



Near West Watershed Study Solutions

City of Madison Engineering Division
Board of Public Works Meeting
October 29, 2025

[Link to Final Report](https://www.cityofmadison.com/engineering/projects/near-west-watershed-study)

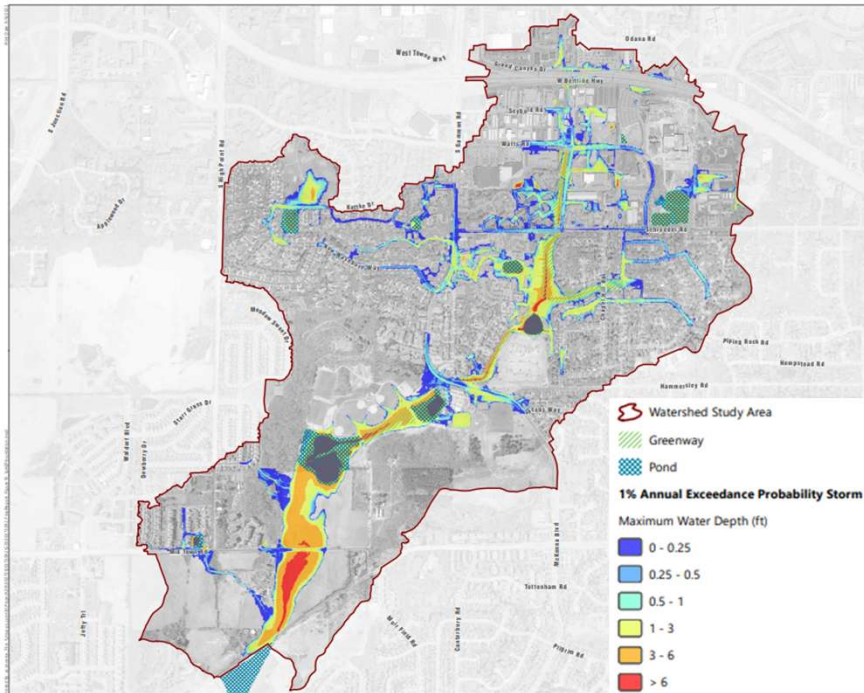
(Or can be found on the project webpage:

[https://www.cityofmadison.com/engineering/
projects/near-west-watershed-study](https://www.cityofmadison.com/engineering/projects/near-west-watershed-study))

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Watershed Study Program



Maps and completed studies are available at:

<https://www.cityofmadison.com/flooding/city-initiatives/watershed-studies>

Interactive Citywide Flood Risk Map available at:

<https://www.cityofmadison.com/flooding/understanding-flooding/watershed-study-flood-risk-map>

- Citywide –22 watersheds
- Detailed modeling of stormwater management system
- Identify areas at risk of flooding and understand causes
- Develop solutions
- Outcomes
 - System Models
 - Citywide Flash Flood Risk Maps
 - Flood mitigation project list

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Watershed Study Program Progress

