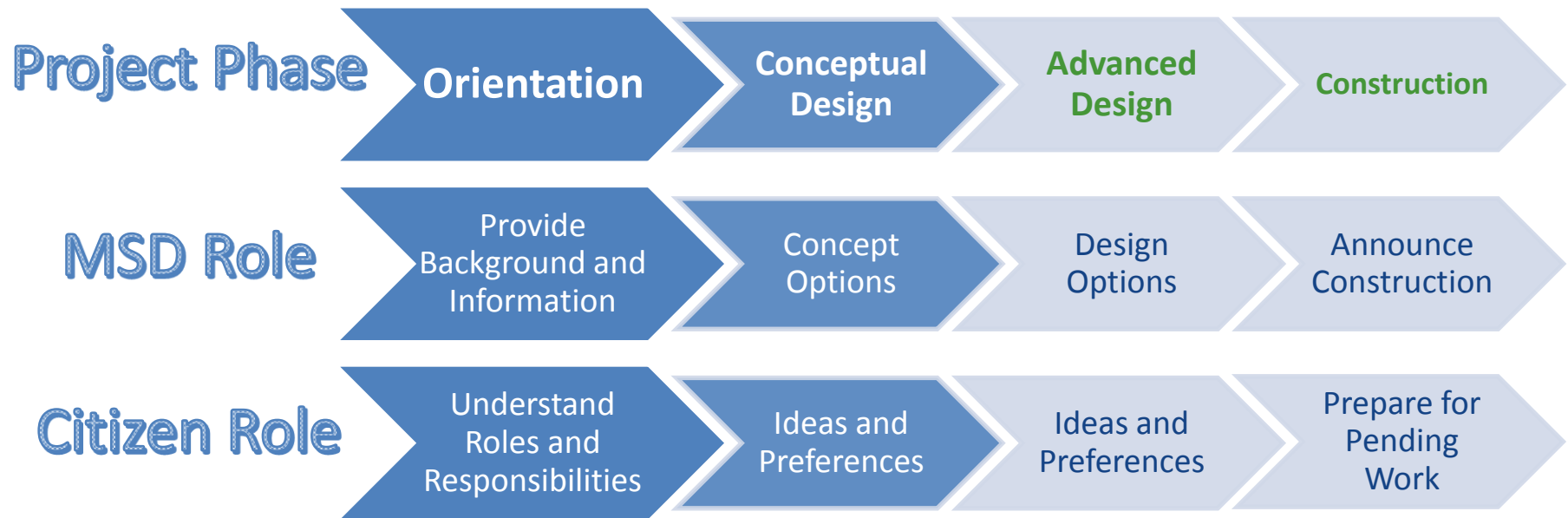


Clifton Heights CSO Basin Project

Tuesday, May 19, 2015
American Printing House
for the Blind



Public Input Process

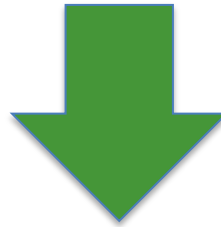


Project Background

- Orientation Meeting was held at Lincoln Elementary School on March 25, 2014
- Discussed
 - Causes of Overflows
 - What you can do
 - What MSD is doing
- We're back to talk with you about conceptual design



Phase 2: Conceptual Design



Project Phase

Orientation

Conceptual
Design

Advanced
Design

Construction

MSD Role

Provide
Background and
Information

Concept
Options

Design
Options

Announce
Construction

Citizen Role

Understand
Roles and
Responsibilities

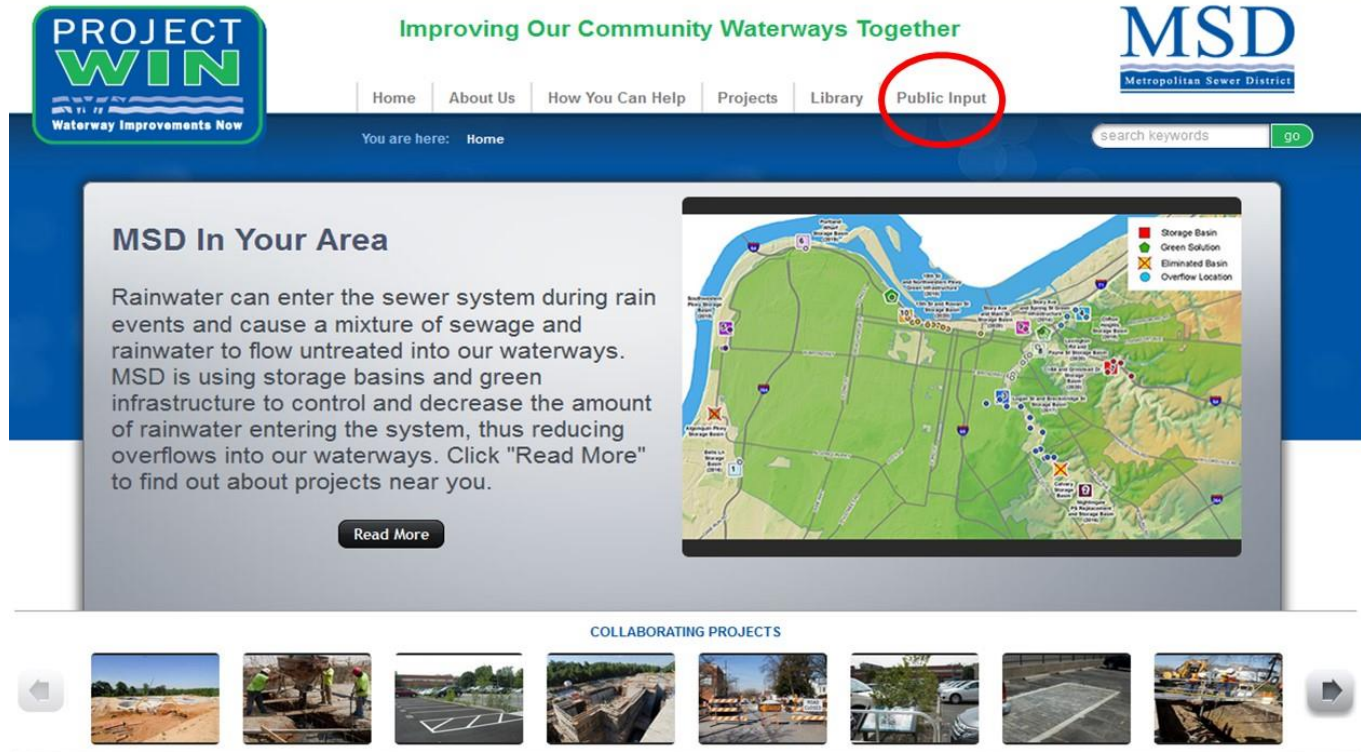
Ideas and
Preferences

Ideas and
Preferences

Prepare for
Pending
Work



Find Out More at msdprojectwin.org



Learn More at the Website Created Just for YOU!

Please Tell Your Friends and Neighbors to Take the Survey Online!



Conceptual Design Meeting Agenda

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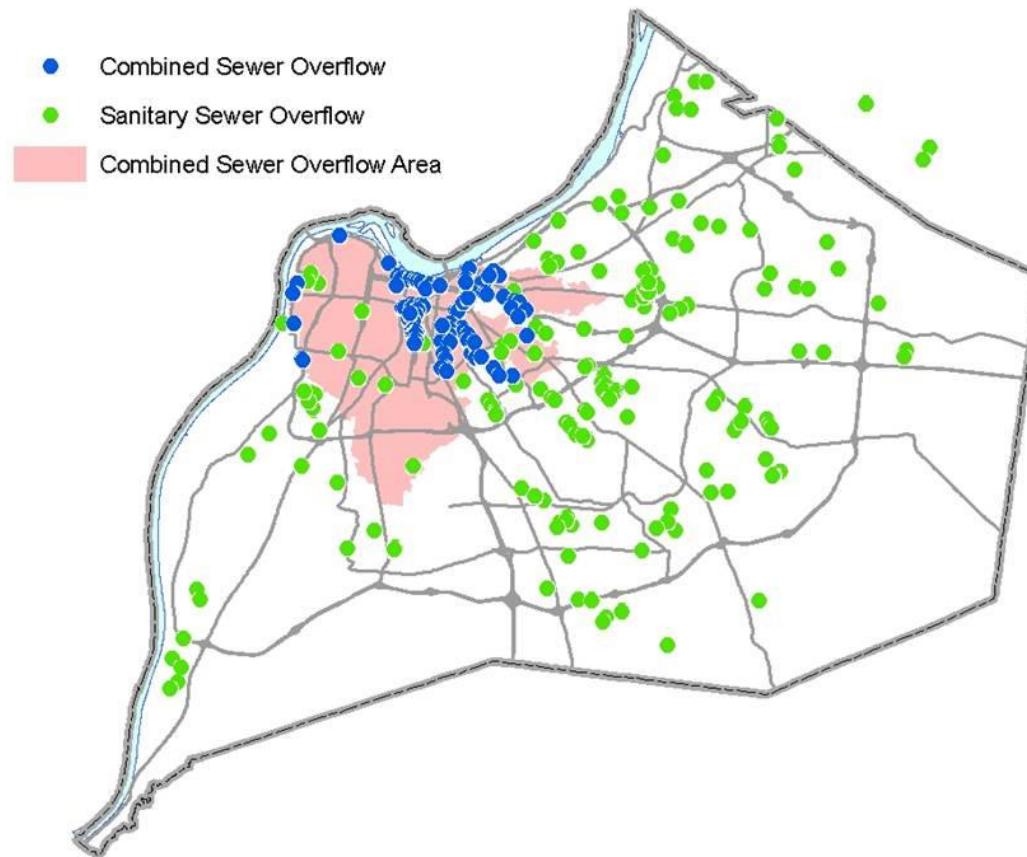






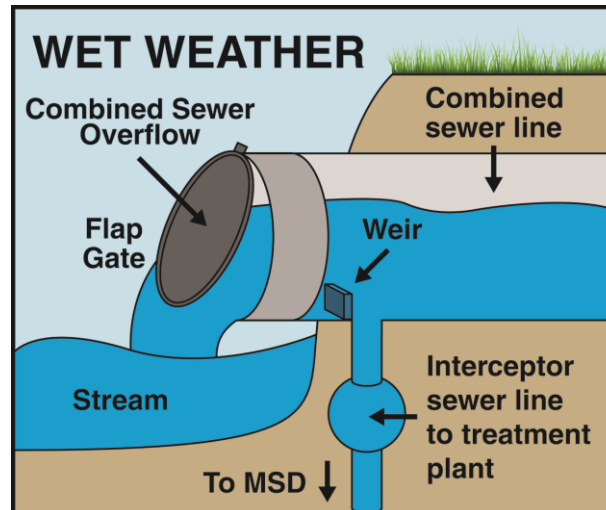


Current Overflow Sites in Louisville Metro Area



What is a Combined Sewer Overflow?

- What is a combined sewer?
 - Both stormwater and wastewater conveyed in the same pipe.
- What is a Combined Sewer Overflow (CSO)?
 - Untreated combined sewage discharged into a water body (creek, stream, river, etc.)



Public Health and Safety Mandate

2005	Federal EPA & State of Kentucky mandate overflow abatement
2008	MSD submitted \$850 million plan to satisfy the mandate
2009	Federal EPA & the State of Kentucky approve the plan
2020	Combined Sewer Overflow Program complete
2024	Separate Sewer Overflow Program complete



How Do We Control Sewer Overflows (CSOs)?

