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# *SOUTHWESTERN PARKWAY CSO STORAGE BASIN*

## *Conceptual Design Input Meeting #2*

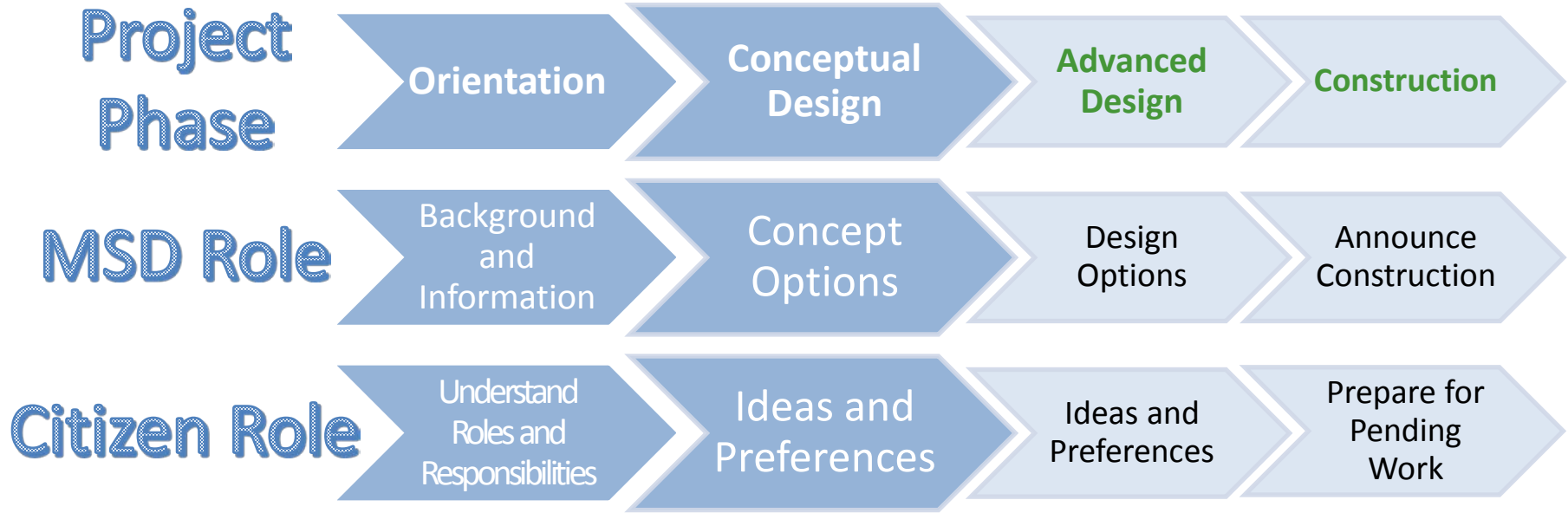
*November 12, 2015*

# COMMUNITY OUTREACH

## PROJECT BASED STRUCTURED PUBLIC INPUT

**Previous Project Meetings**

- September 24, 2013 – IOAP Orientation Meeting
- March 10, 2015 – Neighborhood Orientation Meeting
- March 23, 2015 – Conceptual Design Meeting #1
- October 19, 2015 – Mtg. with Councilwoman and Residents

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# AGENDA

- **Demographic Questions**
- Project Background
- Frequently Asked Questions
- Alternate Locations
- Collect Question Cards
- Answer Questions

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# PUBLIC ENGAGEMENT: "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 tim
- Equal voice for all

## Online polling for those who can't attend public meetings


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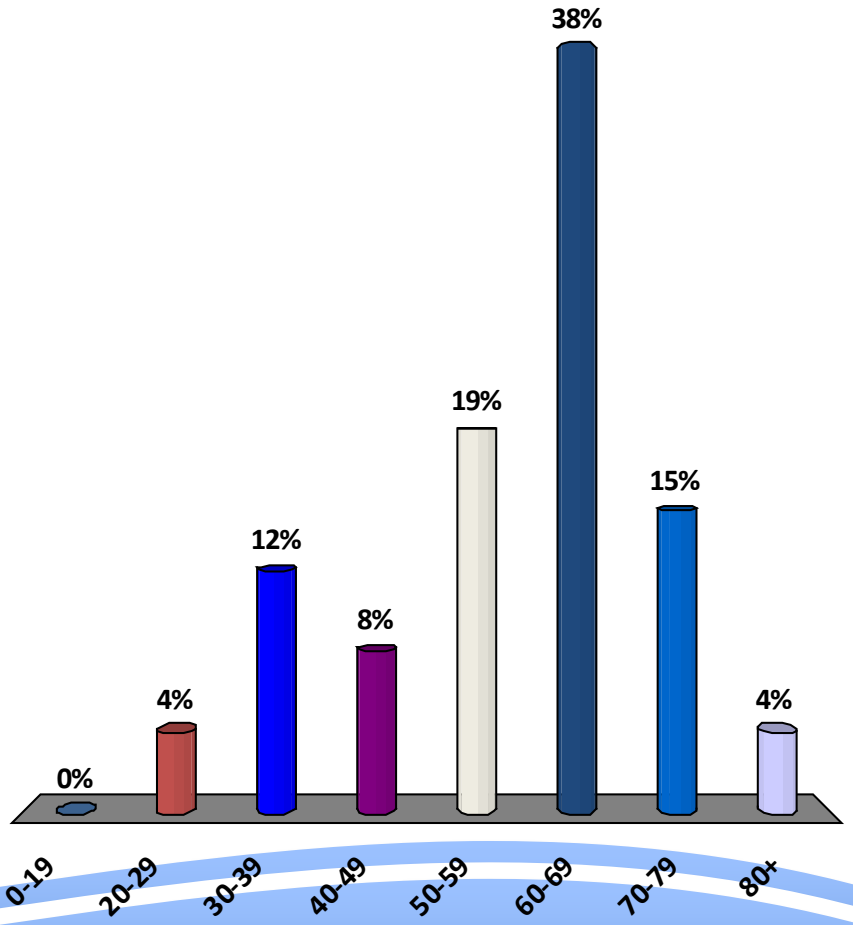
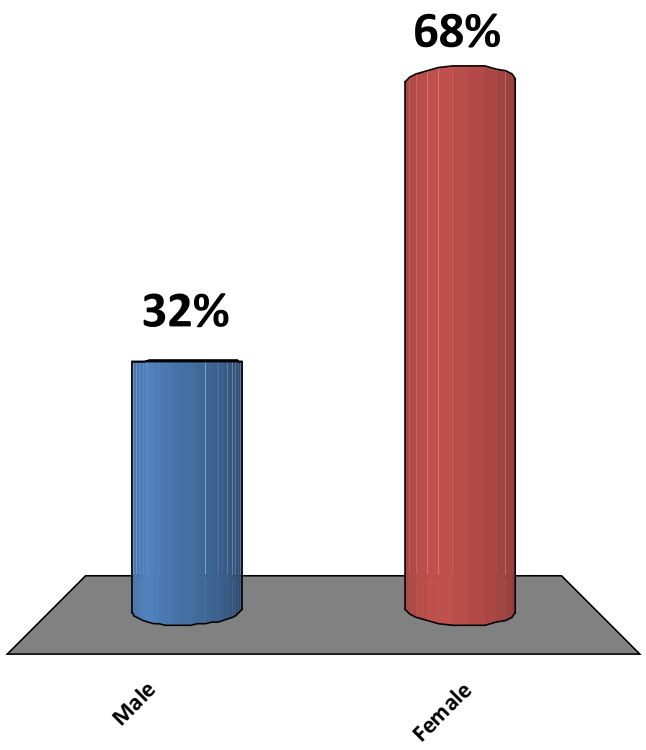
# How Young Are You?

