

Annual Erosion/Pond Cleaning/Outlet Improvement Project Storm-20-001

December 1, 2020
City Council Meeting



SHAKOPEE | MN

COMMUNITY PRIDE SINCE 1857

City of Shakopee | 485 Gorman St., Shakopee MN 55379 | 952-233-9300 | www.ShakopeeMN.gov

Description

The 2020 project includes multiple improvements to address erosion and pond maintenance issues as follows:

1. Outlet safety improvement for ongoing maintenance needs at the Upper Valley Drainage Ditch crossing at 4th Avenue East.
2. Outlet modification of the stormwater basin east of Wakefield Circle.
3. Outlet modification of the stormwater basin northwest of the intersection of Windsor Lane and Hartley Boulevard South.
4. Outlet modification of the Prior Lake Outlet Channel culvert crossing at the Strauss residence driveway.
5. Replacement of the outlet to the stormwater basin southeast of Peace Circle.
6. Significant erosion of a drainage channel adjacent to Mystic Lake Drive South, south of Valley View Road East.
7. Construct outlet for Quarry Lake, trail replacement, pier replacement, and erosion repairs in the northeast corner and northwest corner of lake.



PROJECT LOCATION



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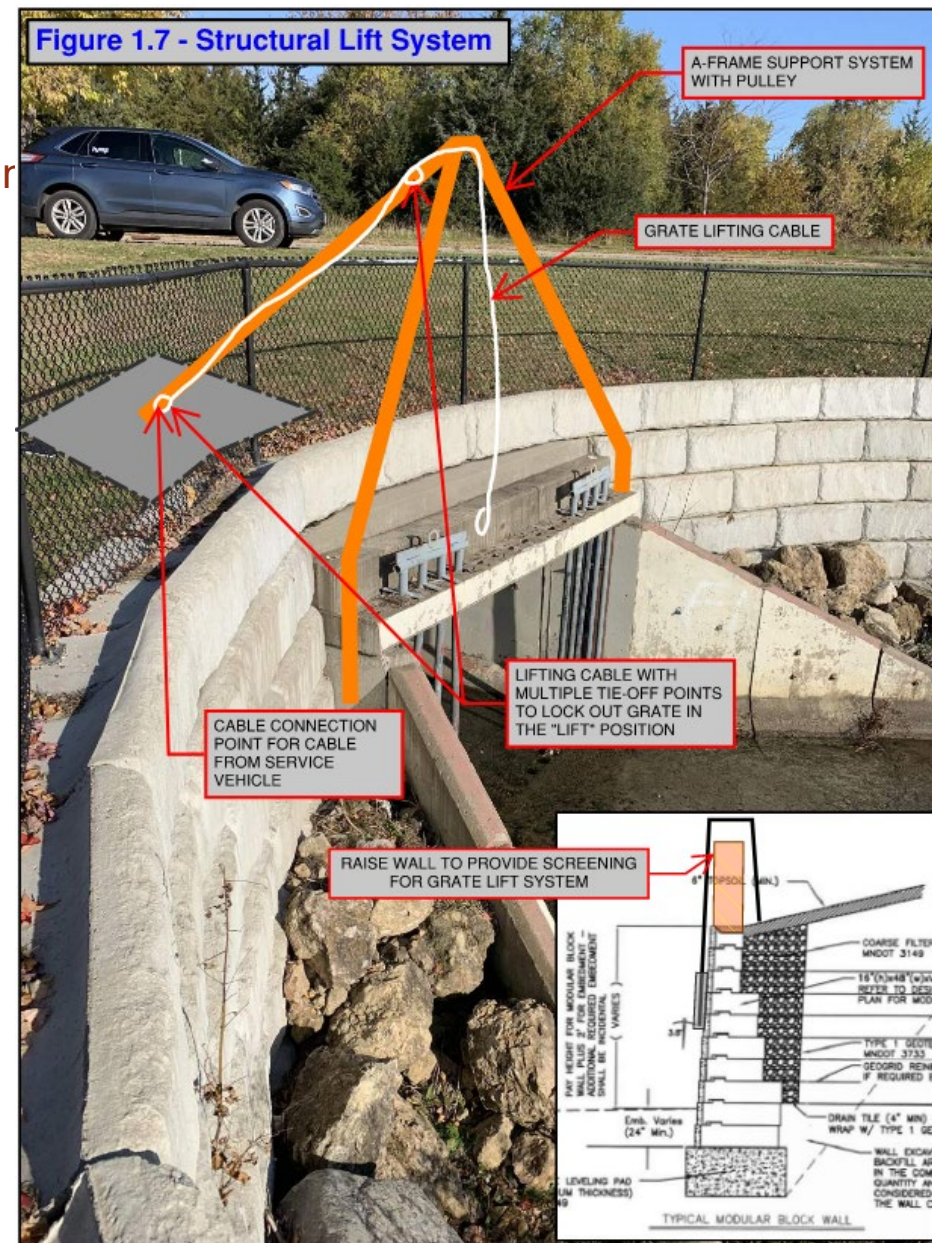
Project 1 – Safety Improvement at 4th Ave and Upper Valley Drainage Ditch