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



OVERFLOW OCCURENCES

50% Overall
Program Complete
\$850 Million Total Cost

"Big 4" Separate
Sewer Overflows
(SSOs)

J-Town and
Prospect
Water Quality
Treatment
Center
(WQTC)
Eliminations

CSO Abatement

Complete SSO
Elimination

2007 2009 2011 2013 2015 2017 2019 2021 2023



MSD Overflow Projects Across Louisville

IOAP Storage

- I-64 and Grinstead Dr Storage Basin
- 13th St and Rowan St Storage Basin
- Lexington Rd and Payne St Storage Basin
- Bells Ln Storage Basin
- Clifton Heights Storage Basin
- Logan St and Breckinridge St Storage Basin
- Portland Wharf Storage Basin
- Southwestern Pkwy Storage Basin
- Story Ave and Main St Storage Basin
- Nightingale PS Replacement and Storage Basin

Green Infrastructure Projects

- Story Ave and Spring St Green Infrastructure
- 18th St and Northwestern Pkwy Green Infrastructure



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Public Engagement Tools: “Clickers” and Online Polling

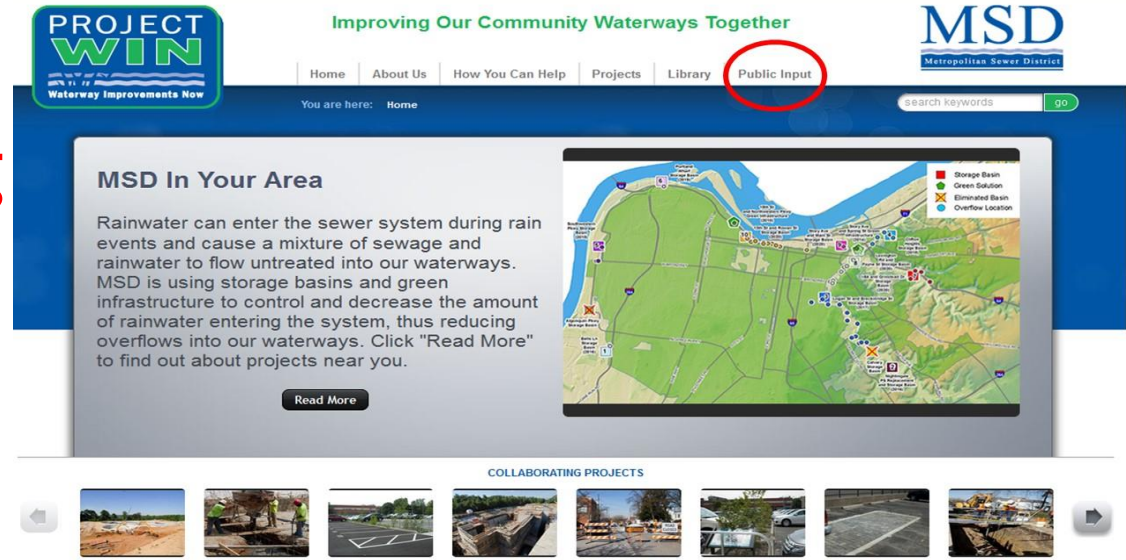
“Clickers” for Public Meetings

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



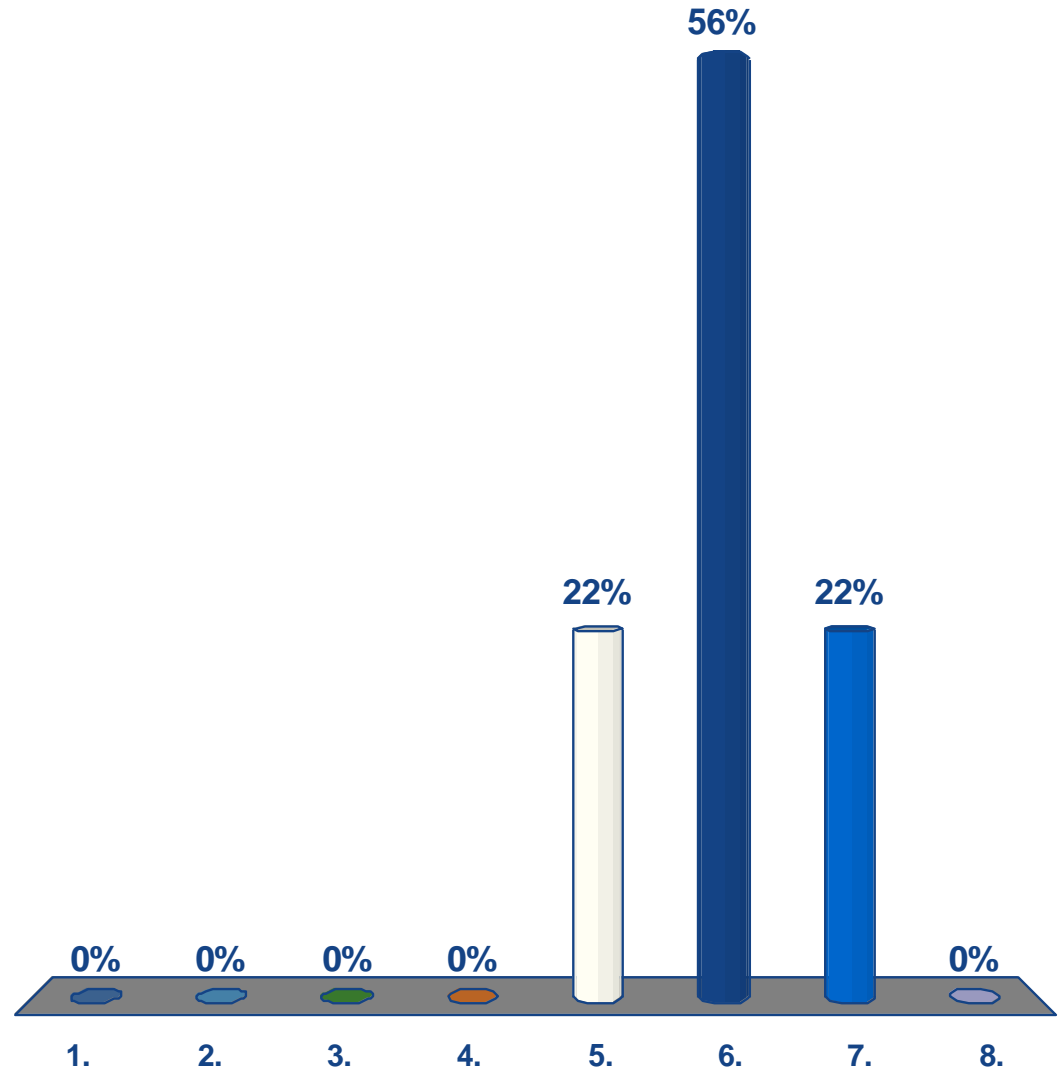
Online Polling for Those Who Can't Attend Public Meetings

msdprojectwin.org



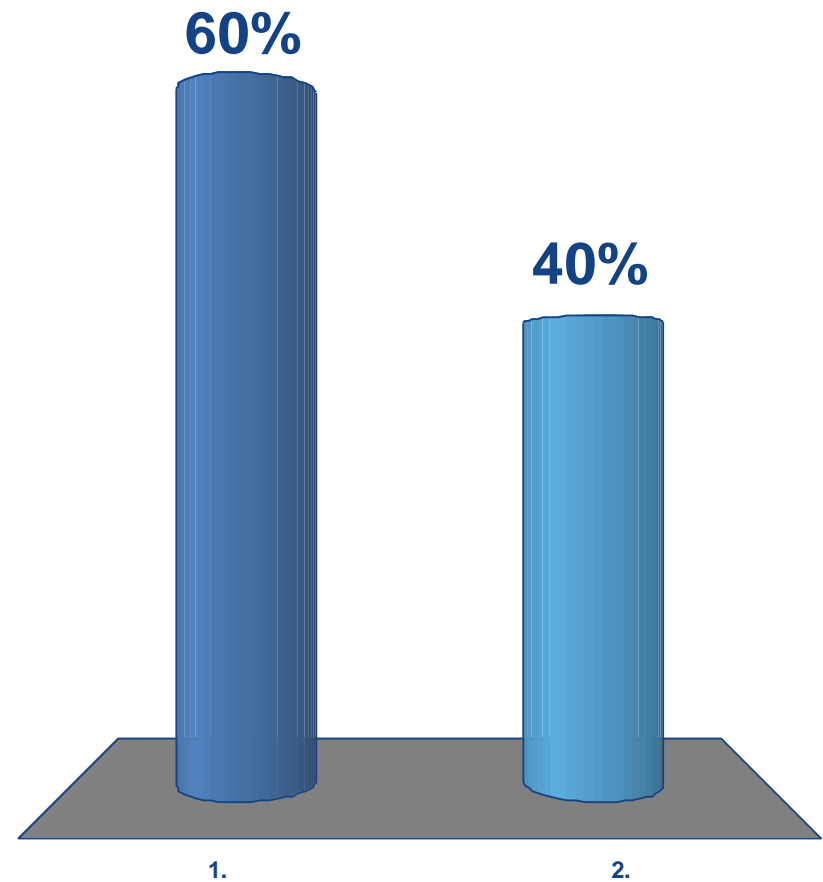
How Young Are You?

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

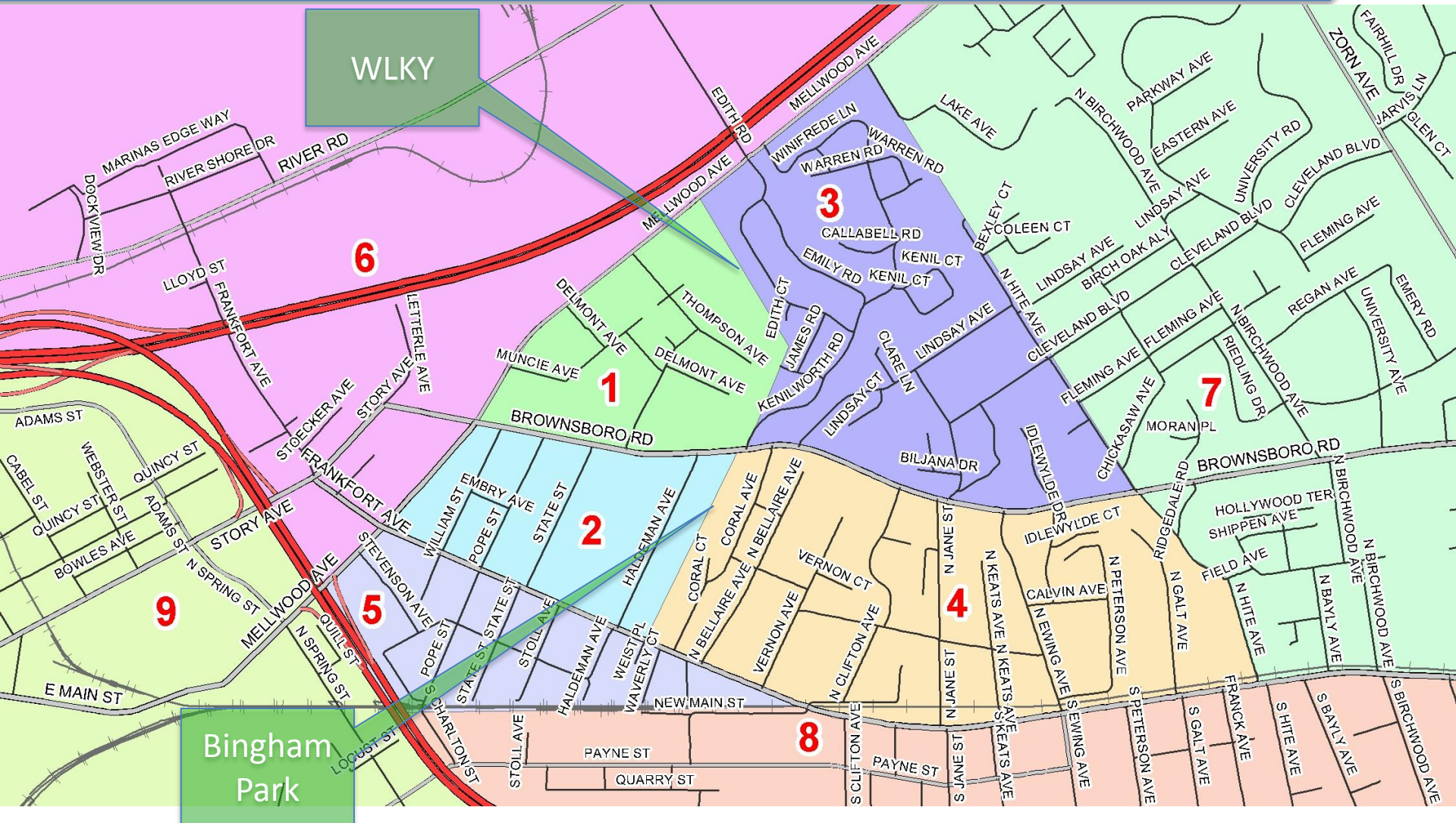


Gender?