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



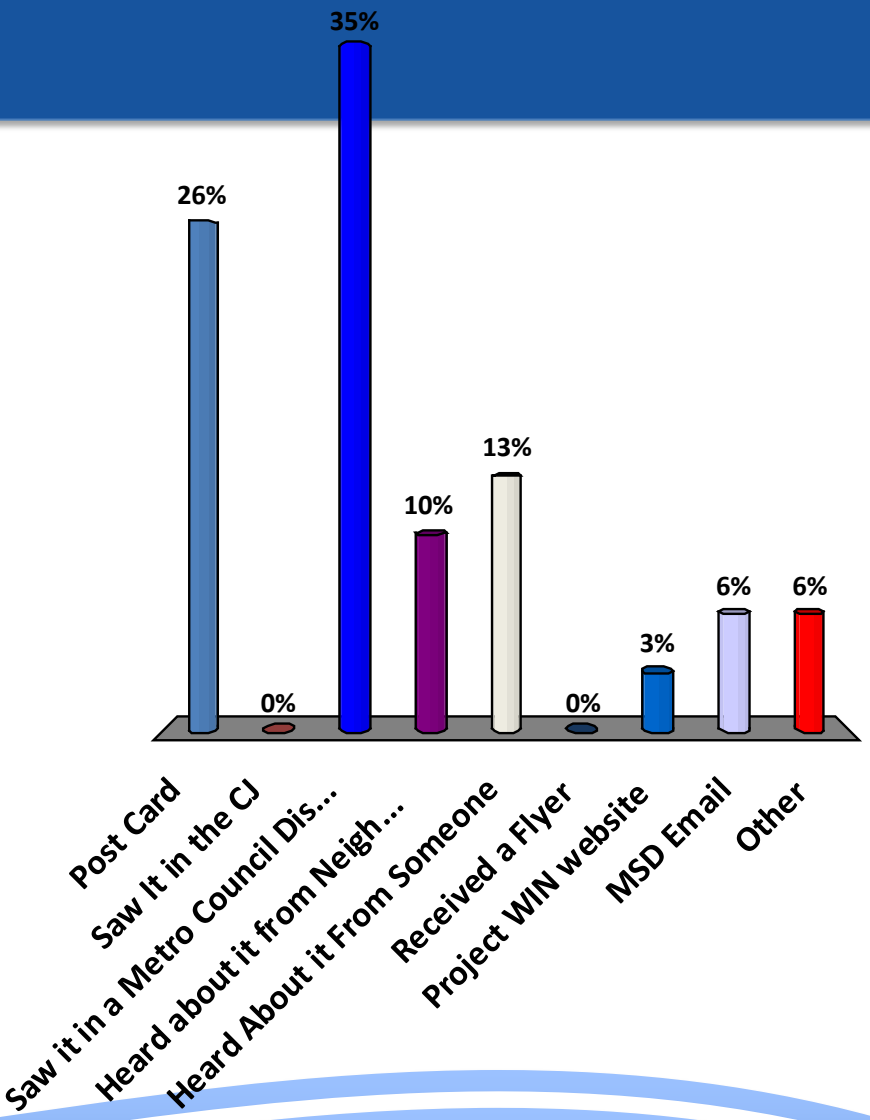
# Gender?

1. Male
2. Female



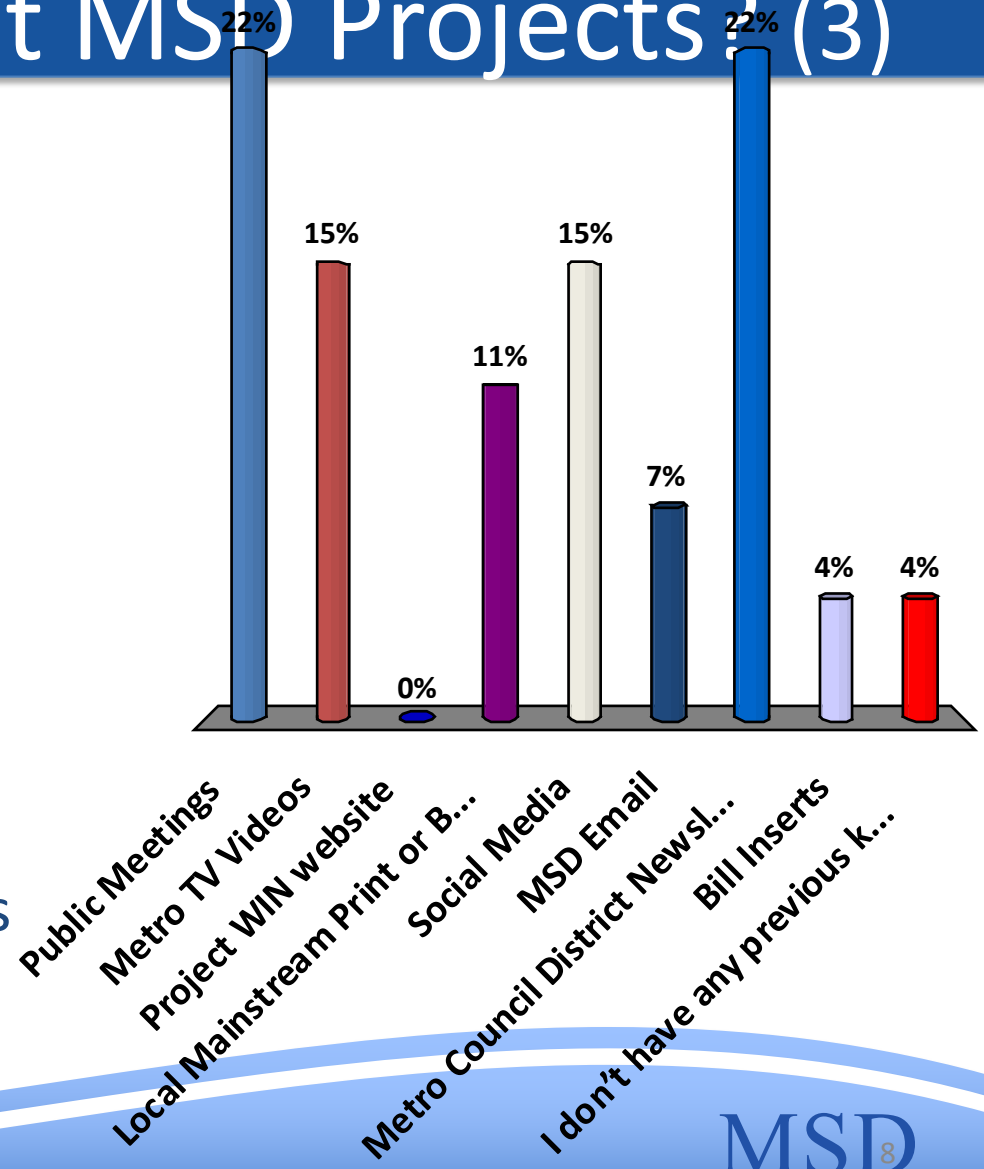
# How Did You Hear About This Meeting? (3)

1. Post Card
2. Saw It in the CJ
3. Saw it in a Metro Council District Newsletter
4. Heard about it from Neighborhood Association
5. Heard About it From Someone
6. Received a Flyer
7. Project WIN website
8. MSD Email
9. Other