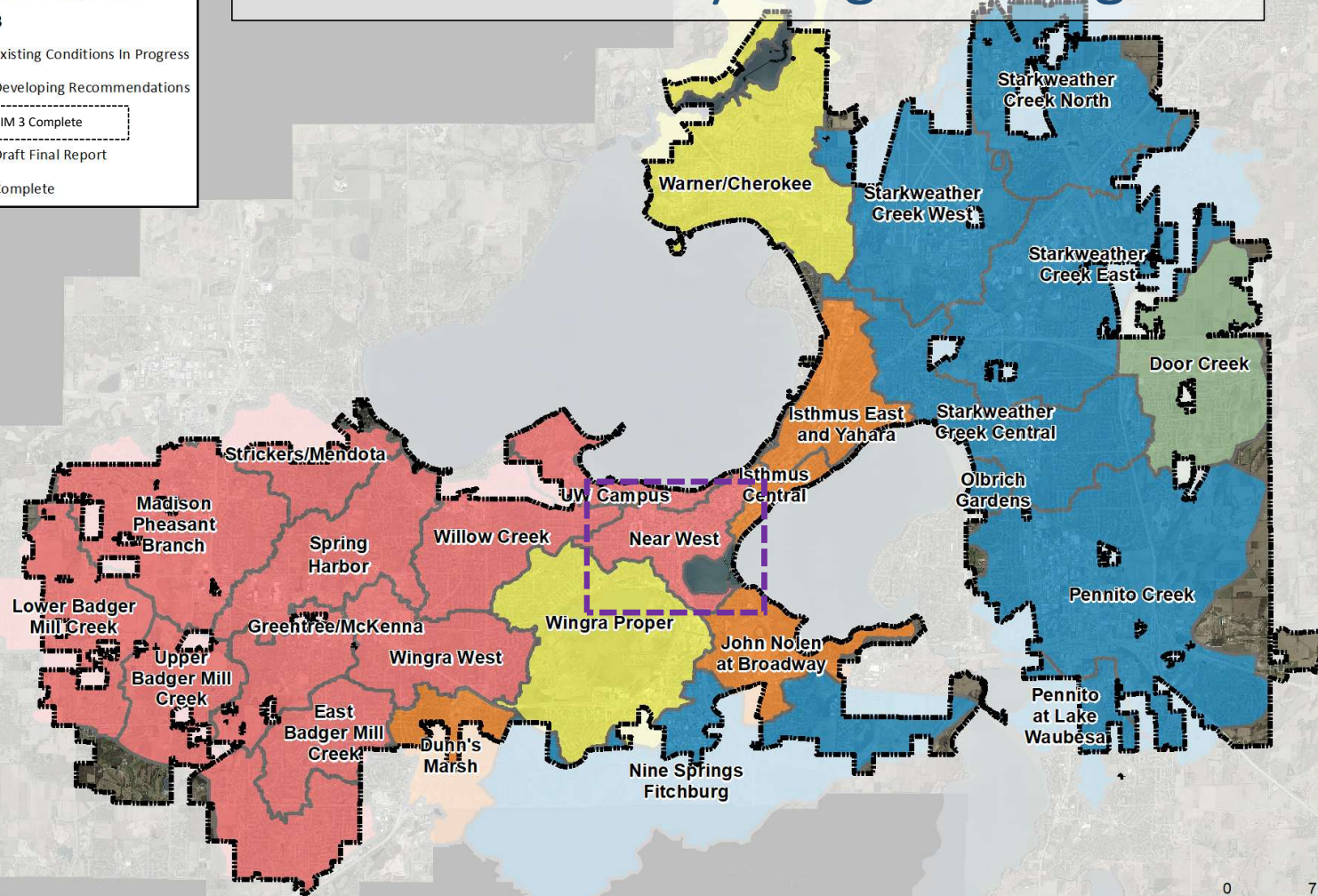


Municipal Limits

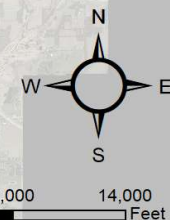
Watershed Study Status

2025_Q3

- Existing Conditions In Progress
- Developing Recommendations
- PIM 3 Complete
- Draft Final Report
- Complete



Date: 9/29/2025



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Schedule

Winter 2022
– Summer
2023

*Create and
Calibrate
Model*

Summer/
Fall 2023

*Identify
Flood
Impacts*

Fall 2023
*2nd Public
Meeting**

Spring 2024 –
Fall 2024

*Evaluate
Solutions*

Consultant also completed
UW-Madison Campus
stormwater modeling
funded by the University

Spring 2025
*3rd Public
Meeting**

Summer
2025

*Finalize
Study*

**Presentations from all three PIM's can be found on the Watershed Study Website*

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Near West Watershed Study Milestones

- PIM 1: 10/24/22
- PIM 2: 10/25/23
- Public Works Improvements: 2/6/25
- Informational to BPC: 3/12/25
- PIM 3: 3/18/25
- Report Final Draft Finished: 6/3/25
- Report Public Comment Period: 6/25/25 – 7/28/25
- BPC: 10/8/25
- BPW: 10/29/25
- FINAL REPORT:

[https://www.cityofmadison.com/engineering/documents/projects/Near West Watershed Study Report for Public Comment_20250603.pdf](https://www.cityofmadison.com/engineering/documents/projects/Near_West_Watershed_Study_Report_for_Public_Comment_20250603.pdf)

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Watershed Study Performance Targets

- 10% Event (*4.09" rain/24 hours*).
 - No surcharging of storm sewer onto roadway (storm sewer pipes are sized to carry storm)
- 4% Event (*5.01" rain/24 hours*)
 - Roads passable for emergency vehicles
- 1% Event (*6.66" rain/24 hours*)
 - No structure (home/building) flooding
 - No greenway crossing overflow
 - Safe overflow from enclosed depressions
- 0.2% Chance Event (*8.81" rain/24 hours*)
 - Safe conveyance of overflow



