

Ohio River Tunnel Update

July 11, 2017



Agenda

- Introductions
- Getting to Know You
- Project Overview
- Ohio River Tunnel Projects
- Project Schedule
- Cost Estimate
- Keeping Each Other Informed
- Feedback

Getting to Know You



Public Engagement Tools: “Clickers” and Online Polling

“Clickers” for Public Meetings

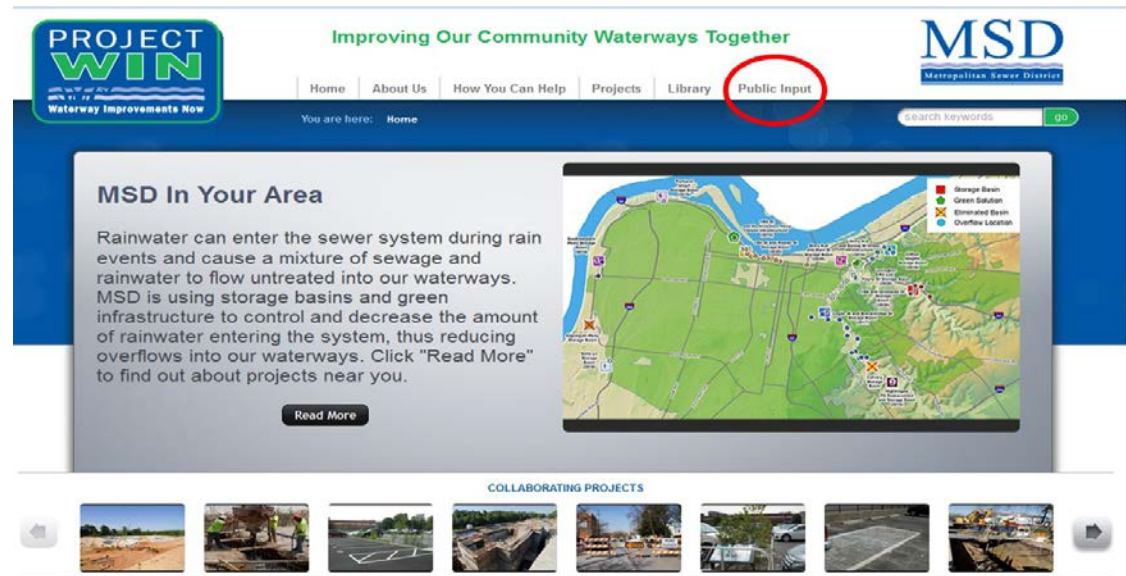
- Simple To Use
- Anonymous (No One Knows Your Answers)
- Simultaneous (We All See the Results At the Same Time)
- Equal Voice for All



Online Polling for Those Who Can't Attend Public Meetings

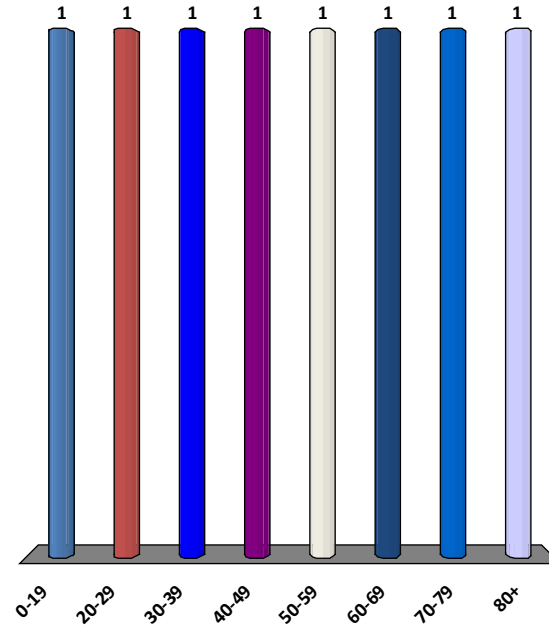
<http://tinyurl.com/OhioRiverTunnel>

msdprojectwin.org



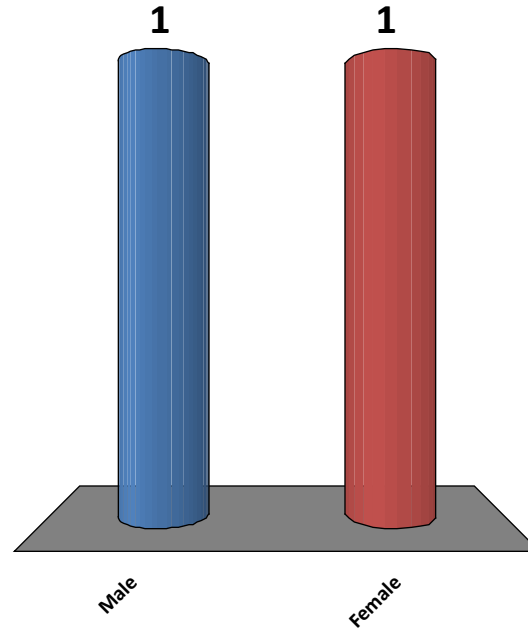
How Young Are You?

