

Indiana AWWA/IWEA Joint Utility Management Seminar

Mark C. Jacob, Vice President

Capital Programs & Engineering / Quality Systems

Citizens Energy Group

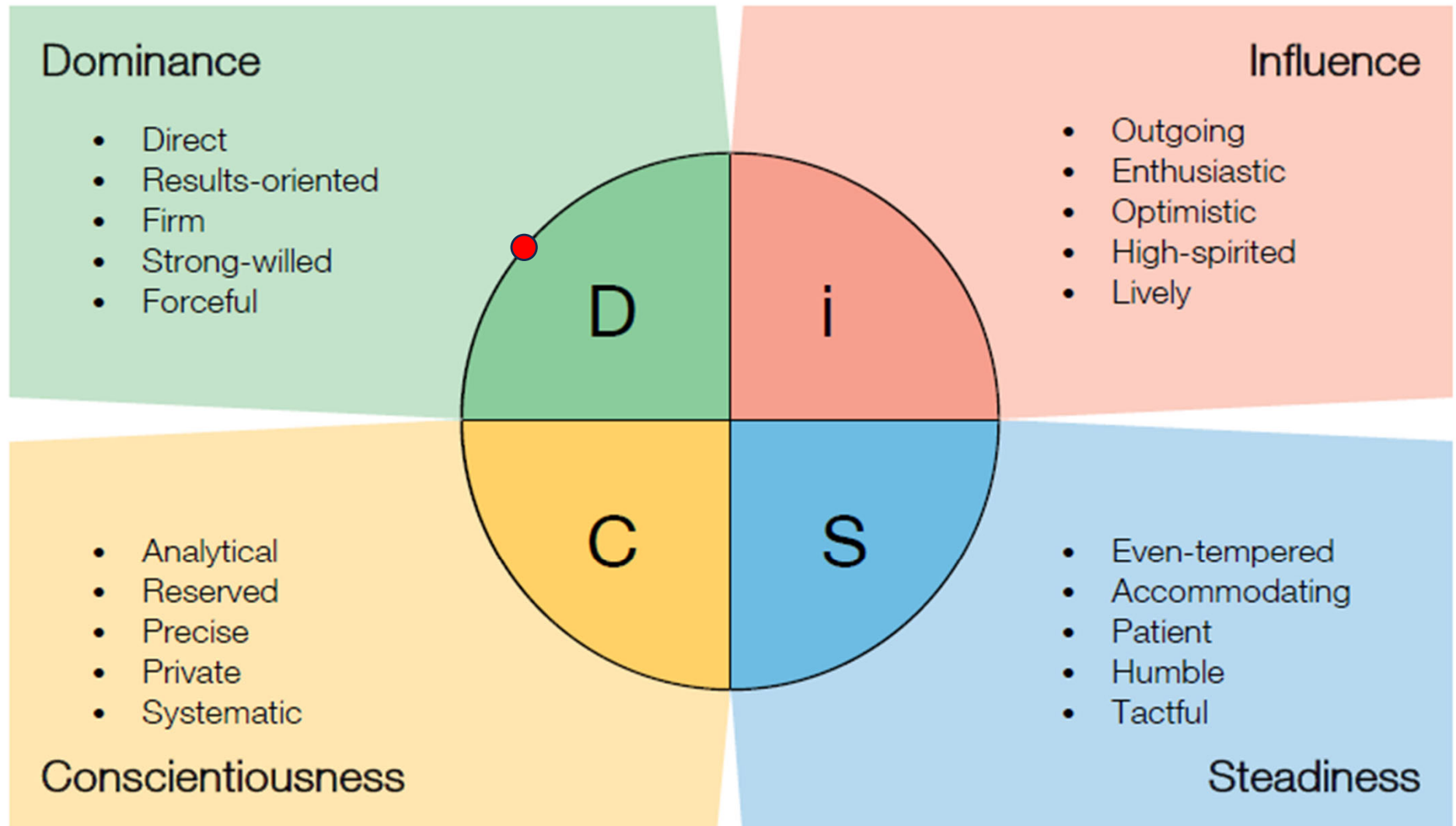
October 2, 2024

'Journey Through the Decades:

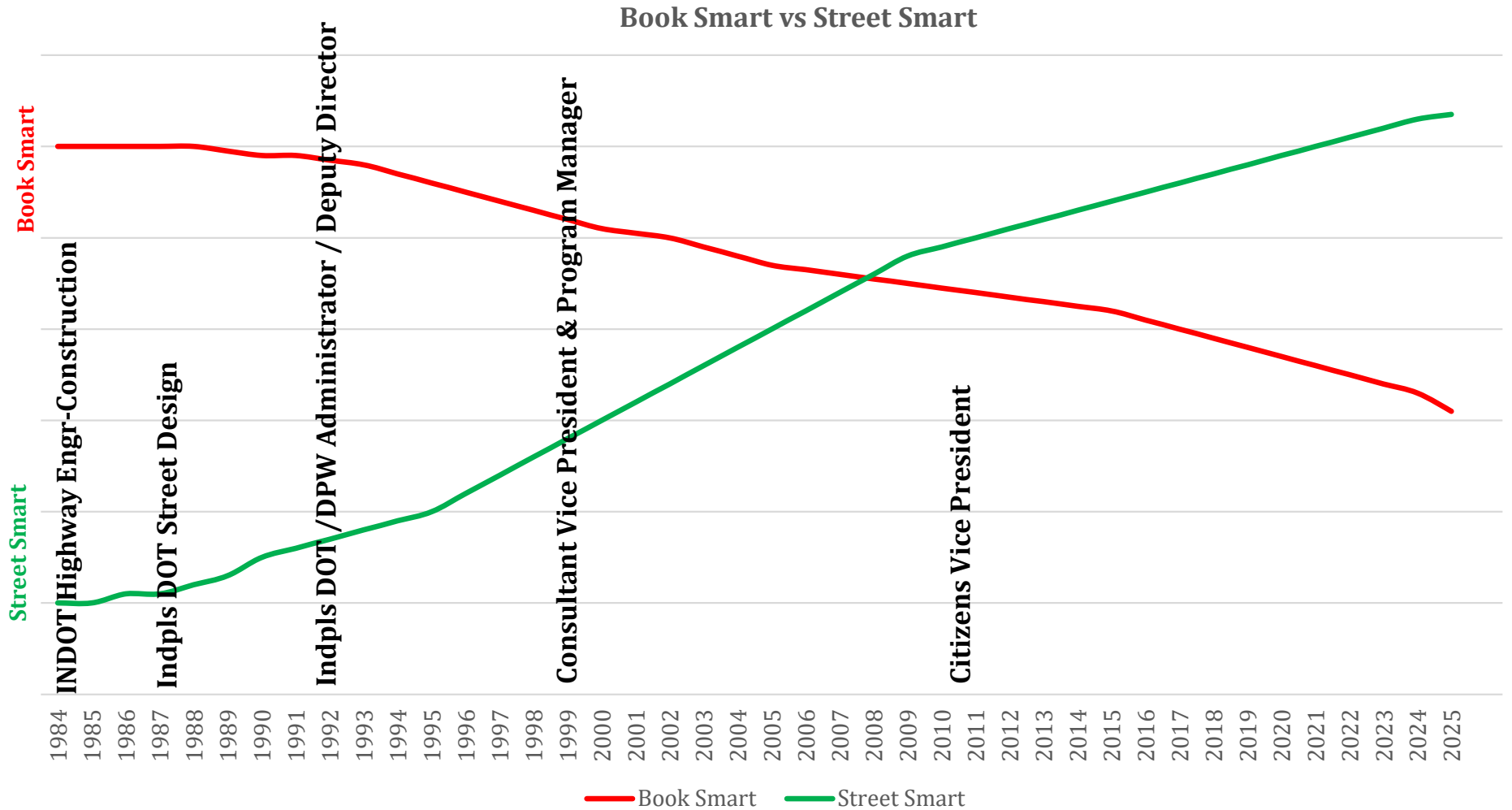
Citizens' Collaboration, Growth and Transformation'



