Welcome! We will begin shortly...

Virtual Meeting Schedule		
6:30 - 6:40	Welcome	
6:40 – 7:15	Presentation	
7:15 – 7:30	Presentation Q & A (General)	
7:30 – 7:45	Zoom Breakout Rooms	
7:45 – 8:00	Come Back Together/Wrap-Up	





Wingra Proper Watershed Study Public Information Meeting #3

City of Madison Engineering Division October 9, 2025



Meeting Technical Housekeeping

- This meeting will be <u>recorded</u> and posted to the project page.
- All attendees should be <u>muted</u> to keep background noise to a minimum.
- Use the <u>"Q and A"</u> button for technical issues with meeting to troubleshoot with staff to assist.
- Use the <u>"Q and A"</u> button to type questions about presentation. Questions will be answered live after the presentation.
- Inappropriate questions may be dismissed.
- Use the "raise your hand" button to verbally ask your question. You will be prompted to unmute when it is your turn.

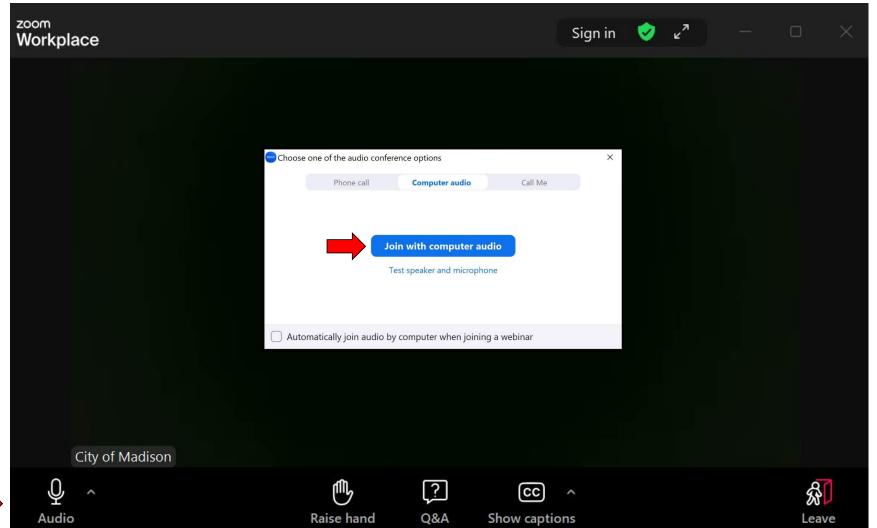


This meeting is being recorded. It is a public record subject to disclosure.

By continuing to be in the meeting, you are consenting to being recorded and consenting to this record being released to public record requestors.

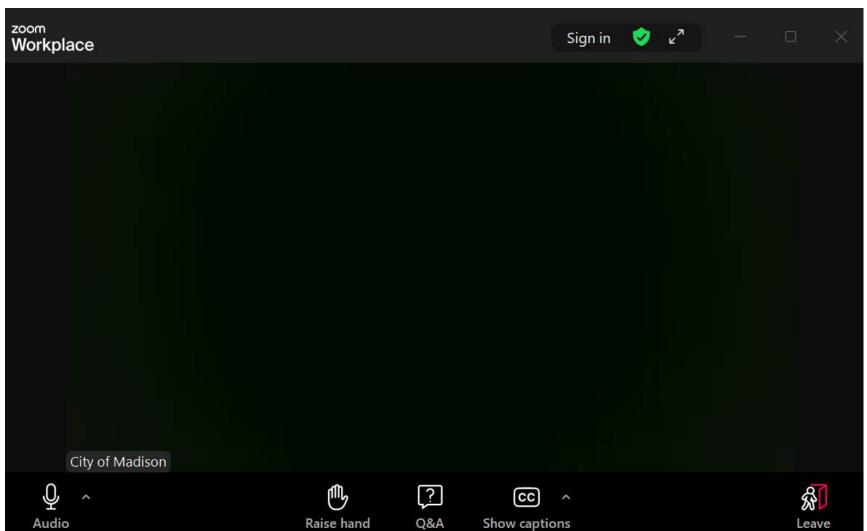


How to Participate



Make sure to join audio





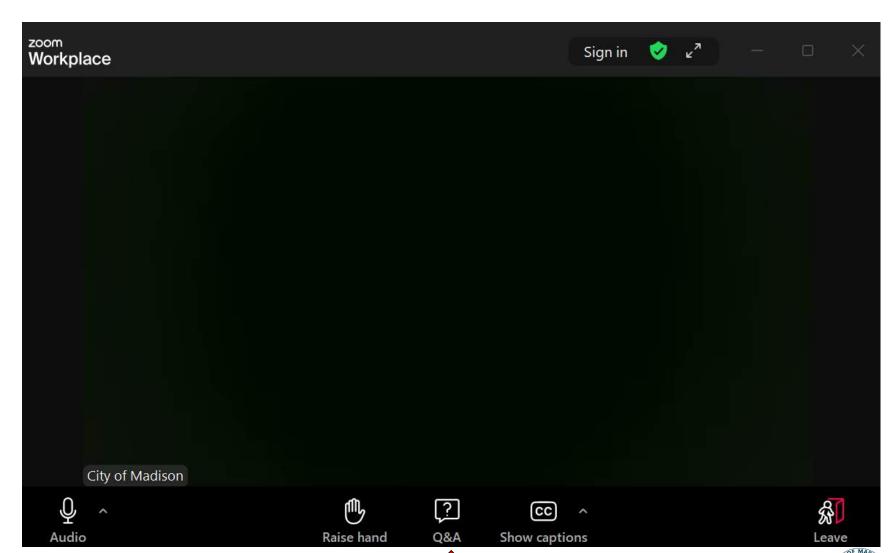
Raise your hand to be unmuted for comments or ask additional questions.