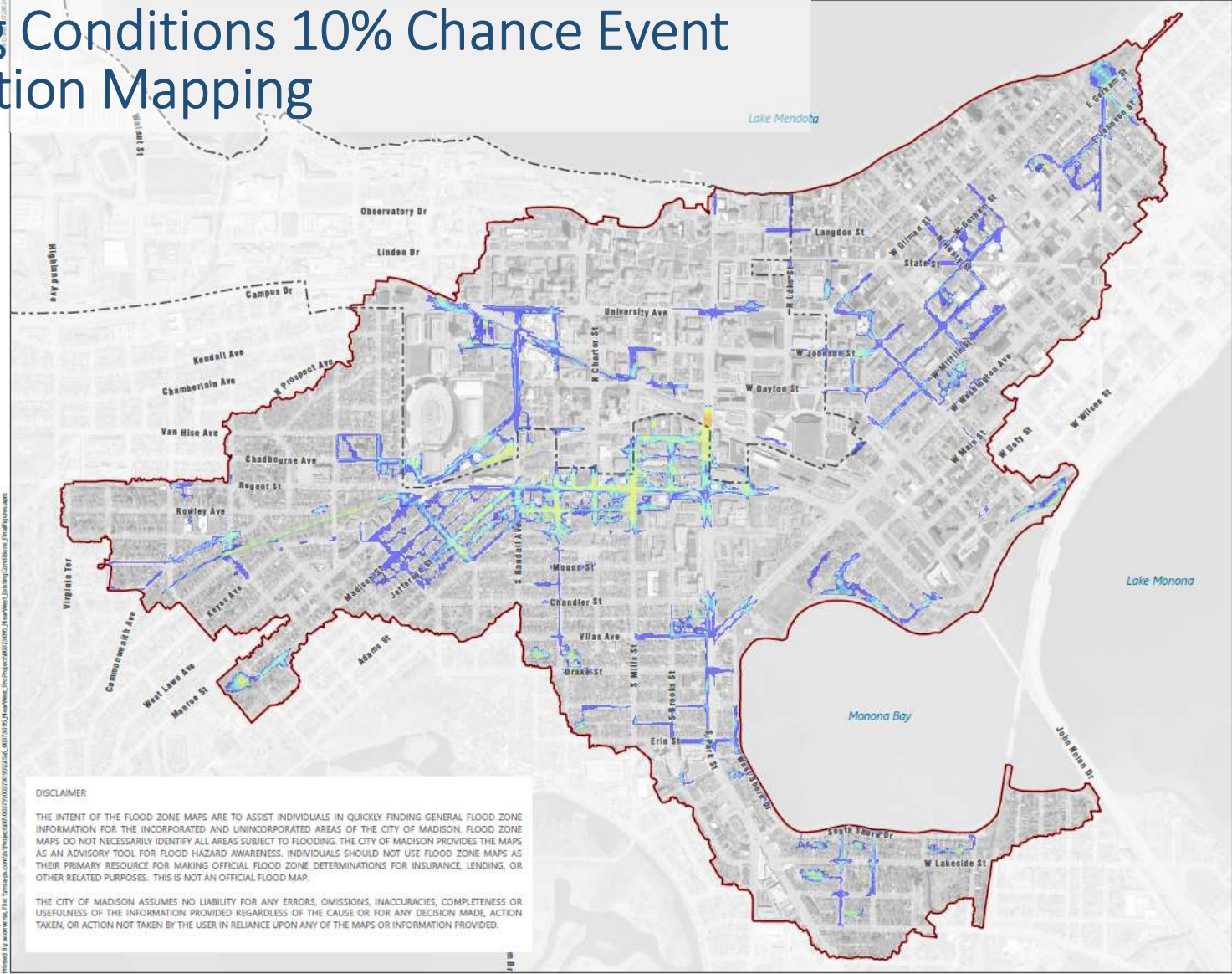
Tenney Park, Madison, WI

Existing Conditions 10% Chance Event Inundation Mapping

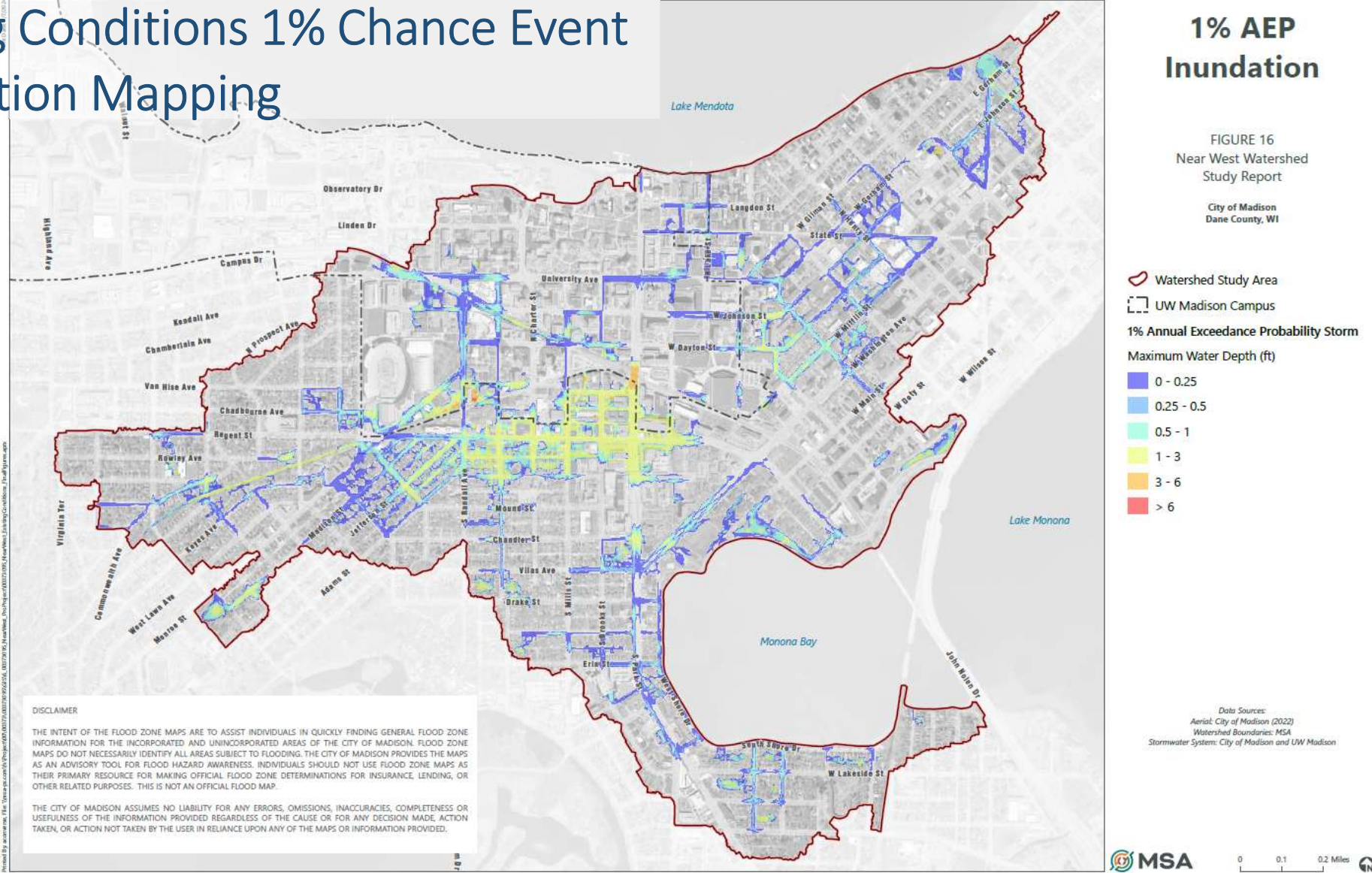
10% AEP Inundation

FIGURE 13
Near West Watershed
Study Report

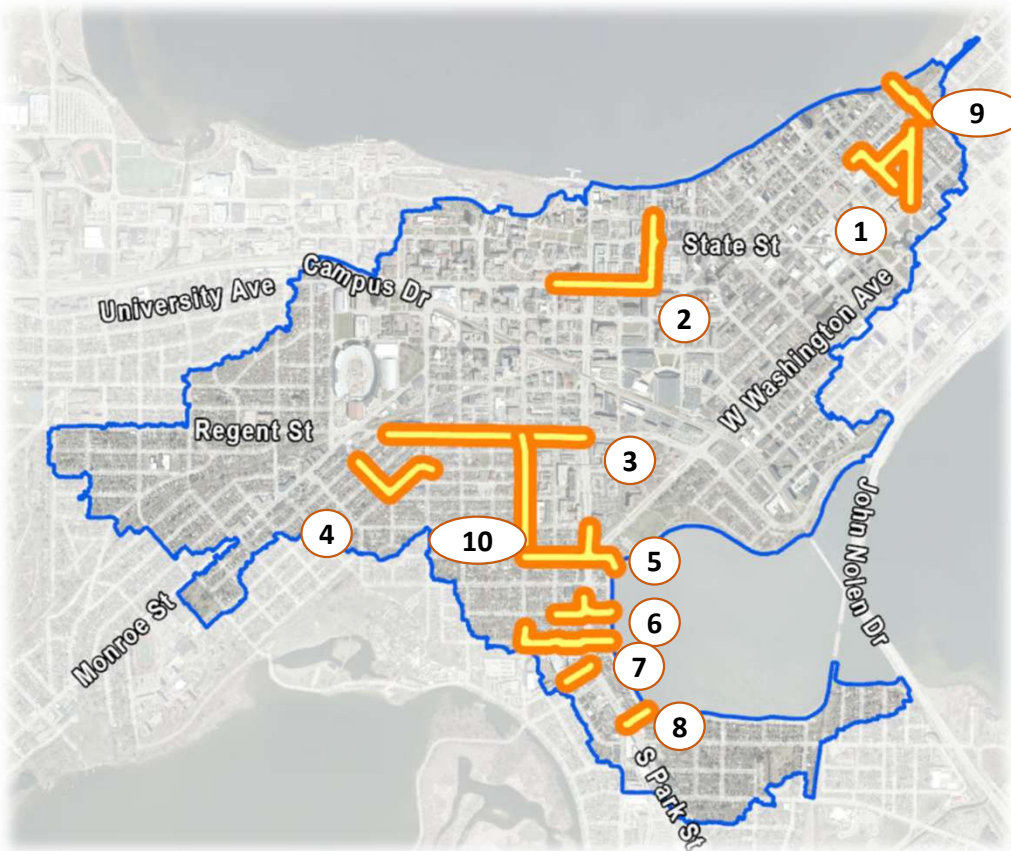
City of Madison
Dane County, WI



Existing Conditions 1% Chance Event Inundation Mapping



Proposed Solutions



Local Sewer Projects

1. E Johnson St/N Pickney St/N Hamilton St/Gorham St
2. University Ave/Lake St
3. Regent St*
4. Oakland Ave/Adams St/Milton St
5. Vilas Ave/S Park St*
6. Emerald St/S Park St
7. Erin St/Delaplaine Ct
8. Parr St

Stand-alone Projects

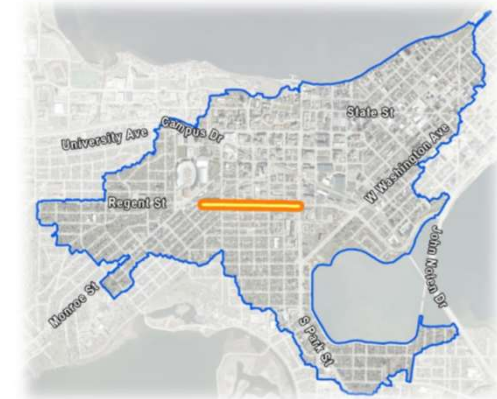
9. Hancock St and outfall in James Madison Park *
10. S Mills St Relief Sewer*