1. 0-19
2. 20-29
3. 30-39
4. 40-49
5. 50-59
6. 60-69
7. 70-79
8. 80+



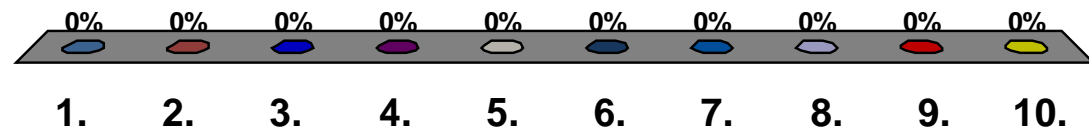
Gender?

1. Male
2. Female



How Did You Hear About this Meeting? (4)

1. Received a Post Card
2. Courier Journal
3. Metro Council District Newsletter
4. Neighborhood Association
5. Word of Mouth
6. Flyer
7. Project WIN Website
8. MSD e-mail
9. @LouisvilleMSD (Twitter)
10. Other



Project Overview

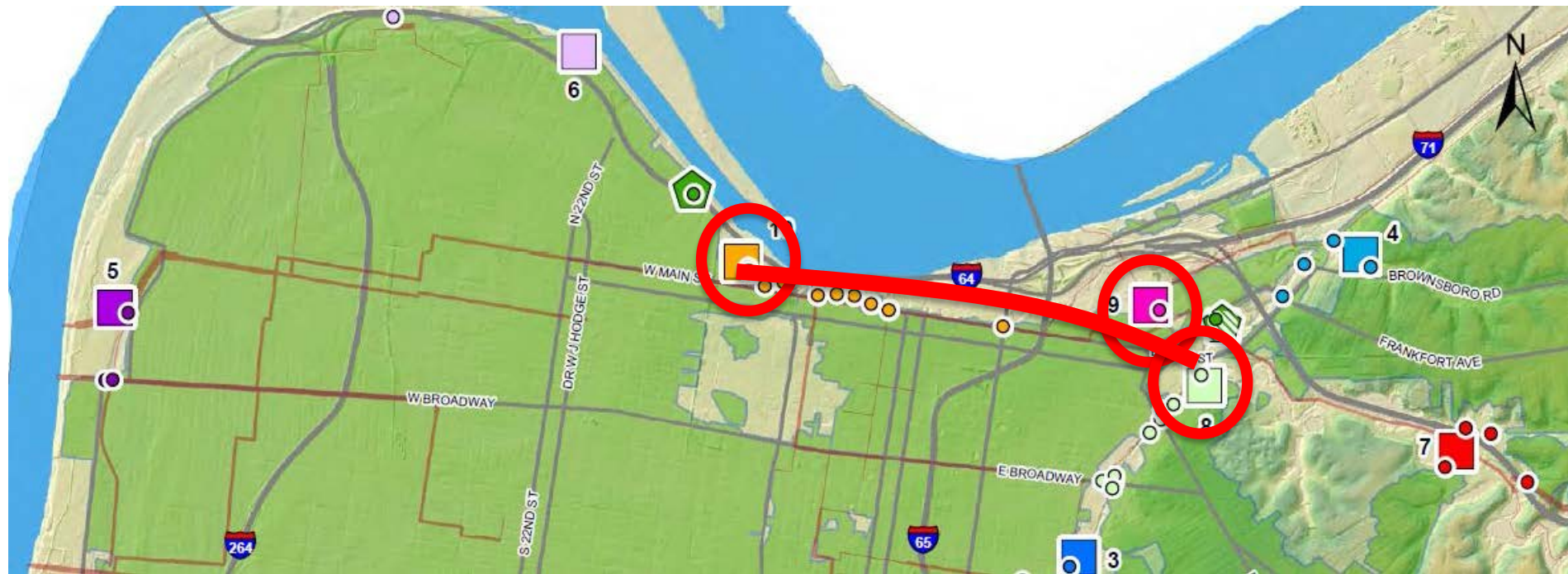


Ohio River Tunnel Overview

A project to combine the volume of 3 individual Combined Sewer Overflow (CSO) basins into a single deep rock tunnel

September 30, 2016 approval by MSD's Board to move forward with design

Three basins will be eliminated by the consolidated tunnel solution



Careful consideration resulted in the new solution

Variety of factors considered:

- Discussions with Community Leaders
- Input from public meetings
- Traffic disruptions along key commercial corridors
- Economic impacts to downtown businesses and the emerging Butchertown district
- Consent Decree mandates for completion by December 2020
- Technological advances of deep tunnel construction over the last decade have reduced costs
- Eliminates challenges of construction and final land use planning on a brownfield site

Community Meetings to Date

Project Phase	Story and Main	Lexington and Payne
Orientation	June 16, 2015	January 19, 2016
Conceptual Design	February 10, 2016	April 26, 2016
Update	October 11, 2016	October 18, 2016

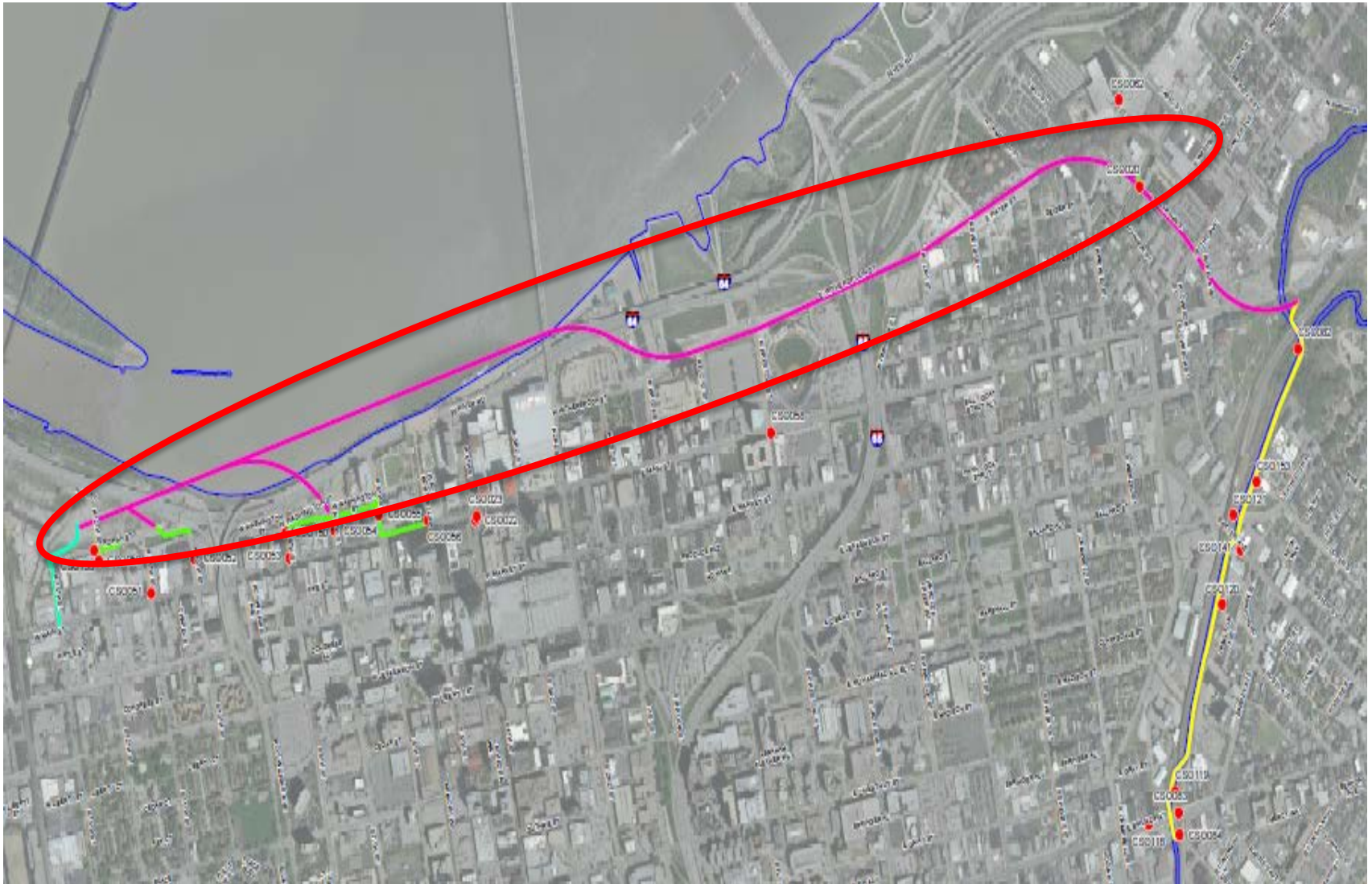
Ohio River Tunnel: An Innovative Alternative to 3 CSO Basins