Who Am I - What Drives Me?



Education and Experience



Mistakes and Challenges Lead to Education & Experience

Bridge still closed after state mistake

By Linda Detroy Weger
H-T Staff Writer

NASHVILLE — Travelers along Ind. 135 just south of the Horseman's Camp entrance to Brown County State Park will have to wait a little longer to use a new bridge on the highway.

The Indiana Highway Department goofed when the bridge was designed and is in the process of planning a construction change to correct the error. In the meantime, motorists are still using the old bridge that runs parallel to the new one.

Greg Henneke, consultant services manager in the highway department's division of design, said the repair work will cost about \$150,000. The initial cost of the project, which includes straightening out a sharp curve and smoothing out a dip in the highway, was \$250,000. The project began last summer and is not yet completed. Concrete for the bridge was poured in the fall.

"We know we made a mistake and we're trying to take care of it as quickly as possible," Henneke said. "When you have an operation as

big as the state highway department, it's hard not to make a mistake once in a while."

The new bridge is a concrete slab and was designed too low, causing flooding problems. Henneke said the bridge is over a branch of the Salt Creek which floods whenever there is a heavy rain and the water runs across the highway. The new section of road is banked and the bridge was low enough that the water washed over the road more often than before the new bridge went in, causing serious erosion problems.

Residents of the area warned the highway department about the problem and Henneke inspected the bridge about three months ago.

"Once we were alerted to the problem, we responded and talked to the people who live in the area," he said. "We feel we're taking care of it in the best interest of the people there."

The deck of the new bridge will have to be cut off and poured higher. Henneke said that although the repairs are a substantial setback, it's better than leaving it as it is.

NEWS 7-26-89-48

Massachusetts Avenue section to be revamped

Angle parking to be installed

The Indianapolis News

By this time next year, the downtown portion of Massachusetts Avenue should have a whole new look.

The 400 through 700 blocks will change from a four-lane thoroughfare to a two-lane, pedestrian-oriented boulevard, said Mark Jacob, a street-design engineer for the Indianapolis Department of Transportation.

One lane will be taken away in each direction to make room available for people to park perpendicular to the curb, rather than parallel.

"The road is actually going to be resurfaced and repaired," Jacob said. "The bus stops will be maintained."

Drainage also will be improved.

"The intent is to make it more for business access rather than as a thoroughfare street," Jacob explained. "It's not going to be for cars to rush through."

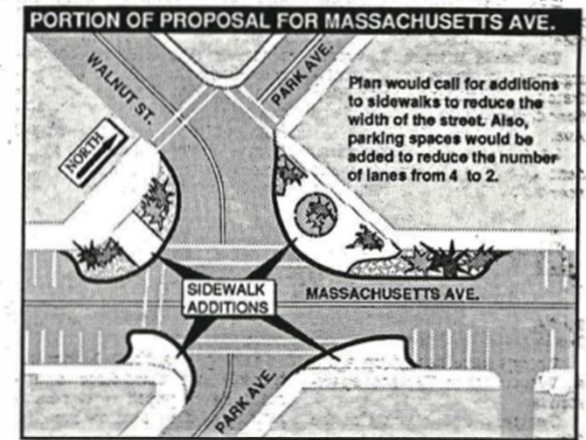
That should make the street more attractive for shops and shoppers, he said.

The idea is to make the 400 through 700 blocks similar to the 300 block, said Julia O'Connor, executive director of Riley Area Revitalization Program Inc.

Like the 300 block, the 400 through 700 blocks will have islands that extend from the sidewalk and encase parking areas.

But these islands will be designed better than those in the 300 block, which are sharply curved, she said. Street cleaning equipment cannot maneuver around those islands.

"The street cleaners can't do



Steve Vanderbooy/The Indianapolis News

that kind of a turn," O'Connor said.

The long-term goal is to redesign the islands in the 300 block to make them more like those in the 400 through 700 blocks.

"I don't know when we'll go back and take care of that," O'Connor said.

The 400 block begins at Massachusetts' intersection with Vermont and Alabama streets. The 700 block ends at College Avenue.

If all goes on schedule, construction work could begin on the 400 block by the end of September and should be completed by mid-November, Jacob said.

When that work is done, motorists will be able to drive from the 300 block to the 400 block of Massachusetts. It's now canalized, so if you're driving northeast on the 300 block, you then have to turn south onto Alabama.

"Hopefully, it can be done

this year. That's only one block," Jacob said. "The remainder of the construction will be done the following spring, probably."

DOT's cost for streetwork will be about \$690,000, O'Connor said. Riley will pay for landscaping and decorative street lighting, which will add another \$200,000 to \$300,000.

O'Connor said she's working to obtain funding for this work.

Massachusetts once was a major trolley artery in the city, she said. It used to be a primary thoroughfare from northeast to southwest.

But construction of I-70 and the INB National Bank buildings ended that, she said.

From the 300 through 900 blocks, Massachusetts is a nationally registered district because of its historic buildings and architecture, O'Connor said. Tax credits are given for redevelopment along the street.

