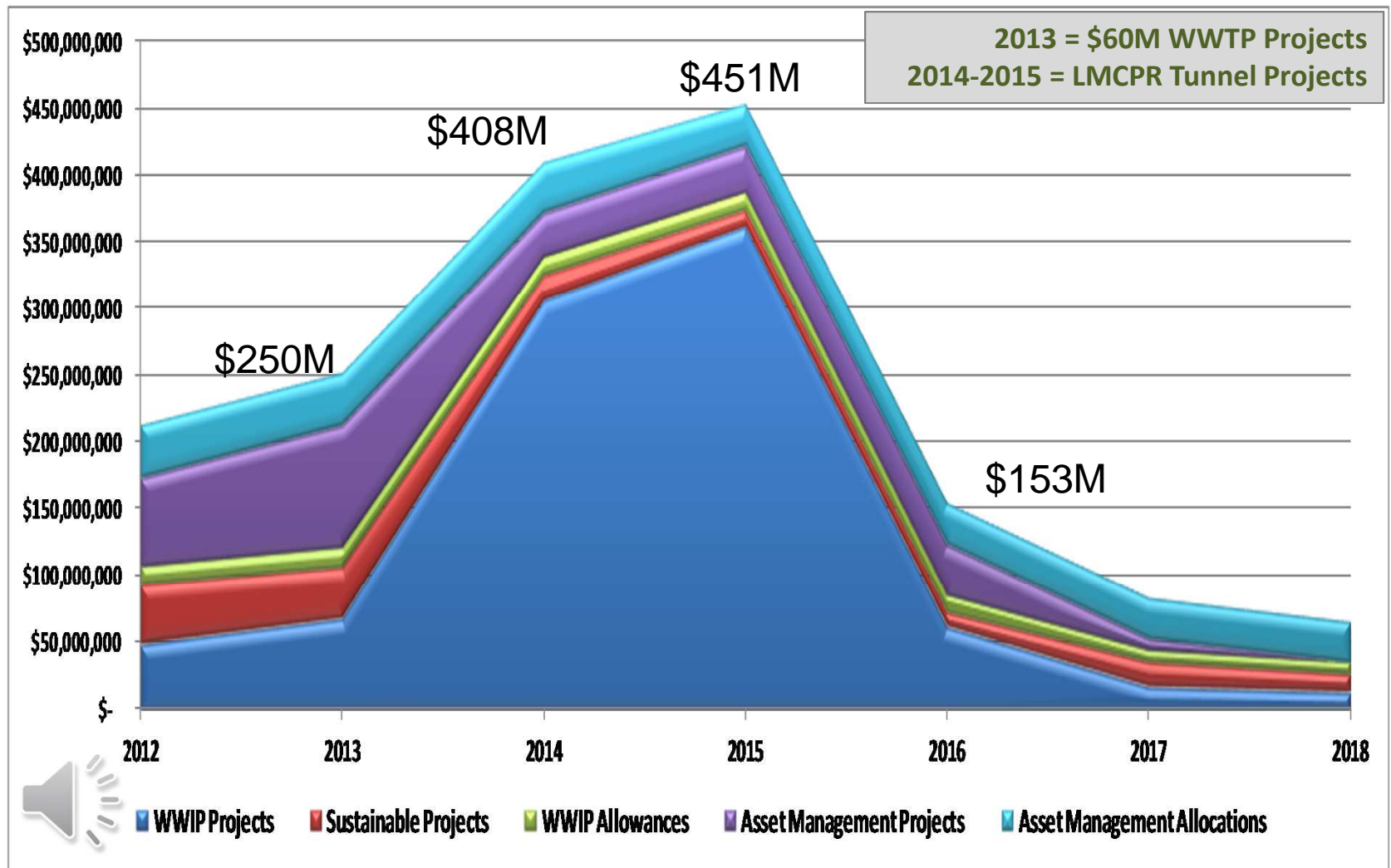
Default Phase 1 Project

The “default” solution specified in MSD’s Consent Decree is an underground storage tunnel.



**\$500+ million
estimated cost
(in 2006 dollars)**

Tunnel Requires **Massive** Capital Investments



So.....the tunnel project

- ◆ Is more than twice as costly than originally expected
- ◆ Will require construction by external work force
- ◆ Provides no improvement to the Community
- ◆ Will bury \$millions new infrastructure
- ◆ Provides few opportunities for Community engagement
- ◆ Is less adaptable to future needs.

...there must be something else....

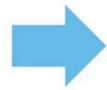


vision

Vision of the future community

**AN INTEGRATED SOLUTION TO
REVERSE THE TREND**

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

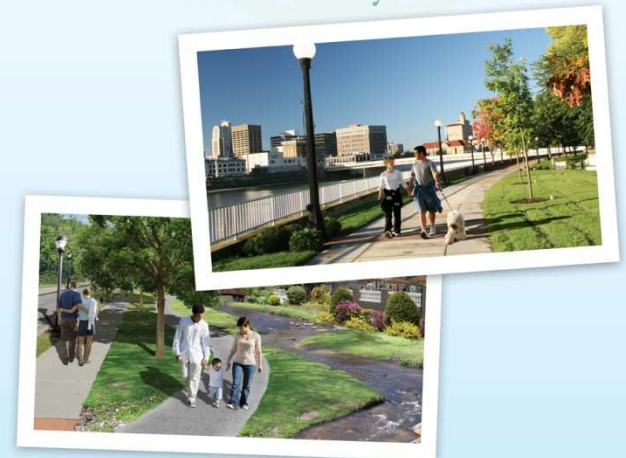
Incentives for
business retention
or redevelopment

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...?

A sewer project... ...could be more than a sewer project?

- ... it could be a **strategic** investment?

- ... it could be a **catalyst** for community transformation?

- ... it could be a **regional model** for a new watershed-based approach to community planning?

- ... if it could be a **national model** for green infrastructure planning/design?

- ... it could involve the community and many **public and private** partners?

- ... it did **more** than improve stormwater management and reduce combined sewer overflows?

What if...?



...it created a network of community assets that attracted new interest and investment?



...if it left behind open spaces, enhanced streetscapes and opportunities for green building?