How to

Participate



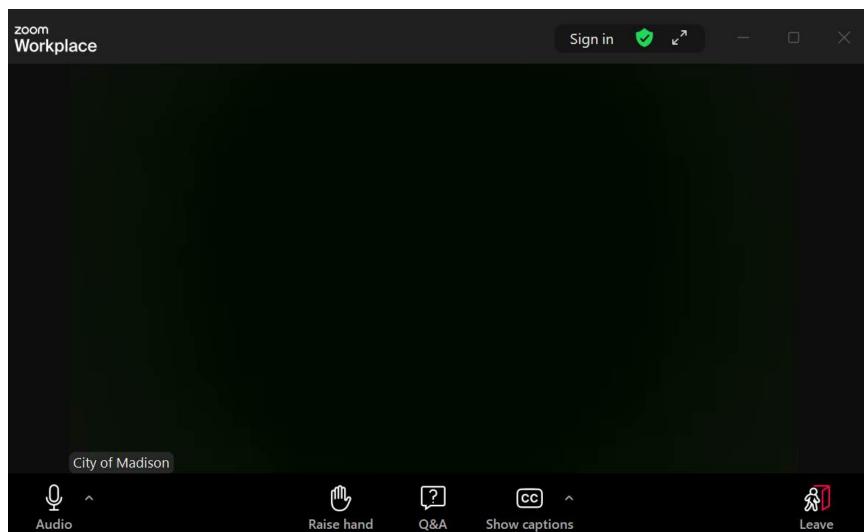




How to Participate

Use **Q&A** button if you have technical issues or a question for the panelists.





Use Q&A button for all other questions. We will answer after the presentation.

How to

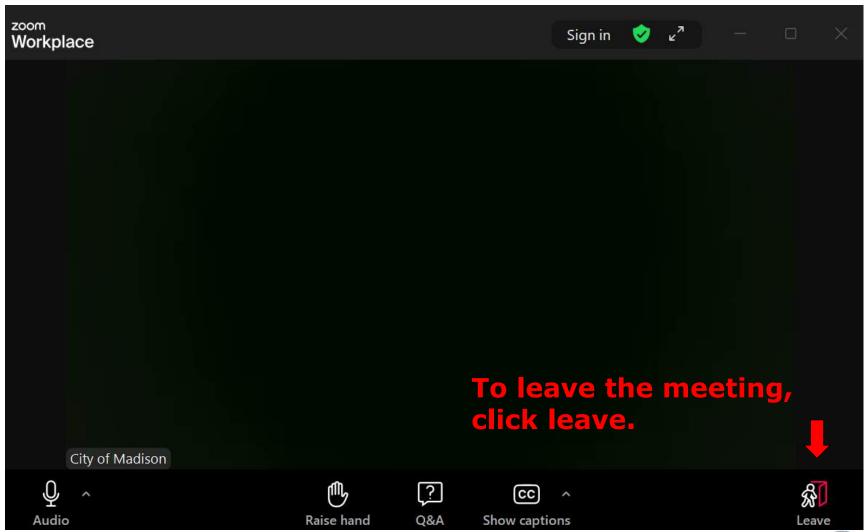
Participate



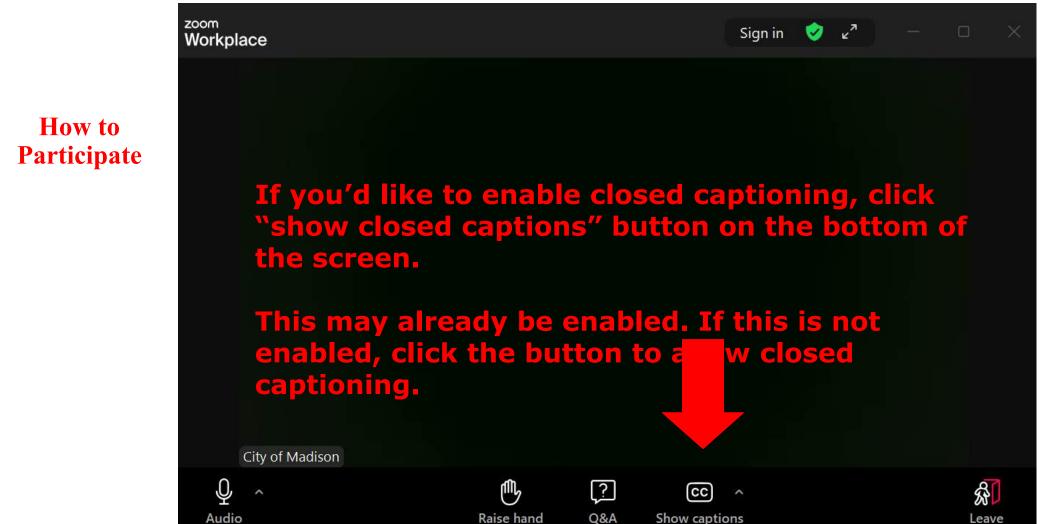




How to **Participate**









Project Contact Introductions

- **≻**PM Information
 - ➤ Mike Wegner Project Manager
- ➤ City Staff Information
 - ➤ Phil Gaebler Project Manager
 - ➤ Greg Fries Deputy City Engineer
 - ➤ Janet Schmidt Principal Engineer
 - ➤ Ryan Stenjem- Watershed Study Program Manager



Evening Overview

- Welcome (Hannah Mohelnitzky, City of Madison)
- Presentation (Mike Wegner, Brown and Caldwell)
- Q&A (facilitated by Hannah Mohelnitzky, City of Madison)
 - Submit questions through Zoom "Q and A"
 - Questions answered at the end of the Presentation
- Wrap Up (Hannah Mohelnitzky, City of Madison)
- Breakout Groups (Brown and Caldwell and City of Madison staff)
 - An option to join breakout groups will appear on your screen