— STEVEN POCKRASS

Mistakes and Challenges Lead to Education & Experience


THE VOICE OF PROFESSIONALS SERVING AMERICA'S COMMUNITIES

Public Works


WWW.PWMAG.COM
OCTOBER 2011

anley wood

PW SOLUTIONS



WaterWorks
PAGE 41



Getting to 'yes'

Negotiate a consent decree. EPA and the Justice Department can't refuse / page 30



With A Modified Consent Decree, Indianapolis Is Cleaning Up

Indianapolis is the first city in nation to modify a CSO consent decree through better efficiencies and cost savings

02/09/2011

By Pam Hunter

[Page 1 of 2]

Text size: **A** **A**

When Indianapolis Mayor Greg Ballard came into office in 2008, he inherited a wastewater treatment and sewer system that was averaging 7.8 billion gallons of overflow each year, according to federal officials. At the time, it was not unusual for as little as one-quarter to a half inch of rainfall to fill the combined sewers to capacity and flood raw sewage into local rivers and streams. Ballard also inherited a two-year-old consent decree with the U.S. Dept. of Justice to bring the city in compliance with the Clean Water Act as well as a project to expand its wastewater treatment systems that were running over budget by an estimated \$300 million and months behind schedule, due in part to complex design approaches.



Photo: Courtesy of Indianapolis Dept. Of Public Works
Tunnel boring machine in the Belmont North Relief Interceptor, added to the plan.

Although the city had built separate storm and sanitary sewers in newer neighborhoods, development over the years had lagged behind in older, densely populated areas of the city. As far back as the early 1990s, combined sewer overflows (CSOs) were a problem for local streams during extended wet weather.

The remediation plan was originally estimated to cost \$1.73 billion, but costs quickly escalated to \$1.975 billion, mainly because of cost overruns on one of the wastewater treatment plants. This kind of status quo was not acceptable to a mayor who had a vision of sustainable and affordable infrastructure for a city of more than 800,000 residents, says Mark Jacob, vice president with Columbus, Ohio-based DLZ, a program manager for the consent decree.

The mayor brought in industry veteran David Sherman, a former president of United Water, to head up his Public Works Dept. and take a hard look at the program. "[Ballard] wanted to make sure [Indianapolis] was a clean-water city, that we took care of the overflows, and he was willing to make the investment to value-engineer the whole program," says Sherman.

---- Advertising ----

BE THE OFFICE OF, 'YES'

Pros	Cons
Increased credibility	Increased workload
Enhanced reputation	
More relationships	
Faster path to leadership growth	
Increased learning	
Improved customer service	
Improved community	
Improved productivity	
Better outcomes	
No regrets	

Year: 2001

Introduction

In April 1881, a group of men, including a former governor of Indiana, a prominent publisher who had served as treasurer of the United States, and one of the state's most esteemed attorneys of the time bought the assets of a defunct waterworks at a sheriff's auction. They named their enterprise the Indianapolis Water Company¹.

Today, the Indianapolis Water Company (IWC) is part of a larger organization known as IWC Resources Corporation (IWCR) which is currently owned by NiSource Inc. (NiSource), a U.S. natural gas distributor. As part of the approval process for a planned merger with Columbia Energy Group, NiSource was required by the U.S. Securities and Exchange Commission (SEC) to divest itself of IWC Resources Corporation.

Since the year 2000, the City of Indianapolis (City) has been in discussions regarding the acquisition of IWCR. The City's vision of abundant, safe and affordable water being essential to the quality of life and the business climate within the central Indiana area is an important consideration in this acquisition. Additionally, because the City currently owns, but privately operates, the two wastewater treatment plants, as well as the collection systems within the City, some cross-over experience in facilities of this size may be of benefit.

Year: 2005/2006

Indianapolis CSO Program

Clean Stream Team

These past two years have been bright for the city of Indianapolis and our Clean Streams-Healthy Neighborhoods program.

Decades of accepting the discharge of raw sewage into our rivers and creeks after heavy rains came to an end when we signed an agreement in 2006 with the U.S. Environmental Protection Agency and Indiana Department of Environmental Management, approving our long-term sewer reconstruction plan. The day when we can take pride in our wonderful water resources is not far down the road.

There were many other achievements in 2006 and 2007 that received a little less attention: neighborhoods receiving sewer service for the first time, longstanding drainage problems being solved, aging sanitary sewers being rehabilitated and treatment plants expanding to treat more flows.

Congratulations to the employees of the Department of Public Works and all the elected officials, business partners and Indianapolis residents who helped make this possible. We all should be proud of these achievements and look forward to a cleaner, healthier future.



Bart Peterson, Mayor of Indianapolis

LETTER FROM MAYOR PETERSON

The city has embarked upon a 20-year plan to improve the health and quality of life in our neighborhoods by curbing raw sewage overflows into rivers and streams, addressing chronic flooding and eliminating thousands of failing septic tanks.

Behind this plan are the hundreds of Department of Public Works employees and contractors who help plan, design, build, operate and maintain our water and wastewater infrastructure. This report highlights their work on your behalf to make Indianapolis a better place to live.

Our Clean Streams-Healthy Neighborhoods program is the largest investment in the city's infrastructure in our history. As such, it also offers an opportunity to strengthen the economy and foster business development in our community. Jobs of all types will be created - engineering, construction, skilled trades and many ancillary support services. DPW is working to support the local workforce and enable minority- and women-owned businesses to participate in projects that will benefit our community.

Cleaner streams. Healthier neighborhoods. More job opportunities. These will bring long-term benefits to the City of Indianapolis. Thank you for your support of the Indianapolis Department of Public Works.



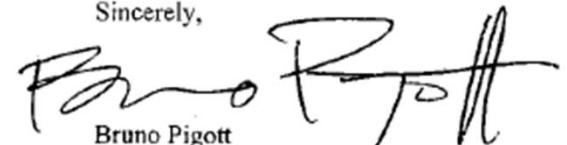
Kumar Menon, DPW Director

LETTER FROM KUMAR MENON

By this letter, IDEM approves Sections 1 through 8 of the LTCP, pursuant to paragraph M of the federal Consent Decree. Section 9 of the LTCP is the City's UAA submission. Section 9 is currently under review by this Office.

Please contact Cyndi Wagner at (317) 233-0473, if you have questions regarding this letter.