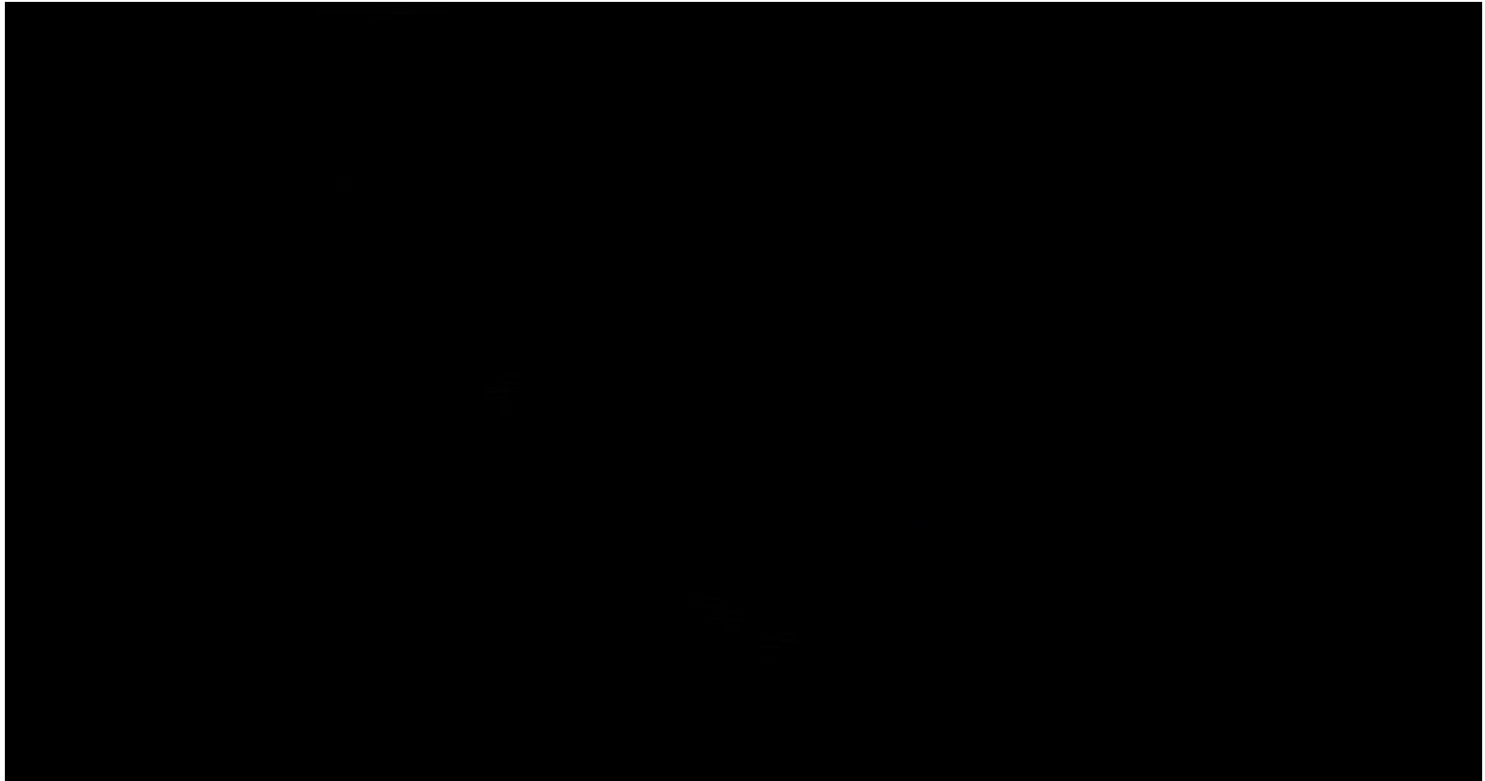
...if it served as a model for a sustainable 21st century community?



...it could be more than a sewer project?

What if...?

We could...
...redo the math...



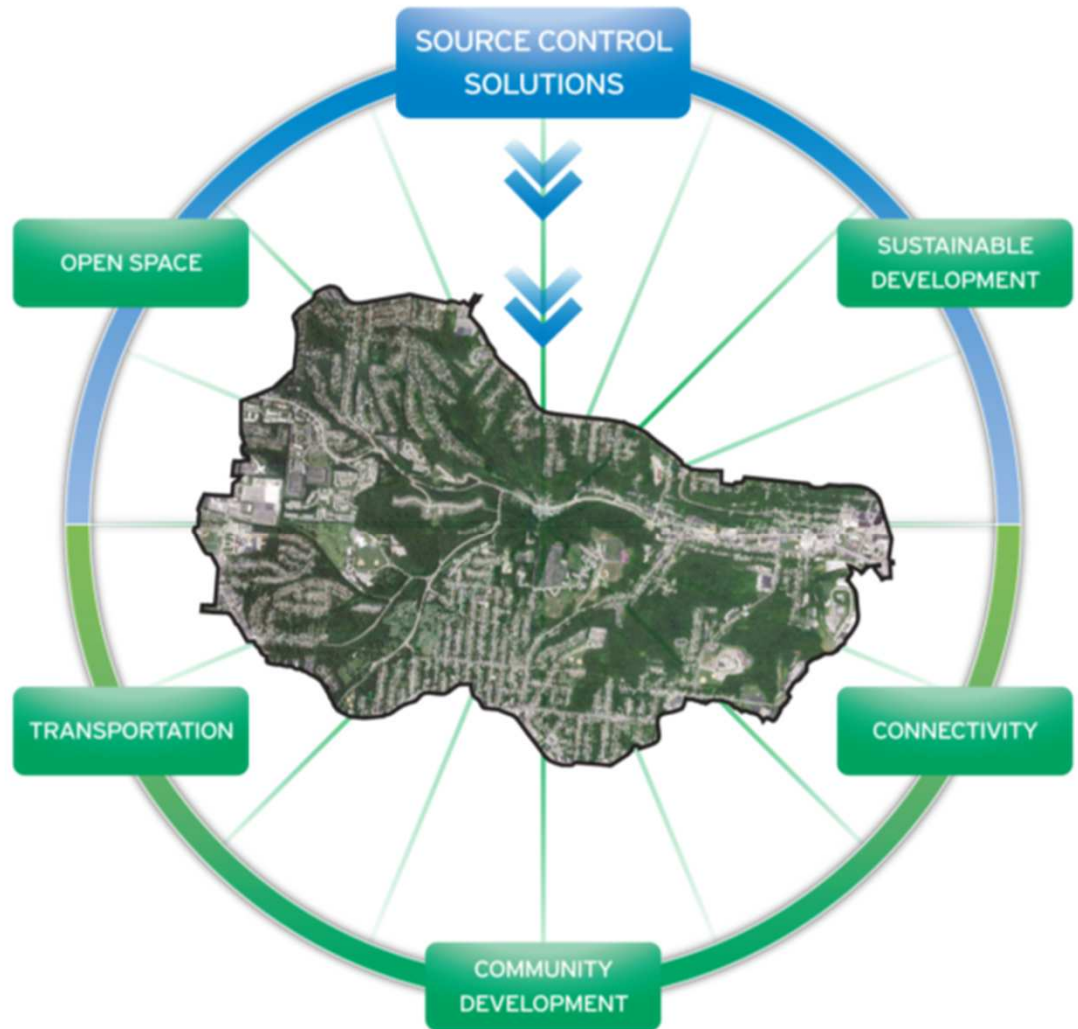
Cincinnati Mayor
Mark Mallory

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What if instead of a tunnel...we...