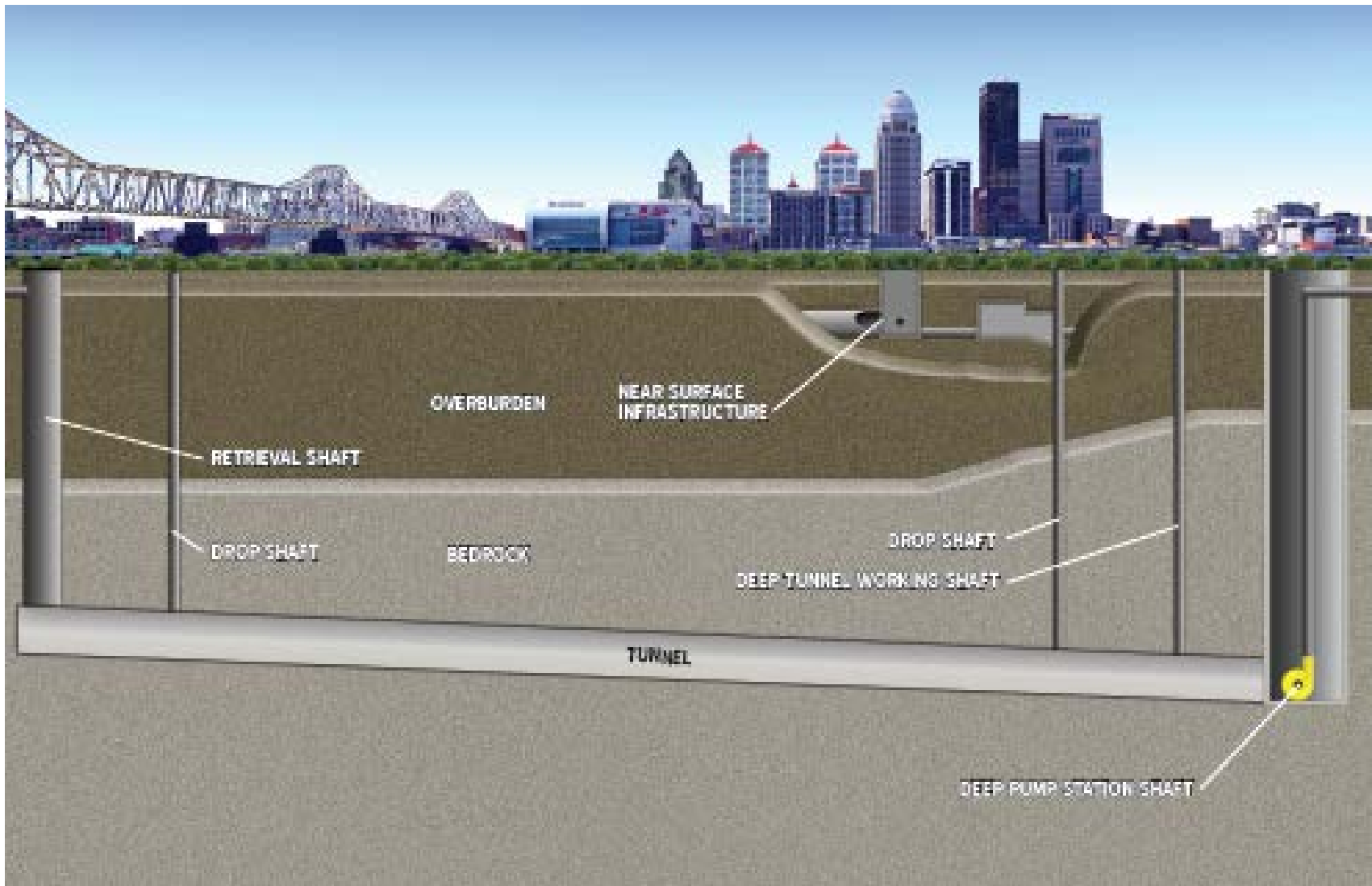
Project Background

- Project to combine the volume of three (3) basins
 - Rowan CSO Basin (9.8 MG)
 - Story & Main CSO Basin (8.3 MG)
 - Lexington & Payne CSO Basin (17.5 MG)
- Divided into four (4) separate projects
 - Ohio River Tunnel (37 MG)
 - Rowan Pump Station
 - Lexington & Payne CSO Interceptor
 - Downtown CSO Interceptor
- **Consent Decree Deadline of December 31, 2020**

Ohio River Tunnel – Project Alignment



Ohio River Tunnel – Project Profile



Ohio River Tunnel – Project Facts

- Parameters
 - 13,400 linear feet in length (main tunnel)
 - 1,200 linear feet in length (bifurcation)
 - 200 feet below ground to invert
 - 20 feet minimum internal diameter
- Volume
 - Required - 33.7 million gallons
 - Provided - 37.0 million gallons
 - Rock Removal – 300,000 CY or 30,000 trucks

Ohio River Tunnel - Dig INDY Site Visit



Ohio River Tunnel - Dig INDY Site Visit



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Ohio River Tunnel - Dig INDY Site Visit