Presentation Outline

- 1. Definitions of commonly used terms
- 2. Project locations
- 3. Watershed study schedule
- 4. Flood mitigation targets
- 5. Inundation mapping
- 6. Proposed solutions development process
- 7. Proposed solutions
 - a. Standalone projects
 - b. Local storm sewer
- 8. Implementation and cost
- 9. Why aren't all flood targets met?
- 10. Next steps



Watershed Study Limitations

- Utilizing computer models for analysis (computer models have inherent limitations, require assumptions, and are for one specific set of circumstances)
- Retrofitting infrastructure takes a lot of time and money
- Not all problems can be solved
- Repairs are not always easy, popular, or inexpensive
- Best engineering solution may not be the one chosen
- Property owners will need to create solutions too
- Solutions will need broad community cooperation
- Groundwater problems not easily addressed by infrastructure

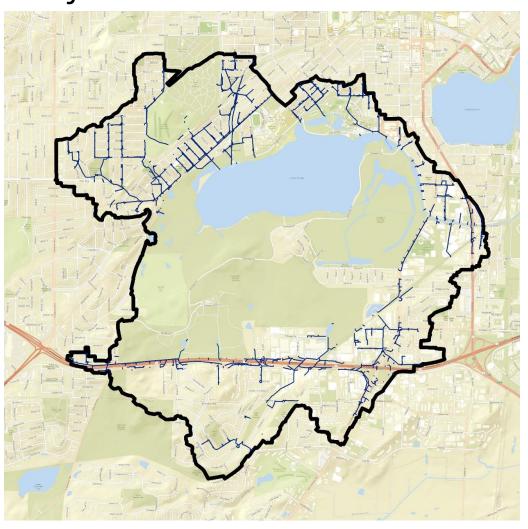


Definitions of commonly used terms

- **Stormwater**: rainwater produced from a rain event
- Stormwater runoff: the portion of the rainwater that does not soak into the ground
- Stormwater inlets: grates in the ground that take in stormwater runoff; connected to the stormwater conveyance system
- Detention ponds: ponds designed to hold stormwater runoff to improve water quality and/or help prevent flooding
- Greenway: drainage-way designed to convey stormwater runoff
- Model: computer software that is used to evaluate the stormwater conveyance system
- **Local Sewer Projects**: storm sewer that is reconstructed with another already-scheduled project typically street reconstruction
- Stand-alone Projects: Flood mitigation projects that will be constructed on their own not tied to another already-scheduled project



Project Location



A watershed is an area of land that drains to a single location.

This is the Wingra Proper Watershed in the City of Madison.



Schedule

Spring 2022 -Winter 2023 Create and Calibrate Model 1st Public Meeting*

Summer 2023

2nd Public

Meeting*

Fall 2025 3rd Public Meeting













Spring 2023

Identify Flood

Impacts

Summer 2023-Fall 2025 Evaluate Solutions Fall-Winter 2026 Finalize Study

*Presentations from PIM1 and PIM 2 can be found on the Watershed Study Website





Flood Mitigation Targets

10% Chance Event

 No surcharging of storm sewer onto roadway (storm sewer pipes are sized to carry storm)

4% Chance Event

0.2' at Centerline of Road (roads passable for emergency vehicles)

1% Chance Event

- No structure (home/building) flooding
- No greenway crossing overflow (stormwater does not come out of greenway and flow over the road)

0.2% Chance Event

Safe conveyance of overflow



INUNDATION MAPPING DISCLAIMER

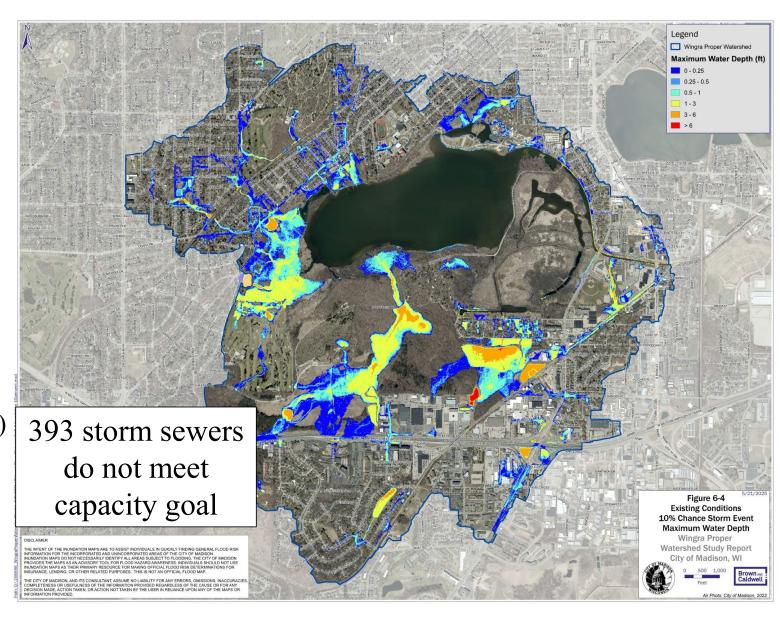
THE INTENT OF THE INUNDATION MAPS ARE TO ASSIST INDIVIDUALS IN QUICKLY FINDING GENERAL FLOOD RISK INFORMATION FOR THE INCORPORATED AND UNINCORPORATED AREAS OF THE CITY OF MADISON. INUNDATION MAPS DO NOT NECESSARILY IDENTIFY ALL AREAS SUBJECT TO FLOODING. THE CITY OF MADISON PROVIDES THE MAPS AS AN ADVISORY TOOL FOR FLOOD HAZARD AWARENESS. INDIVIDUALS SHOULD NOT USE INUNDATION MAPS AS THEIR PRIMARY RESOURCE FOR MAKING OFFICIAL FLOOD RISK DETERMINATIONS FOR INSURANCE, LENDING, OR OTHER RELATED PURPOSES. THIS IS NOT AN OFFICIAL FLOOD MAP.