Results

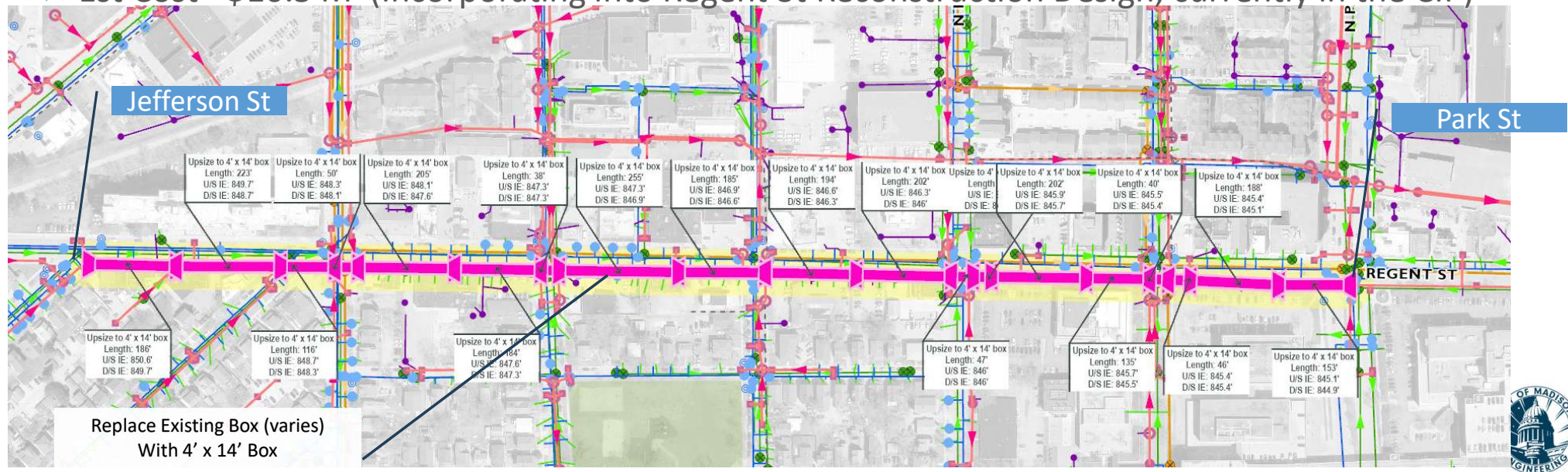
- **10% Chance Storm Event – Target: Eliminate storm sewer surcharge**
 - Existing: 268 of 464 stormwater structures (58%) do not meet the target
 - Proposed: 233 of 464 stormwater structures (50%) not meet the target
- **4% Chance Storm Event – Target: Maintain drivability of city streets**
 - Existing: 4.2 of 49.9 street miles (8.4%) do not meet the target
 - Proposed: 2.9 of 49.9 street miles (5.8%) do not meet the target
- **1% Chance Storm Event – Target: No structure flooding**
 - Existing: 319 of 4,678 buildings do not meet the target
 - Proposed: 235 of 4,678 buildings do not meet the target
- **1% Chance Storm Event – Target: Pass flow through greenway crossings**
 - No Greenway Crossings in Watershed

3. Regent St Sewer Upgrades

- ▶ **Goal: Increase LOS on Regent St and in adjacent neighborhoods**
- ▶ In conjunction with the Mills Relief Sewer:
 - 1.26 miles more of passable street for emergency vehicles in the 4% chance event.
 - Removes 74 buildings from flooding during the 1% chance event
- ▶ By itself
 - Jefferson & Bowen Ct/Orchard St:
 - Regent St: ~5-yr -> ~10-yr LOS

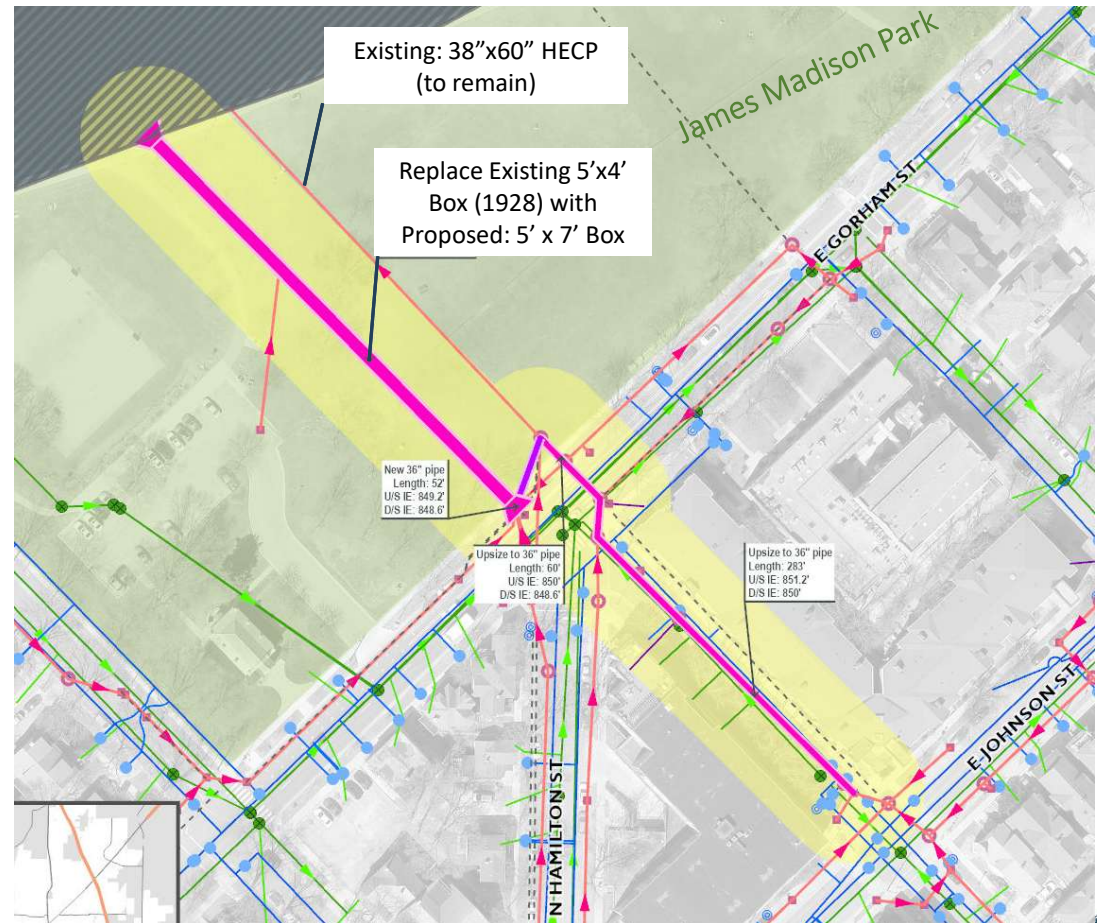


- ▶ **Est Cost - \$10.5 M (Incorporating into Regent St Reconstruction Design, currently in the CIP)**