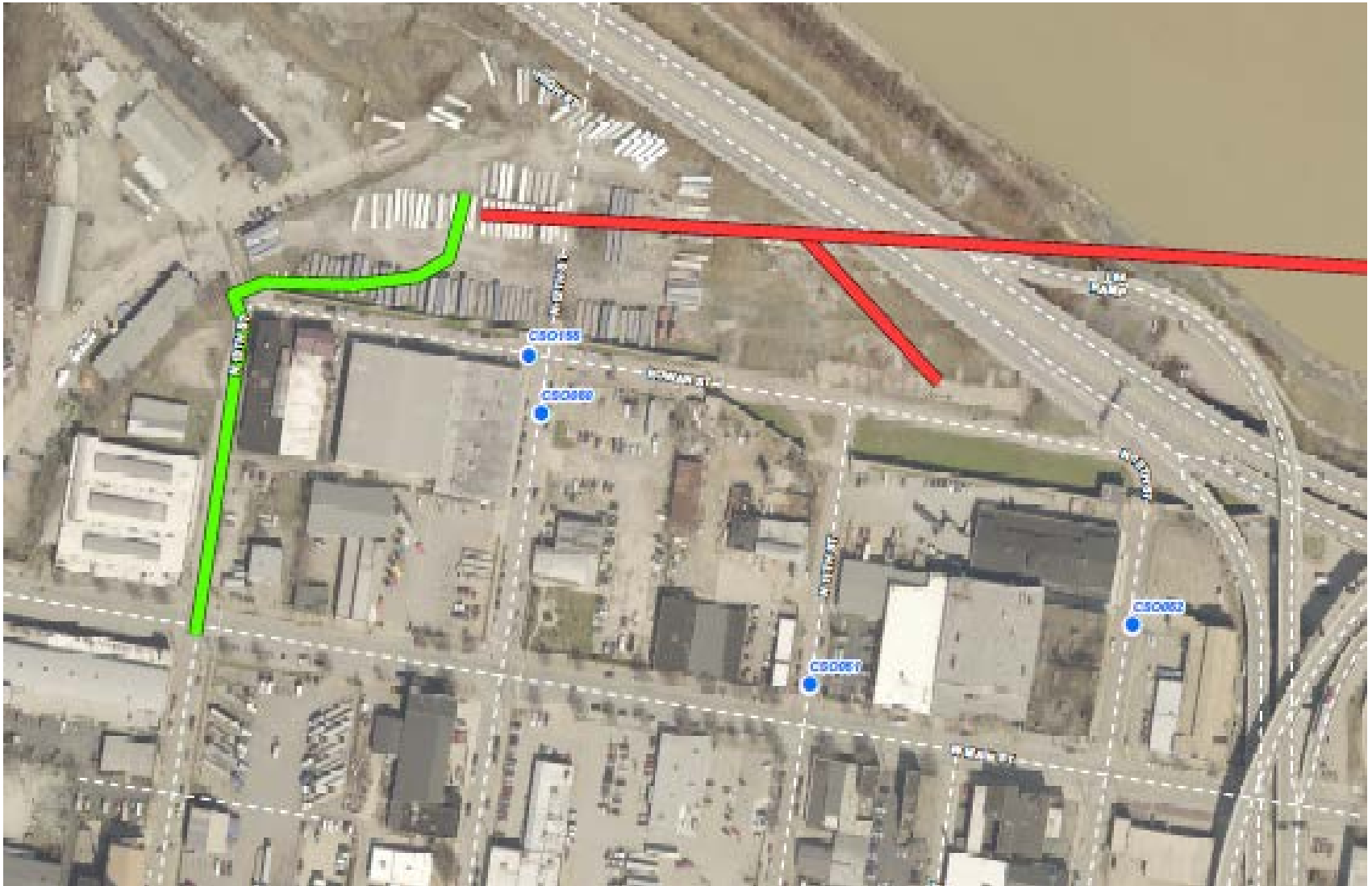
Ohio River Tunnel – Shaft Locations



Rowan Pump Station



Rowan Pump Station – Project Alignment



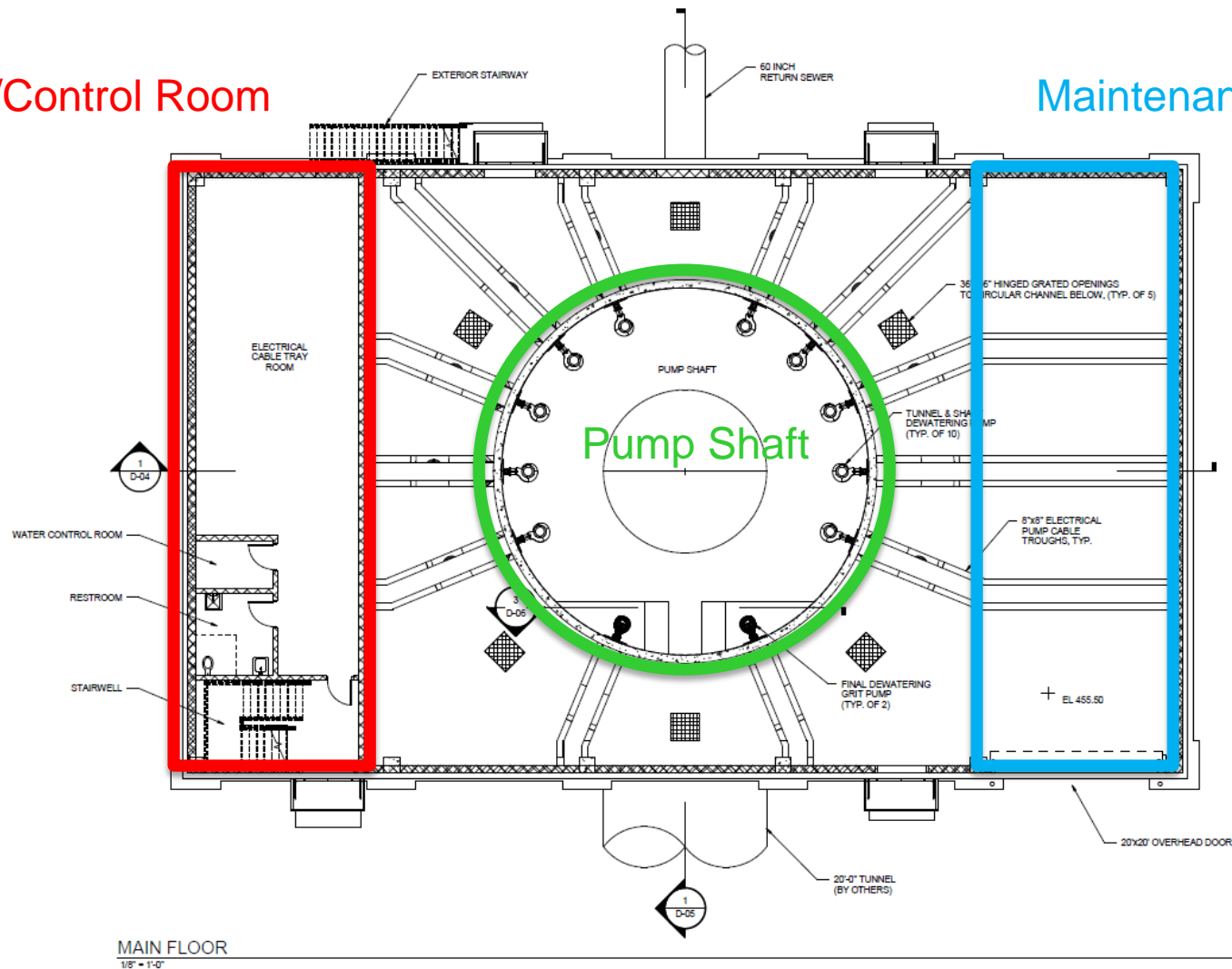
Rowan Pump Station – Project Facts

- Pump Station Building
 - 120 foot x 72 foot
 - Pump Station Shaft
 - Loading/Maintenance Area
 - Elevated Electrical/Control Room
- Wet Well
 - 10 submersible pumps (3,500 gpm each)
 - 2 grit pumps (1,000 gpm each)
 - 60 inch gravity sewer to Ohio River Interceptor (ORI)

