Welcome! We will begin shortly...

Virtual Meeting Schedule			
6:00 - 6:10	Welcome		
6:10 – 6:45	Presentation		
6:45 – 7:00	Presentation Q & A (General)		
7:00 – 7:45	Focus Group Discussions/Zoom Breakout Rooms		
7:45 – 8:00	Come Back Together/Wrap-Up		
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Wingra West Watershed Study Public Information Meeting No. 3

by City of Madison Engineering Division June 17, 2021

Please Note: 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.

- \checkmark This meeting will be <u>recorded</u> and posted to the City's project page.
- ✓ All attendees should stay be <u>muted</u> to keep background noise to a minimum.
- ✓ You may use the <u>"raise hand"</u> option at the bottom if you have something that required immediate clarification.
- ✓ Use "<u>chat</u>" option if you are having technical issues and a staff person can try to assist.
- Please use the "<u>Q&A</u>" option at the bottom of the screen to type your question. Questions will be answered at the end of the presentation. Inappropriate questions may be dismissed.
- ✓ If you cannot ask via typing your question, use the "raise hand" option and you will be unmuted when it is your turn.



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Make sure to join audio



Raise your hand to be unmuted **T** For comments or ask additional questions.

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To leave the meeting click here

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&A
 - To find the Zoom Q&A Box, hover over the edge of your screen. A toolbar will appear and you can click on "Q&A"
 - Questions answered at the end of the Presentation
- Wrap Up (Hannah Mohelnitzky, City of Madison)
- Breakout to Focus Groups (City of Madison staff)
 - A link for the Focus Groups will be posted in the Zoom Group Chat box.



Presentation Overview

- Definitions of commonly used terms
- Project location
- Watershed study schedule
- Flood mitigation goals
- Inundation mapping
- Proposed solutions development process
- Proposed solutions
 - Local storm sewer
 - Standalone projects
 - Private property
- Implementation and cost
- Why aren't all flood targets met?
- Next steps



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
- **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 West Watershed in the City of Madison.

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Project Location



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Schedule

Spring-Fall 2019 Create and Calibrate Model		Summer 2020 2nd Public Meeting*		Spring- Summer 2021 3rd Public Meeting		
	Fall 2019- Winter 2020		Spring- Winter 2021		Summer-Fall 2021	
	Identify Flood Impacts		Evaluate Solutions		Finalize Study	

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



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Flood Mitigation Targets for First Watershed Studies

- 10% Chance Event (4.09" rain/24 hours)
 - No surcharging of storm sewer onto roadway (storm sewer pipes are sized to carry storm)
- 4% Chance Event (5.01" rain/24 hours)
 - 0.2' at Centerline of Road (roads passable for emergency vehicles)
- 1% Chance Event (6.66" rain/24 hours)
 - 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 (8.81" rain/24 hours)
 - Safe conveyance of overflow



Flood Mitigation Goals for First Watershed Studies

- Not all goals may be met for all areas of the watershed
 - Problems are complex mitigating factors discussed later in the presentation
 - For the Wingra West watershed, goals were met by proposed solutions in majority of watershed



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.

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10% Chance (10-year) Existing Inundation Mapping



 15.2 miles of street do not meet 10% goal

 Locations where 10% chance goals are not met



1% Chance (100-year) Existing Inundation Mapping



 167 structures flooded in existing conditions

 Locations where 1% chance goals are not met

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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
- Met with the Alders for each district
- Meeting with you tonight



10% Chance (10-year) Proposed Inundation Mapping



 14.7 miles of additional streets now meet 10% goal

 Locations where 10% chance goals were not met in existing conditions

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1% Chance (100-year) Proposed Inundation Mapping



 136 structures now meet 1% chance storm goal (no flood impacts)

 Locations where 1% chance goals were not met in existing conditions

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Street Flooding Improvement Locations





Proposed Solutions

- Local storm sewer improvements
- Odana Hills Golf Course Detention Basin
- Odana Pond Expansion
- Orchard Ridge Valley Park Detention Basin
- UW Research Park Southeast Detention Basin
- UW Research Park Southwest Detention Basin
- Chippewa Drive Sewer
- Cherokee Drive Relief Sewer
- Waite Circle Culvert



Local Storm Sewer Improvements



- Implemented in conjunction with street reconstruction projects
- Long-term process
 - Resurfaced about every 30 years
 - Reconstructed about every 75 years

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Odana Hills Golf Course Detention Basin



Odana Pond Expansion



Orchard Ridge Valley Park Detention Basin



UW Research Park Detention Basins





Chippewa Drive & Cherokee Drive Sewer



Waite Circle Culvert





- 6'x10' box culvert installed in 2019
- Restriction plates installed to match pre-2017 capacity
- When downstream capacity improved remove restriction plates

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Estimated Costs for Proposed Improvements

Solution	Cost		
Odana Hills Golf Course Detention Basin	\$6.2 million		
Odana Pond Expansion	\$14.1 million		
Orchard Ridge Valley Park Detention Basin	\$9.3 million		
UW Research Park – Southeast Detention Basin	\$710,000		
UW Research Park – Southwest Detention Basin	\$630,000		
Chippewa Drive Sewer	\$4.6 million		
Cherokee Drive Relief Sewer	\$6.2 million		
Local Storm Sewer Improvements	To be determined with		
	street improvement projects		
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GINEER

Citywide Prioritization Tool

- City creating prioritization tool to help guide scheduling and budgeting of proposed solutions
 - Will include all flood mitigation solutions in the City (23 watersheds)
- Solutions prioritized based on:
 - Flood reduction abilities
 - Racial Equity and Social Justice
 - Ability to improve emergency service access
 - Cost/available funding sources
 - Water quality benefits
 - Co-benefits to other City facilities (streets, etc.)
- See survey to provide input on how solutions are prioritized



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
- Adverse downstream impacts
- Neighborhood resistance



Next Steps

- > Finalize Report
- Finalize Prioritization Process
- >Budget for Projects





Budgeting Considerations

- Not all projects are yet identified throughout the City
 - Currently identified approximately 44 projects in 4 watersheds (23 watersheds will be studied citywide)
 - Must choose projects carefully
- Stormwater Utility fees fund projects
 - Double digit rate increases not sustainable
 - Without additional funding sources, only 1-2 medium to large projects can be completed in a year
- Must identify additional funding mechanisms
 - Grants, appropriations, earmark funds
- Most projects take 1.5 2 years to design / permit before they can be constructed



Contact Information & Resources

- Project Manager: Phil Gaebler, Pgaebler@cityofmadison.com
- Public Information Officer: Hannah Mohelnitzky, <u>hmohelnitzky@cityofmadison.com</u>
- Project Webpage: <u>www.cityofmadison.com/WingraWestWatershed</u>
 - Prioritization Survey
 - 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
- Facebook City of Madison Engineering
- > Twitter @MadisonEngr





Project Location



Focus Groups – Zoom Breakout Rooms

- Join the Zoom Breakout Room
 Session
 - Open the Zoom Chat box (if not already open)
 - Click on Link provided in the Zoom Group Chat box
 - A message will pop-up that says "Do you want to leave this meeting?"
 - Click "Yes"
 - Join Meeting
 - City staff will meet you in the new virtual meeting room





Focus Groups

- 1. Odana Pond
- 2. Orchard Ridge Valley Park
- Chippewa Drive, Cherokee Drive, Manitou Way & Waite Circle
- Other Watershed Areas