THE CITY OF MADISON ASSUMES NO LIABILITY FOR ANY ERRORS, OMISSIONS, INACCURACIES, COMPLETENESS OR USEFULNESS OF THE INFORMATION PROVIDED REGARDLESS OF THE CAUSE OR FOR ANY DECISION MADE, ACTION TAKEN, OR ACTION NOT TAKEN BY THE USER IN RELIANCE UPON ANY OF THE MAPS OR INFORMATION PROVIDED.



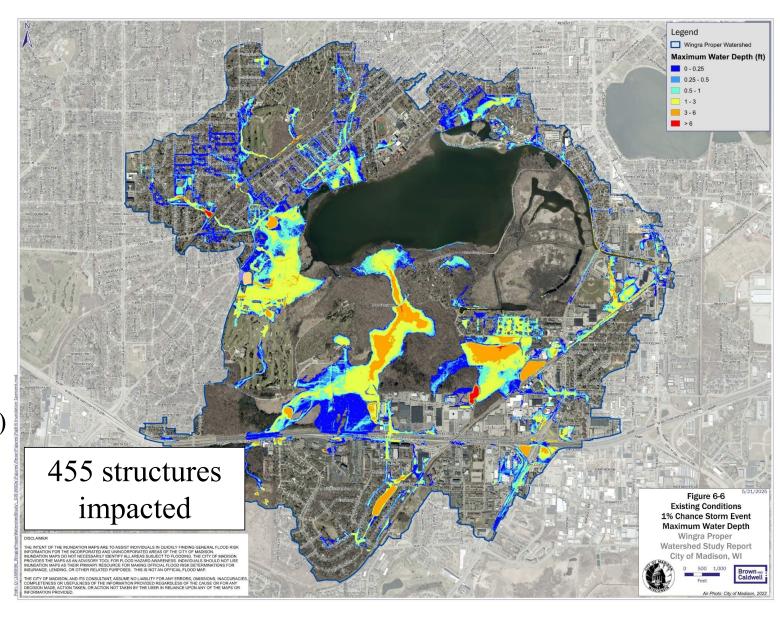
10% Chance (10-year) Existing Inundation Mapping

10% Chance Event (4.09 inches in 24 hours)



1% Chance (100-year) Existing Inundation Mapping

1% Chance Event (6.66 inches in 24 hours)



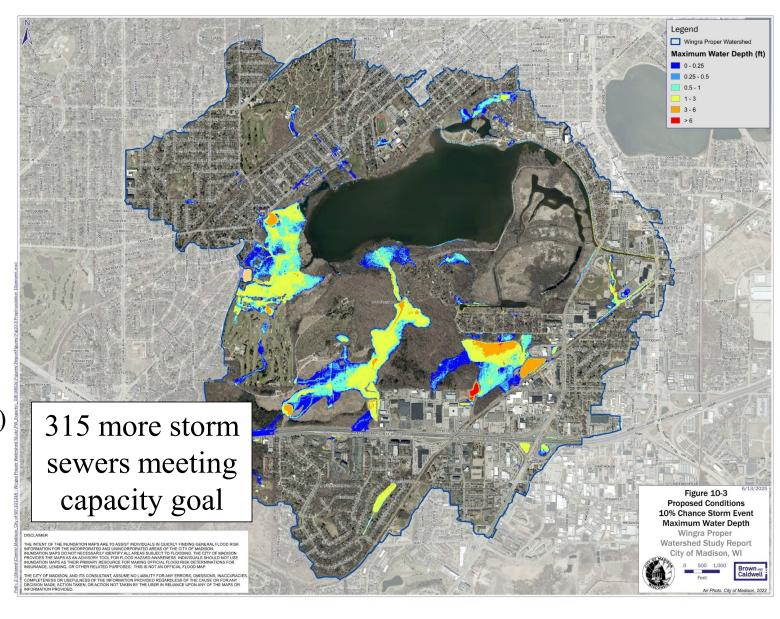
Proposed Solutions Process

- Iterative process
 - Brainstormed solutions
 - Consultant analyzed ideas and provided results
 - Some solutions not found to be viable for various reasons
 - Several meetings to develop the "suite of solutions"
- Met with City Agencies for feedback on
 - Impacts to Agency's infrastructure/property
 - Additional solutions
 - Places for cooperation/win-win solution
- Revised solutions based on agency feedback
- Meeting with you tonight



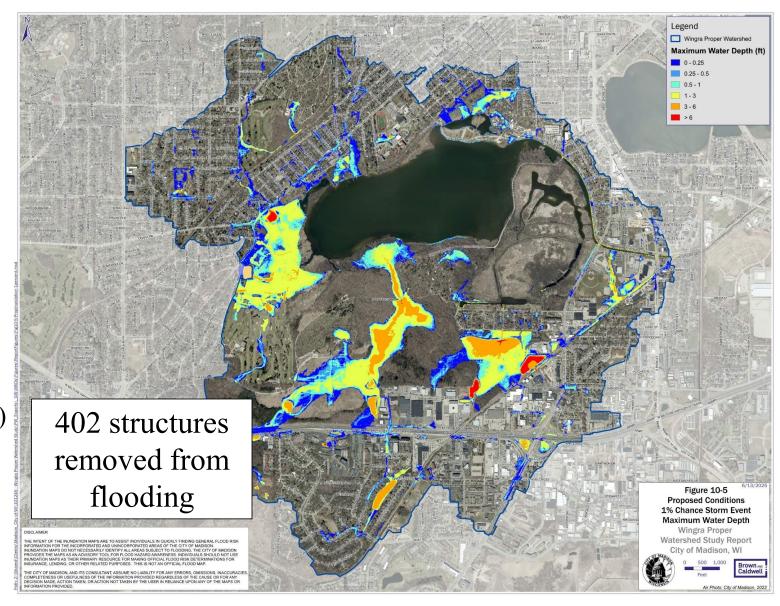
10% Chance (10-year)
Proposed Inundation Mapping