Rowan Pump Station – Building Layout

Electrical/Control Room

Maintenance Area



Rowan Pump Station – Draft Rendering



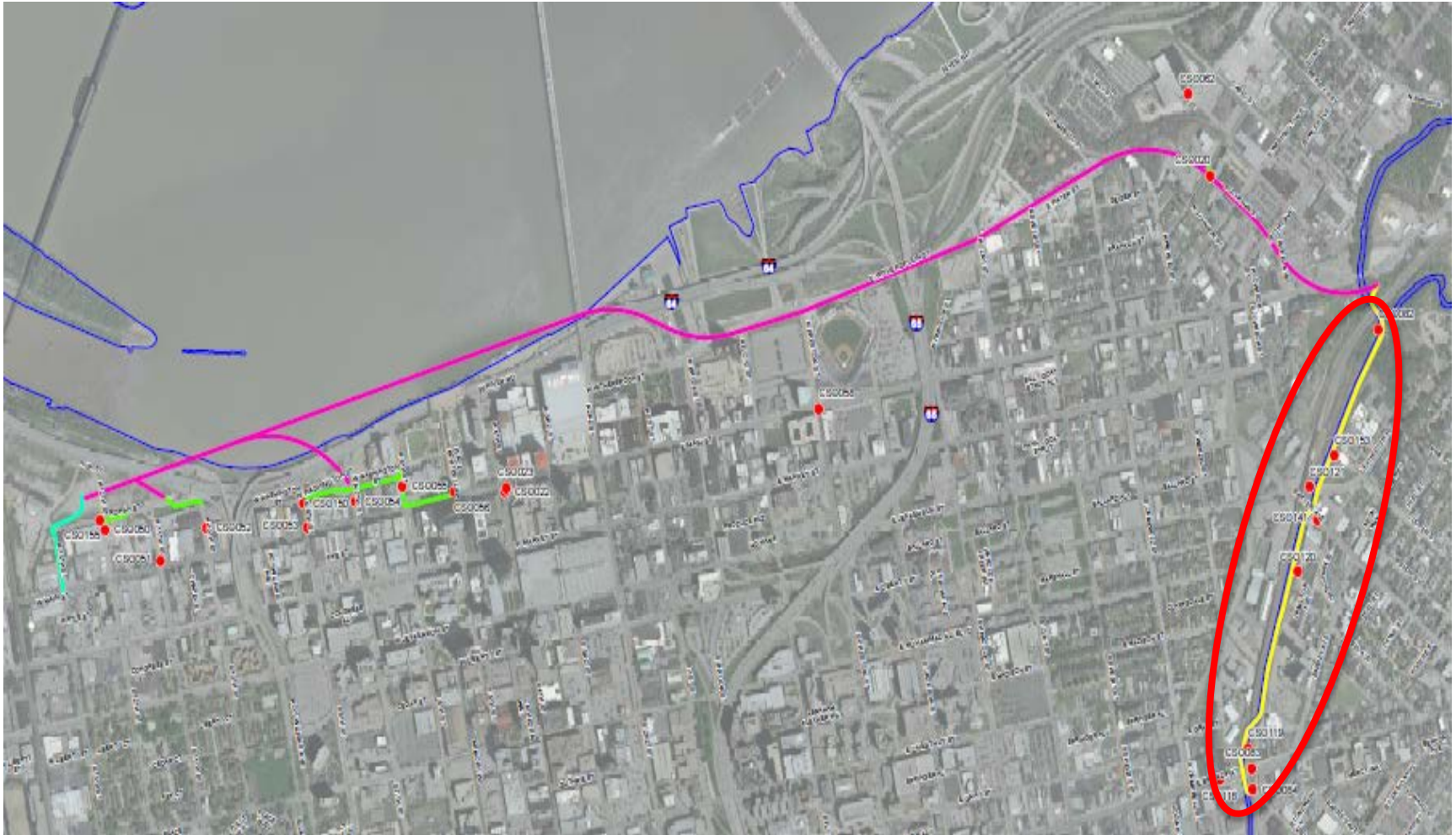
Rowan Pump Station – Draft Rendering



Lexington & Payne CSO Interceptor



Lexington and Payne CSO Interceptor – Project Alignment



Lexington and Payne CSO Interceptor – Project Alignment



Lexington and Payne CSO Interceptor - Project Facts

- Sewer line to capture overflows from nine (9) existing CSOs and convey that flow to the tunnel
- Interceptor will be below the concrete channel of South Fork Beargrass Creek
- Approximately 5,000 linear feet in length
 - From E Broadway to E Main Street
 - Pipe size ranging from 36-inch to 102-inch diameter

Example Project - Logan CSO Interceptor



Example Project - Logan CSO Interceptor



Downtown CSO Interceptor



Downtown CSO Interceptor – Project Alignment



Downtown CSO Interceptor – Project Alignment



Downtown CSO Interceptor - Project Facts

- Sewer lines to capture overflows from twelve (12) existing CSOs and convey that flow to the tunnel
- Approximately 2,000 linear feet total in multiple segments
- 12-inch to 60-inch diameters
- Street Impacts
 - Rowan Street between 10th & 13th Streets
 - Washington Street between 6th & 8th Streets
 - 6th Street between Main & Washington Streets
 - Main Street between 5th & 6th Streets

Story and Main Connector – Project Alignment



Story and Main Connector - Project Facts

- Sewer line to capture overflows from two (2) existing CSOs and convey that flow to the tunnel
- Approximately 200 linear feet in length
 - Near the intersection of Franklin Street and Buchanan Street
 - Pipe size: 48-inch diameter

Project Schedule



Ohio River Tunnel – Schedule

Milestone	Ohio River Tunnel	Lexington & Payne CSO Interceptor	Downtown CSO Interceptor	Rowan Pump Station
Final Design	May 2017	Feb. 2017	Sept. 2017	Nov. 2017
Construction Start	Oct. 2017	Oct. 2017	Nov. 2017	Feb. 2018
Substantial Completion	June 2020	June 2019	Oct. 2019	Aug. 2020
Consent Decree Deadline	Dec. 31, 2020	Dec. 31, 2020	Dec. 31, 2020	Dec. 31, 2020