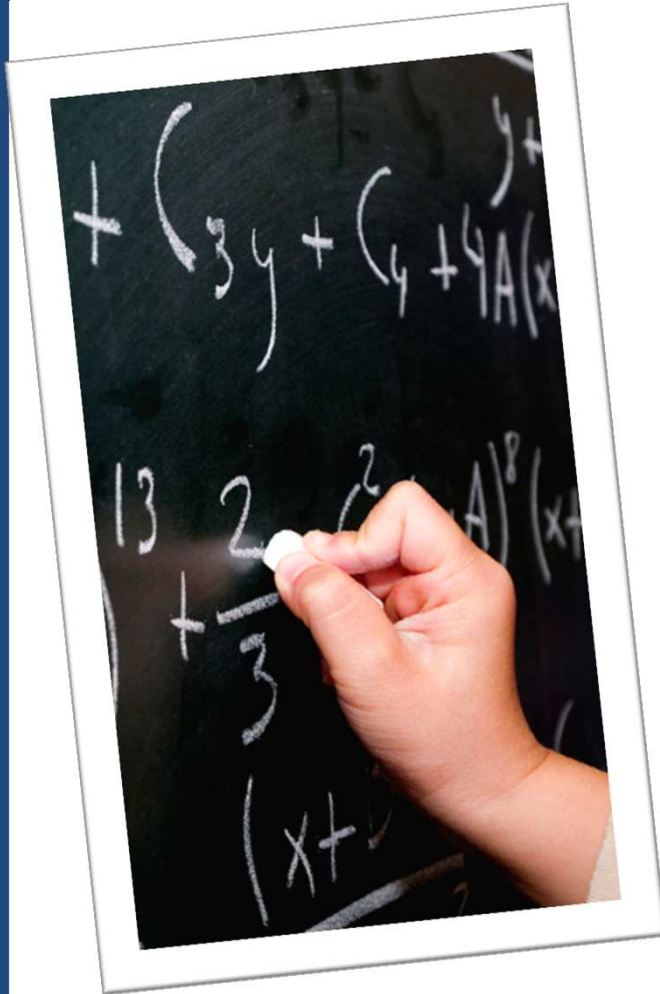
- ◆ Used community feedback to synthesize strengths into a refined concept for the proposed urban waterway
- ◆ Defined near-term opportunities through leveraged investments and public partnerships
- ◆ Identified long-term watershed opportunities through public and private partnerships



...we redo the math.

We could...

...change our thinking...



+ 1 Federally Mandated CSO Volume Reduction

+ \$2B+ Investment by Rate Payers in New Infrastructure

X Private Participation, Boost to Local Economy, Community Revitalization

= Sustainable Utility & Livable Community

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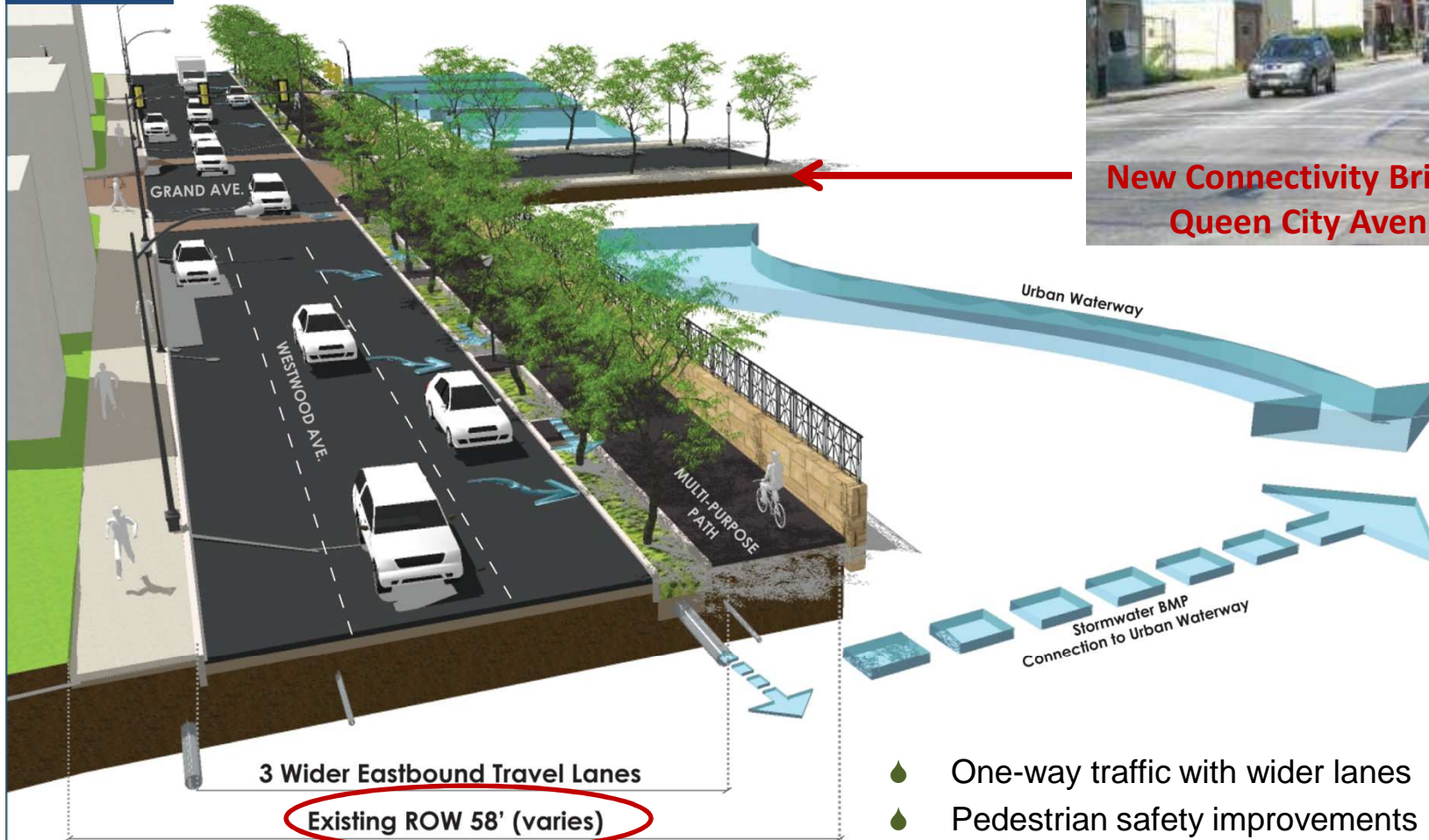
What a Sustainable Solution Accomplishes

Develops 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

We met with our local residents and listened to what they want from a sustainable solution.

They want transportation enhancements.