9. Hancock St and outfall in James Madison Park

- ▶ **Goal: Reduce flooding on Gorham and provide capacity for additional later upstream projects (Johnson and Hancock)**
- ▶ Increases passability of 90 ft of roadway on E Gorham for 4% chance event
- ▶ Removes six building from flooding in 1% chance event (along w/upstream projects).
- ▶ Design will need to coordinate with Parks and fit within James Madison Park Master Plan
- ▶ Est. Cost - \$1.43M

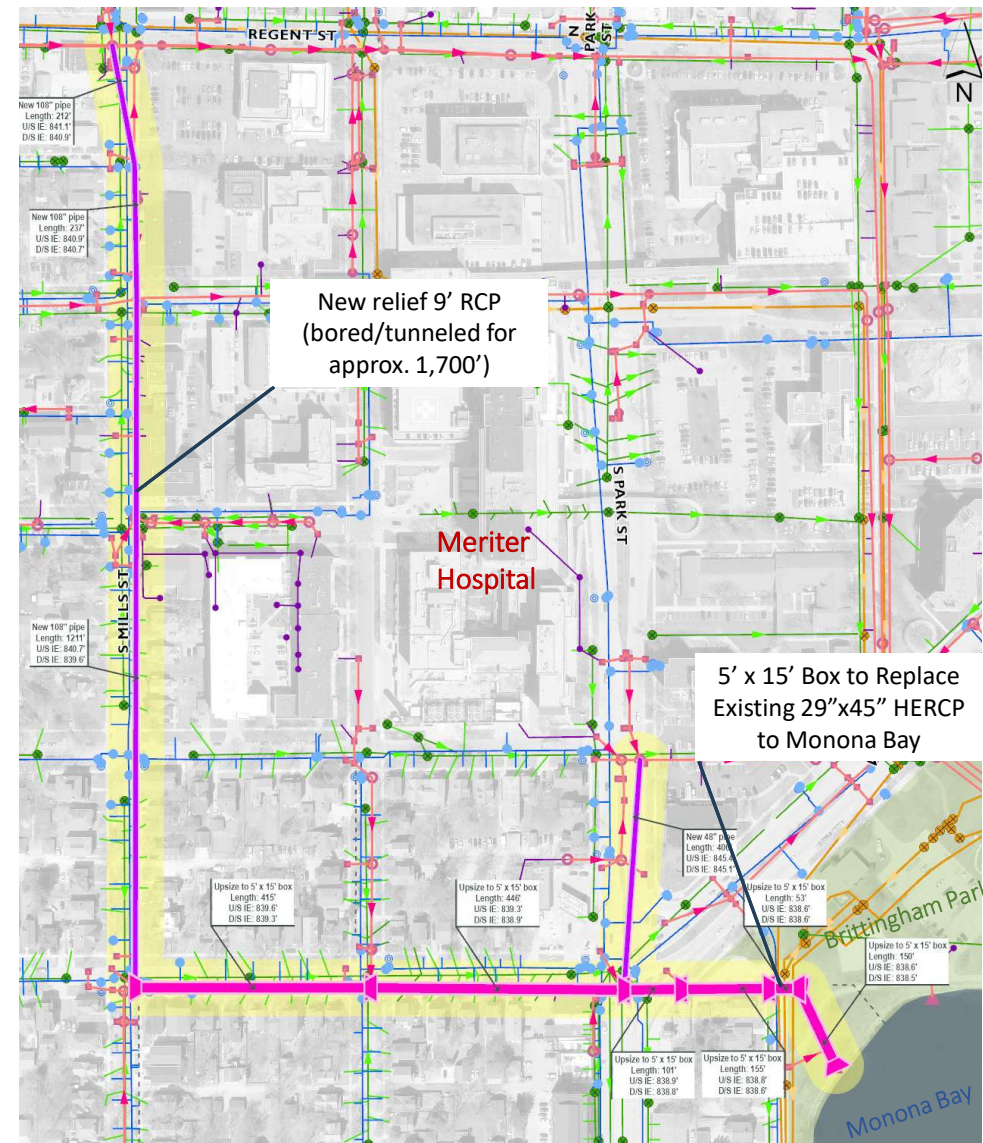


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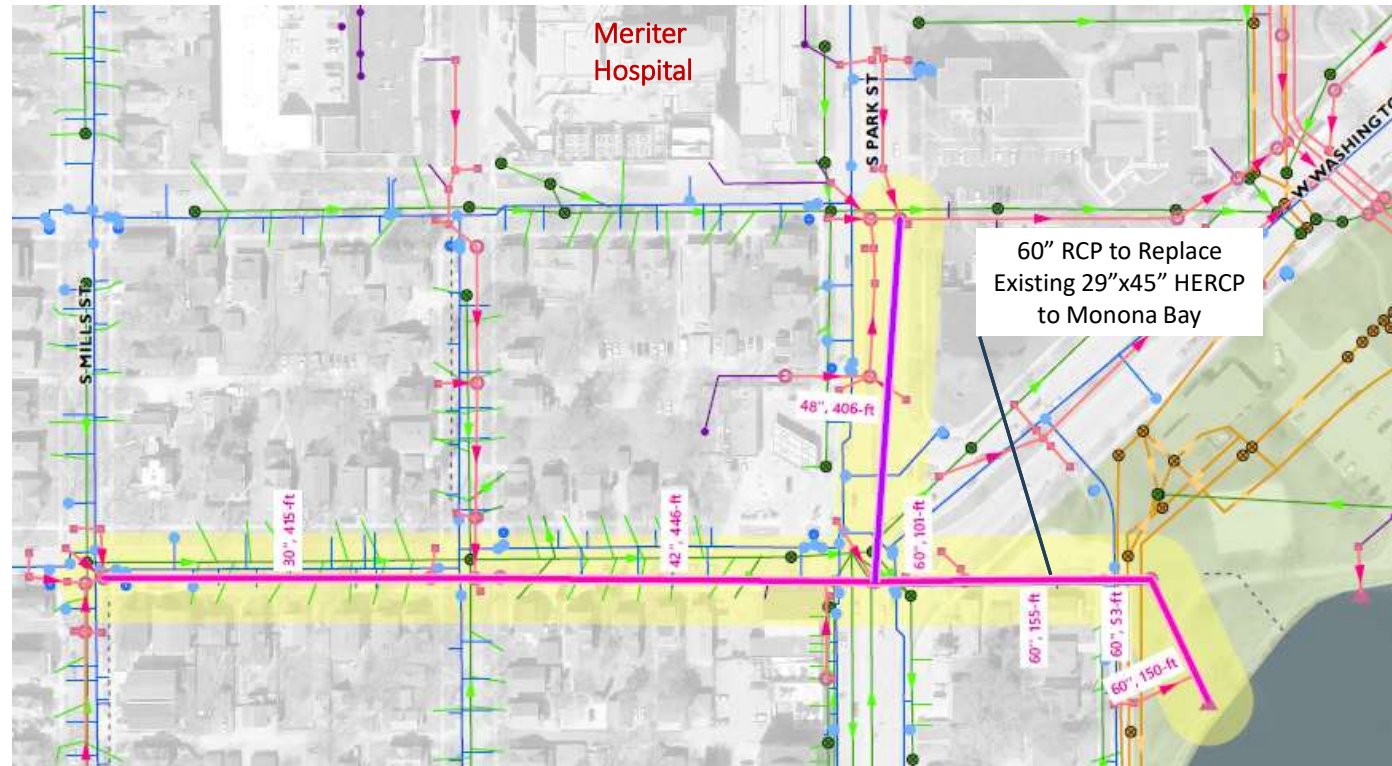
10. S Mills St Relief Sewer

- ▶ **Goal: Improve LOS on Regent St and provide up to 1% LOS on Park St at West Washington and Chandler St**