1. Male
2. Female

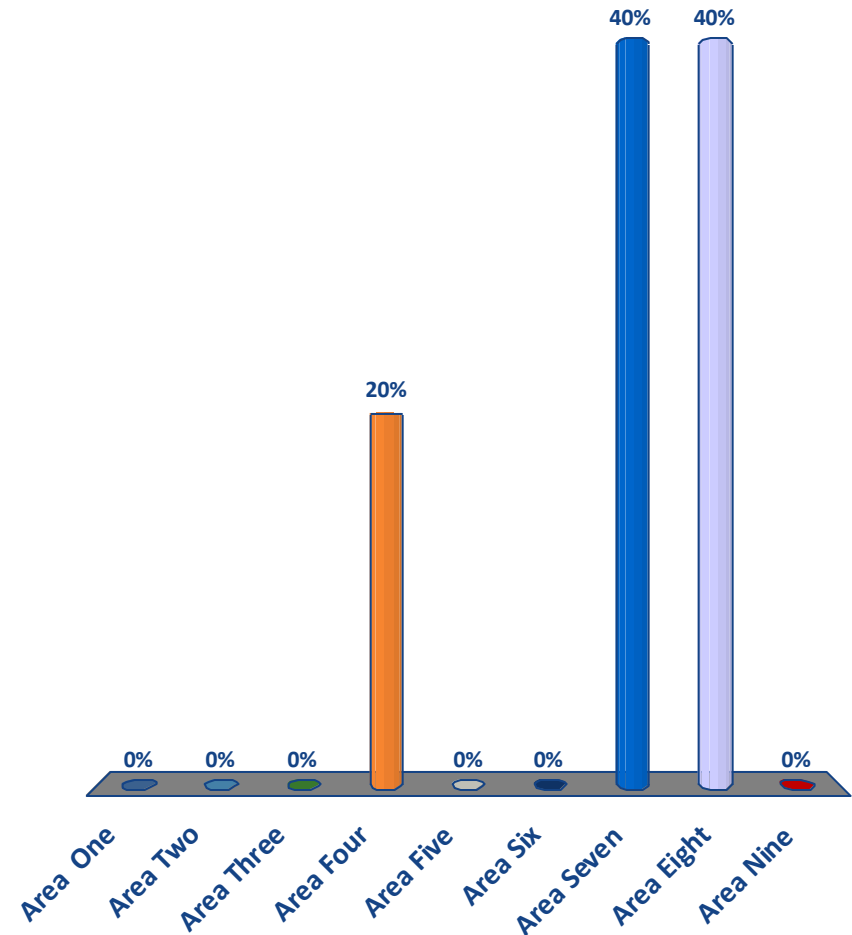


Where do you live, work, and spend your days?

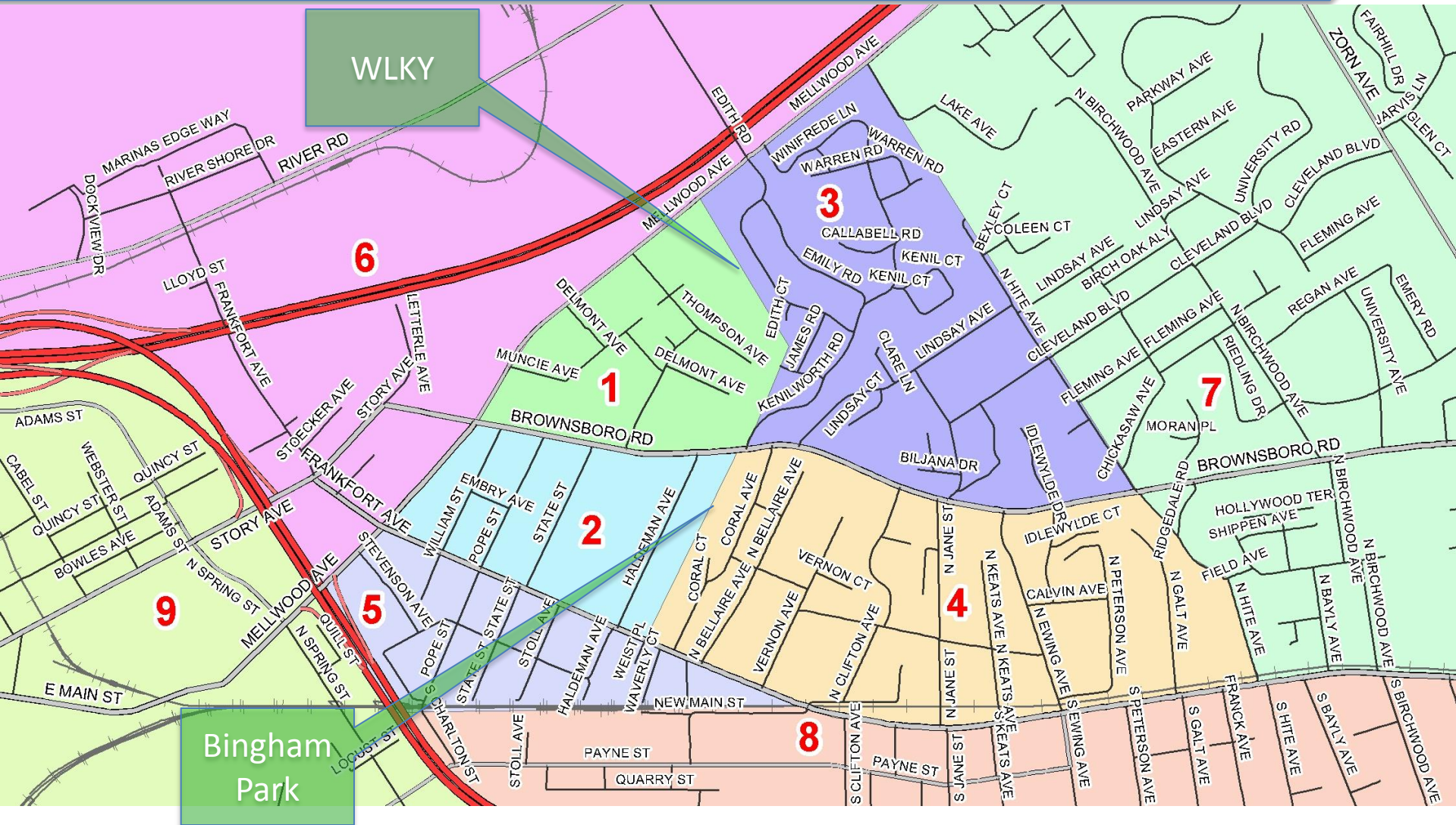


Where Do You Live?

1. Area One
2. Area Two
3. Area Three
4. Area Four
5. Area Five
6. Area Six
7. Area Seven
8. Area Eight
9. Area Nine

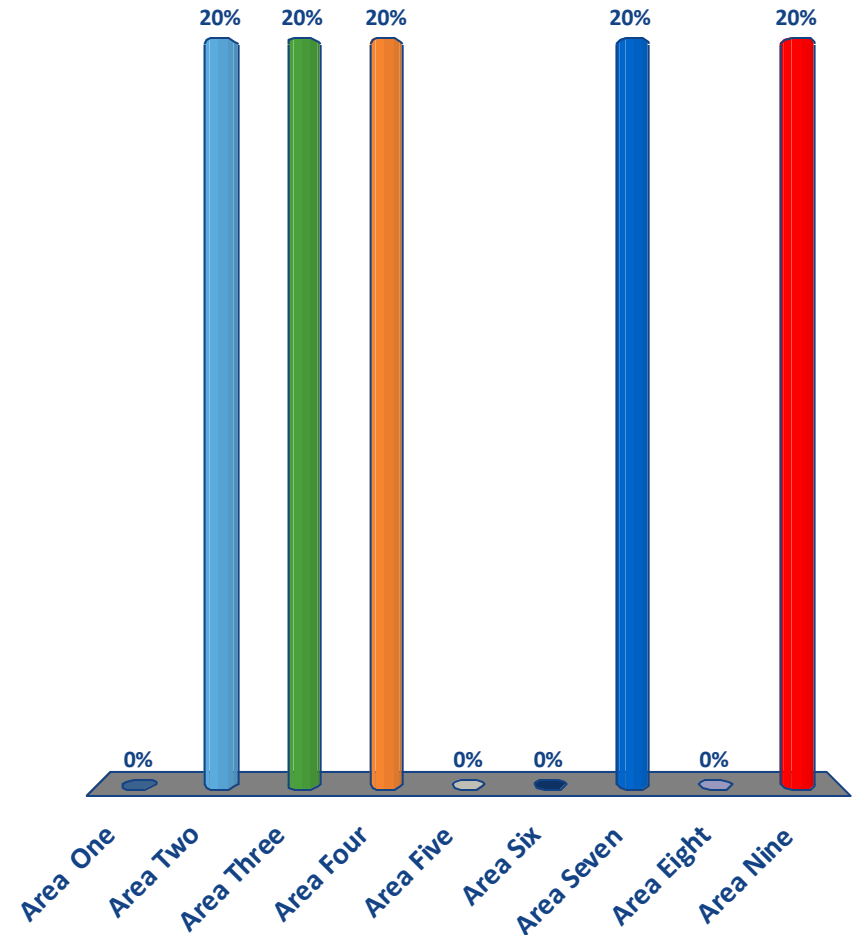


Where do you spend your days?

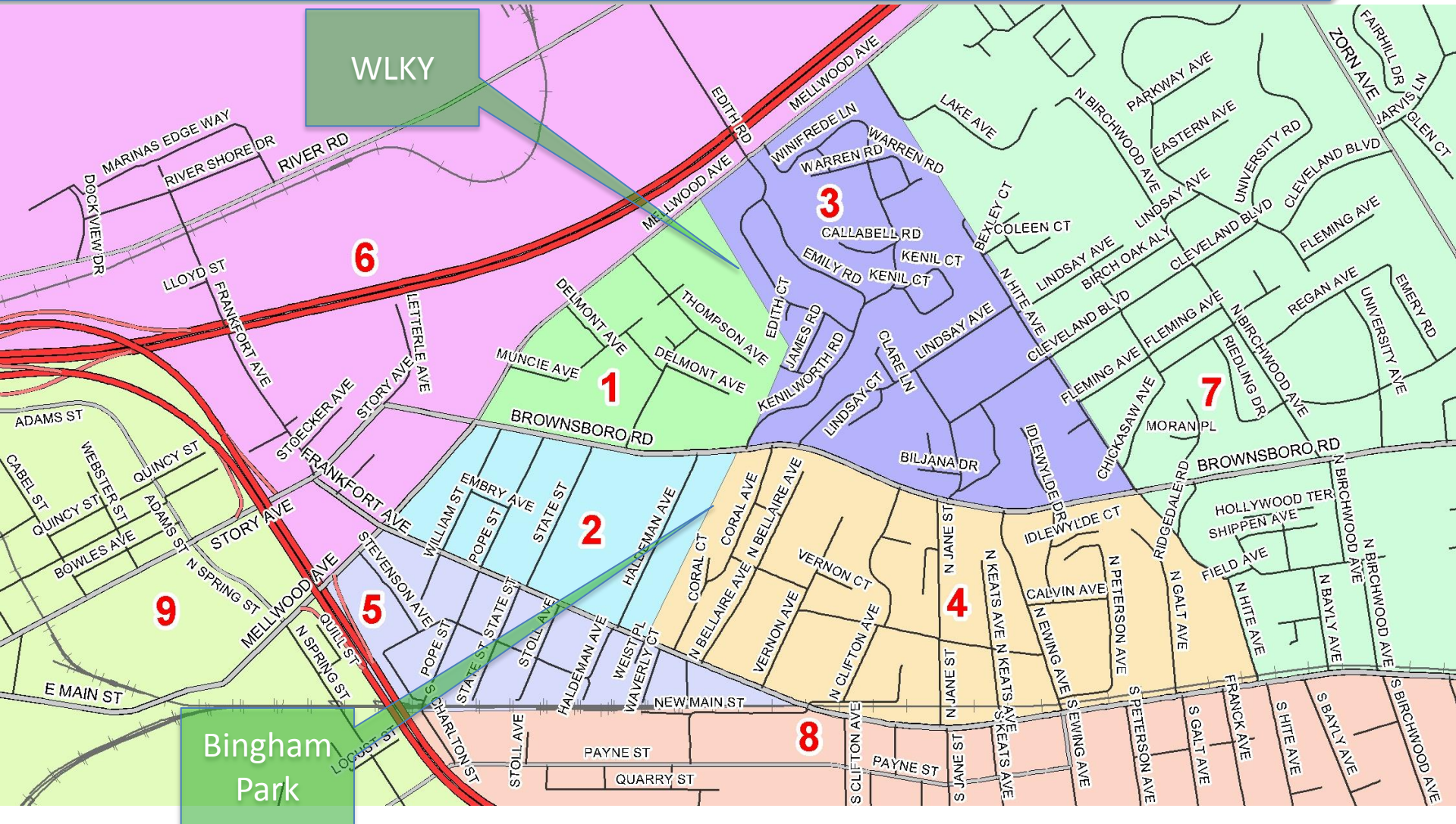


Where Do You Spend Your Days? (3)