Cost Estimate



Ohio River Tunnel – Construction Costs

Project	Construction Cost Estimate
Ohio River Tunnel	\$ 135,000,000
Lexington & Payne CSO Interceptor	\$ 25,000,000
Downtown CSO Interceptor	\$ 15,000,000
Rowan Pump Station	\$ 25,000,000
Total	\$ 200,000,000

Keeping Each Other Informed



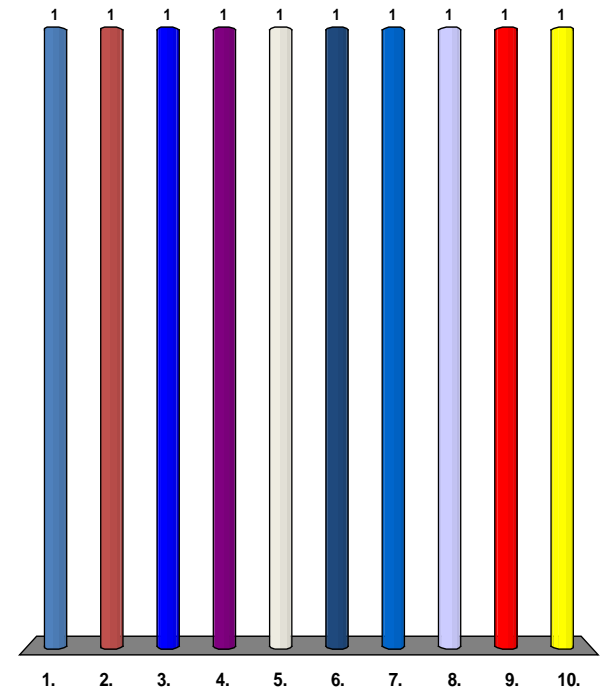
MSD Wants to Keep You Informed, and We Want to be Informed

The tunnel will greatly reduce surface disturbance and construction impacts, and the tunnel boring will not be heard, but...

- Some streets will be closed for interceptor installations at different times over the next three years
- There will still be significant construction traffic and impacts
- MSD will create information resources to keep you up to date, help you plan for any possible construction impacts, and help you keep us informed about impacts we should be aware of.
- **We'd like your opinion on the best ways to accomplish this.**

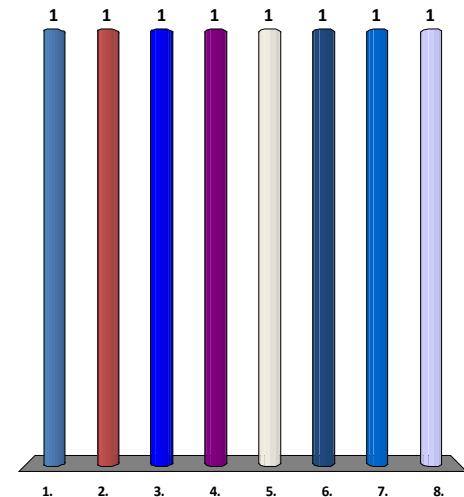
How Would You Like to Learn About MSD's Ohio River Tunnel Progress? (5)

1. Public Meetings
2. Local Mainstream Print or Broadcast Media
3. Metro Council District Newsletters
4. Neighborhood Associations
5. Dedicated MSD Project Website
6. MSD Email List
7. @LouisvilleMSD (Twitter)
8. Facebook Updates
9. Text Messages to Your Phone
10. MSD Streamline Newsletter



What Types or Styles of Information Exchange Would be Most Useful During the Project? (5)

1. Real Time Animation Of Tunnel Or Construction Progress
2. Moderated Discussion / Message Board
3. 800 Number for Questions
4. FAQ Derived from items 2 and 3
5. MSD and Project Event Announcements / Calendar
6. Weekly Update / Map of Construction Impacts
7. URL's to Related Project Resources



THANK YOU!

Next Steps

- Ohio River Tunnel and Lexington and Payne CSO Interceptor
 - Board Award in 3rd Quarter 2017
 - Construction in 4th Quarter 2017
- Downtown CSO Interceptor
 - Board Award in 4th Quarter 2017
 - Construction in 1st Quarter 2018
- Rowan Pump Station
 - Board Award in 1st Quarter 2018
 - Construction in 2nd Quarter 2018

Discussion



For *general information or emergencies*
regarding the MSD system, call:

502-587-0603

Your Call Will be Answered

- By an MSD Staff Member
- Around the Clock
- Every Day of the Year