- ▶ Provide a secondary outlet for the Regent St enclosed depression
- ▶ Improves passability of 1.26 miles of street during 4% chance event.
- ▶ Removes 74 buildings from flooding during the 1% chance event
- ▶ Very significant construction effort (max depth >25', large box culvert, coordination with MMSD, other utility coordination)
- ▶ Est. Cost - \$32.2M

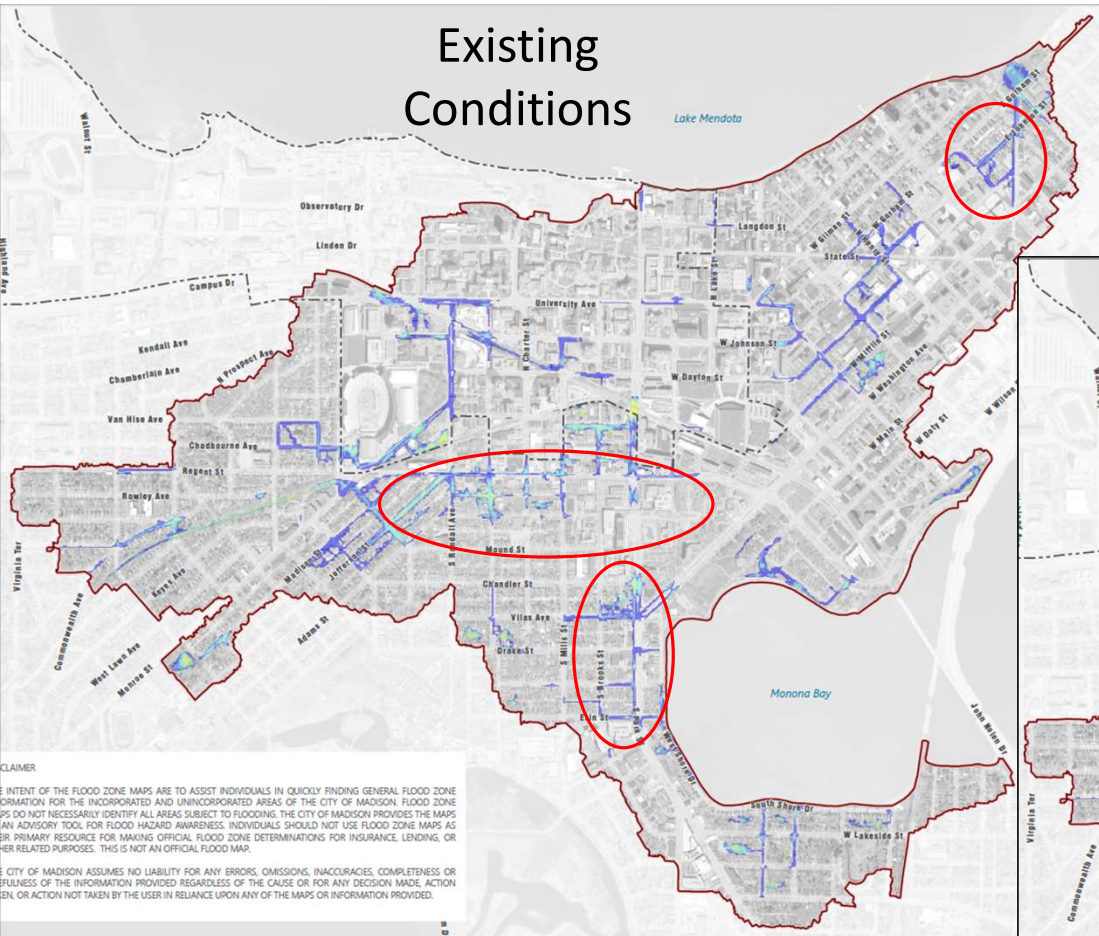


5. Vilas Ave/Park St Storm Sewer Upgrade

- ▶ **Goal: Reduce flooding at Park and West Washington and Chandler**
- ▶ Alternate Plan if the S Mills St Relief Sewer does not move forward.
- ▶ Eliminates flooding on Park St in the area Chandler and Vilas up to the 1% chance event.
- ▶ Est. Cost - \$0.72M