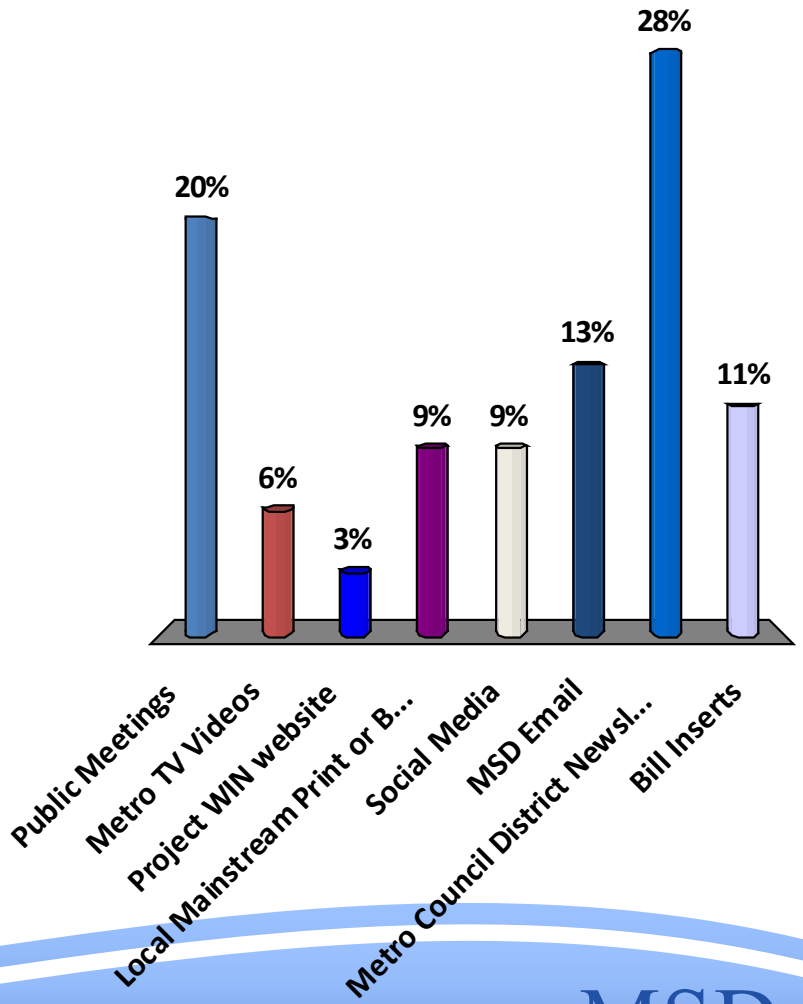
# What Are Your Primary Sources of Information About MSD Projects? (3)

1. Public Meetings
2. Metro TV Videos
3. Project WIN website
4. Local Mainstream Print or Broadcast Media
5. Social Media
6. MSD Email
7. Metro Council District Newsletter
8. Bill Inserts
9. I don't have any previous knowledge of MSD projects.



# How Would You Like to Learn About MSD Projects? (3)

1. Public Meetings
2. Metro TV Videos
3. Project WIN website
4. Local Mainstream Print or Broadcast Media
5. Social Media
6. MSD Email
7. Metro Council District Newsletter
8. Bill Inserts



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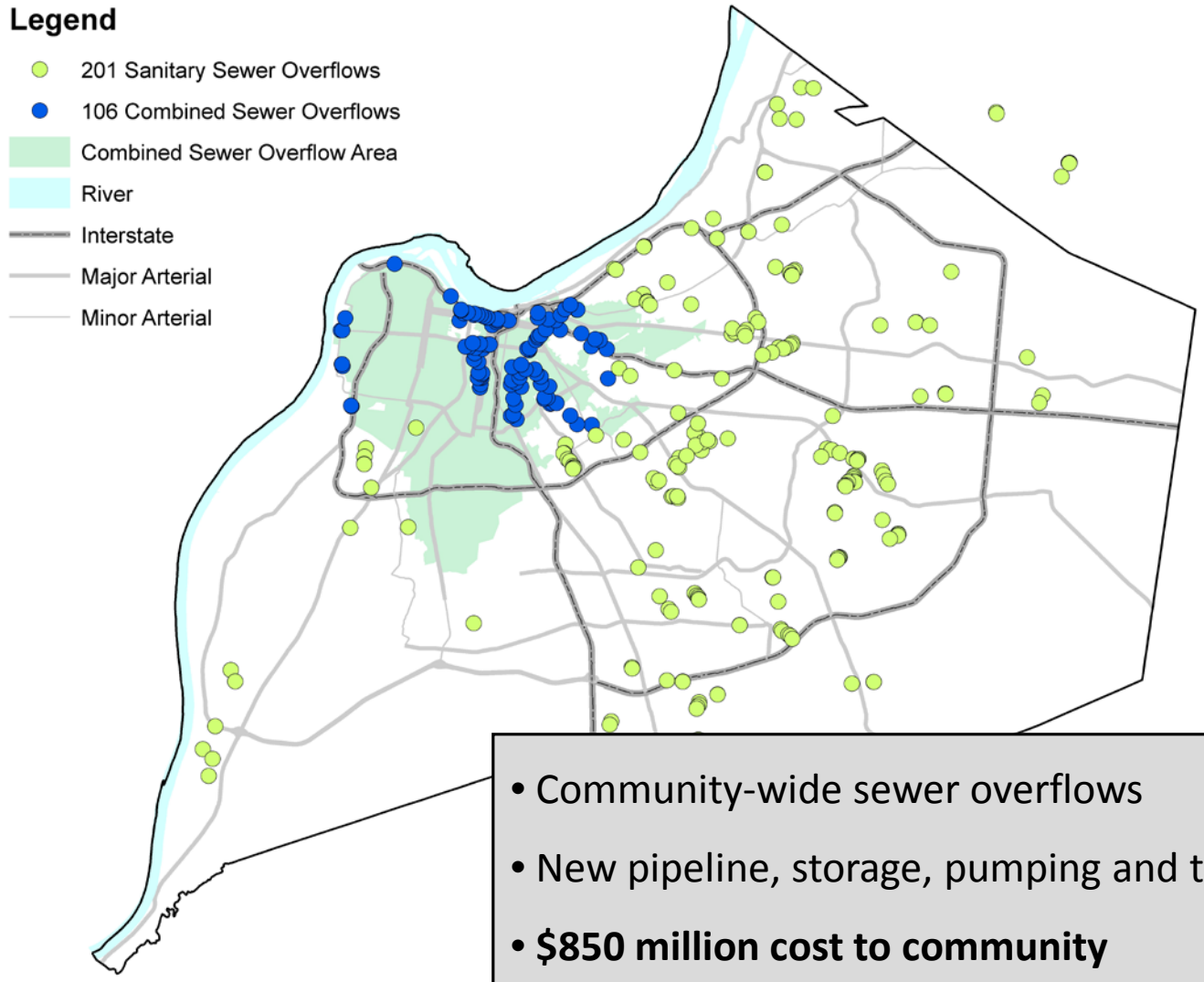
# SEWER OVERFLOW LOCATIONS (2008)




- Community-wide sewer overflows
- New pipeline, storage, pumping and treatment
- **$850 million cost to community**

# FEDERAL MANDATE

- In 1972, the Federal Clean Water Act required:
  - Elimination of Sanitary Sewer Overflows
  - Mitigation of Combined Sewer Overflows
- MSD under Federal Order to complete the projects by certain dates
- Failure to meet the dates will result in stipulated penalties and fines
- Non-compliance is subject to civil/criminal actions