1. Area One
2. Area Two
3. Area Three
4. Area Four
5. Area Five
6. Area Six
7. Area Seven
8. Area Eight
9. Area Nine

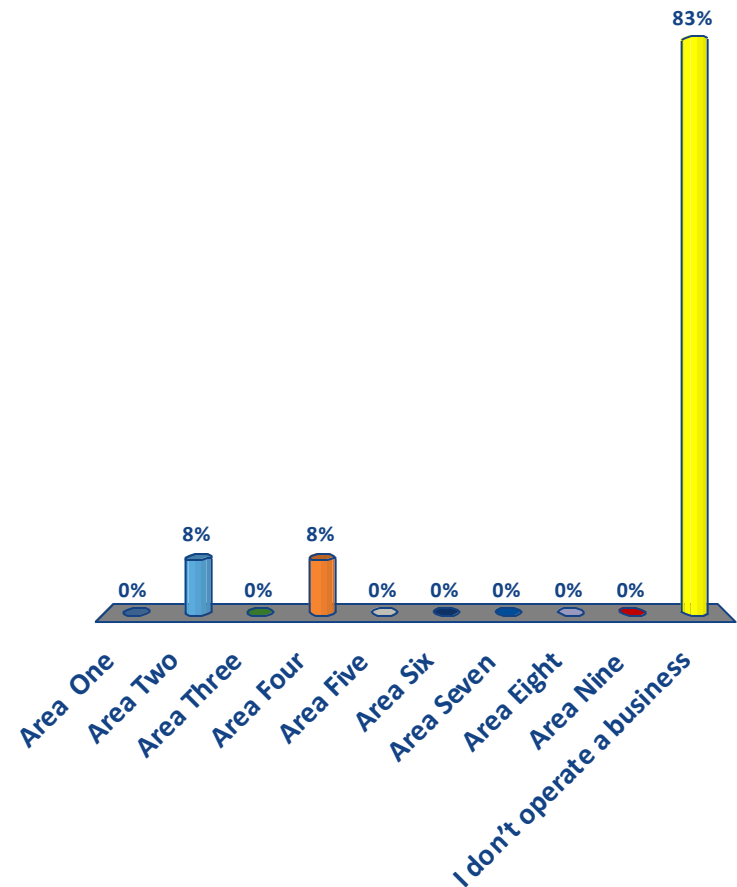


Where do you operate a business?



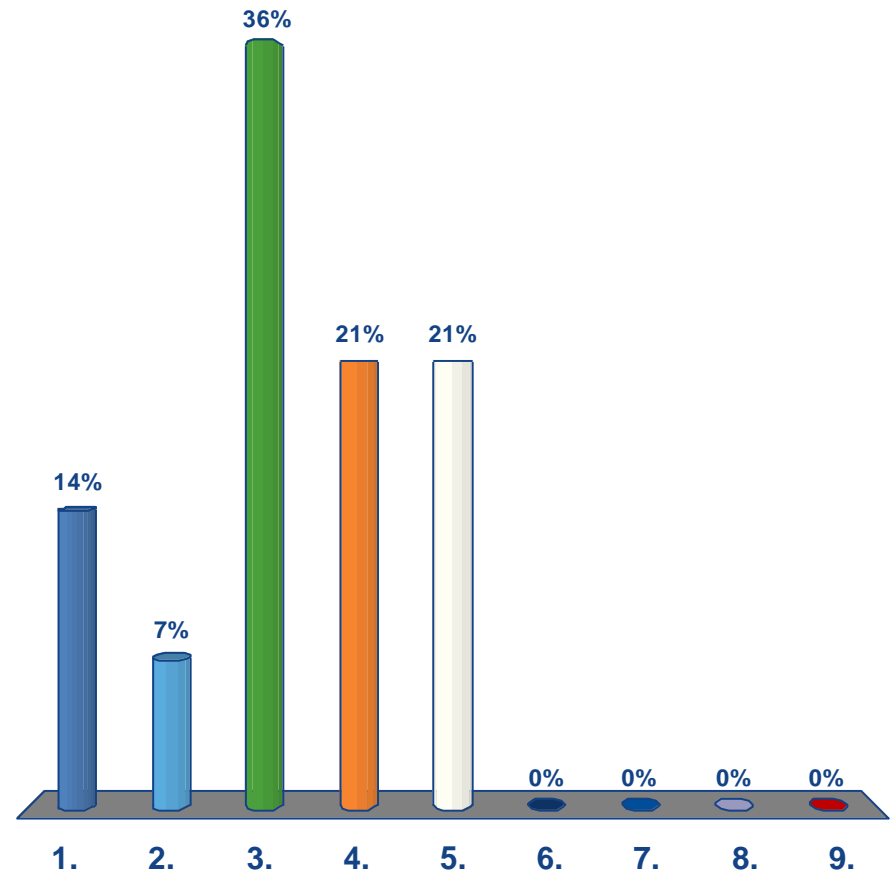
Where Do You Operate a Business?

1. Area One
2. Area Two
3. Area Three
4. Area Four
5. Area Five
6. Area Six
7. Area Seven
8. Area Eight
9. Area Nine
10. I don't operate a business



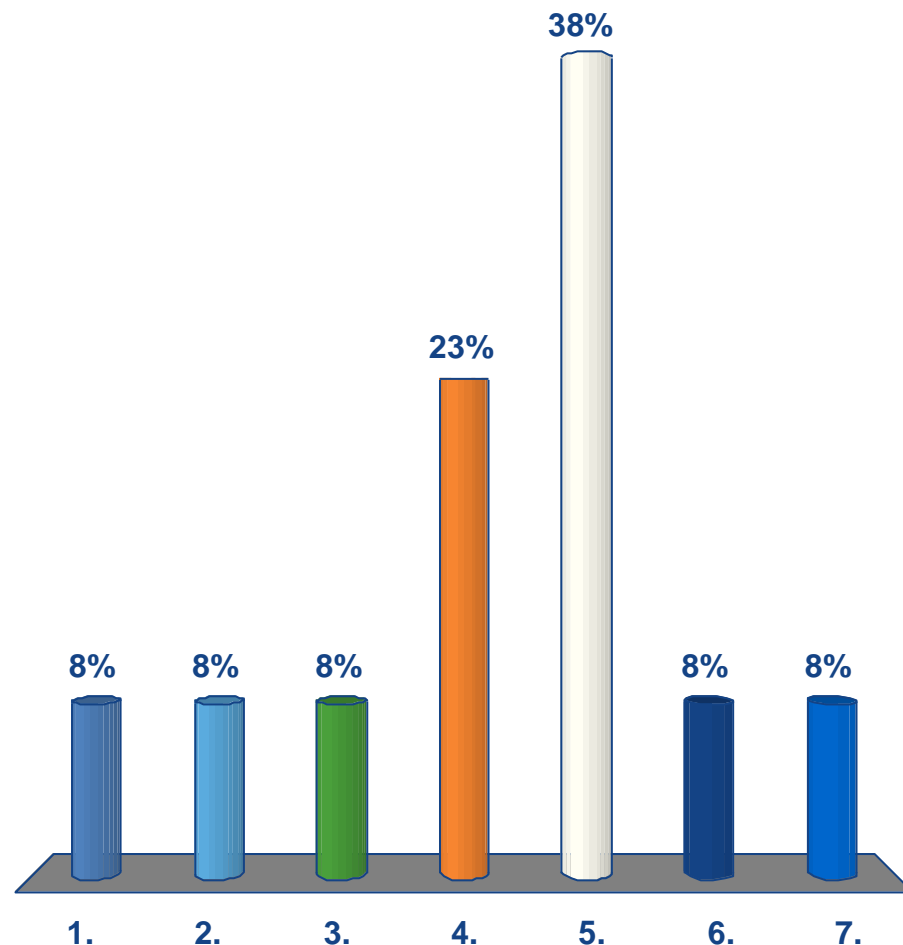
How Did You Hear About This Meeting? (up to 3)

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



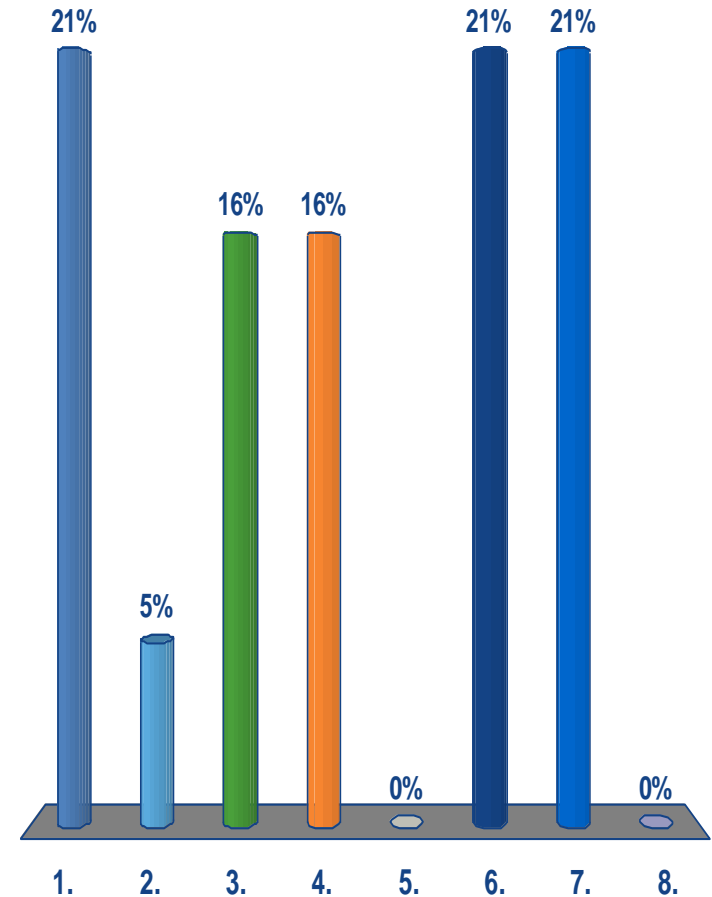
What Are Your Primary Sources of Information About MSD Projects? (Up to 3)

1. Public Meetings
2. Metro TV Videos
3. Project WIN website
4. Local Mainstream Print or Broadcast Media
5. Alternative Press or Online Media
6. Word of Mouth
7. I don't have any previous knowledge of MSD projects.



How Would You Like to Learn About MSD's Projects? (Up to 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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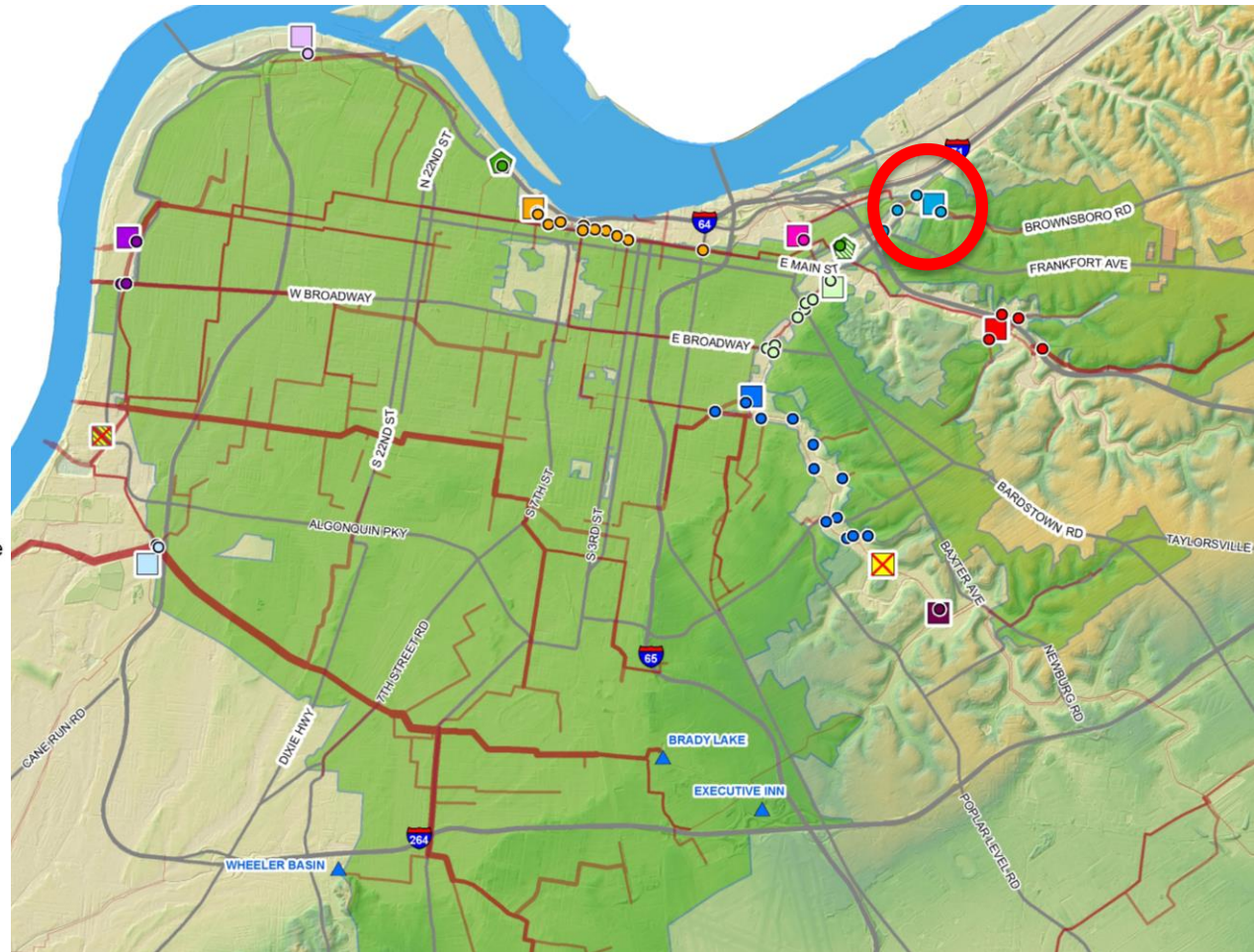
Clifton Heights Basin Project Update