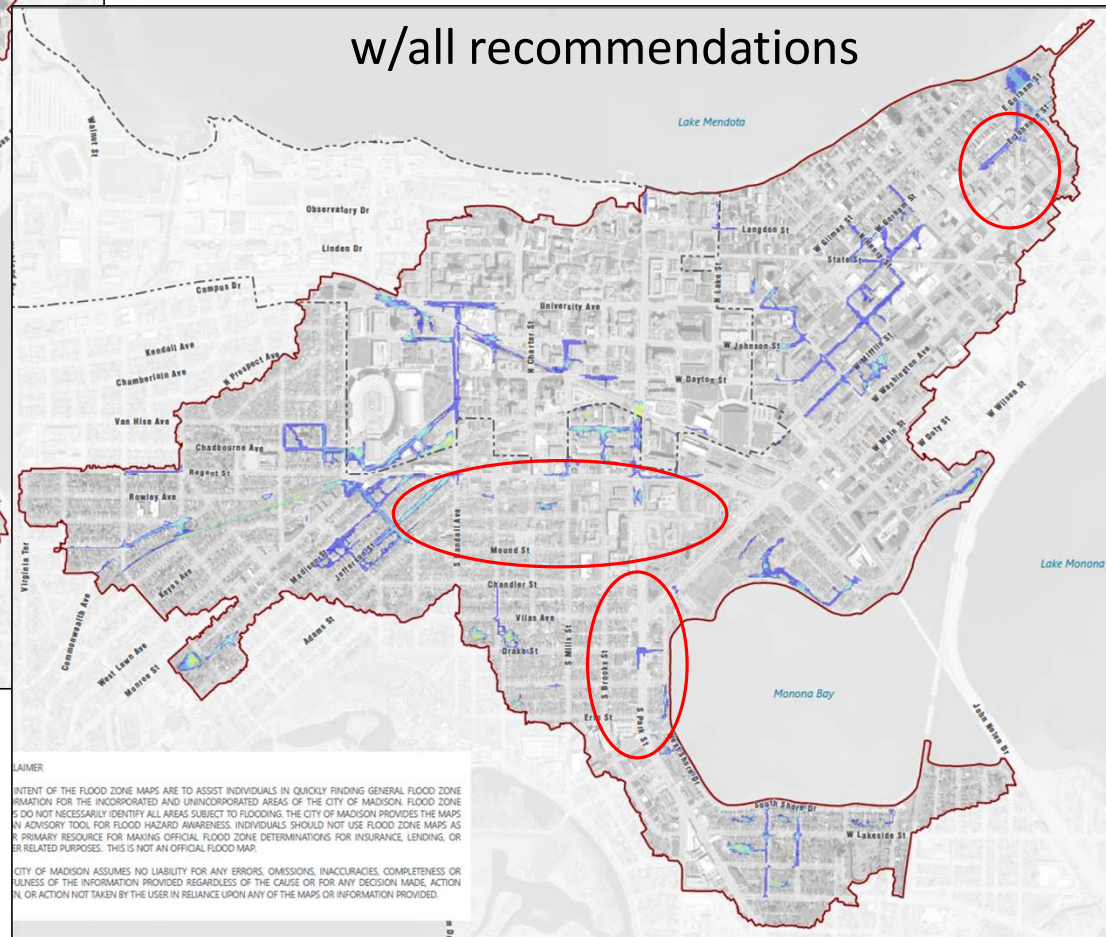
Existing Conditions



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20% Chance Storm

w/all recommendations



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Estimated Project Costs Near West Watershed

Sewer Project Area	Estimated Costs	Notes
E Johnson St/N Pickney St/N Hamilton St/Gorham St	\$0.74M	Sewer improvement costs only
University Ave/Lake St Storm System Improvements	\$1.56M	Sewer improvement costs only
Regent Street Upgrades	\$10.5M	Sewer improvement costs only
Oakland Ave/Adams St/Milton St	\$2.92M	Sewer improvement costs only
Vilas Ave/S Park St	\$0.72M	Sewer improvement costs only
Emerald St/S Park St	\$0.35M	Sewer improvement costs only
Erin St / Park St / Delaplaine Ct	\$6.52M	Sewer improvement costs only
Parr Ct	\$0.17M	Sewer improvement costs only
Mills Street Relief Sewer	\$32.27M	Includes anticipated street reconstruction and utility relocation
Hancock St / Gorham St	\$1.43M	Includes anticipated street reconstruction costs
<i>All projects include a 25% contingency and 10% design costs on top of the base cost estimate</i>		

Approx. \$57.2 million total

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Public Outreach

69,934 points of outreach or interactions for the
Near West Watershed Study



Public Meetings
3 meetings, approx. 75 participants



Postcards Sent
66,948



Project Website
1,422+ views



Email List
64 residents



Virtual Focus Groups
7 groups, 14 participants



Social Media
3 related project posts

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Questions