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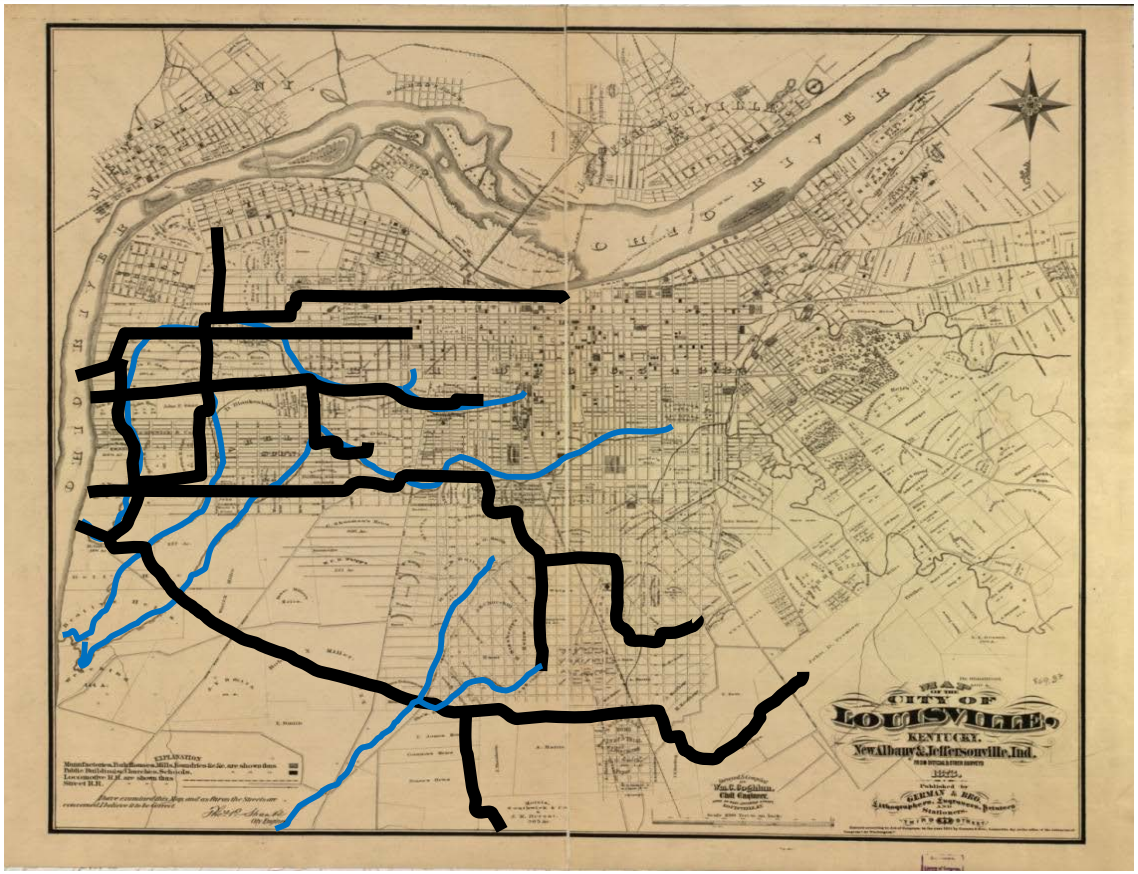
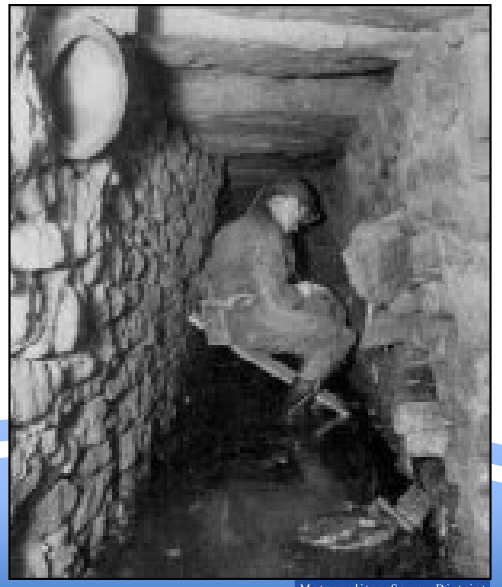
# SEWERS FOLLOWED NATURAL DRAINAGE
## (Louisville Map ca. 1880)







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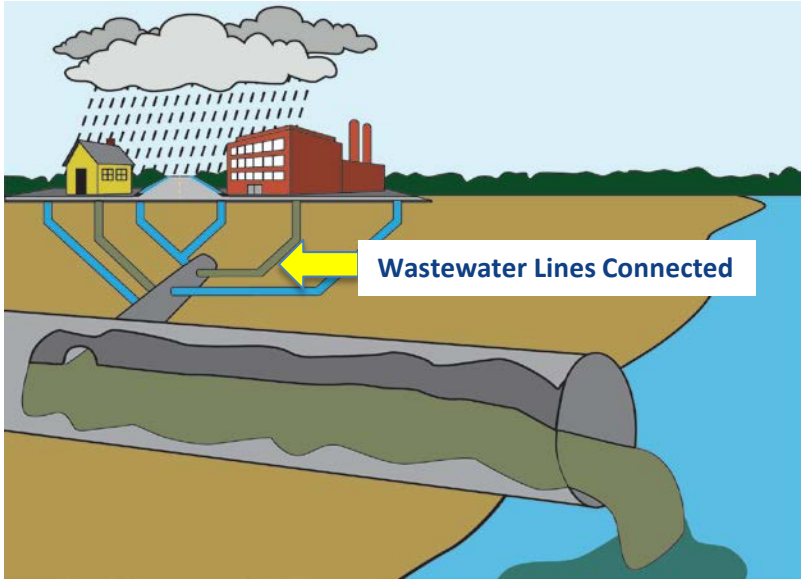
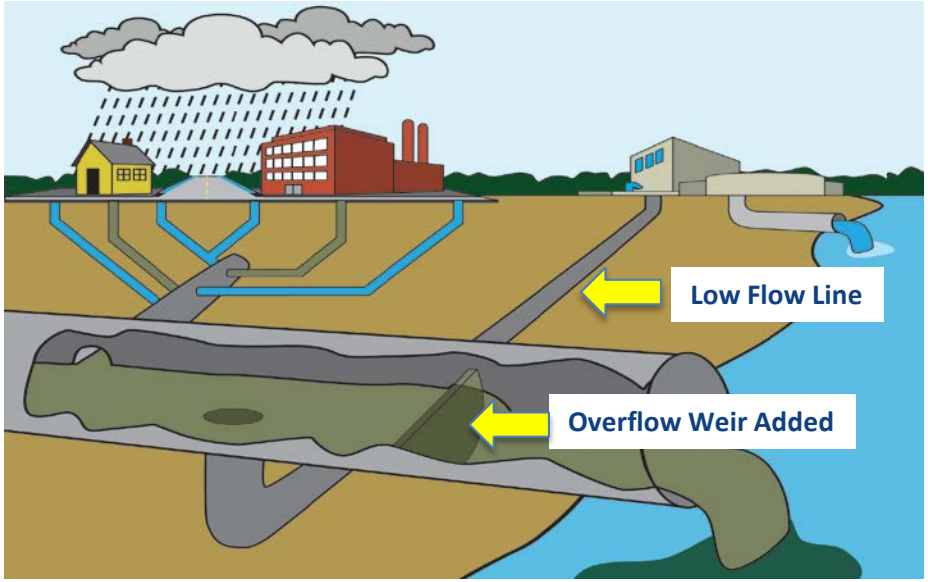
# WHAT IS A COMBINED SEWER?

## What is a combined sewer?

– Both storm water and wastewater conveyed in the same system




Original Combined Sewers discharged directly to rivers and streams




Wastewater treatment added in 1958. Dry weather flow treated. Some wet weather flow discharged to prevent flooding.

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# HOW DO WE CONTROL OVERFLOWS?

## Source Control Projects

- Green infrastructure
- Downspout disconnections
- Sump pump disconnections
- Sewer rehabilitation

## Gray Infrastructure Projects

- Pipeline projects
- Pump station expansions
- Wastewater treatment plant expansions
- **Storage Basins**