10% Chance Event (4.09 inches in 24 hours)



1% Chance (100-year) Proposed Inundation Mapping

1% Chance Event (6.66 inches in 24 hours)

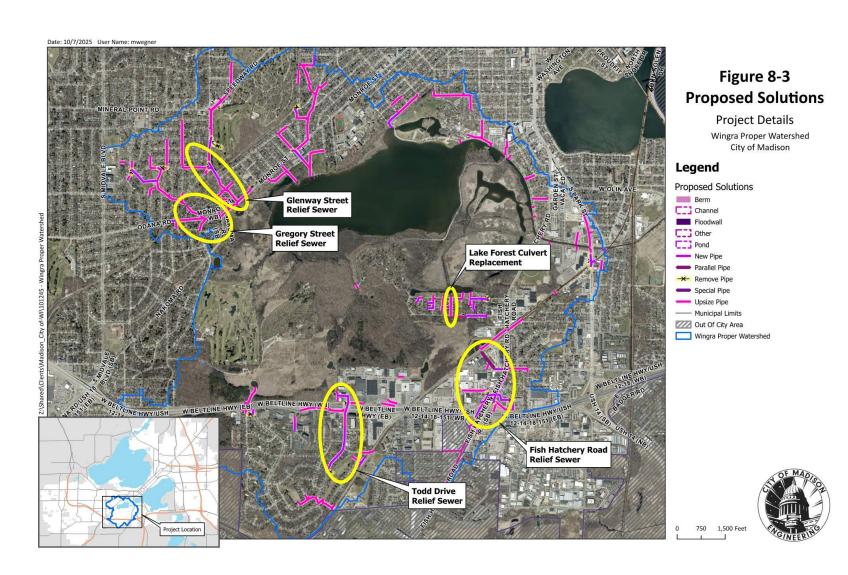


Proposed Solutions

- Local storm sewer improvements
- Gregory Street Relief Sewer
- Glenway Street Relief Sewer
- Todd Drive Relief Sewer
- Lake Forest Culvert Replacement
- Fish Hatchery Road Relief Sewer

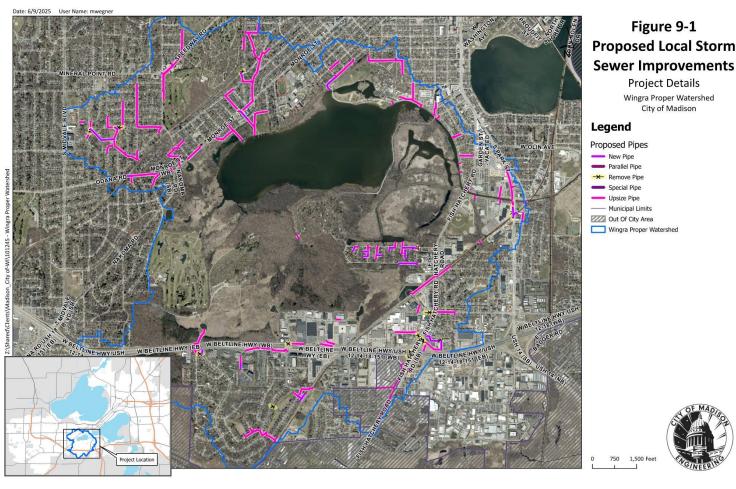


Proposed Solutions



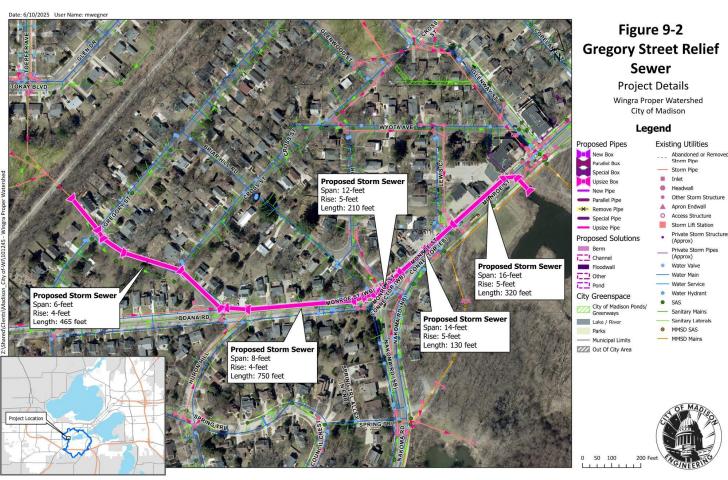
Local Storm Sewer Improvements

- Various improvements throughout watershed
- Will primarily be implemented as part of street reconstruction projects