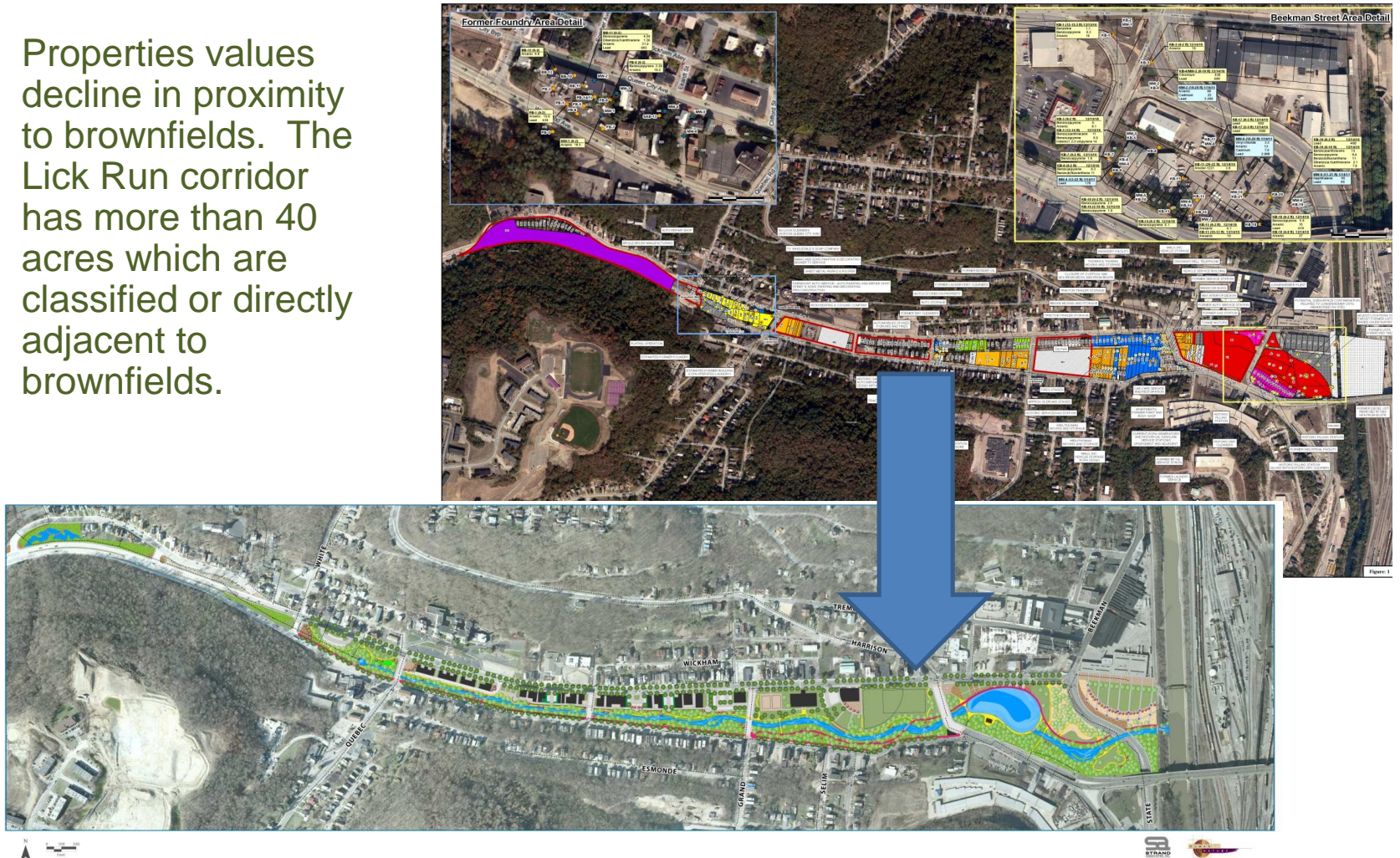
- One-way traffic with wider lanes
- Pedestrian safety improvements (sidewalks, crosswalks & lighting)
- Traffic Volume: 23,000 vehicles per day

vision

They want brownfields remediated.

vision

Properties values decline in proximity to brownfields. The Lick Run corridor has more than 40 acres which are classified or directly adjacent to brownfields.



vision

They want a walkable livable Community.

vision



Improved Visibility of Crosswalks



Integrated Stormwater BMPs



Improved Street Lighting



ADA-accessible Ramps at Crosswalks

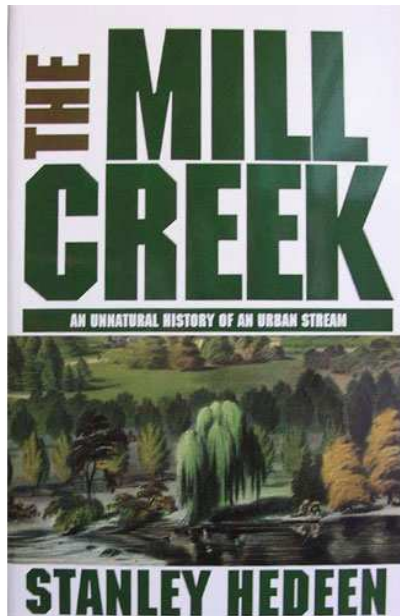
vision

vision

They want natural resources restored.

vision

- ◆ Surface Water Assets – quality and quantity
- ◆ Habitat Modifications
- ◆ Greenway Trail



vision

They want green spaces and redevelopment.



West Fork Channel Restoration
Floodplain Restoration, Enhanced Community Use



vision

Vision of the future community

VISION OF THE FUTURE COMMUNITY

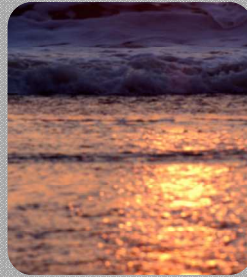
How do we realize the vision?



**Build the
Right
Project**



**Secure
Funding
Partners**



**Advance
Construction
Coordination**



**Utilize
Innovation**



**Build it with
Local
Workforce**

Build the Right Project

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



vision

Build the Right Project

Balance water quality, capital investment, and community integration.