Sincerely,



Bruno Pigott
Assistant Commissioner
Office of Water Quality

Year: 2011

City approval of Citizens Energy deal could come in May

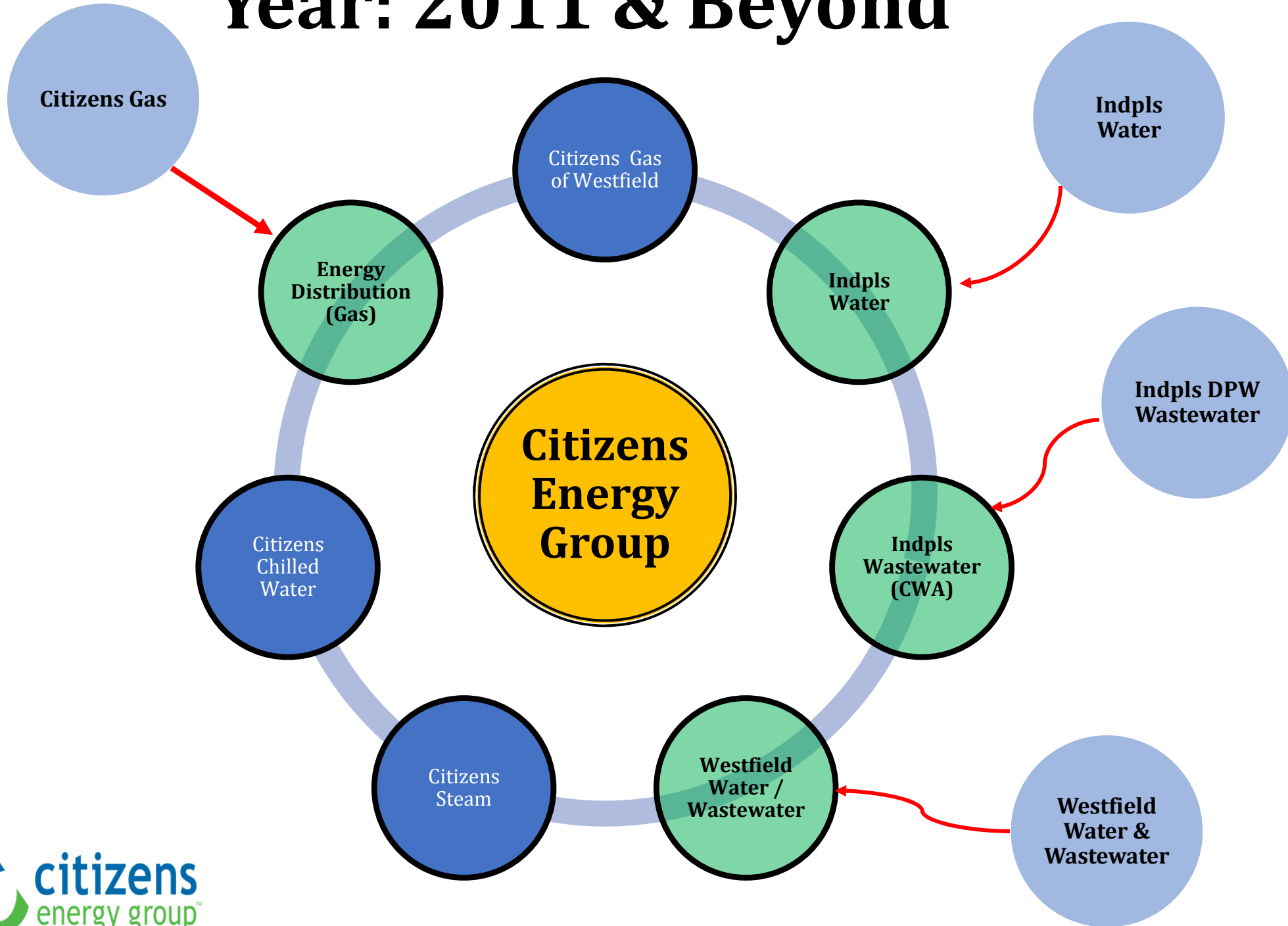
IBJ Staff April 10, 2010

Citizens Energy should have completed the majority of its due diligence of the city's water and sewer utilities, which it plans to acquire, by the end of this month, said Citizens CEO Carey Lykins.

Unless Citizens finds something on the books it can't swallow, a vote in the City-County Council on Mayor Greg Ballard's proposed deal could happen in mid- to late May, say city officials.

The \$1.9 billion deal includes an estimated \$425 million that would be available for city infrastructure improvements, including roads, bridges and sidewalks. It's the stuff businesses like to see when considering where to set up shop.

Year: 2011 & Beyond



Who We Are – A Public Charitable Trust – Citizens

Vision

Enhance the well-being of our customers, communities, and employees by providing unparalleled service now and for generations to come.

Mission

We fulfill the Promise of the Trust to provide essential utility services for our customers and communities, maintain the lowest possible rates with sound financial management, and create the greatest long-term benefit through a unique business structure.

- **Energy**
 - **Citizens Gas**
 - **Steam**
 - **Chilled Water**
- **Water**
 - **Indianapolis (area) Water**
 - **Indianapolis (area) Wastewater**
- **Shared Services**
 - **Corporate Support Services**
 - **Shared Field Services**
- **Citizens Resources**
 - **Citizens Gas of Westfield**
 - **Westfield Water**
 - **Westfield Wastewater**

Public Charitable Trusts

Citizens Energy Group

Water Trust

- Provide reasonable water services at reasonable cost to beneficiaries
- Protect City of Indianapolis against further sale or disposition of assets and forever from private ownership, private control, or partisan political governance
- Coordinated operation with other utility systems to achieve economies of scale