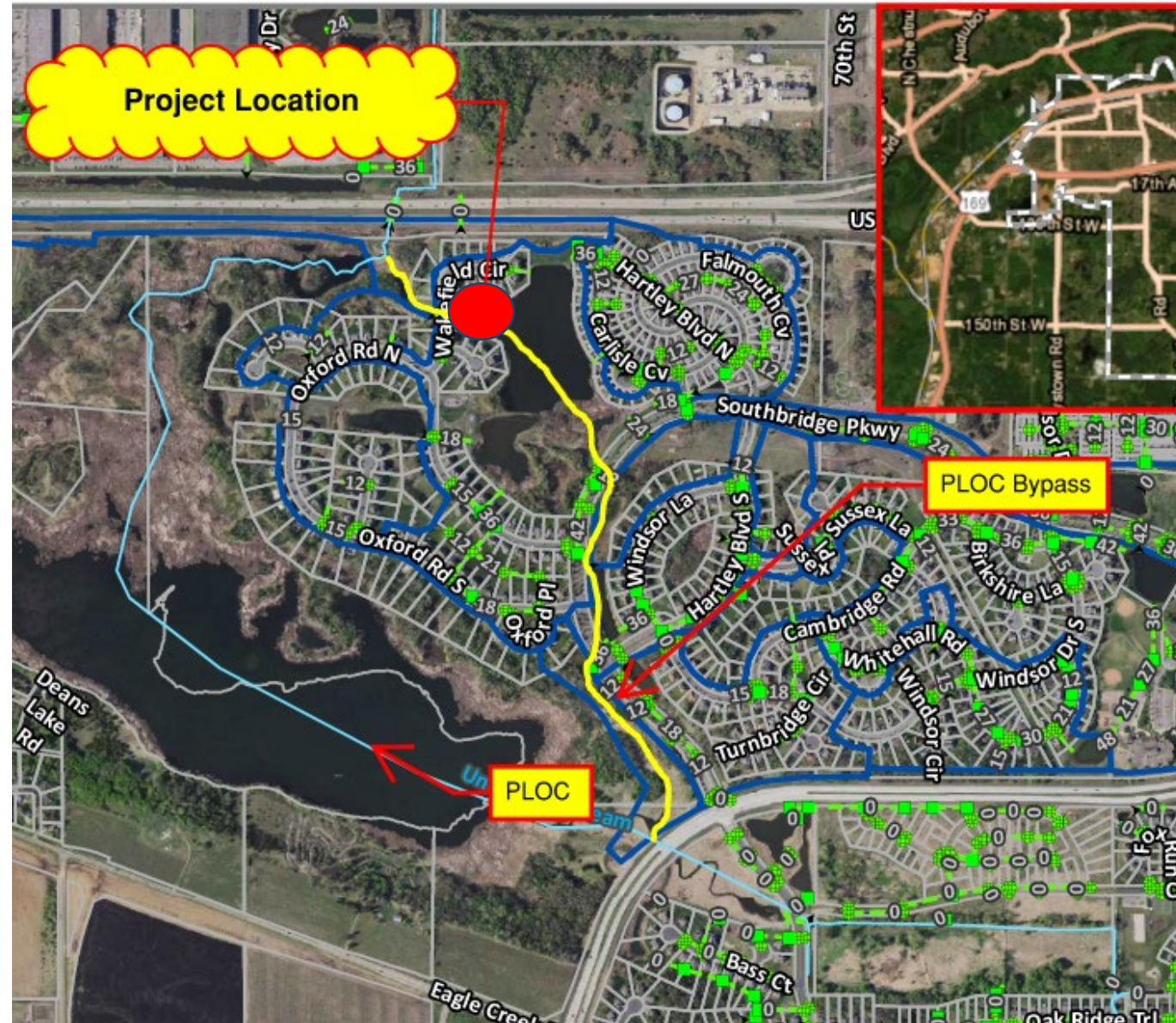
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Project 1 – Safety Improvement at 4th Ave and Upper Valley Drainage Ditch