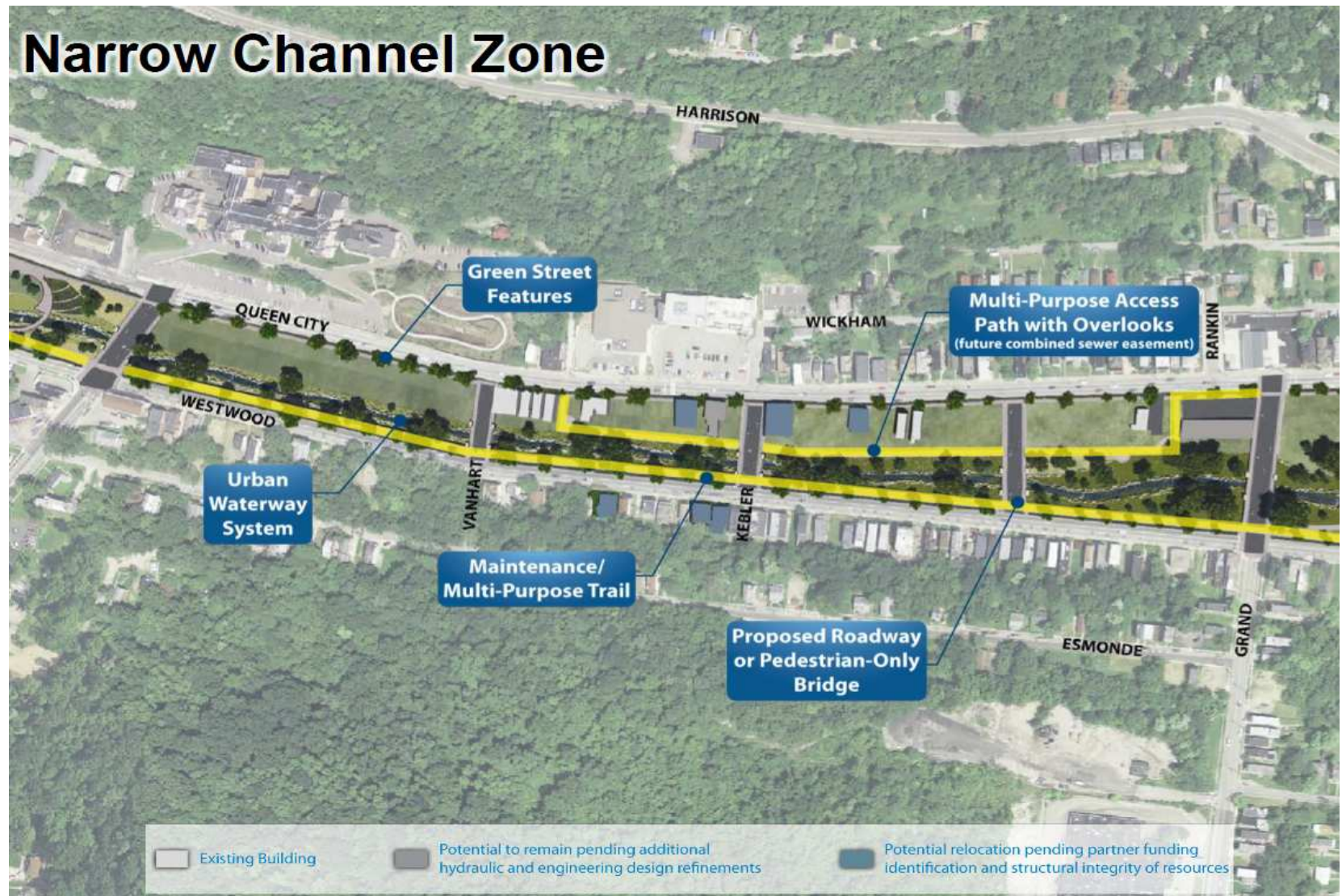


vision

Build the Right Project

Keep an Eye toward the Future.

Narrow Channel Zone



Build the Right Project

Leave a legacy for the next generation.

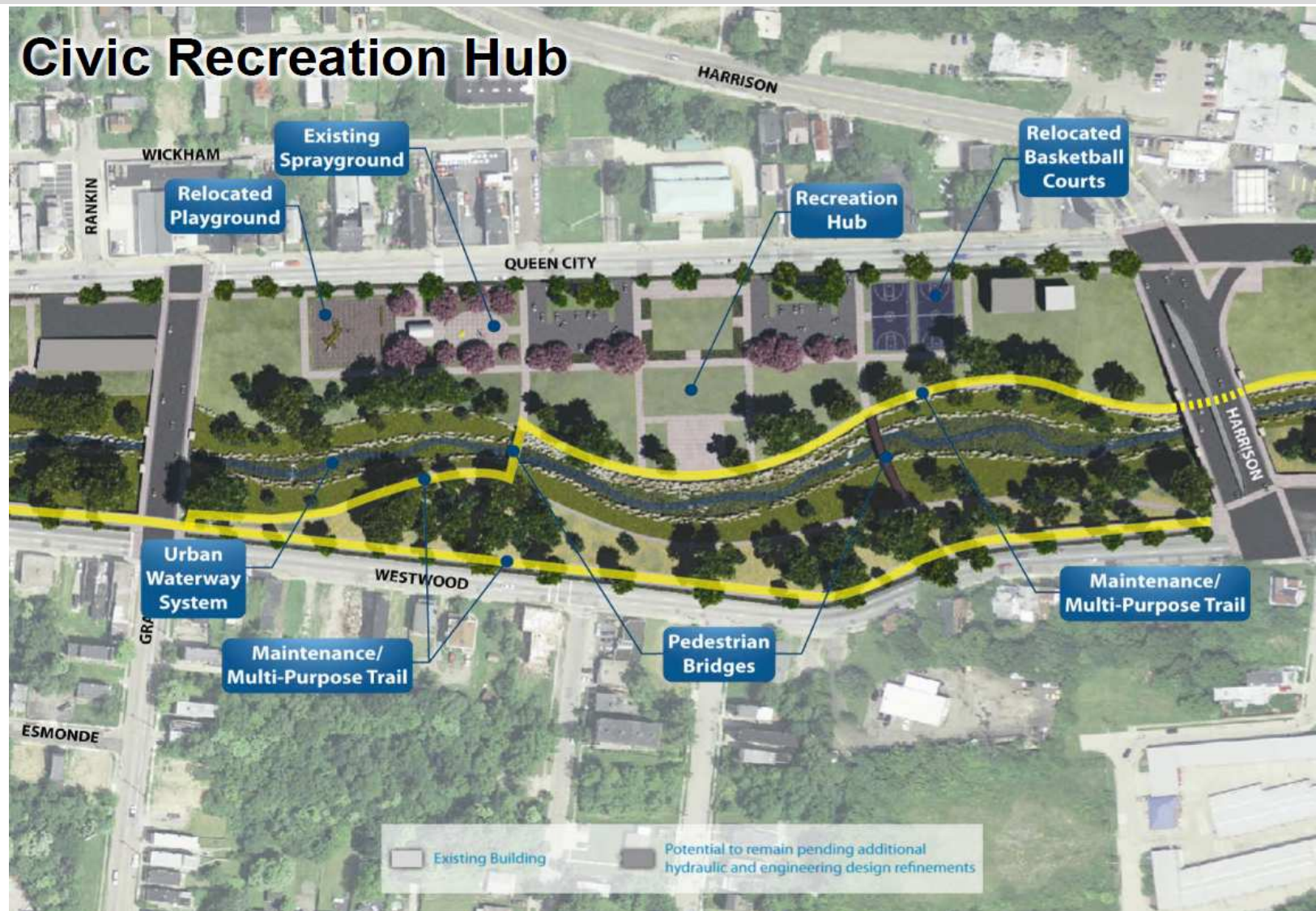


vision

Build the Right Project

Community involvement is critical for success.