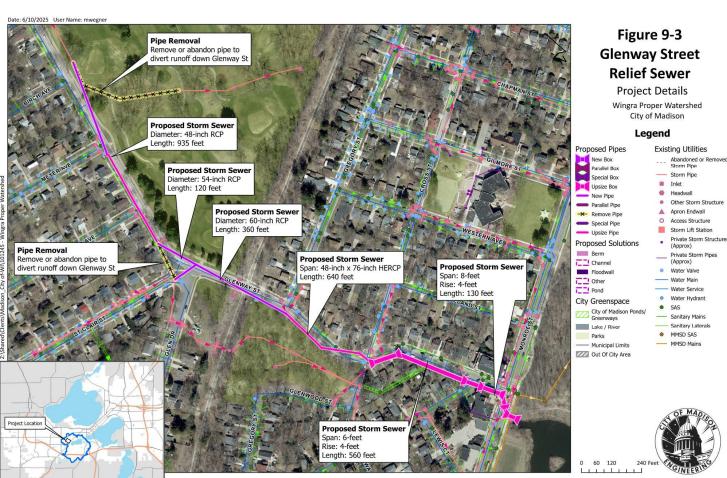
Gregory Street Relief Sewer

- Replace existing storm sewer with box culvert
- Greenway, Odana
 Rd & Monroe St
- Meet 10% & 1%LOS targets



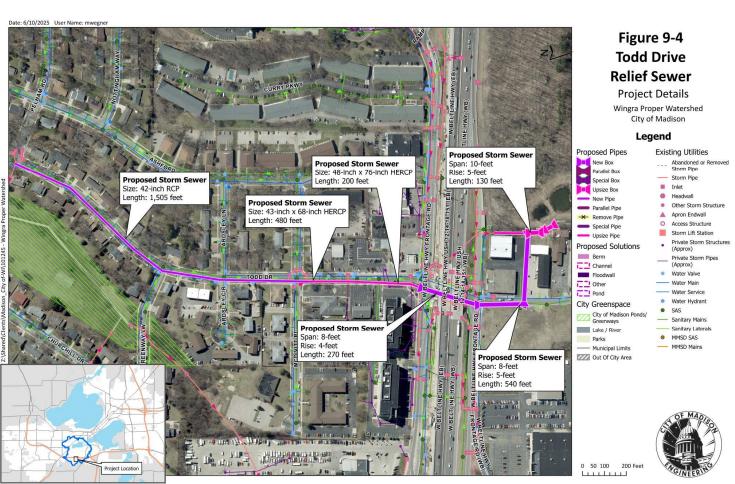
Glenway Street Relief Sewer

- New storm sewer on Glenway Street
- Divert runoff from Glenway Golf course and Glenwood Children's Park
- Meet 10% & 1%LOS targets



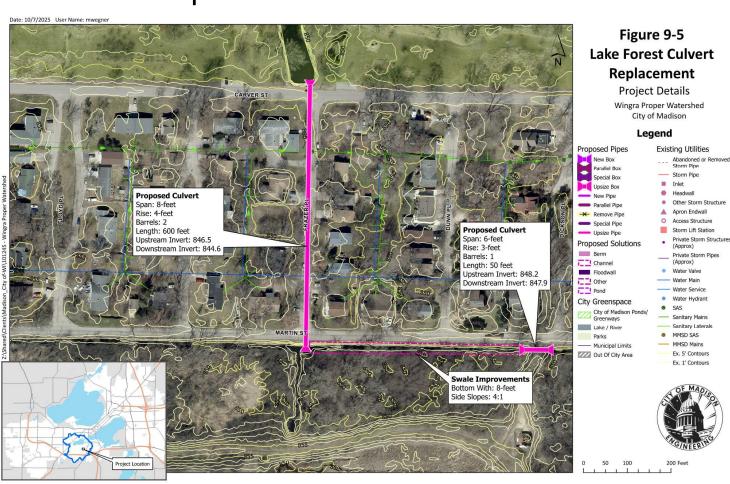
Todd Drive Relief Sewer

- New relief sewer on Todd Drive
- Divert runoff from greenway
- Meet 10% and 1% LOS targets



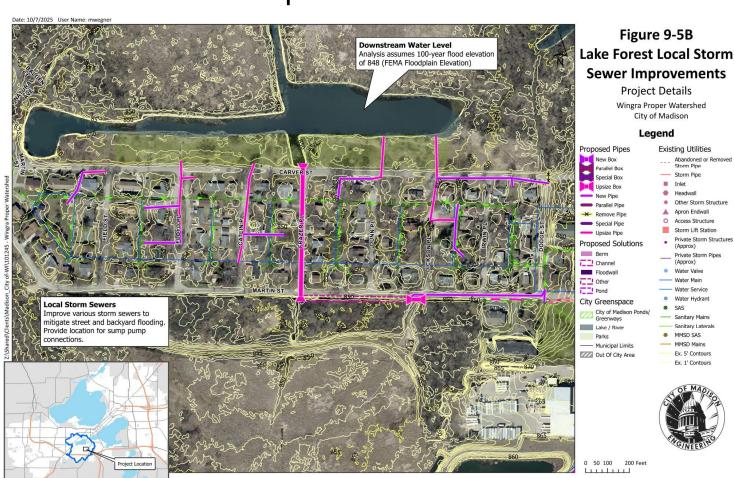
Lake Forest Culvert Replacement

- Replace culvert under Frazier Place
- Improve swale/culvert on south side of Martin Street
- Other local storm sewer improvements (not shown on this figure)



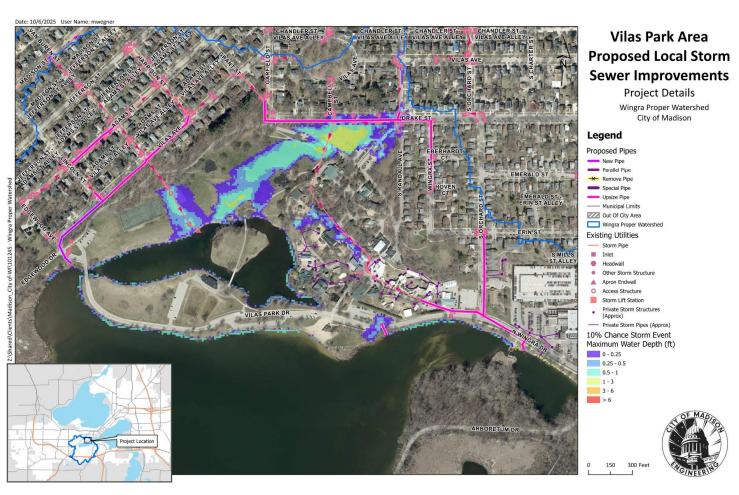
Lake Forest Local Sewer Improvements

- Local storm sewer improvements target street and backyard flooding
- Provide location for sump pump connections
- Locations of backyard sewers is approximate
- Lake Monona
 Summer Target Level
 = 845.2, Analysis
 assumed 848.0 as
 starting water level