- **Issue**
 - Debris builds up on grates and grates need to be removed so flooding doesn't occur. Removal when water is flowing has safety concerns.
- **Goal**
 - Improve the process to remove the grates so it is safer for city staff.
- **Improvement (Total cost estimate \$135,000)**
 - Structural lift system.
 - Employee and vehicle access is improved. Permanent lift operation addresses employee risk concern



Project 2 – Outlet Modification near Wakefield Circle



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Project 2 – Outlet Modification near Wakefield Circle

- Issue

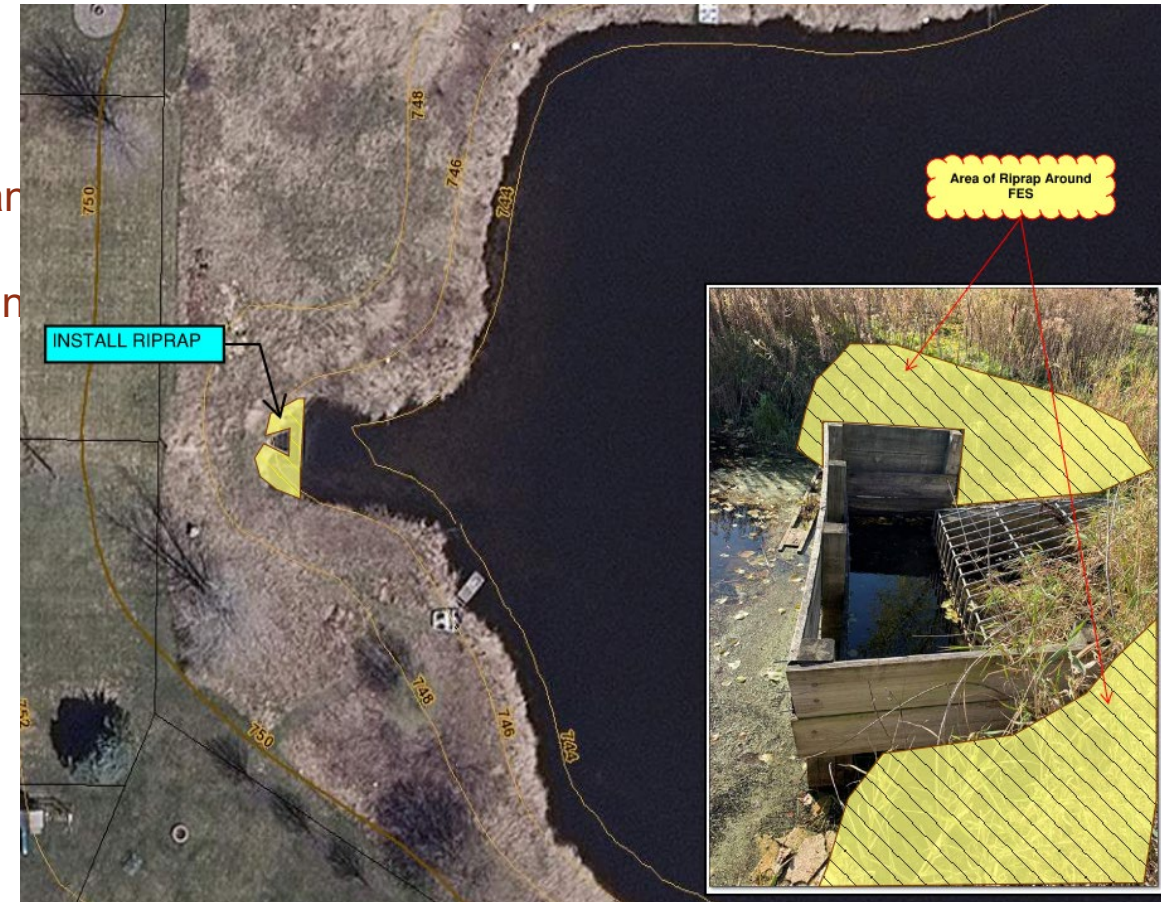
- Erosion occurring at outlet and debris buildup on outlet pipe is maintenance and flooding concern.
- Requires frequent maintenance by public works.