Civic Recreation Hub



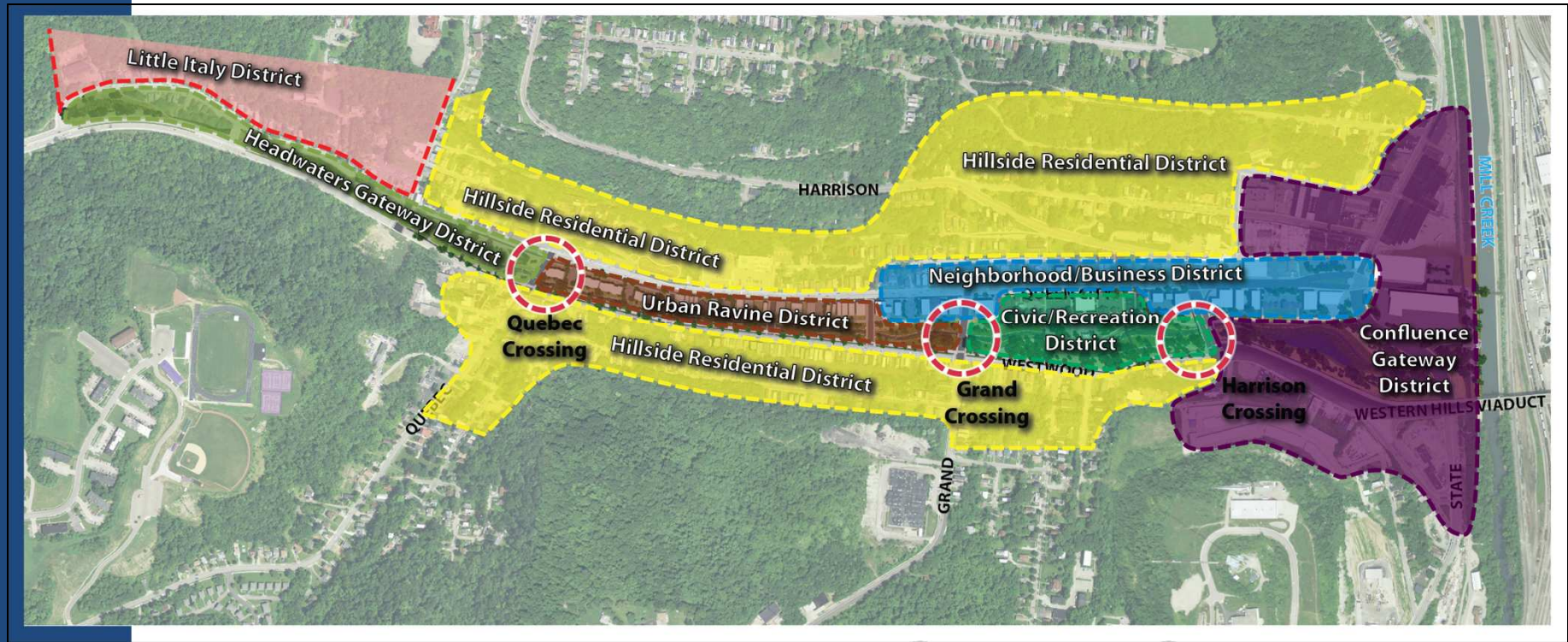
Build the Right Project

Vision for the Future Community.