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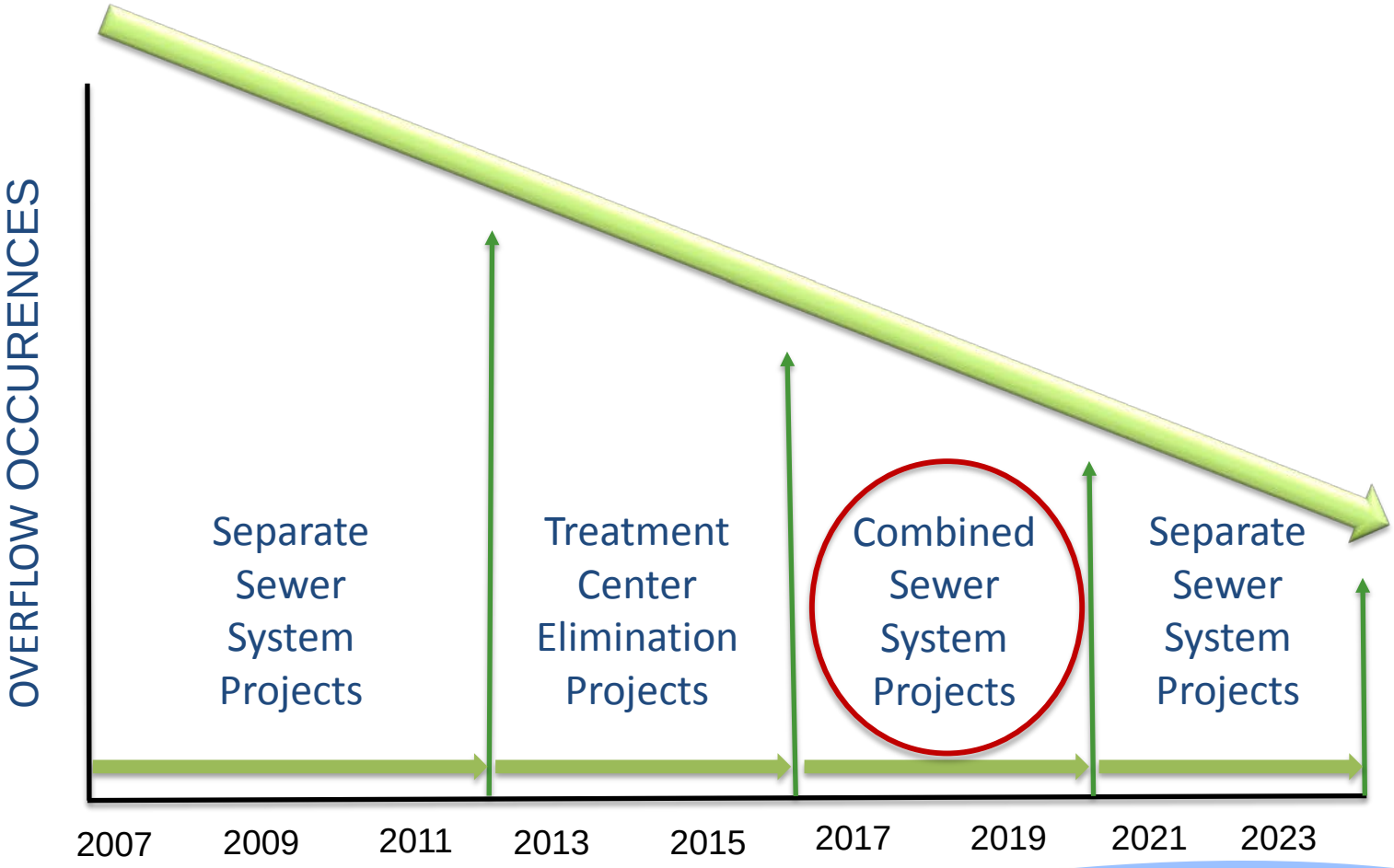
# PROGRAM STATUS

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# CSO STORAGE BASINS PER CONSENT DECREE

# CSOs IN SHAWNEE PARK

## DRY WEATHER DAY


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# EXISTING SEWERS & FLOOD PROTECTION FACILITIES IN SHAWNEE PARK

Sewers through Shawnee Park built in 1910


U.S. Army Corps of Engineers built Shawnee Flood Pumping Station/Levee system in Shawnee Park in 1951

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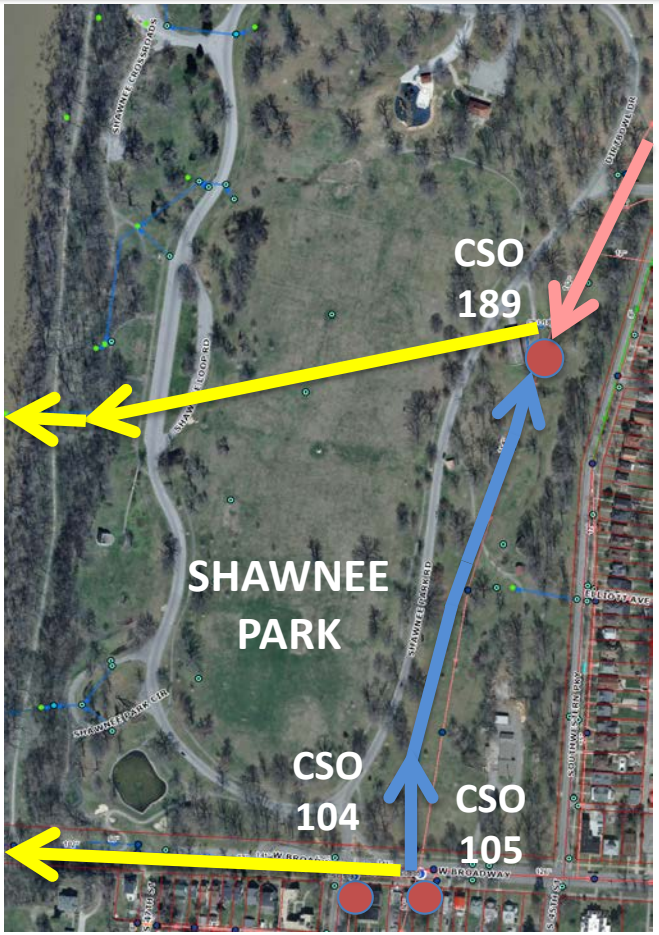
# CSOs IN SHAWNEE PARK
## CURRENT WET WEATHER SITUATION

Untreated combined sewage is discharged to Ohio River

- Sewage overflows occur with **1/10 inch rainfall event**
- 74 overflows per typical year
- 115,000,000 gallons of overflow volume per typical year

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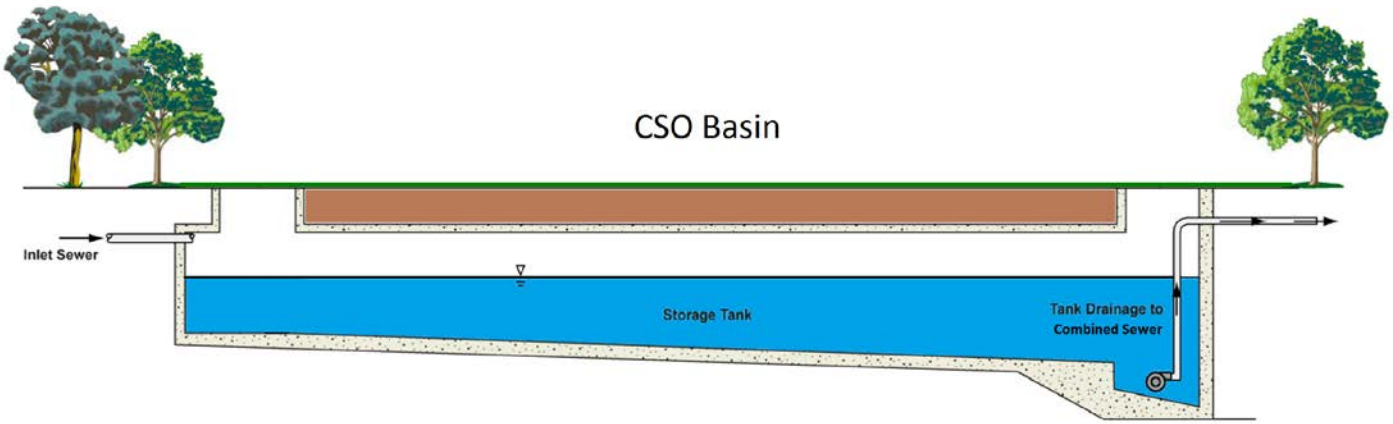
# WHAT IS A CSO STORAGE BASIN?

- CSO Storage Basin provides temporary storage for wet weather overflows that would otherwise flow directly to creeks, streams, and rivers
- Released back into the collection system for treatment when system capacity is available

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# FREQUENTLY ASKED QUESTIONS

- Will it create potential for back-ups?
  - **No, the high water elevation will be below basement elevations**
  - **Also will not eliminate the potential of back-ups**
- What happens when the basin is full?
  - **The system will function as it does today with the overflows being discharged to the Ohio River**
- Will this project reduce flooding?
  - **The basin will increase capacity of the combined sewer system during wet weather events**

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# FREQUENTLY ASKED QUESTIONS

- Will the basin be visible?
  - **No; underground, covered facility**
  - **There will be a control building and a screened generator**
  - **Access points/hatches may be visible**

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# FREQUENTLY ASKED QUESTIONS

- Will the basin be visible?


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# WHAT ABOUT ODOR?