IOAP Storage

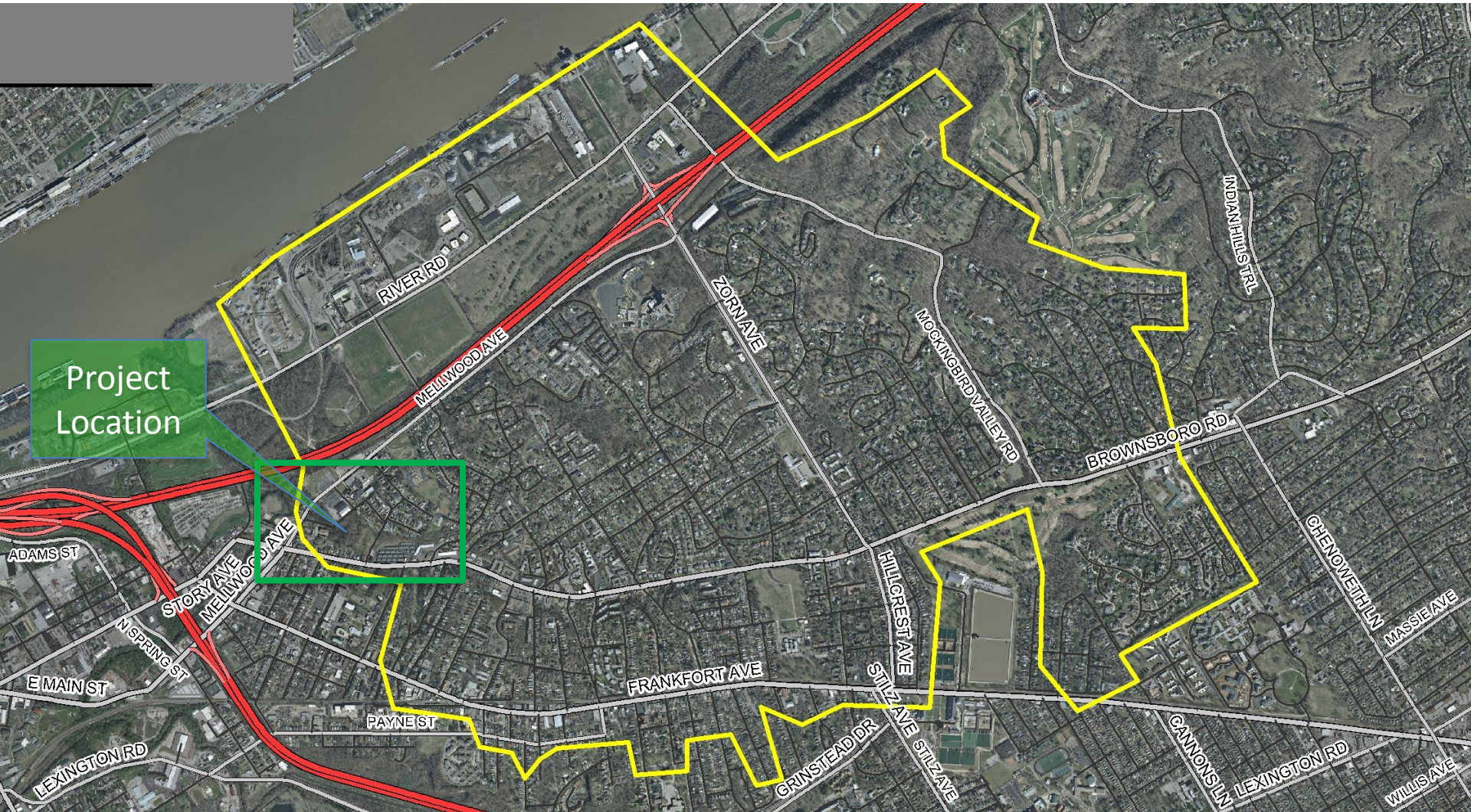
- I-64 and Grinstead Dr Storage Basin
- 13th St and Rowan St Storage Basin
- Lexington Rd and Payne St Storage Basin
- Bells Ln Storage Basin
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- Logan St and Breckinridge St Storage Basin
- Portland Wharf Storage Basin
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- Story Ave and Main St Storage Basin
- Nightingale PS Replacement and Storage Basin

Green Infrastructure Projects

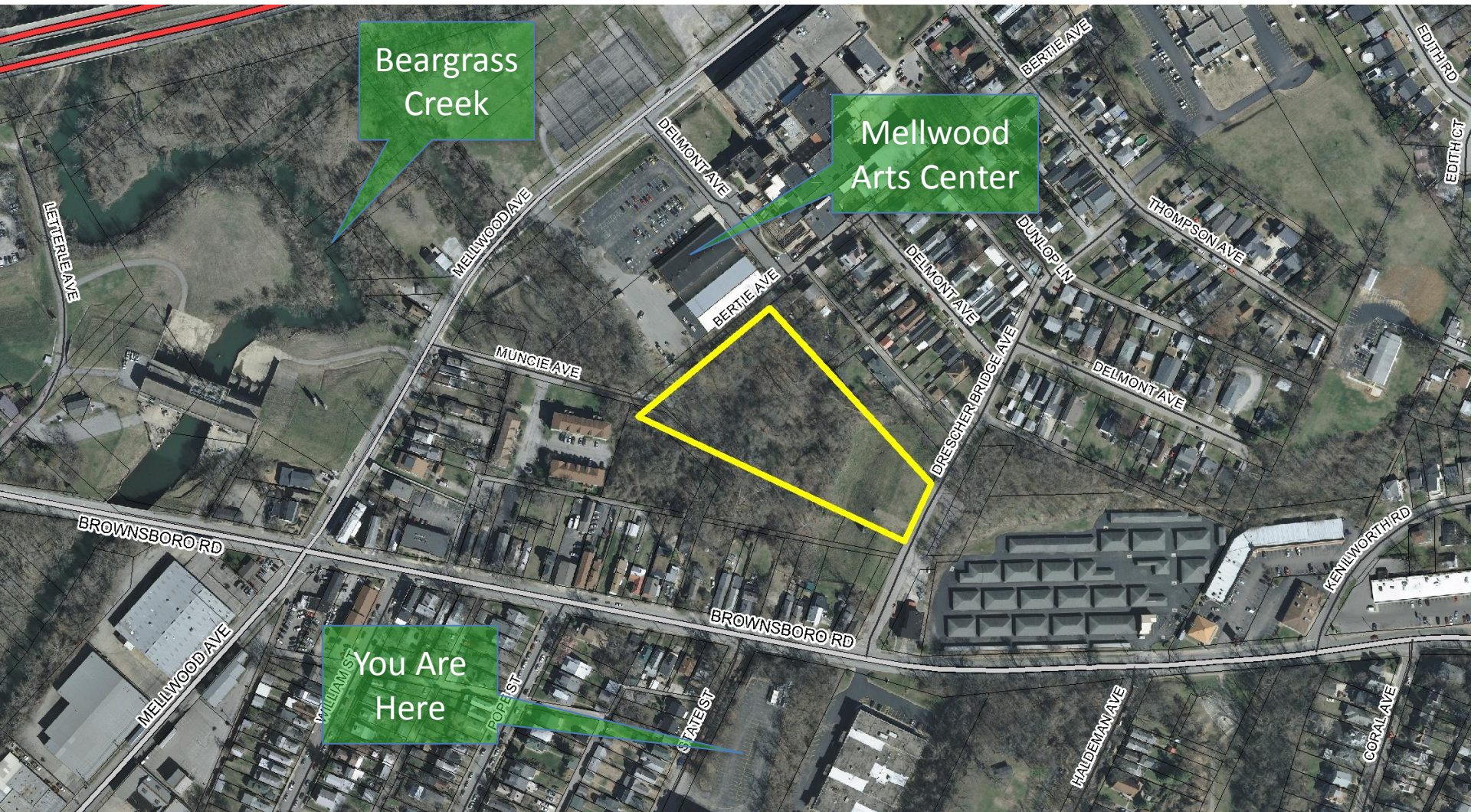
- Story Ave and Spring St Green Infrastructure
- 18th St and Northwestern Pkwy Green Infrastructure



The Area That Drains to These CSO's



Features of the Project Location



What the Current Overflow System Does

- Three CSO's discharge to Beargrass Creek
- 127 overflows in a typical year
- 107 Million Gallons in a typical year



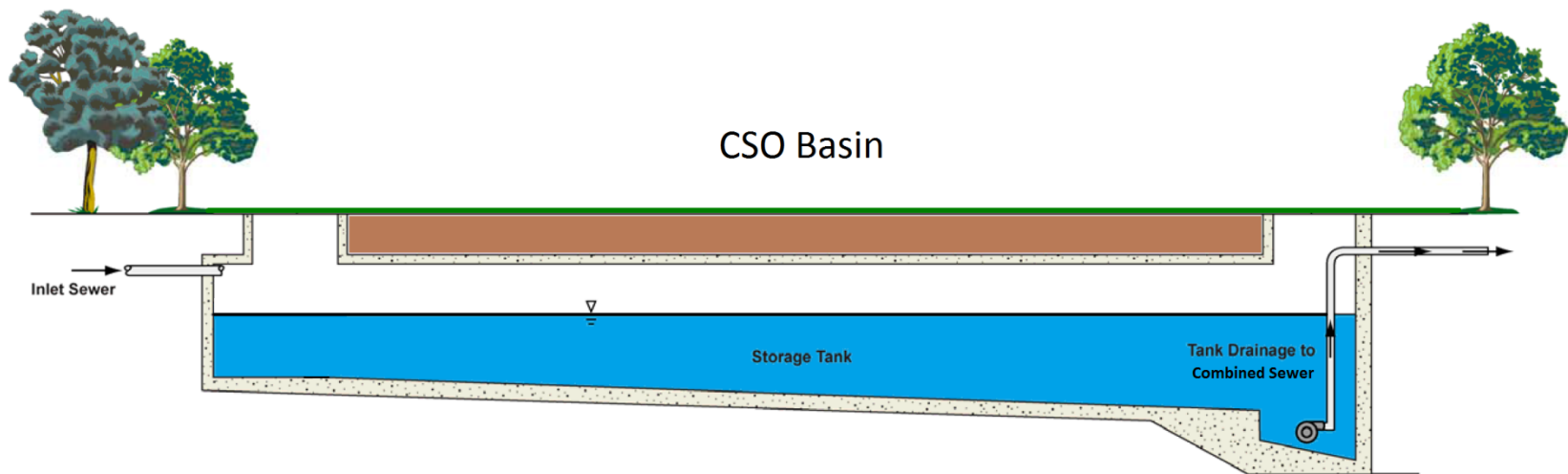
What the Proposed Basin Will Do

- Overflow diverted to storage basin
- 7.0 Million Gallons
- Reduces the number of overflows from 127 to 6 in a typical year.
- Reduces the amount of overflow from 107 million to about 3.5 million gallons in a typical year



How Basins Function

- Temporary storage for CSO overflows
- Overflow released back into the system for treatment when capacity is available, typically within 24 hours after the rain event
- Rinsed with an automatic system



Frequently Asked Questions

- What happens when the basin is full?
- Odors – is it going to smell?
- Will the basin be visible?