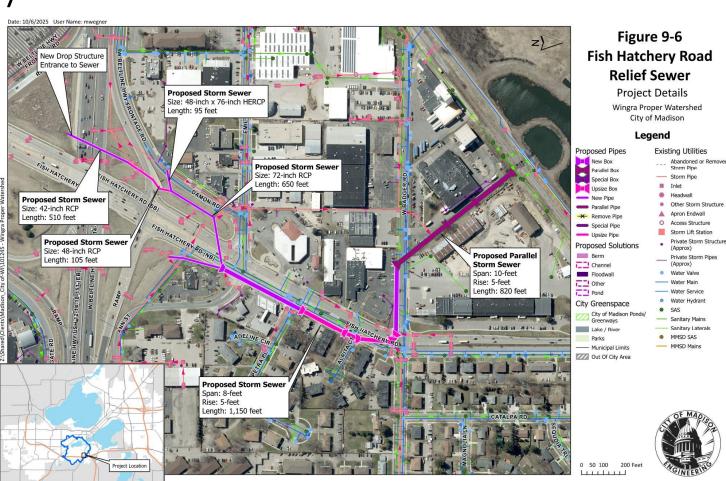
Vilas Park Area Local Sewers

- Local storm sewer improvements near Vilas Park improve flooding
- However, overland flow through park remains
- Plan avoids
 excavation in park
 due to cultural
 resources



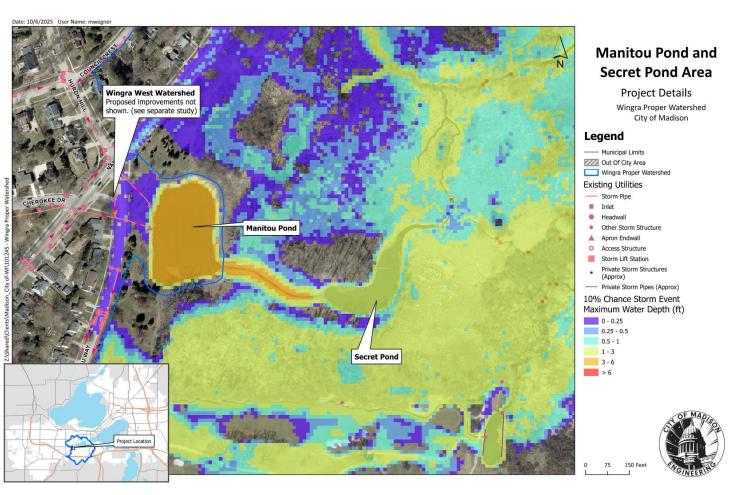
Fish Hatchery Road Relief Sewer

- New relief sewer on Fish Hatchery Rd
- New crossing of Beltline Highway
- Meet 10% and 1% LOS targets



Secret Pond Outlet

- Flow from Wingra West Watershed enters Secret Pond and Wingra Proper Watershed
- Future improvements in Wingra West Watershed will increase flows
 - Ex 1% Flow = 450 cfs
 - Prop. 1% Flow = 1500 cfs
- Vegetation can withstand expected flows, areas of bare soil present concern
- City is monitoring outlet channel from Secret Pond for changes
- If impacts are identified mitigation options will be evaluated



Recommended Implementation Order and Cost

Project	Estimated Cost
Gregory Street Relief Sewer	\$6.2 million
Glenway Street Relief Sewer	\$3.5 million
Todd Drive Relief Sewer	\$4.5 million
Lake Forest Culvert Replacement	\$2.5 million
Fish Hatchery Road Relief Sewer	\$7.2 million



Budgeting Considerations

- Not all projects are yet identified
 - Currently 75 stand-alone projects in 12 study areas (22 watersheds will be studied)
 - \$354M (2025 dollars)
- Stormwater Utilities fees fund projects
 - Frequent double digit rate increases not sustainable
 - Without additional funding, only 1-2 medium/large projects completed each year
- Additional funding mechanisms
 - Grants, appropriations, earmark funds
- Most projects take 1 ½ 2 years to design & permit before construction

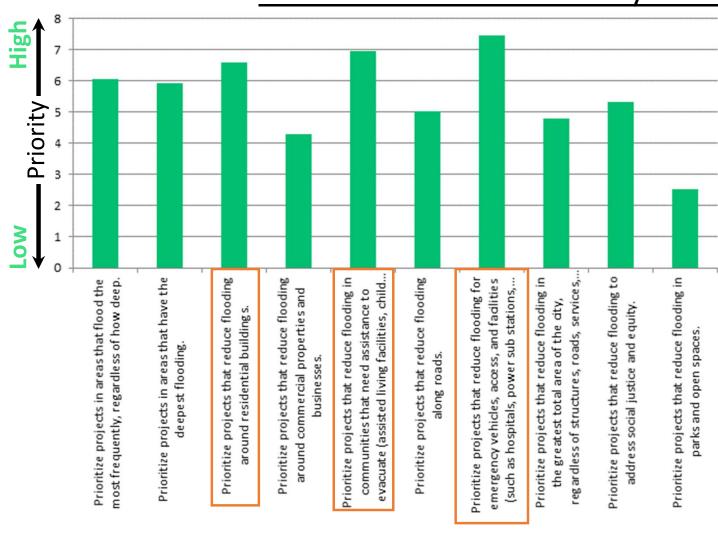


Citywide Prioritization Tool

- City creating prioritization tool to prioritize when solutions will be constructed
 - Will include all flood mitigation solutions in the City (22 watersheds)
 - Currently revisited annually as more studies are completed and solutions are added.
- Solutions prioritized based on:
 - Flood reduction abilities
 - Vulnerability
 - Income
 - Evacuation
 - Ability to improve emergency service access
 - Cost
 - Water quality benefits
- Surveys completed to provide input on how solutions are prioritized



Prioritization Survey Results



Effort to collect resident input citywide on what type projects should be prioritized.