- Goals

- Restore skimming at pond outlet to reduce maintenance and flood potential
- Improve bank stability to reduce sediment deposition around outlet

- Improvement (Total cost estimate \$10,000)

- Install riprap around outlet to stabilize erosion and restore function of skimmer weir structure.
- This will be completed by public works



Project 3 – Outlet Modification near Windsor Lane



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Project 3 – Outlet Modification near Windsor Lane

- Issue

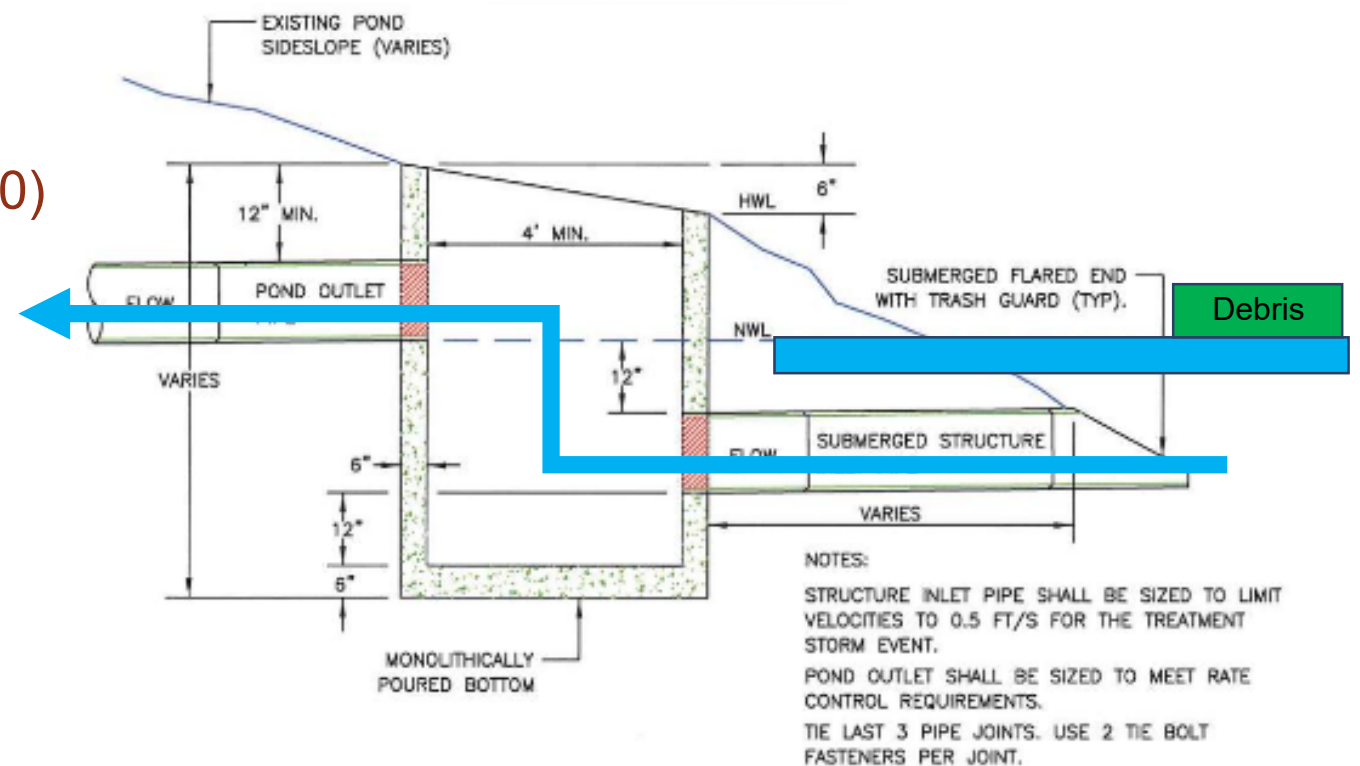
- Debris buildup on outlet pipe is maintenance and flooding concern.
- Requires frequent maintenance by public works.