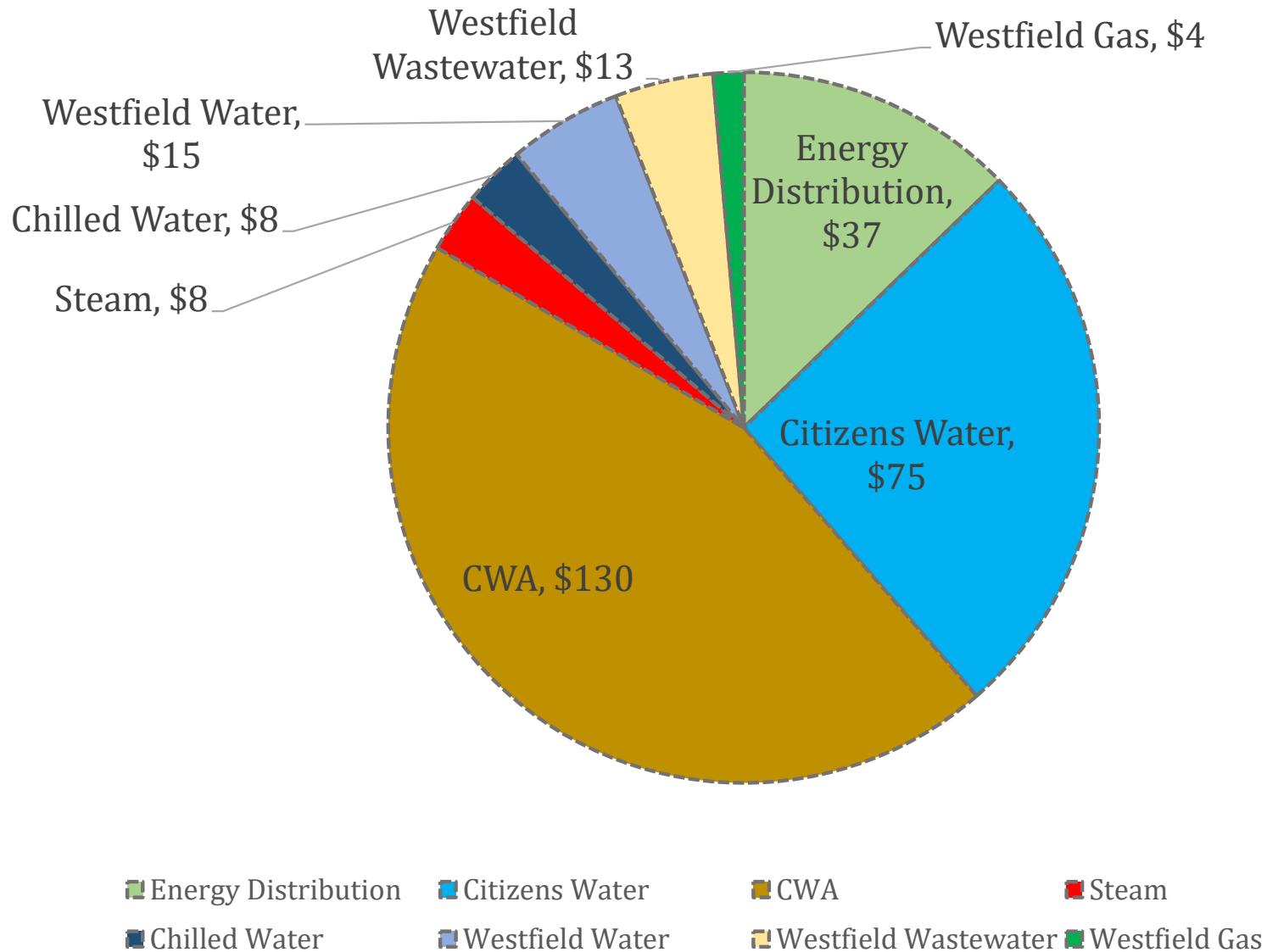
Energy Trust

- Provide light, heat and power to City
- Protect against private interests (no individual pecuniary interest)
- Public ownership of Trust property without partisan political governance
- Protection against private monopolies
- Affordable / favorable rate structure

Wastewater Trust

- Provide reasonable wastewater services at reasonable cost to beneficiaries
- Protect City of Indianapolis against further sale or disposition of assets and forever from private ownership, private control, or partisan political governance
- Coordinated operation with other utility systems to achieve economies of scale

Our Capex Mission in 2025



Year: 2011



Capital Program & Engineering Business Case Narrative May 4, 2011



Introduction

The purpose of this Business Case Narrative is to outline a strategy for the Capital Program & Engineering (CP&E) organization of Citizens Energy Group (CEG). This document describes a strategy to accomplish the goal of consolidating the capital project delivery responsibility of the five utilities (gas, steam, chilled water, water and wastewater) within one organization and to develop program management synergies which will result in improved Capital Improvement Project (CIP) delivery efficiencies. This strategy allows the new CP&E organization to support the strategic rationale of the water and wastewater utility acquisition; to provide our customers with unparalleled customer service and a continued focus on financial, environmental, and system integrity.

Year: 2011+

CP&E Business Review

Introduction / Goals

The CP&E BR was started on October 22, 2014. Key issues that were to be addressed included:

1. evaluate current and future conditions and requirements, and plan accordingly;
2. significantly reduced capex levels by 2025, reducing significantly by approximately 2021;
3. significant number of retirements at all organizational levels;
4. the need for a more efficient organizational model;
5. increased focus on services and service levels;
6. evaluate workforce capabilities;
7. develop consistent job requirements (i.e. Career Ladder); and
8. improved integration of synergies across all CP&E departments.

Results

The following are the results from the CP&E BR:

1. reduced number of Directors from 7 to 5 (-2) (-29%);
2. reduced the number of Managers from 17 to 10 (-7) (-41%);
3. reduced the number of actual Full Time Equivalent (FTEs) by 29 (-24%);
4. reduced the number of budgeted staff by 34 (-22%);
5. reduced the number of Full Time Consultants (i.e. Service Providers) by 22² (51%);
6. reduced operating budgets by approximately 29% over 2012 levels¹;
7. increased the capabilities of new and existing staff;
8. developed an enhanced workforce plan as capex levels reduce;
9. enhanced workforce capabilities; and
10. improved alignment of services and service levels between operating departments and CP&E.

Share Visions of What Challenges and Successes Looks Like

- Adversity / challenges create opportunities
- Paint the picture of elements of a successful vision (e.g. faster, less expensive, no violations, regulatory certainty, safety, etc.)
- Share that vision plan with your teams, internally and externally
- Get buy-in!
- Find leaders to execute that vision
- Execute
- Monitor

“Do the right thing whether someone is watching or not.”

SUCCESS
DOESN'T JUST
COME AND
FIND YOU,
YOU HAVE TO
GO OUT
AND GET IT.

Share Visions of What Challenges and Successes Looks Like

Year: 2012

People also ask :

When was the worst drought in Indiana history?

Many Hoosiers remember the epic droughts that occurred in 1988 and in 2012. Indiana is also defined by its creeks and rivers, which often flood. Indiana's worst river flooding occurred in March 1913. Epic, record flooding of the Wabash River led to widespread destruction in Lafayette. Dec 15, 2016

June 2012 is the driest June on record for the Indianapolis area. The total precipitation for the month at the Indianapolis International Airport was 0.09 inches. The average precipitation for June is 4.25 inches. The old record was 0.36 inches in June 1988.



Share Visions of What Challenges and Successes Looks Like

CP&E was built from:

- Citizens Employees
- Government Employees (City & State)
- Various Contractors
- Various Consultants
- Various Regulatory Agencies
- Industry Employees

Culture Challenges – Year: 2018

- How would you define culture?
- What was the fundamental culture where you came from? What was good about it? What wasn't?
- What's fundamental to the Citizens culture? What is good about it? What's not?
- What aspects of our overarching culture should be preserved/evolve?
- What are the benefits of aligning the culture within CP&E to our overarching Citizens culture?
- Are there costs to us and the organization if not aligned?