vision

Infrastructure investment today will support future public/private investments

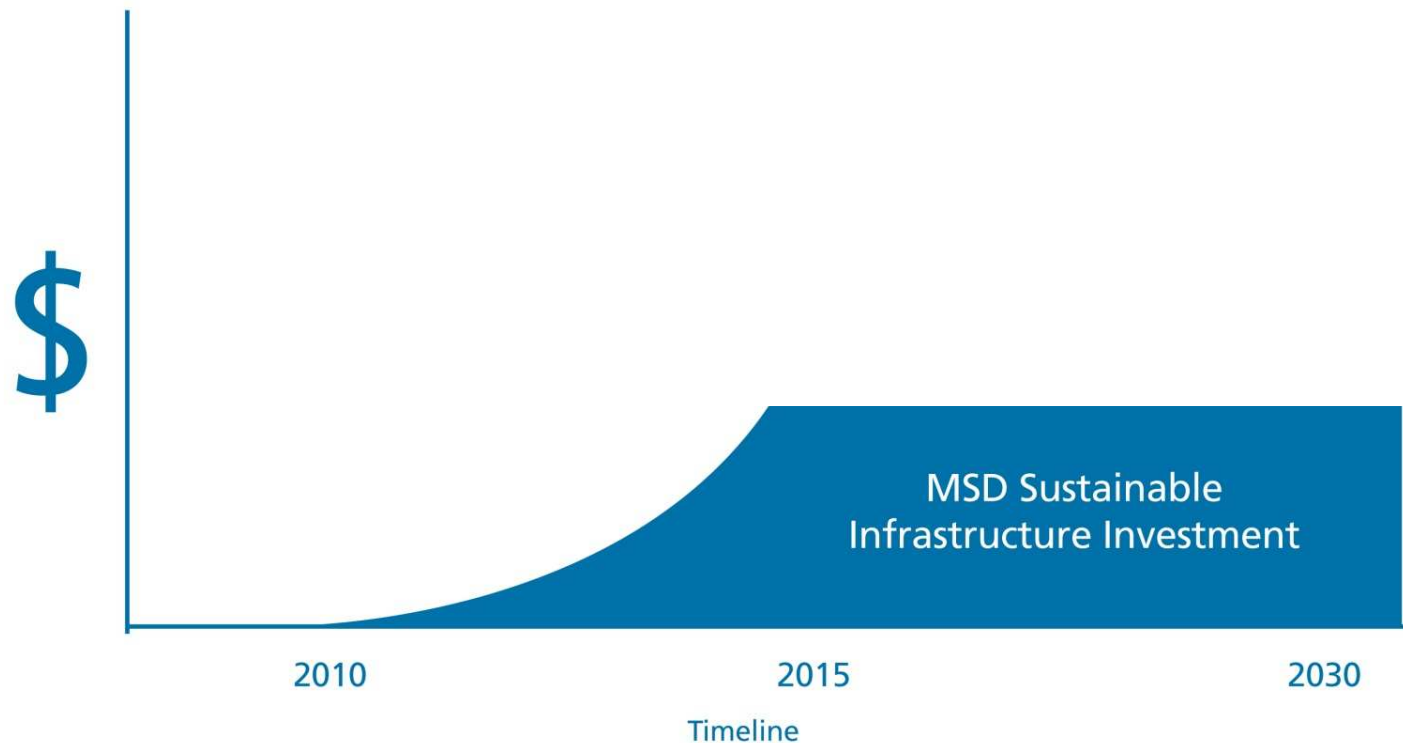


Neighborhood District Concept

vision

Funding Partnerships

Value Creation: Market Analysis of Sustainable Infrastructure Investment

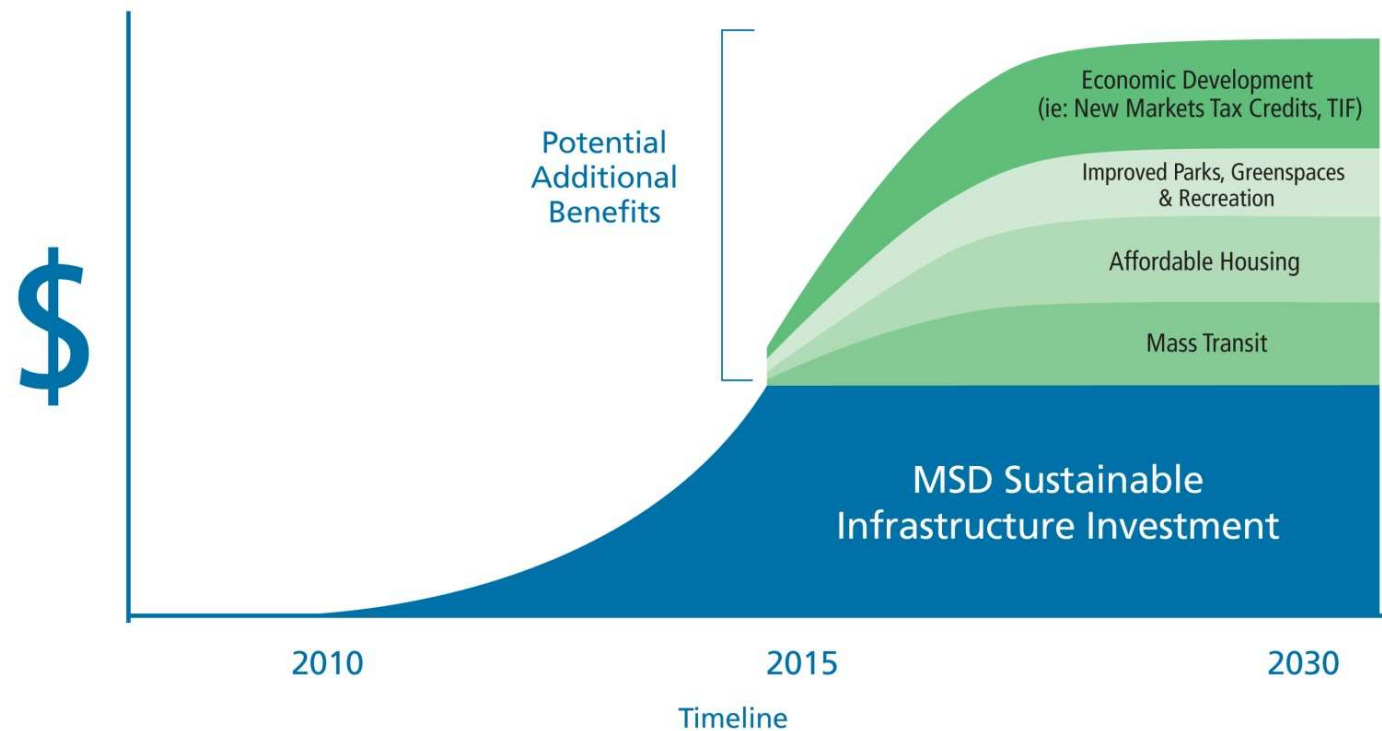


vision

Funding Partnerships

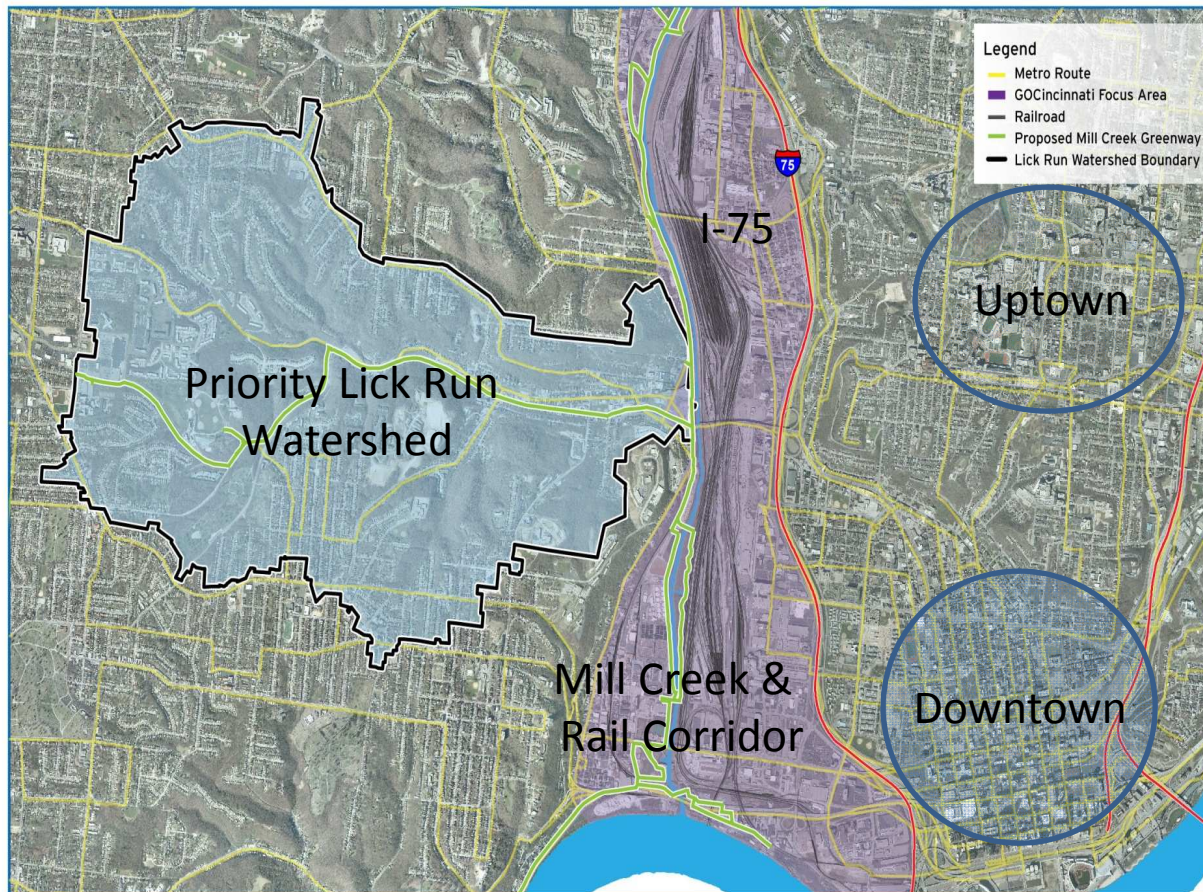
Value Creation: Market Analysis of Sustainable Infrastructure Investment

“Private Side Action”



I-75 Reconstruction Coordination

15 combined sewer overflows are impacted by ODOT's extensive reconstruction of Interstate I-75.