What Happens When the Basin is Full?

- When it's raining, stormwater and sewage fill the basin by gravity
- When the basin is full the system discharges into Beargrass Creek just like it currently does
- What is stored is then pumped out for treatment when the system can handle it



Will it Smell?

- CSO Overflows are sewage that is diluted by rainwater
- Basin pumped out, typically within 24 hours after rain stops
- Automatically rinsed out
- Odor control is typically unnecessary
- MSD is being pro-active
 - Odor monitoring/testing being conducted
 - Can accommodate a odor control system if needed



Frequently Asked Questions

- What happens when the basin is full?
 - System functions as it does today; overflows to creek
- Odors – is it going to smell?
 - No; highly diluted, covered, rinsed facility
- Will the basin be visible?
 - That's what we want to ask you about.



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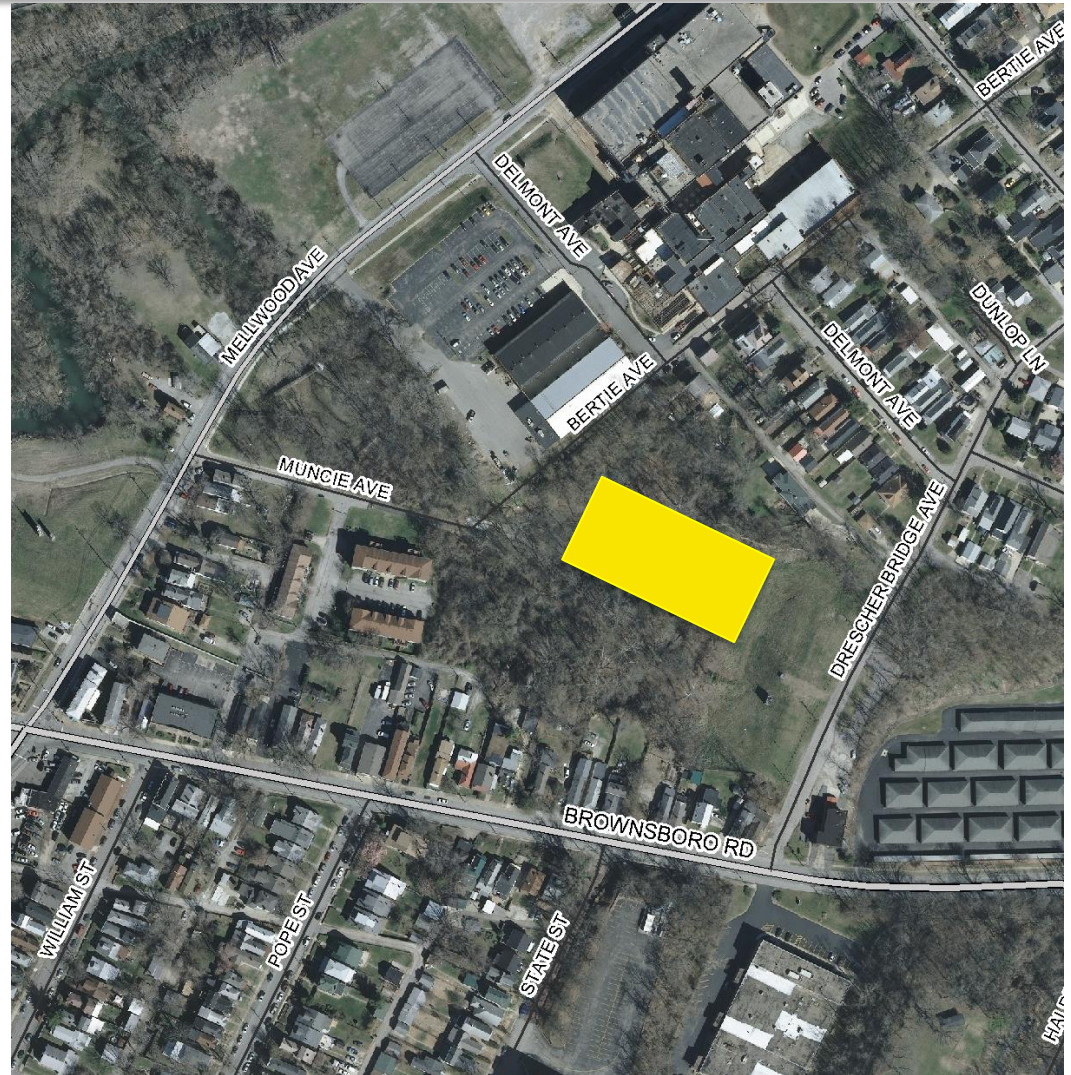
Conceptual Design Options

- Different basin configurations will do the same job
- Each will look different
- We'll look at each one and talk about it
- We'll gather your general comments, and see how everyone feels about those
- Finally, we'll ask you to rate each one



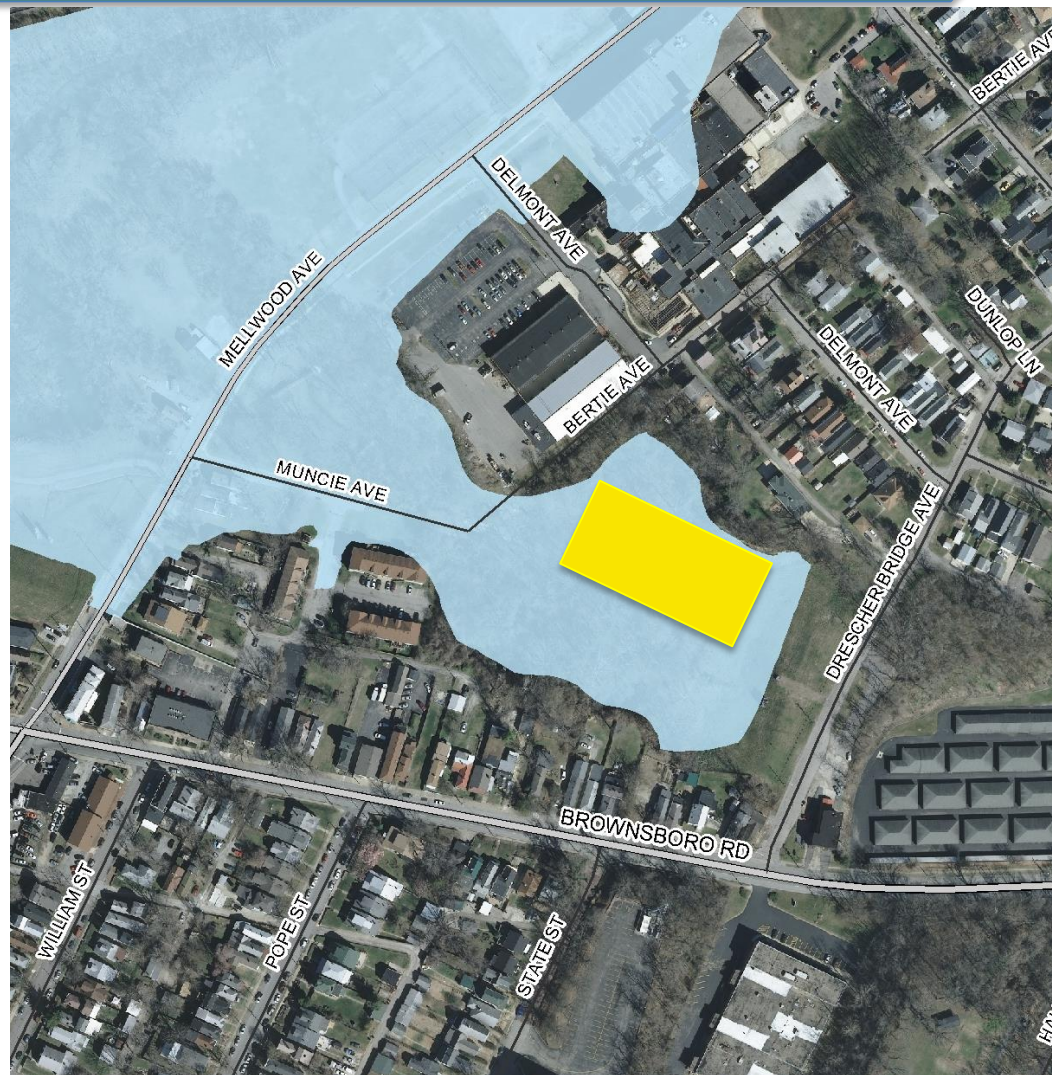
Access and Visibility

- Located on city property
- Limited road access
- Surrounded by trees



Access and Visibility

- Within the 100-year floodplain of the Ohio River



Basin Concepts

- Concept #1 | Above Ground
 - Basin top is constructed completely above the 100-year floodplain
- Concept #2 | Partially Above Ground
 - Only mechanical access points are constructed above the 100-year floodplain, the rest is at ground level
- Concept #3 | Below Ground
 - All basin access points are located at ground level and the basin top is below ground



Clifton Heights CSO Basin Concept #1: Above Ground

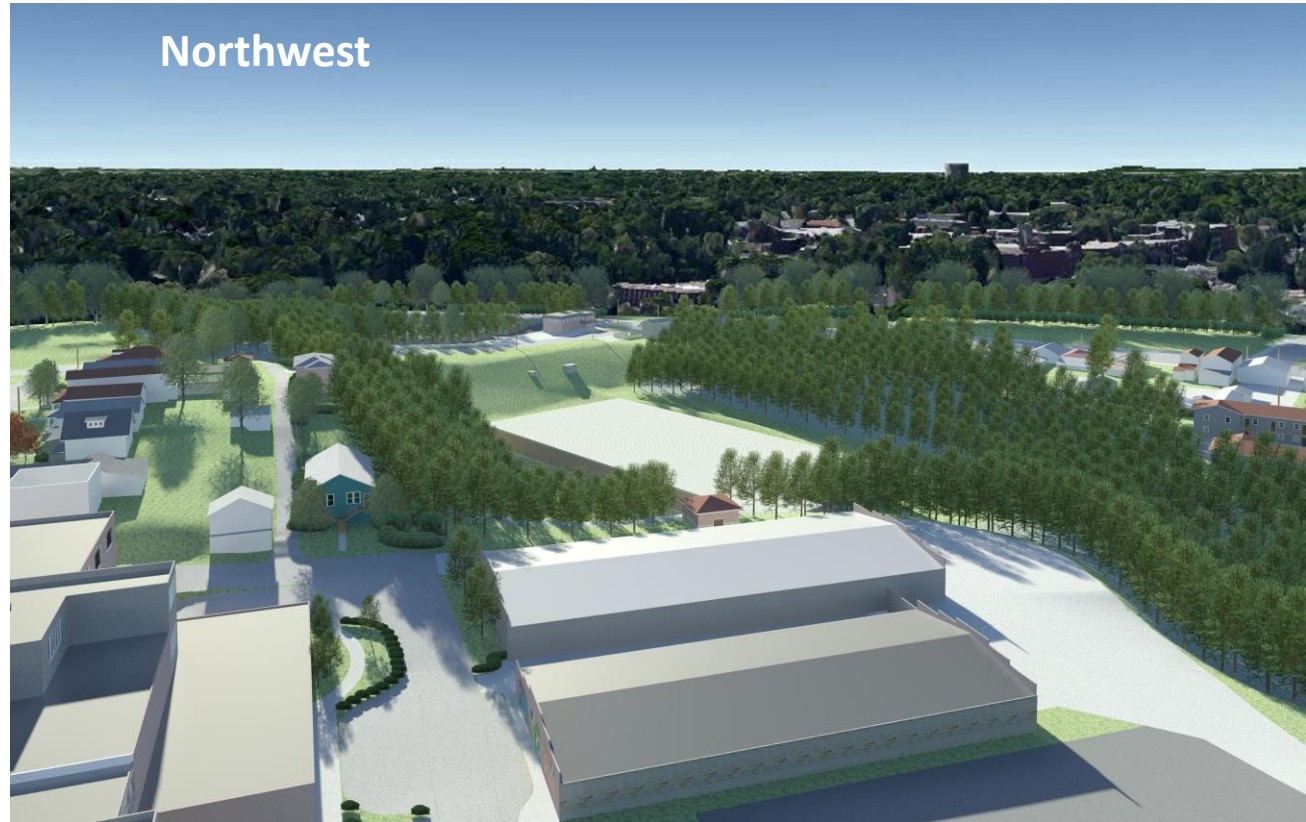
Southeast



Clifton Heights CSO Basin Concept #1: Above Ground

Features

- Aesthetically consistent
- Most noticeable
- Most expensive to build



Clifton Heights CSO Basin Concept #2: Partially Above Ground

Southeast



Clifton Heights CSO Basin Concept #2: Partially Above Ground

Features

- Less expensive to build than Concept #1
- Less visually imposing than Concept #1.
- Cannot plant trees or shrubs on top of basin