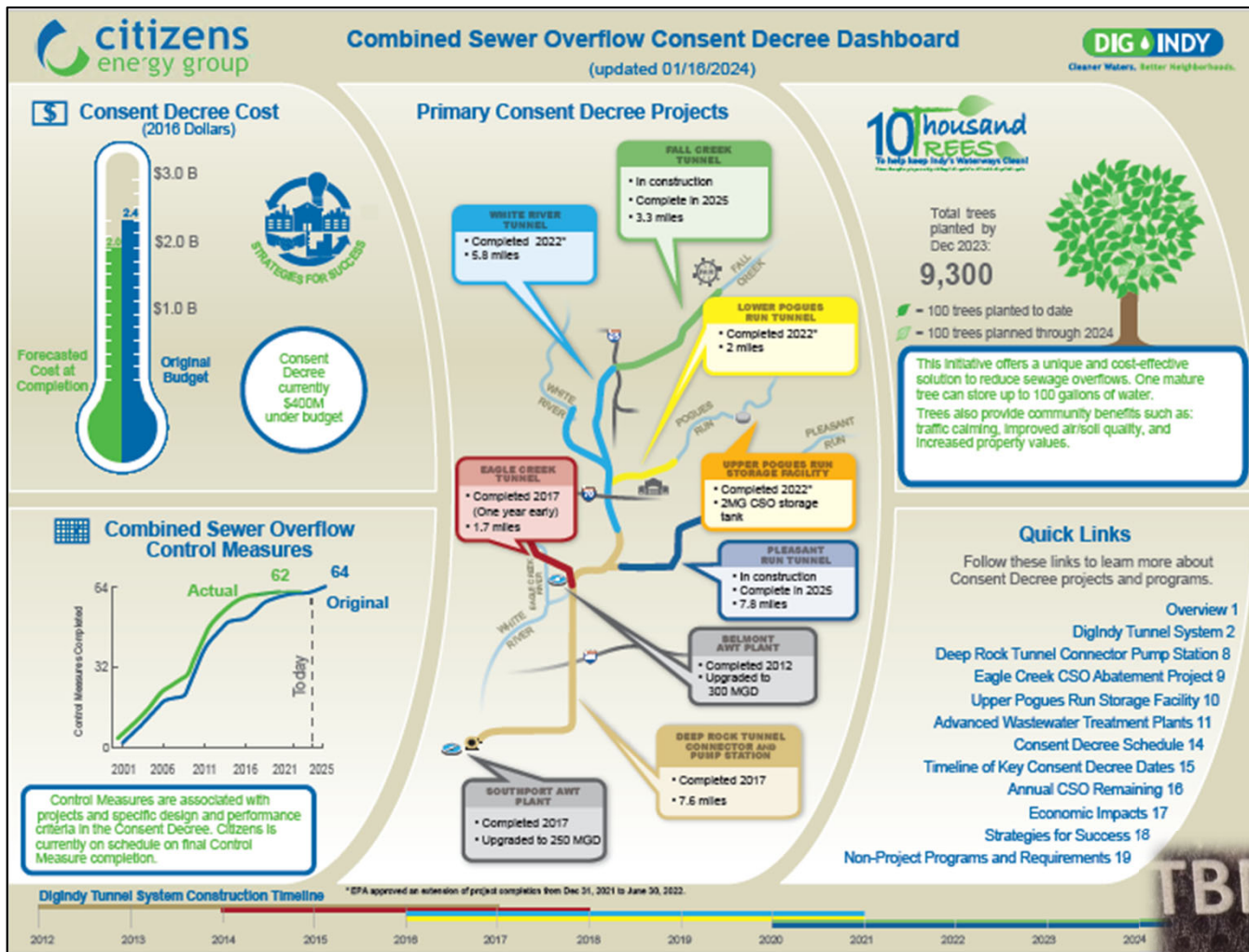
Share Visions of What Challenges and Successes Looks Like

INDIANAPOLIS CONSENT DECREE METRICS (THEN & NOW)

Metric	2006	2023
Cost	\$3.0 B (2021 Dollars)	\$2.4 B (2021 Dollars - Anticipated)
Schedule	Dec 2025	Sept 2025 (Anticipated)
Tunnel Length	25 Miles	28 Miles
Percent Capture	95% White River, Lower Pogues Run, Eagle Creek, Pleasant Run 97% Fall Creek	99% Full System (Anticipated)
CSO Overflow Volume (At completion of Consent Decree)	414 Million Gallons / Year	220 Million Gallons / Year (Anticipated)
Treatment Capacity	450 Million Gallons / Day	570 Million Gallons / Day (Anticipated)
CSO Overflow Frequency (per typical year)	4 White River, Lower Pogues Run, Eagle Creek, Pleasant Run 2 Fall Creek	3 Upper White River, Pleasant Run, Upper Pogues Run (Anticipated) 2 Fall Creek, Lower Pogues Run, Lower White River, Eagle Creek (Anticipated)
Value Added Aspects	N.A.	<ul style="list-style-type: none"> • CSO 033 Separation • Eagle Creek Tunnel Extension • White River Spur • 10,000 Trees Initiative • Fiber Optic Installation

CSO – Combined Sewer Overflow

Share Visions of What Challenges and Successes Looks Like



- Tons of rock mined: ~8 billion pounds (about 40 super aircraft carriers)
- Yards of concrete for lining: ~350,000 CY
- Miles of tunnel mined: 28.61 miles
- Machine backed up: Seven times
- TBM miles in reverse: 9 miles
- How many world records? 3