- DOT reconstruct I-75 from Brent Spence Bridge to I-275 Corridor
Revive Cincinnati, four years coordination
- Stormwater management coordination involving 15 CSOs
highway reconstruction, redirecting stormwater to BMPs, overflow reductions, improved water quality, beautify the community



vision

Vision of the future community

**INVESTING IN OUR LOCAL
WORKFORCE BY CREATING JOBS**

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

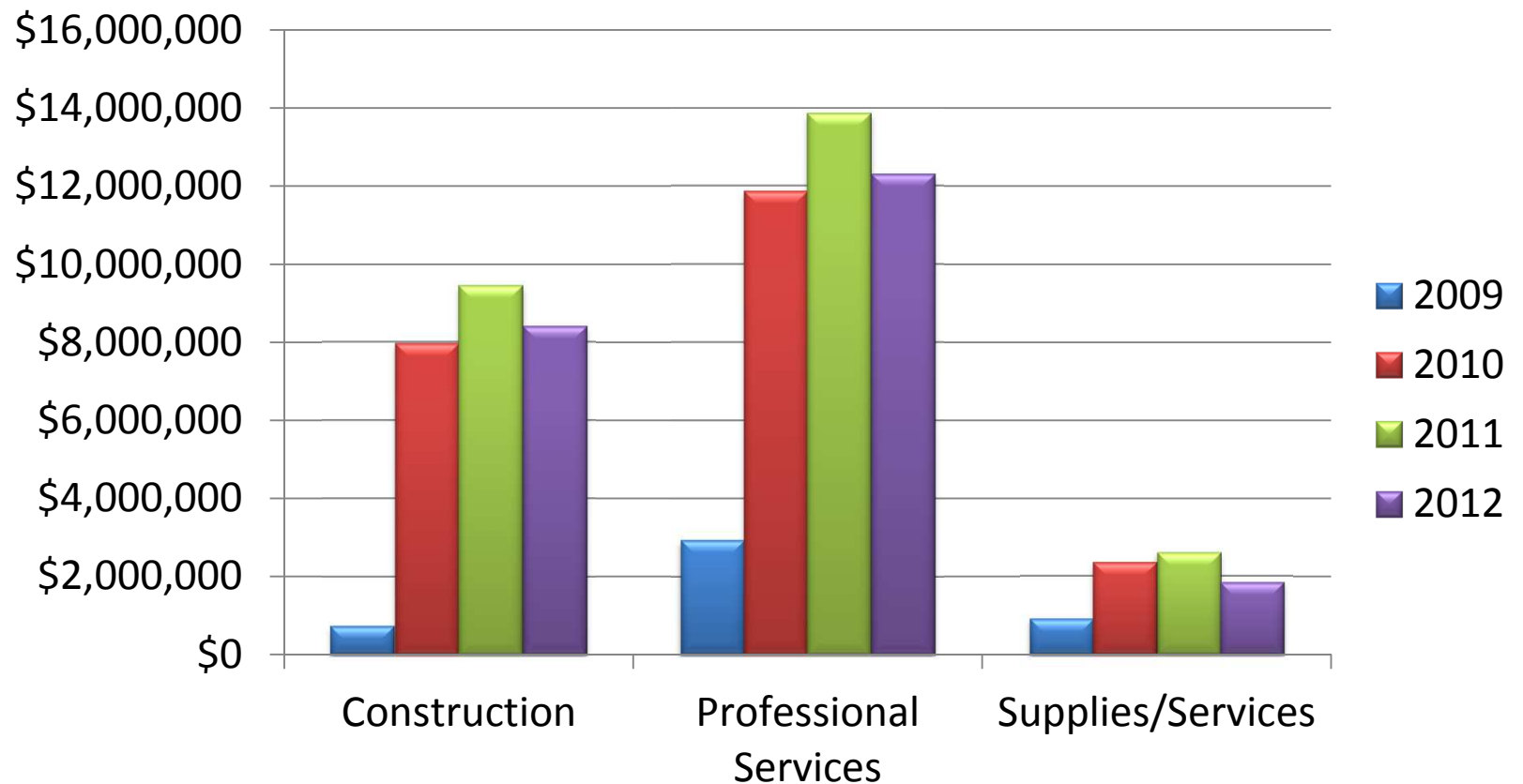
73 Construction Trade Jobs

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

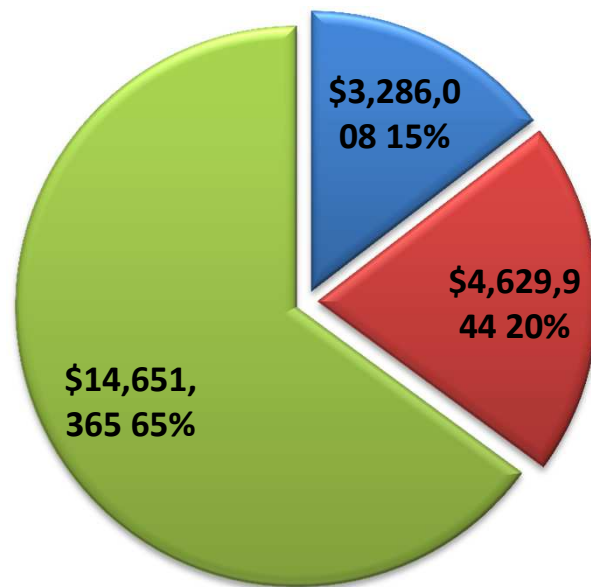


Small Business Enterprise Utilization



2012 MSDGC MWBE Spend

Total 2012 SBE Spend =
\$22,567,317



- Minority
- Women (not Minority)
- Non-MWBE from SBE spend



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Vision of the future community

INNOVATION THROUGH TECHNOLOGY

This Approach is Going Global

- Reverse Economic Conditions
 - *Economic Development*
- Mitigate Declining Revenues
 - *Shared Utility Services*
 - *Billing Services Provider*
 - *Regional Treatment Facilities*
- Innovate Technological Solutions
 - *Think Outside the Box*



Global Water Technology Innovations

- 💧 Treating significant overflow volume on a space constrained sites
- 💧 Turbines to harvest energy from gravity fed pipes
- 💧 Opportunities to reduce the use of treatment chemicals
- 💧 Cellular communications to relay remote data to control room operators
- 💧 Methods to detect biological contamination



In 2011, the nation's highest-ranking EPA official traveled to Cincinnati to announce a water innovation cluster with UC as a leading partner.

In Conclusion...

Managing & Financing Utilities

- ◆ Cincinnati has developed an approach to mitigate the rising cost of services
- ◆ Cincinnati is reversing the trend through integrated watershed planning

Savings from LM CPR	= \$200M (Phase 1)
Savings from Watershed Approach	= \$500M (Phase 2)
Savings from Joint Utility Shared Services	= \$68-100M
Savings from Reduced Chemicals & Energy	= \$10M
Savings from Innovation	= \$80M

Nearly \$1B savings over 10-15 years

...that is how you re-do the math!

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Vision of the future community

THANK YOU