Clifton Heights CSO Basin Concept #3: Below Ground

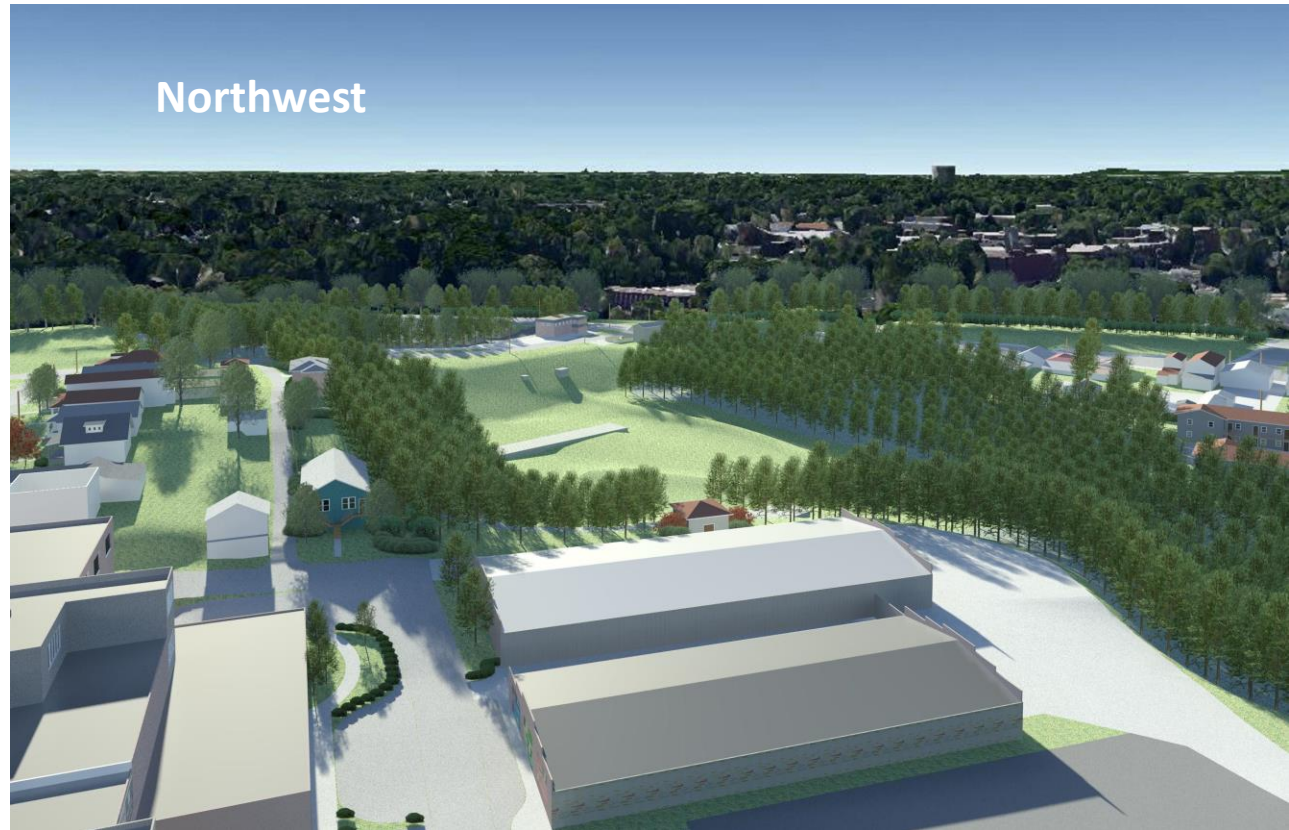
Southeast



Clifton Heights CSO Basin Concept #3: Below Ground

Features

- Least expensive to build
- Least visually imposing
- Cannot plant trees or shrubs on top of basin
- Can plant grass

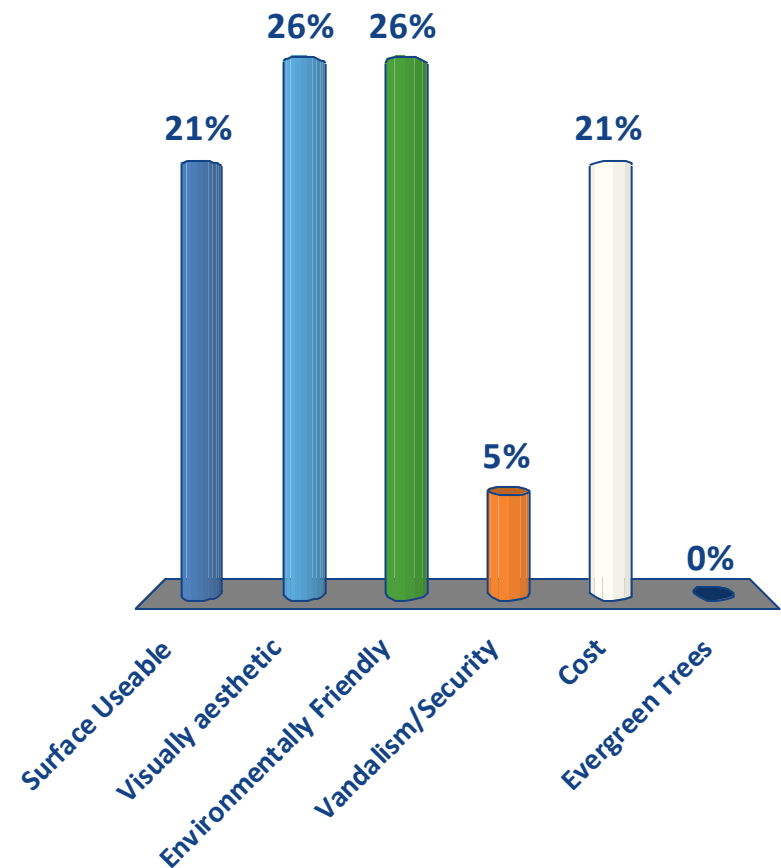


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Pluses or Minuses About Any of These? ⁽³⁾

1. Surface Useable
2. Visually aesthetic
3. Environmentally Friendly
4. Vandalism/Security
5. Cost
6. Evergreen Trees



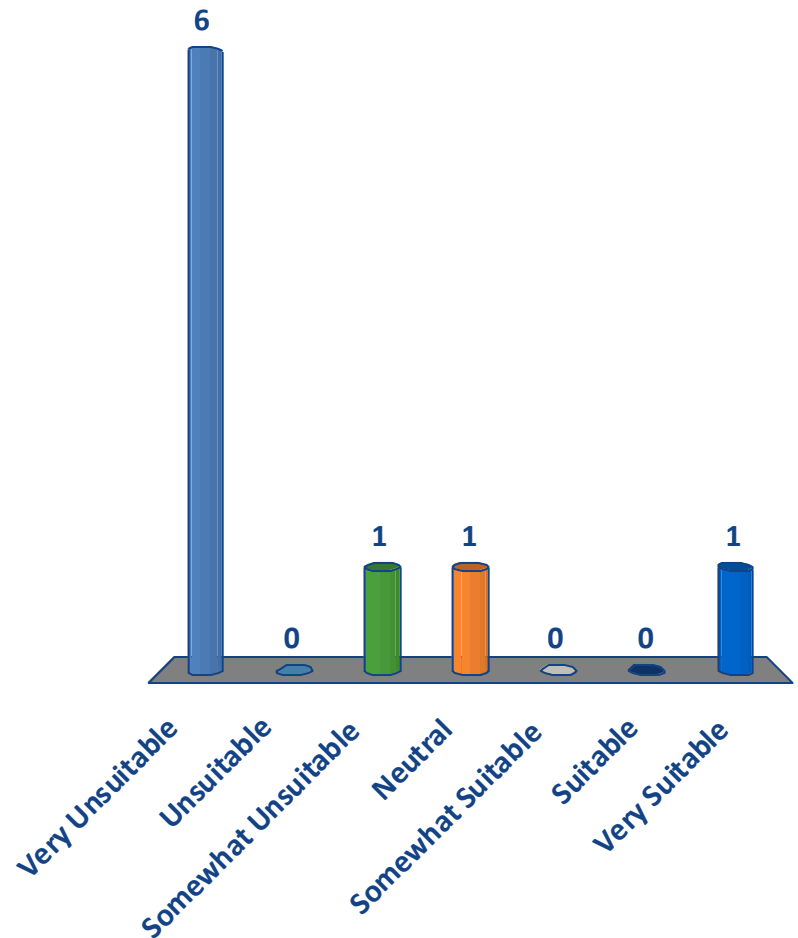
Clifton Heights CSO Basin Concept #1 : Above Ground



Suitability of Concept 1 “Above Ground”?