- Goals

- Reduce debris buildup at the outlet pipe and maintain the outlet discharge capacity

- Improvement (Total cost estimate \$50,000)

- Outlet modification to provide skimming at pond outlet

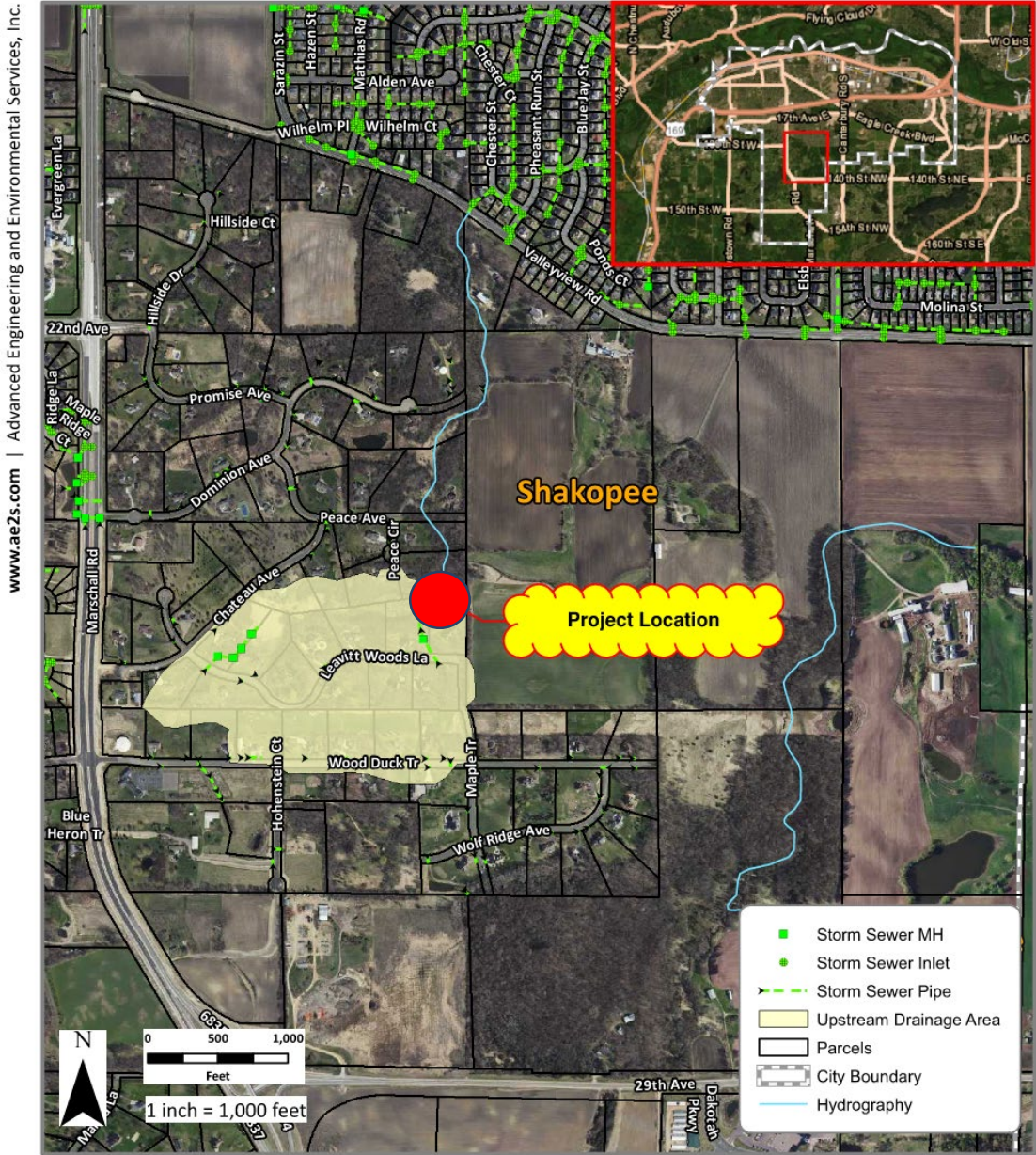


Project 4 – Outlet modification of PLOC culvert Crossing

- This project is no longer needed.
- SMSC purchase the land and plan to remove the culvert.