- Highly diluted flow (mostly storm water)
- Basin is underground and covered
- Basin will be equipped with rinsing equipment
- Typically, odor control not necessary with these types of facilities
- MSD is being pro-active
  - Performing odor monitoring/testing
  - Basin will be designed to accommodate a future odor control system

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# PROJECT INFORMATION

- Project is a component of the Consent Decree
- Storage volume is 20 million gallons
  - Total reduction from 74 overflows to 24 overflows per "typical year"
- Basin will be underground and covered
- **Operational by December 31, 2018**
- **Project Completion by Summer 2019**

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# SOUTHWESTERN PKWY CSO BASIN LOCATION

Evaluated two basin locations within Shawnee Park:

- Site A: Existing Maintenance Area
- Site B: Great Lawn


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# BASIN FUNCTIONALITY

## THE SAME FOR BOTH SITE A AND SITE B

- Gravity in – pump out system
- The water surface elevation in the basin (when full) will be below basement elevations
- When the basin is full, the system will act as it does today (overflows will be discharged into the Ohio River)
- Provisions for odor control
- MSD control building required (roughly the size of a 1 car garage)
- Park amenity attached to the control building
- Air vents to surface to equalize basin air pressure
- Screened generator

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# SITE A LOCATION (MAINTENANCE BUILDING SITE)

- Removal of existing maintenance facility
- Construction entrance off W Broadway
- MSD maintenance access off W Broadway
- Shawnee Loop Road will remain open


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# ADVANTAGES & DISADVANTAGES OF SITE A
## (MAINTENANCE BUILDING SITE)

- ADVANTAGES
  - Limited disturbance to public areas during construction
  - Utilizes existing access off W Broadway as used by Parks today
  - Shawnee Loop Road remains open
  - Avoids flood protection system
  - Potential Educational Center or Recreation Pavilion
- DISADVANTAGES
  - Proximity to residences
  - Removal of mature trees
  - Deep excavation: 65 feet
  - Limited construction flexibility

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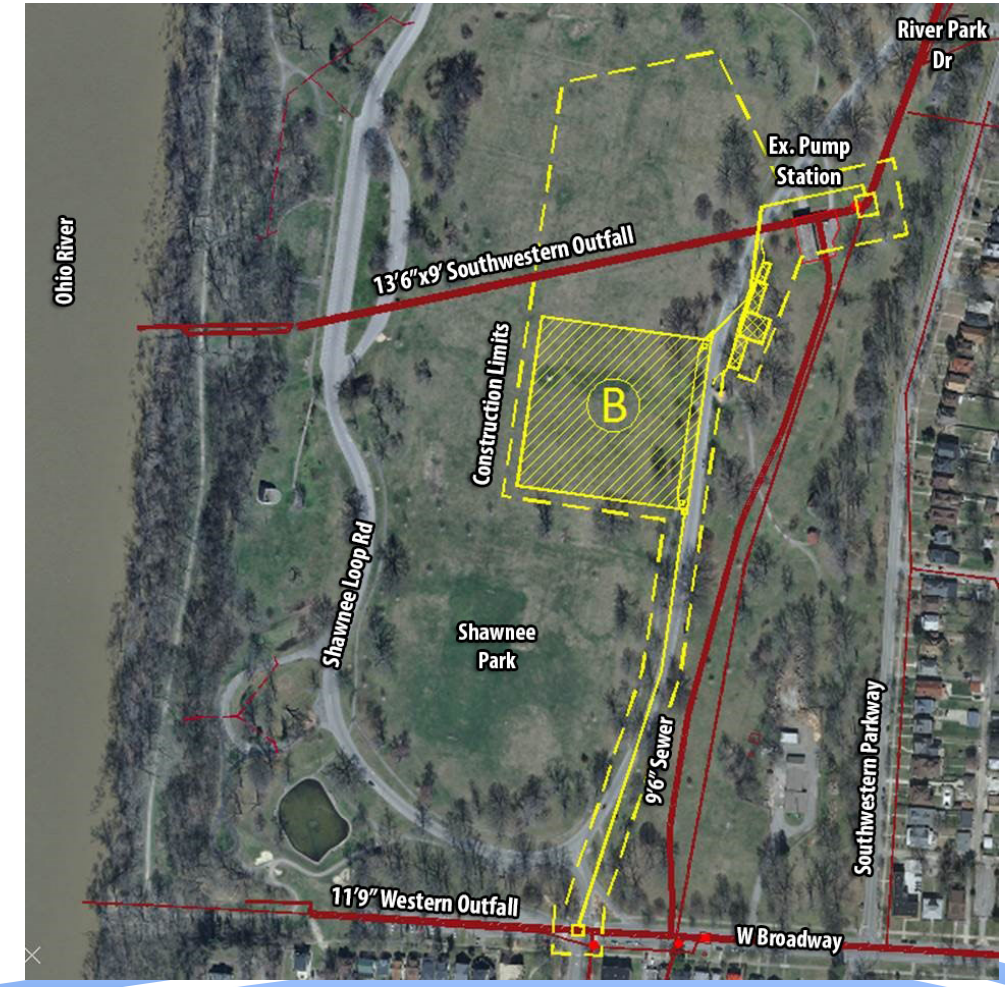
# SITE B LOCATION (GREAT LAWN SITE)

- Construction entrance off Southwestern Pkwy
- Shawnee Loop Road will be partially closed during construction
- Great Lawn will be impacted during construction

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# ADVANTAGES & DISADVANTAGES OF SITE B
## (GREAT LAWN SITE)

- ADVANTAGES
  - Farther away from residences
  - Reduced tree impact
  - Utilizes the similar route to access the Shawnee Flood Pump Station
  - More construction flexibility
  - Reduced basin depth improves operation
  - Avoid flood protection system
  - Potential Educational Center or Recreation Pavilion
- DISADVANTAGES
  - Greater disturbance to public areas during construction
  - Partial closure of Shawnee Loop Road during construction
  - Deep excavation: 50 feet

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# SOUTHWESTERN PKWY CSO BASIN LOCATION


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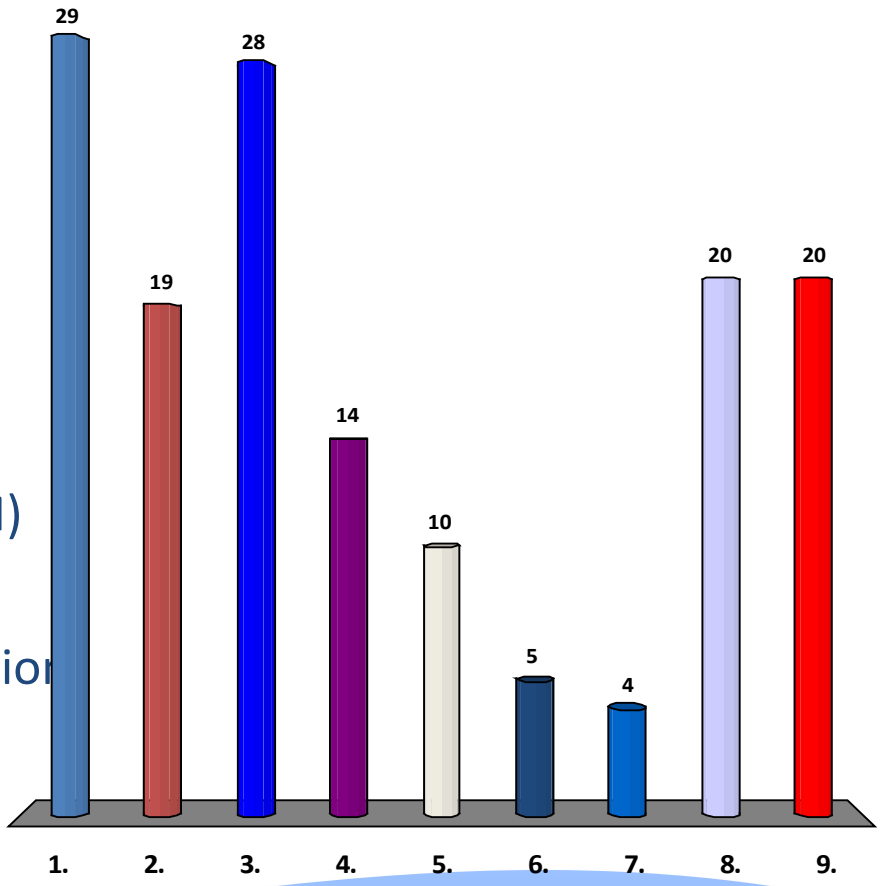
# SITE A VS. SITE B SUMMARY

| | Site A (Maintenance Site) | Site B (Great Lawn) |
|---|---|---|
| Proximity to Residences | ✗ | ✓ |
| Disturbance to Public Areas of Park during Construction | ✓ | ✗ |
| Reduced Tree Impact | ✗ | ✓ |
| Shawnee Loop Road Remains Open During Construction | ✓ | ✗ |
| Utilizes existing access off W Broadway as used by Parks today | ✓ | ✗ |
| Utilizes the similar route to access the Shawnee Flood Pump Station | ✗ | ✓ |
| Reduced Basin Depth (improves O&M) | ✗ | ✓ |
| Available Construction Flexibility | ✗ | ✓ |
| Potential Education Center or Recreational Pavilion | ✓ | ✓ |
| Avoid Flood Protection System | ✓ | ✓ |