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

Mean = 2.22



Clifton Heights CSO Basin Concept #2: Partially Above Ground

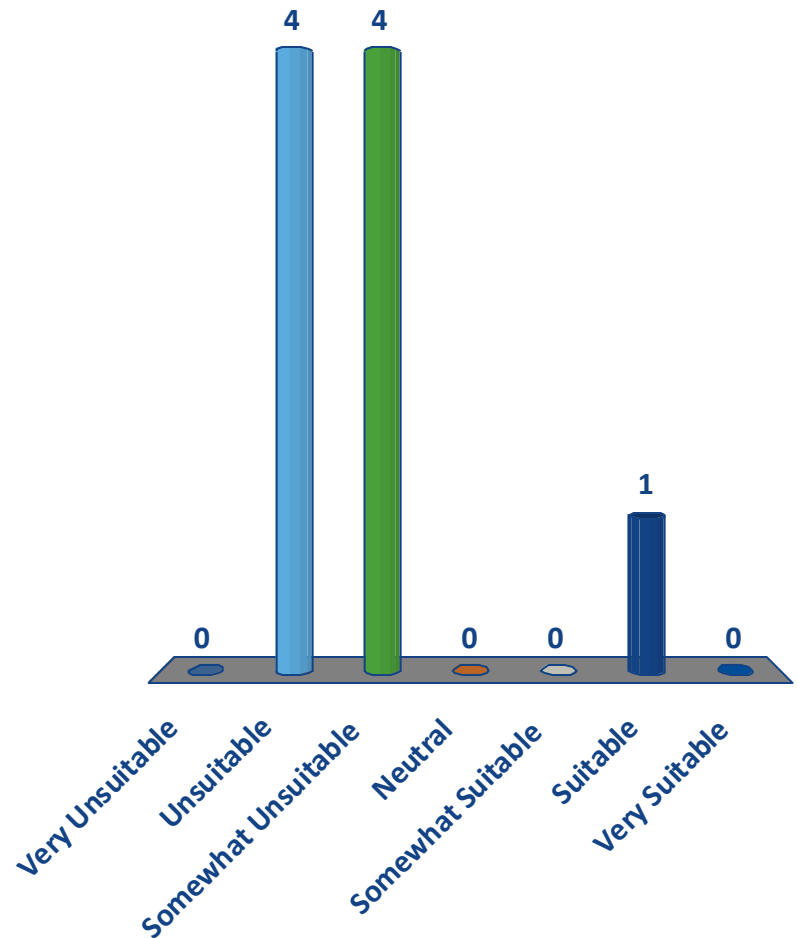
Southeast



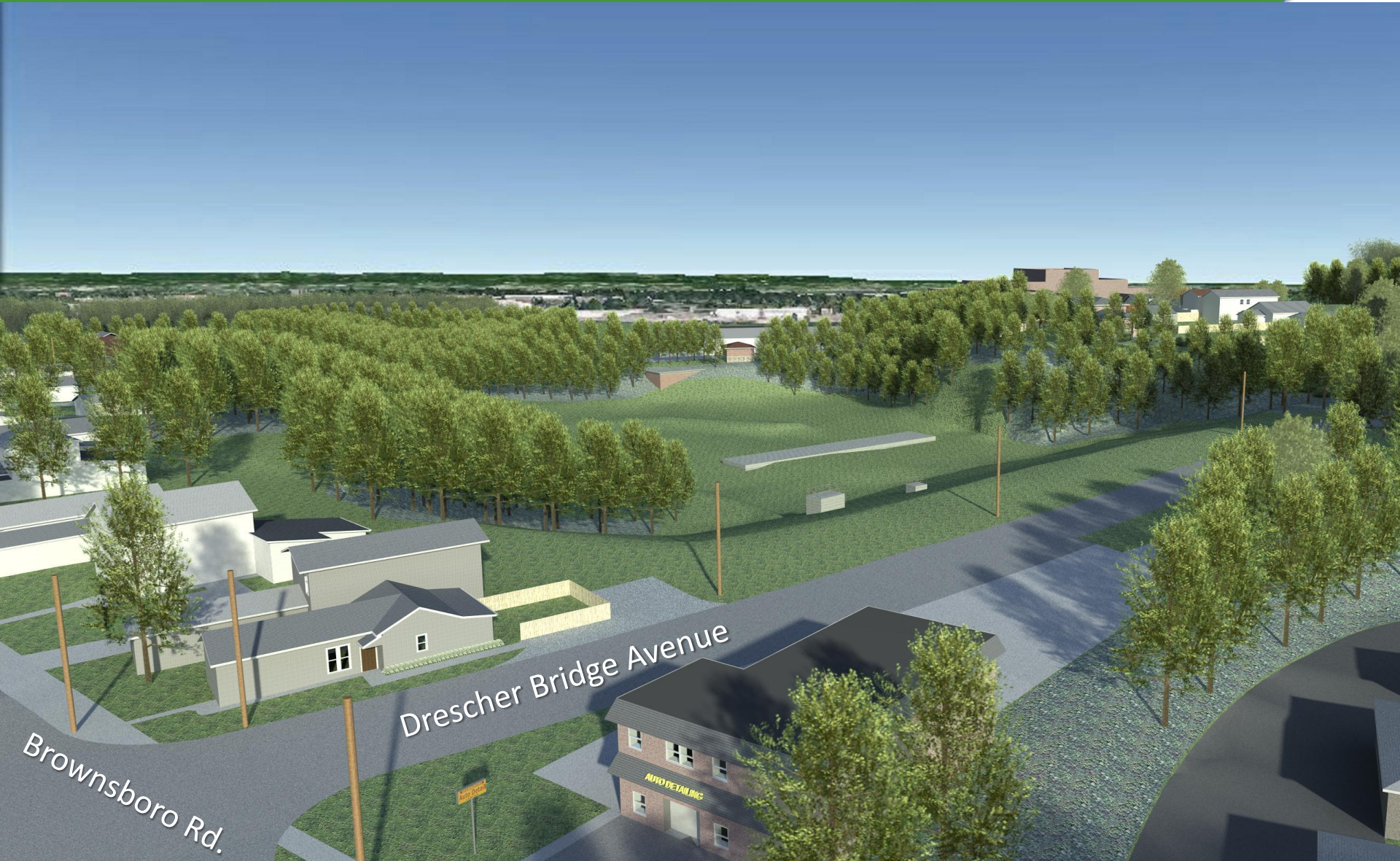
Suitability of Concept 2 “Risers”?

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

Mean = 2.89



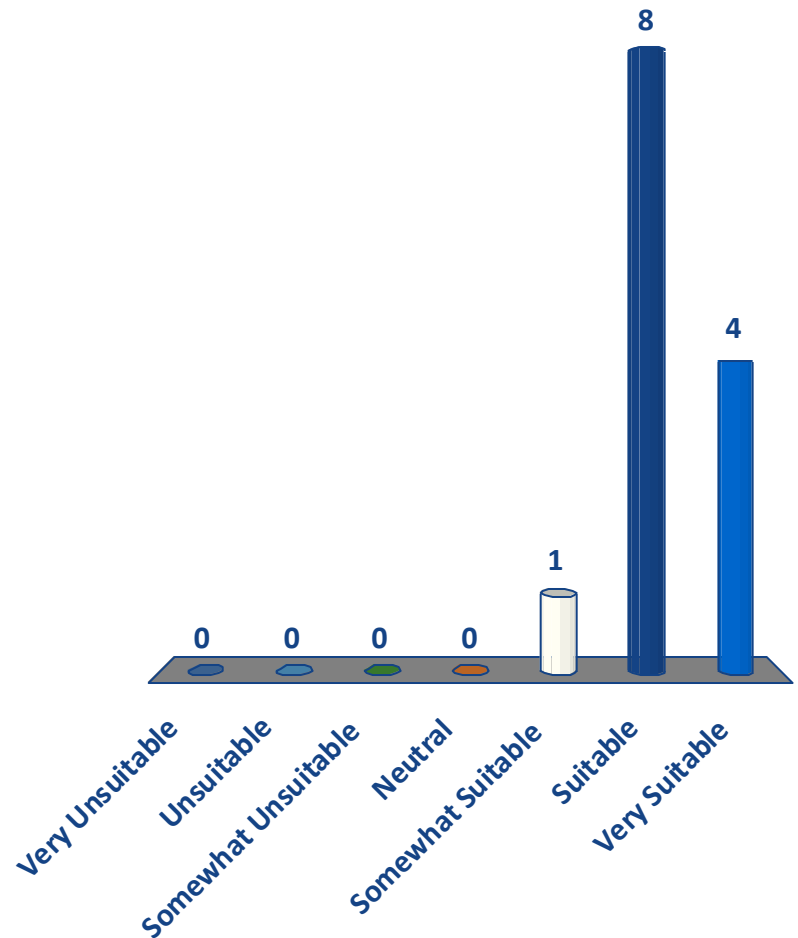
Clifton Heights CSO Basin Concept #3: Below Ground



Suitability of Concept 3 “Below Ground”?

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

Mean = 6.23



THANK YOU. That helps us.

Next Steps

- We'll take this information, advance the design, and choose a solution.
- We'll be back this summer to talk with you about the Advanced Design of the selected option.
- For that option we'll ask you about:
 - Security, access and activity around the basin
 - Screening of the basin



Anticipated Schedule

- Project Design
 - Conceptual Design Public Input Meeting
 - **Advanced Design Public Input Meeting**
 - Final Design Completion
 - Pre-Construction Public Meeting
 - Construction Start
 - **Construction Completion Deadline**
- Dec 2014
- May 2015
- Summer 2015*
- Winter 2015*
- Spring 2016*
- Summer 2016*
- Dec. 31, 2018**



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Any Comment Cards?



Working Together for Public Health and Safety

If you see this...

Call MSD Immediately!

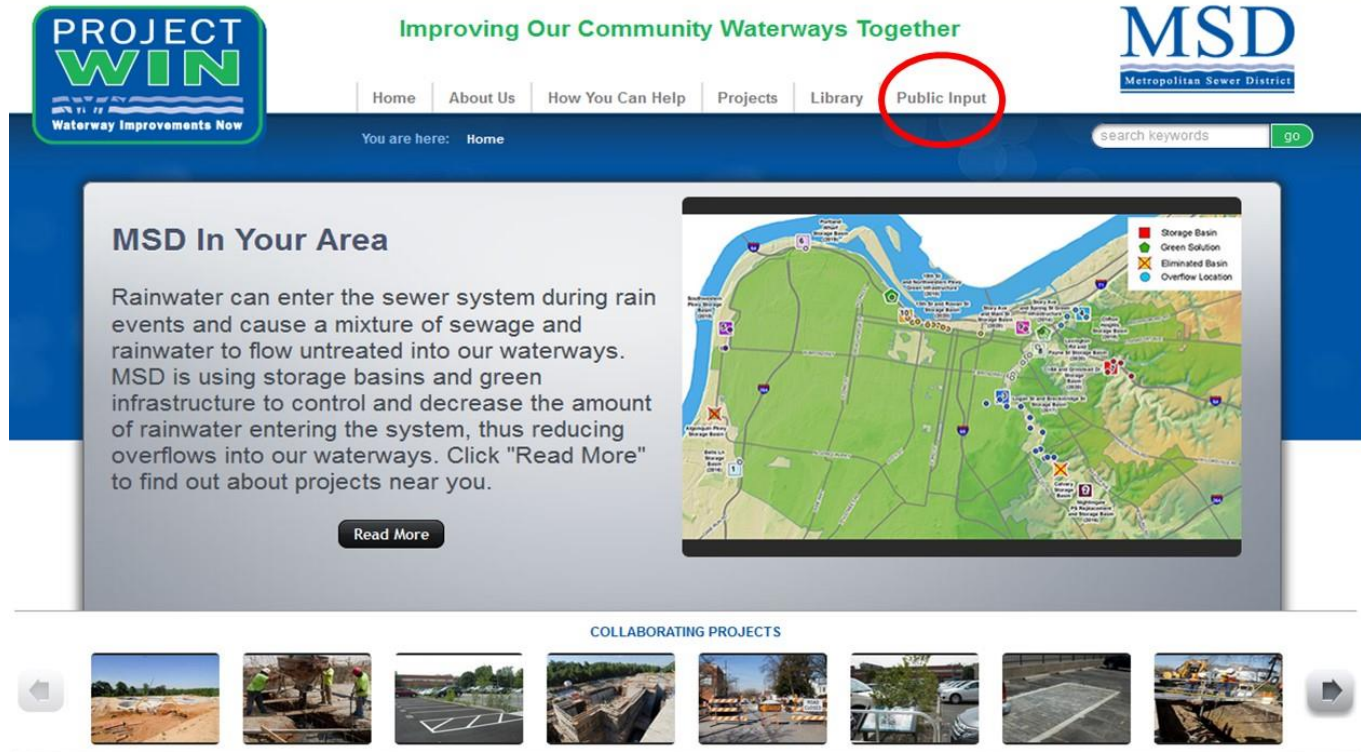
502-587-0603



MSD
Metropolitan Sewer District



Find Out More at msdprojectwin.org



Learn More at the Website Created Just for YOU!

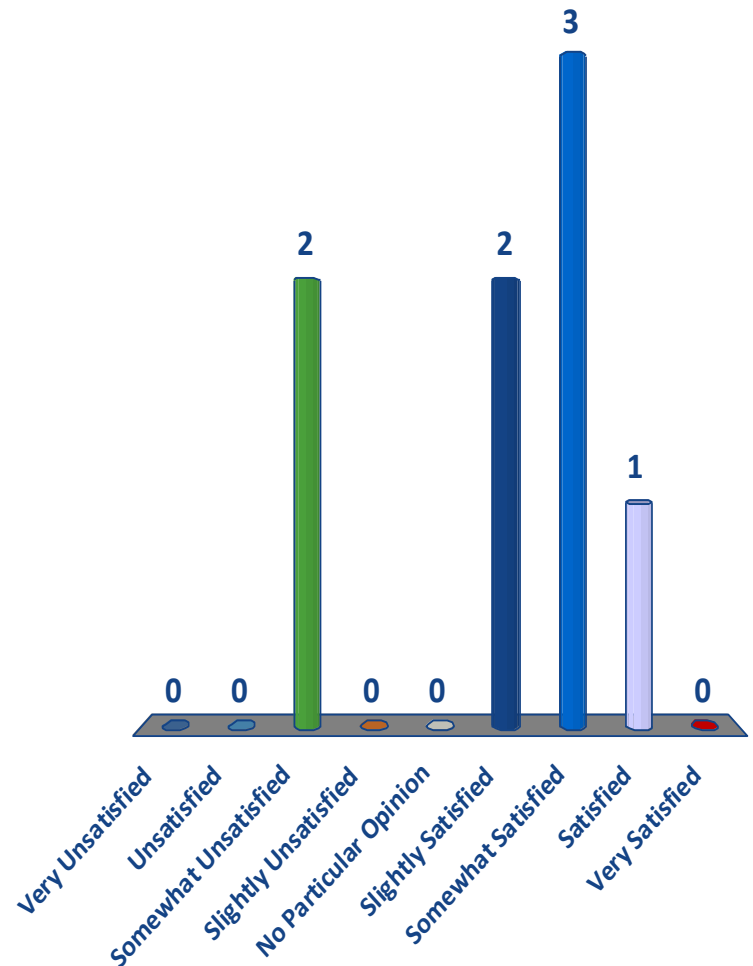
Please Tell Your Friends and Neighbors to Take the Survey Online!



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

Mean = 5.88






THANK YOU
FOR YOUR TIME AND ASSISTANCE!

We'll see you this summer.

Watch the MSD website for
updates and the online feedback
version of this meeting, coming
soon.



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