TBM World Records

Most Feet Mined in One Day
409.89 Feet - Set May 10th, 2013

Most Feet Mined in One Week
1,690.04 Feet - Set June 10-14, 2013

Most Feet Mined in One Month
5,755.15 Feet - Set May 2013

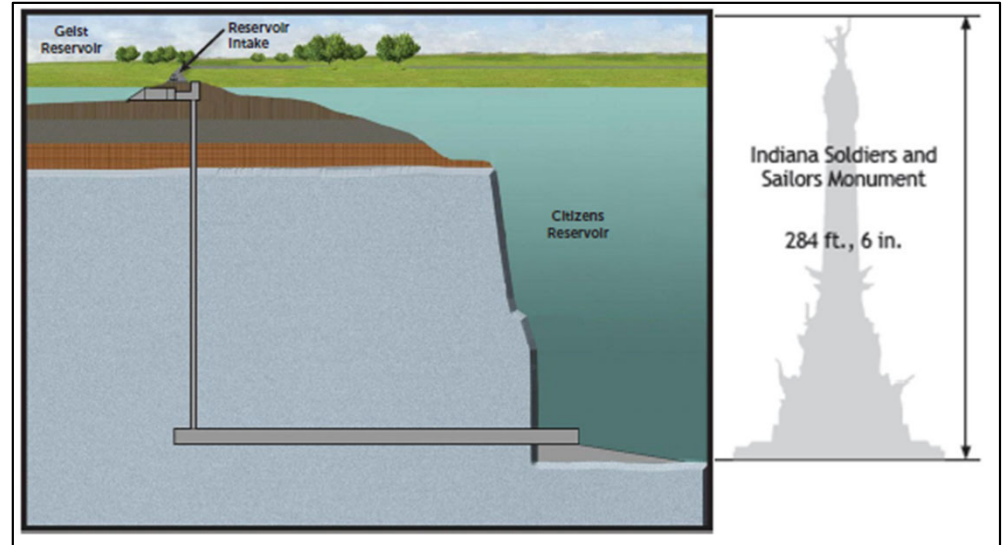
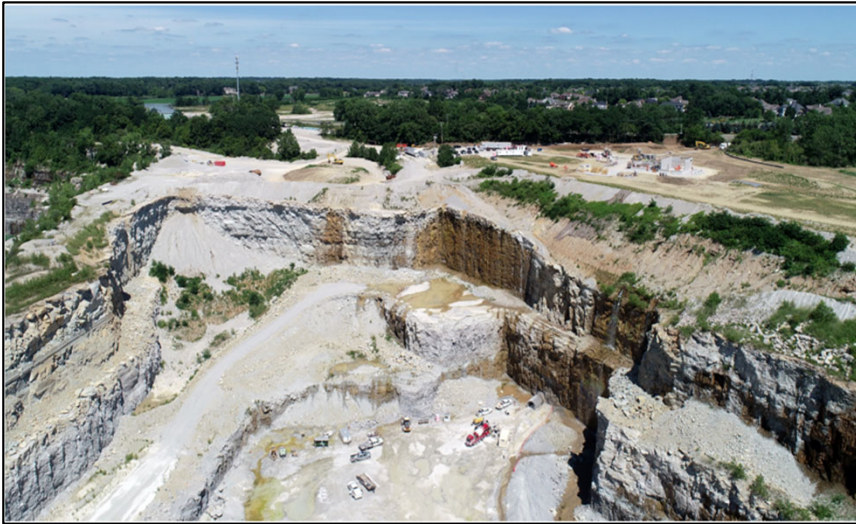
Tunneling Safely

Share Visions of What Challenges and Successes Looks Like

Coral Reef in Indiana 400 Million Years Ago



Share Visions of What Challenges and Successes Looks Like



Citizens Reservoir

- Conversion of existing Rock Quarry
- 3.2 Billion Gallons
- 90 Acre Foot Print
- 230+ Feet Deep



Share Visions of What Challenges and Successes Looks Like

Before Failure



After Failure



- New White River 33rd St. Intake-Fall 2018
- Emrichsville Dam failure-Fall 2018
- Restoration options-2019
- Outreach-2019/20
- Design & Permitting-2020/21
- Completion of Rock Ramp-2022



Share Visions of What Challenges and Successes Looks Like

Illinois and Maryland Streets

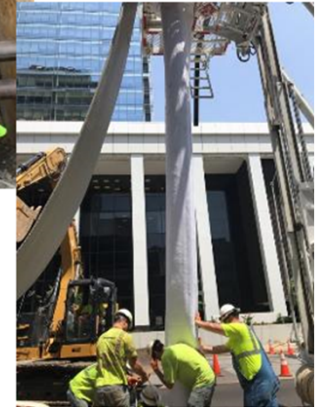
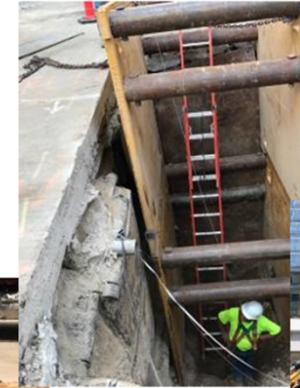
- Identified Manhole Collapse During Routine Inspection (July 19th)
- More Frequent Cleaning and Inspection in Restaurant District
- Brick Manhole Collapsed under Pavement (Street Intact)
- Intersection Closed for Public Safety
- No Impact on Other Utilities
- Installed New Manhole and Restored Sewer Connections
- Intersection Reopened (July 21st)



Initial Intersection Closure and Saw-Cutting of Street Prior to Excavation to Maintain Asphalt Integrity



Pennsylvania and Ohio Streets

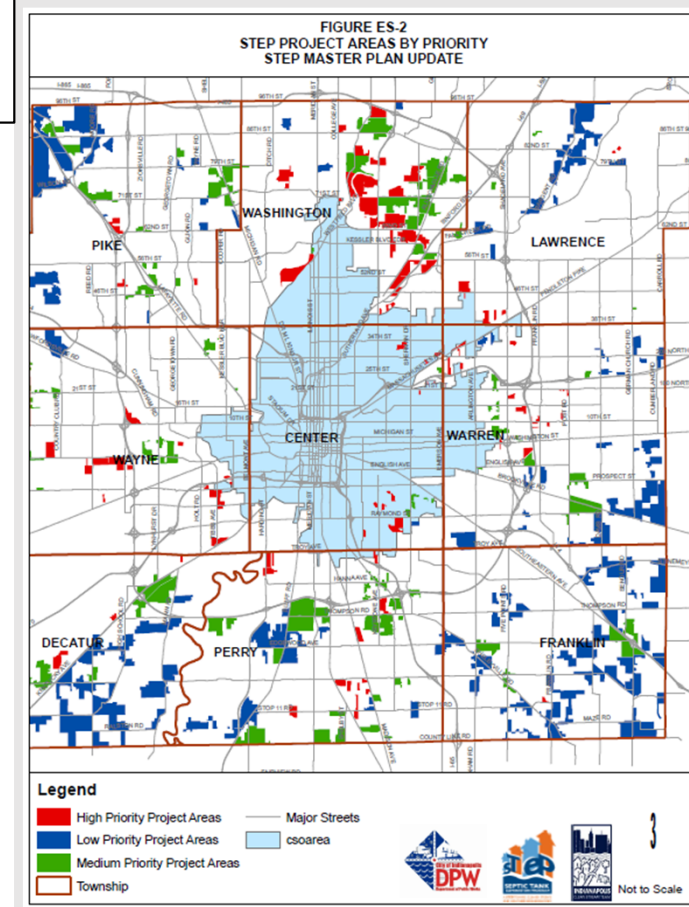


Septic Tank Elimination Program

	Gravity Sewer Installation Only	Gravity Sewer Installation unless topography required LPS	LPS Installation Only
	Barrett Law (Pre-2005)	Old STEP (2005 - 2016)	New STEP (2016 - Present)
Homeowner Costs			
Assessment (% of main)	\$10,000	-	-
Lateral Construction	\$4,000	\$4,000	-
Connection Fee / Permit	-	\$2,766	\$2,739
Total Homeowner Cost	\$14,000	\$6,766	\$2,739
City of Indianapolis / Citizens Energy Group Costs			
Construct Mains & Stubs	\$15,000	\$20,000	\$10,000
Grinder Pump Installation	-	-	\$6,000
Total Utility Cost	\$15,000	\$20,000	\$16,000
Total Project Cost/Home	\$29,000	\$26,766	\$18,739