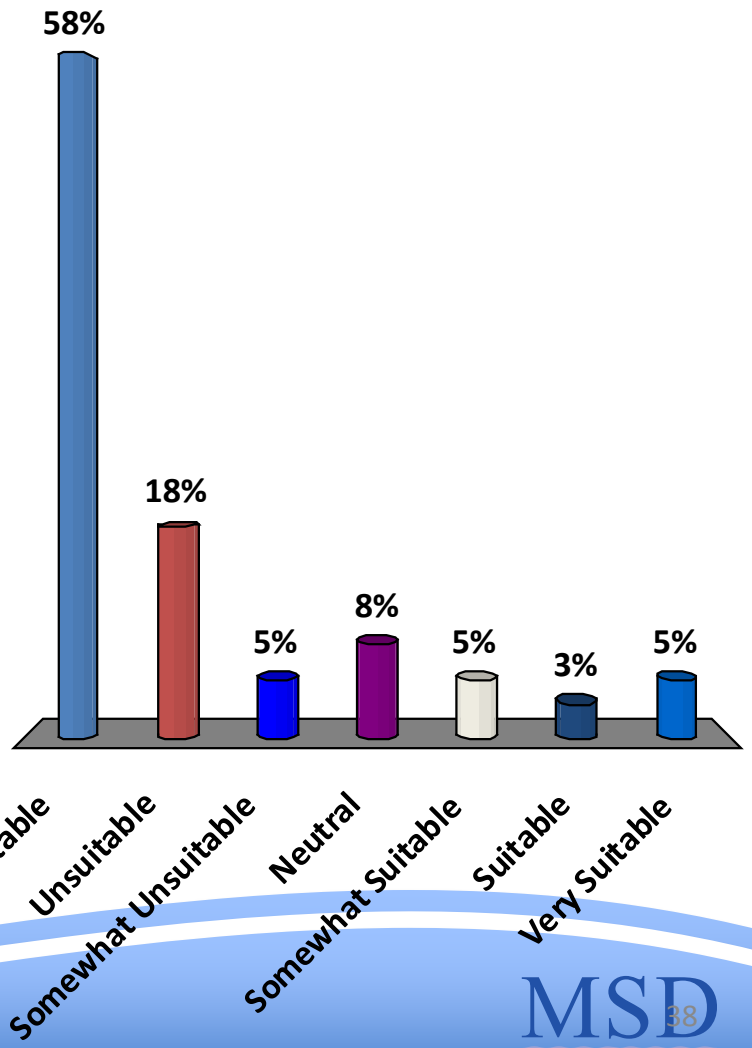
# Which of These Considerations Are Most Important to You? (4)

1. Proximity to Residences
2. Minimizing Loss of Public Park Areas During Construction
3. Amount of Tree Loss
4. Maintaining Access on Shawnee Loop Road During Construction
5. Dedicated Construction Entrance
6. Reduced Basin Depth (Improves O&M)
7. Available Construction Flexibility
8. Potential Education Center or Recreation Pavilion
9. Avoid Flood Protection System



# SUITABILITY OF SITE A FOR THE BASIN?
## (MAINTENANCE BUILDING SITE)

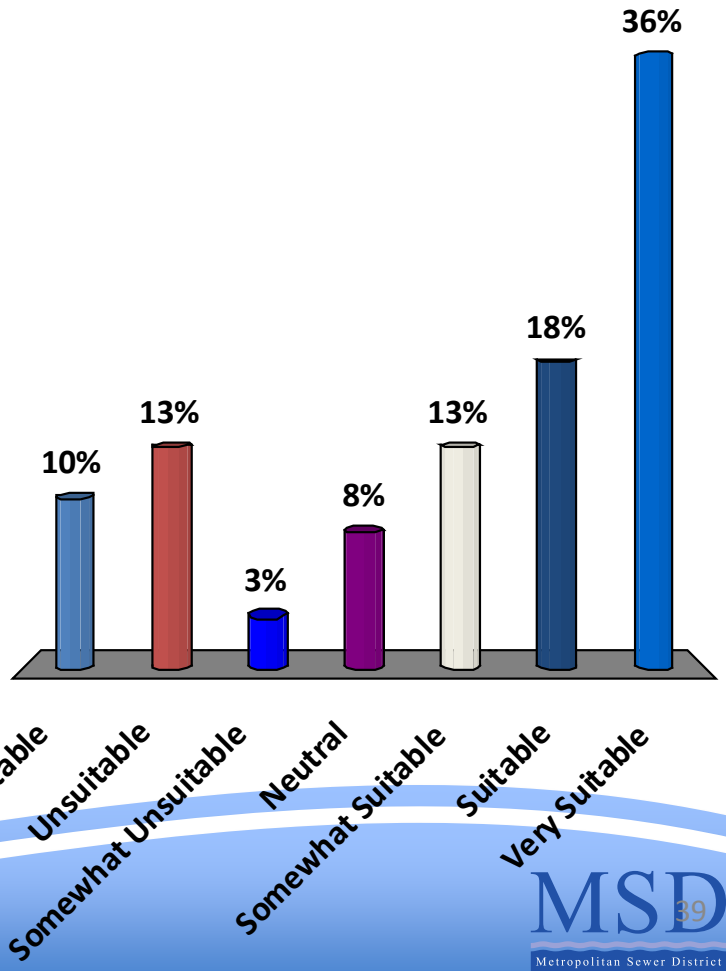
1. Very Unsuitable
2. Unsuitable
3. Somewhat Unsuitable
4. Neutral
5. Somewhat Suitable
6. Suitable
7. Very Suitable