Results were used to develop scoring system for prioritization tool, along with other factors previously shown



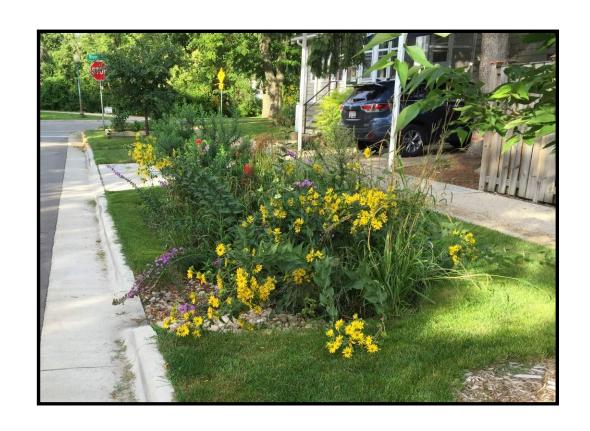


Why Aren't all Targets Met for the Watershed?

- Space constraints
- Conflict with other major utilities (drinking water wells, large gas mains, etc)
- Property ownership
- Cost impacts



Other Watershed Opportunities -What The City is Doing





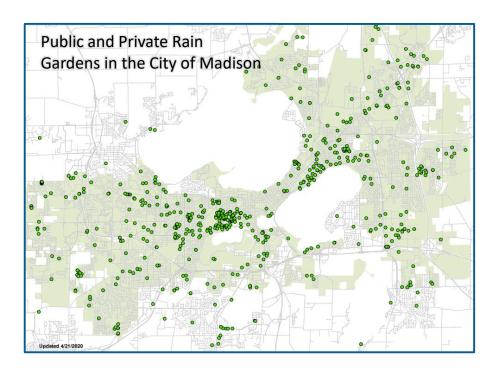
Slide 41

Is this a photo of the GI pilot? Let's discuss and/or label what's going on here © OBrien, Joanna, 2024-08-26T16:56:33.997 J01

Jojo to pop something in here. OBrien, Joanna, 2024-08-26T18:41:05.173 JO1 0

What The City is Doing

- Green Infrastructure (GI) Successes in The City
- GI Effectiveness Analysis modeled the impact of using widespread GI for flood mitigation
- Westmorland GI Pilot Study Paired with the USGS to implement significant amounts of GI and study the downstream impact
- Roger Bannerman Rain Garden Initiative (Terrace Rain Garden Program)
 - The City is well on its way to the 1000 Rain Garden Goal! As of February 2024, there are 773 which is a 24% increase since 2020!
- Stormwater Ordinance Revision resulted in an increase in GI with private development. Over 20 green roofs have been built since the ordinance revision
- Supplies residents with additional <u>online</u> Educational Resources





What Residents Can Do

- Be a Watershed Steward
- Talk about the Impacts of Stormwater Runoff with Neighbors
- Install a rain garden --> credit on your stormwater bill
 - Learn how to build a rain garden to collect stormwater from your roof
 - Buy reduced costs native plants from Plant Dane
 - Apply for a **Stormwater Fee Adjustment**
- If you're impacted by road reconstruction, you may qualify for the City's <u>terrace rain garden program</u>
- Modify your <u>leaf management techniques</u> by removing leaves from the street and using them in your yard
- Learn about Ripple Effects, Madison Area Stormwater Partnership
 - Celebrate Wisconsin Stormwater Week September 2025
 - Adopt A Storm Drain
 - Install a Rain Barrel
- See Illegal Dumping to Storm Drains or Waterways Report it!







Next Steps

- ➤ Finalize Report
 - ➤ Public Comment
 - ➤ BPW, BPC, Other committees
- ➤ Finalize Prioritization Process
- ➤ Begin Implementing Solutions





Contact Information & Resources

- Project Manager: Phil Gaebler, <u>pgaebler@cityofmadison.com</u>
- Public Information Officer: Hannah Mohelnitzky, hmohelnitzky@cityofmadison.com
- Project Webpage: https://www.cityofmadison.com/engineering/projects/wingra-proper-watershed-study
 - Sign-up for project email updates on the website
 - Report flooding, past or current on the Report Flooding form
 - Learn ways to protect your property from flooding with on-site fixes
- New Flooding Website: www.cityofmadison.com/flooding
- Everyday Engineering Podcast
- Instagram: @MadisonEngr
- Facebook City of Madison Engineering
- X @MadisonEngr







Zoom Breakout Rooms

- Join a Zoom Breakout Room Session
 - Window will pop up where you can select which group you'd like to join
 - If a window doesn't pop up, look for a button on the bottom that says "Breakout Rooms." Click the button and room options will appear.



Breakout Groups

- 1. Glenway Street & Gregory Street Relief Sewers
- 2. Todd Drive Relief Sewer
- 3. Lake Forest Culvert Replacement
- 4. Fish Hatchery Road Relief Sewer
- 5. Other Watershed Areas