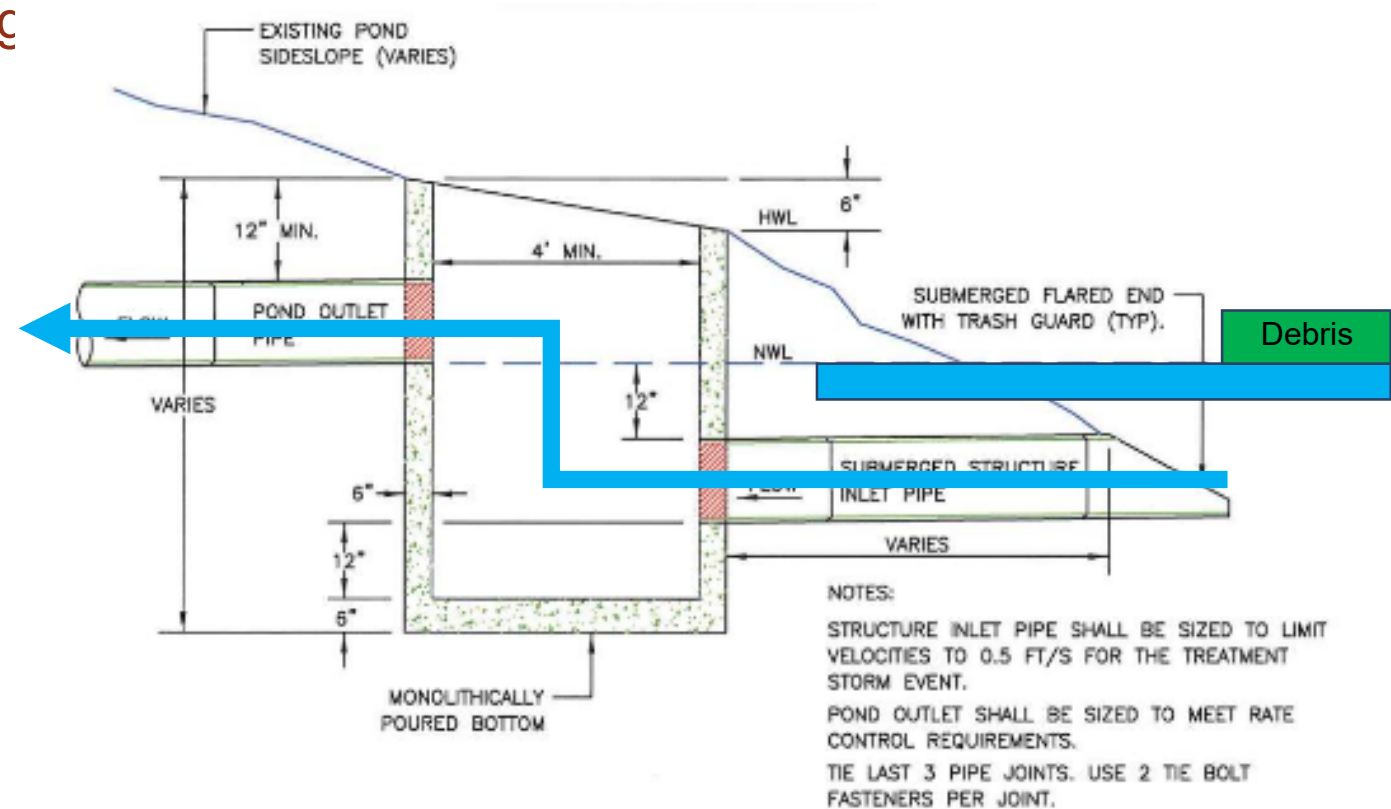


Project 5 – Replacement of outlet near Peace Circle



Project 5 – Replacement of outlet near Peace Circle

- Issue
 - Outlet is failing and erosion is occurring
- Goal
 - mitigate erosion and provide long term stability of the outlet.
- Improvement (Total cost estimate \$50,000)
 - Replace outlet structure and restore/stabilize erosion

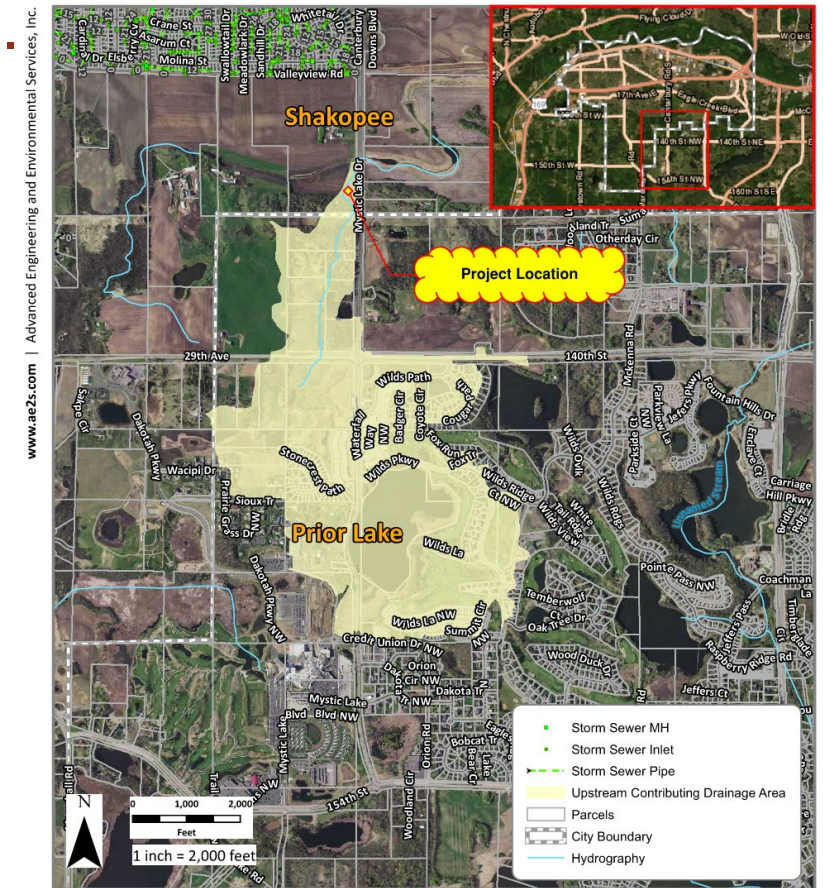


Project 6 – Erosion adjacent to Mystic Lake Drive South

- Project is not ready for design and construction.
- Project area located in Shakopee, however majority of runoff from City of Prior Lake, SMSC and County. Issue located on private property not within easement.
- Continuing to monitor and work with stakeholders.
- Estimate cost range \$90,000-\$200,000



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Project 7 – Quarry Lake Outlet Project

- Water level management plan/feasibility completed by WSB
- WSB hired for professional services to complete final design, bidding and construction
- WSB completing a shoreline erosion evaluation
- Total cost estimate \$450,000



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Next Steps

- Projects 1, 3, 5 Hire AE2S to complete design, and assist with bidding and construction
- Project 2- Public works to complete improvement
- Project 4- No longer needed
- Project 6– Continue to work with project stakeholders.
- Project 7– On separate schedule. In design with WSB.
- Budget Update (Projects-7)
 - CIP total cost estimate \$950,000
 - Updated cost range \$785,000 to \$895,000

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Questions?



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