**Mean = 2.13**

# SUITABILITY OF SITE B FOR THE BASIN? (GREAT LAWN SITE)

1. Very Unsuitable
2. Unsuitable
3. Somewhat Unsuitable
4. Neutral
5. Somewhat Suitable
6. Suitable
7. Very Suitable




**Mean = 4.97**



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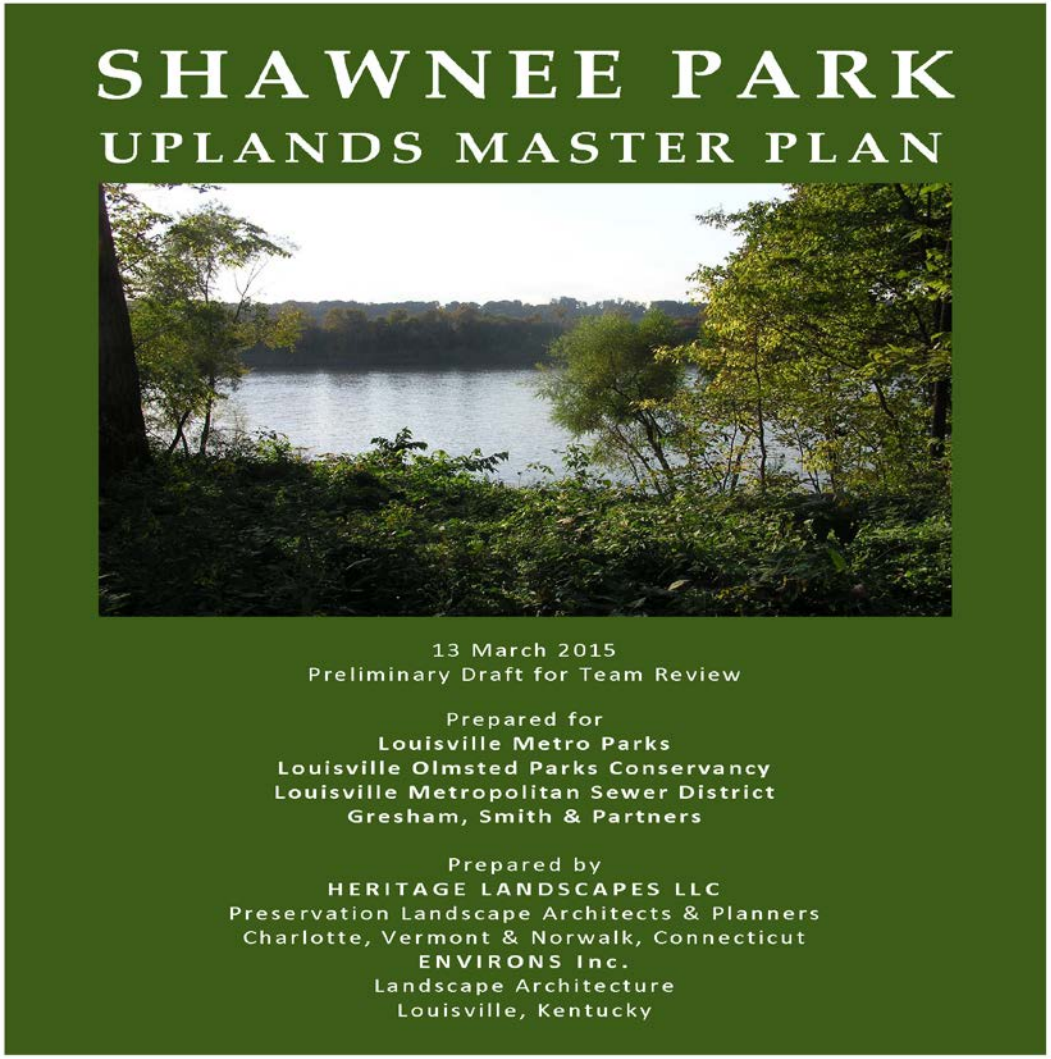
# NEXT STEPS

- The feedback from this meeting will be used to make a site selection
- Feedback will also be used to guide the design process
- The site location will guide alternative site usages to be developed and discussed with the public

# SHAWNEE PARKS UPLAND MASTER PLAN (DRAFT)

https://louisvilleky.gov/government/parks/park-master-plans

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# NEXT STEPS

The site location will allow Metro Parks to advance the discussion of possible park amenities

- Offer examples of amenities
- Solicit ideas for other amenities
- Gather feedback on the desirability of the amenities

# NEXT STEPS

- Project Design
  - **Conceptual Design Public Input Meeting #3** **Dec. 2016**
  - Advanced Design Public Input Meeting Early 2016
- Construction Start Spring/Summer 2016
- **Operational Deadline** **Dec. 2018**
- Construction/Restoration Completion Summer 2019

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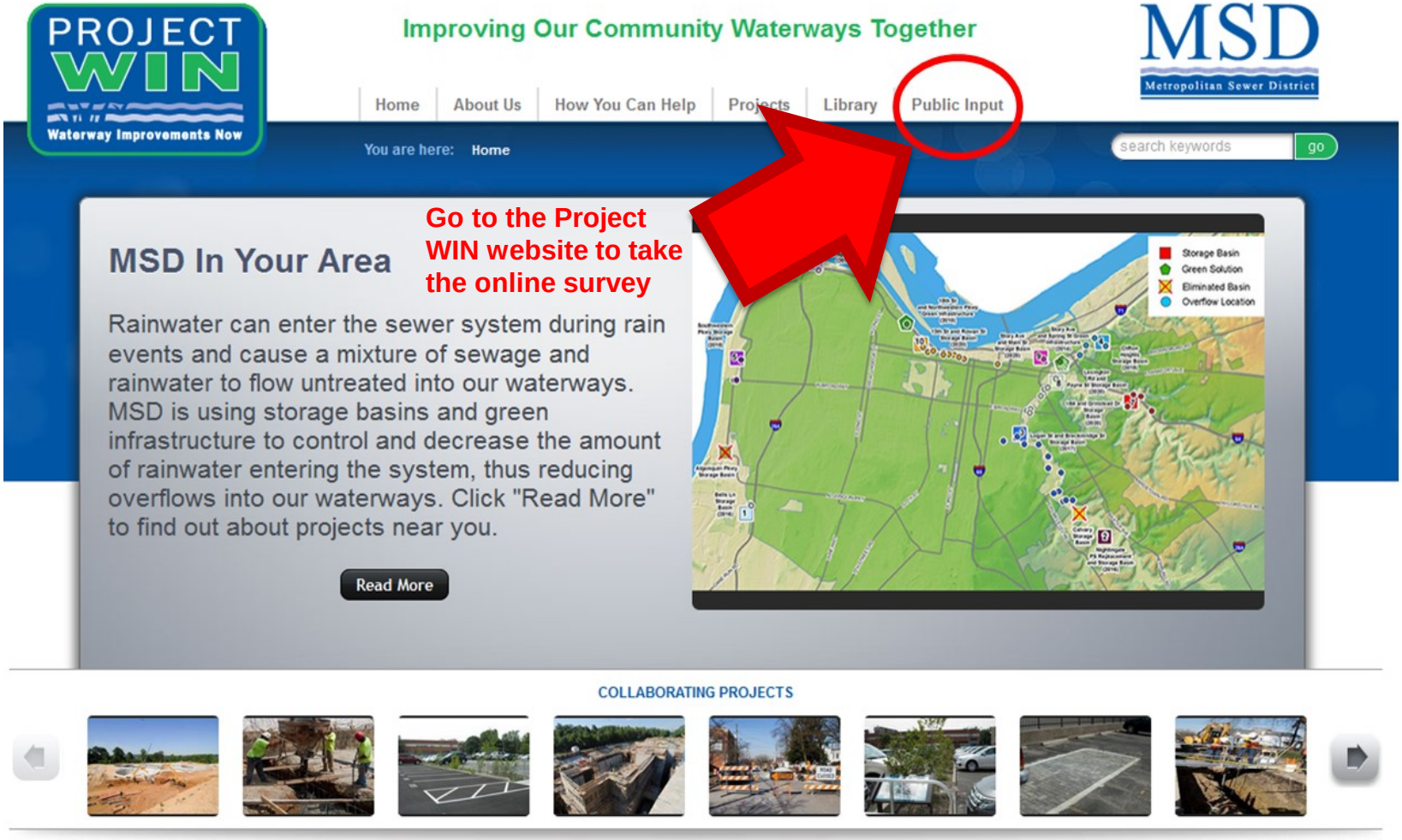
# PROJECT WIN WEBSITE ONLINE SURVEY

## tinyurl.com/MSDSouthwestPKWY2-5

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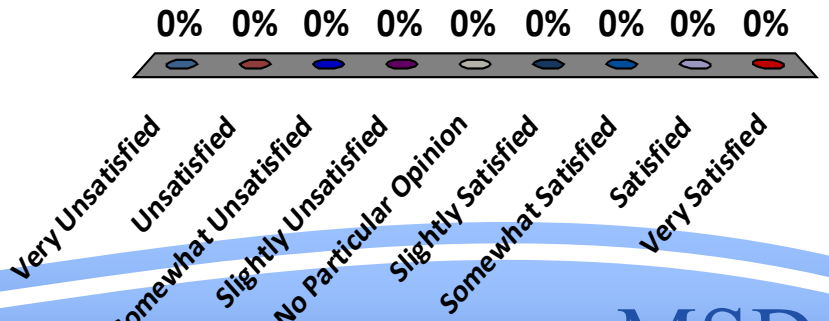
# HOW SATISFIED ARE YOU WITH THIS PROCESS?

1. Very Unsatisfied
2. Unsatisfied
3. Somewhat Unsatisfied
4. Slightly Unsatisfied
5. No Particular Opinion
6. Slightly Satisfied
7. Somewhat Satisfied
8. Satisfied
9. Very Satisfied



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# (502) 587-0603

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

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# *QUESTIONS?*