STEP Masterplan

- 30,000 Locations
- 18,000 are High Priority
- 20 Years to Complete HP
- \$300 million (2005 \$s)
- 2025 – HPs done

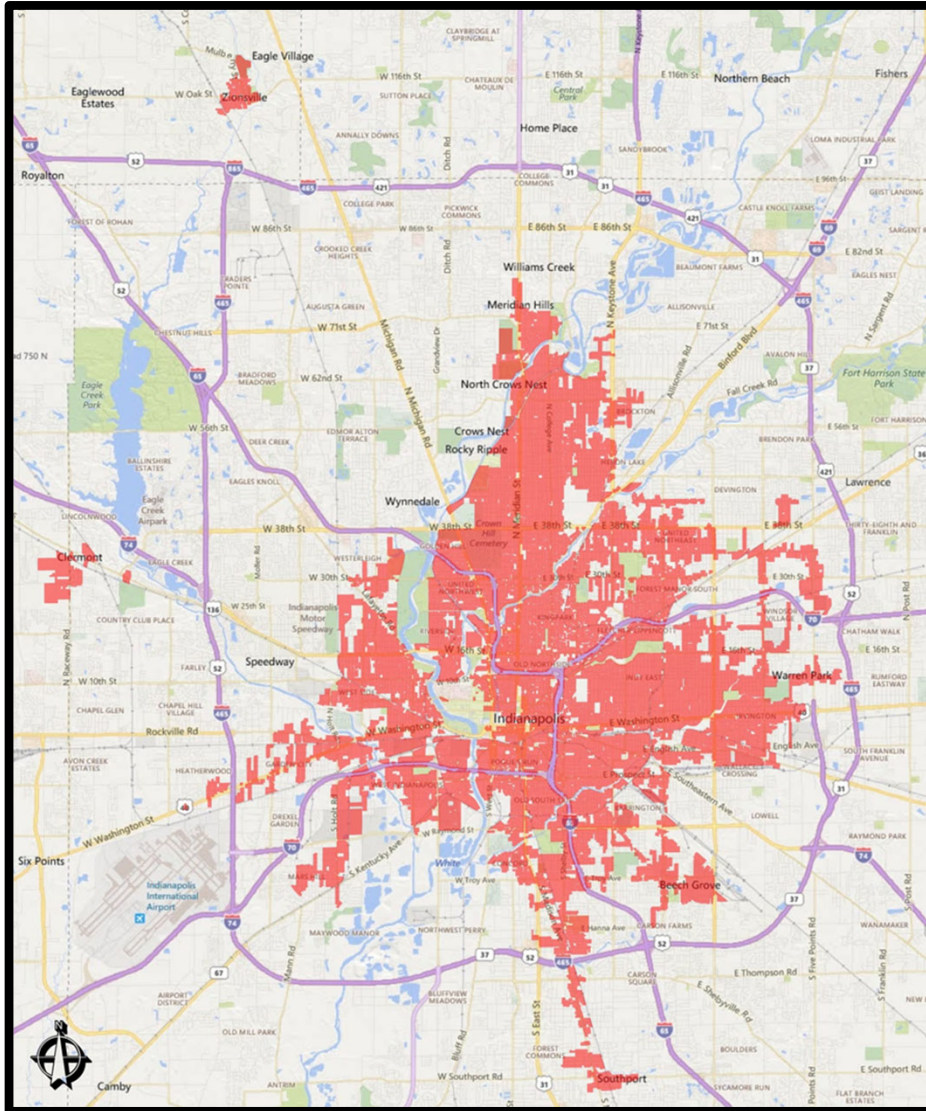


Lead Service Line Replacement Program

Lead Service Line Replacement Program

Current LSLRP

- 55,000 +Locations
- 33 Years to Complete
- \$490 million (2020 \$s)



Acceleration Vision Plan

- *No rule violations*
- LSLR Program Manager (person)
- Funding options available to Citizens
- Increase public communications
- Update IURC
- Tenant parcel legislation
- Map out Acceleration Plan
- Programmatic strategies
- Vendor partners capacity
- Agency partners (IDEM, MCHD, DPW, etc.)
- Value engineering
- Supply chain strategies



"Success will come from many discrete opportunities, over time and rarely, if ever from just one solution"

The Aqueduct Years 2020 - 2026



Before & After - South Side

Pre-Construction



Post-Construction



BE INVOLVED IN THE COMMUNITY



Citizens Employees Volunteer at Gleaners Food Bank

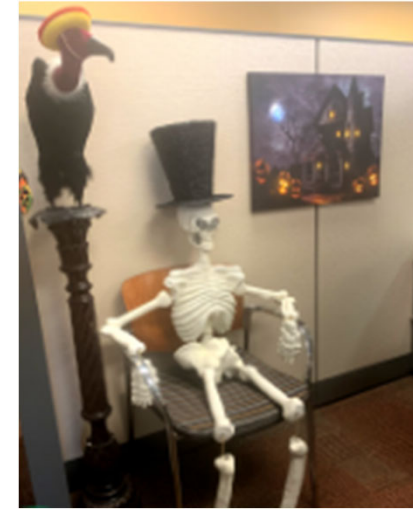
Nearly 30 Citizens employees spent their morning on April 24 to provide nourishment to food-insecure neighbors. The team worked a volunteer shift at Gleaners Food Bank of Indiana and in three hours packaged a record 1,050 boxes of non-perishable food for distribution to children at summer camps. Led by **Sabine Karner**, Vice President and Controller, Citizens volunteers at Gleaners quarterly, and the impact is only continuing to grow: Only halfway through 2024, Citizens volunteers have already provided close to 41,000 meals!

"The summer months are a particular challenge for families with children, many of whom rely on school meals for one to two meals per day," said Fred Glass, President and CEO of Gleaners. To address this typical spike in need, Gleaners operates mobile pantries in Marion County and works with many school pantries in rural counties to remain open during the summer. In 2023, more than 11 million meals were provided through these programs.

"None of this would be possible without our donors and volunteers, and Citizens Energy Group is generous in both of these areas," said Glass.



HAVE FUN



What Does Good Business Look Like For Citizens?

- Align with our Vision, Mission, and Values
- Focus on the Customers
- Employees (*current and future*)
- Leaders (*current and future*)
- Technology
- Embrace Diversity (*it makes us stronger*)
- Live in the moment (*but be planning for the future*)
- Support the Community (*A strong Utility helps create a strong community; a strong Community helps create a strong Utility*)
- Operate with Transparency
- Operate with Integrity
- Foster these Cultural elements (*its not a destination, it's a never-ending journey*)

Remember....

“The greatest teacher, failure is”

-Yoda

‘The Last Jedi’

“A long time ago...”