Huntingdon Pond Neighborhood Meeting

February 27, 2020

CITY OF MINNETONKA

Why are we here?

- The city received a resident request for a permanent solution to high water levels on Huntingdon Pond
- The city has identified potential outlet locations
- This meeting is to discuss potential options for a permanent outlet to Huntingdon Pond and receive resident feedback on the proposals
- Staff will make recommendation to city council

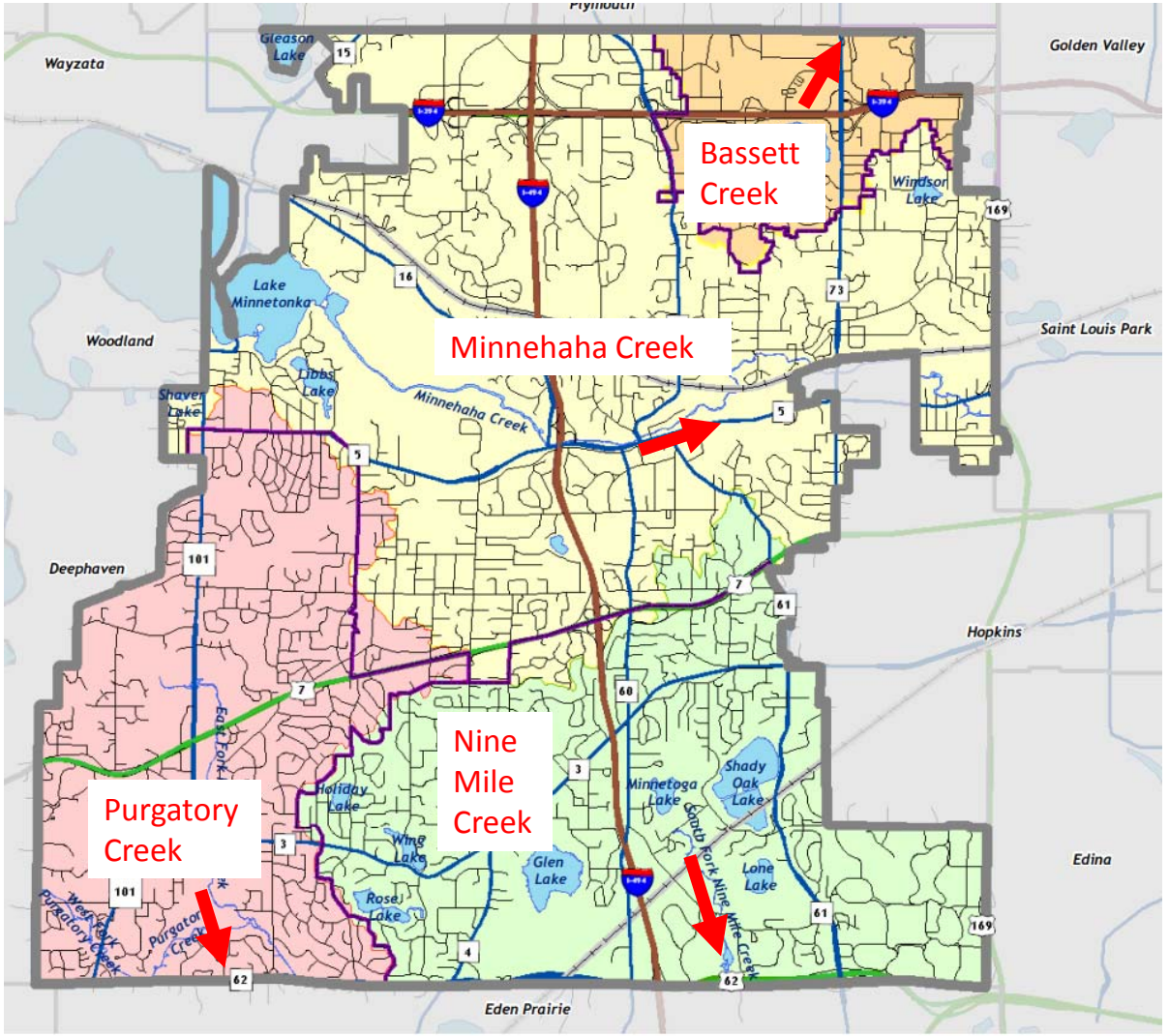
Huntingdon Pond

1. City History of Regulations
2. Huntingdon Pond Background
3. Options and Impacts
4. Next Steps

Watershed Districts

Watersheds

- Bassett Creek
- Minnehaha Creek
- Nine Mile Creek
- Riley-Purgatory-Bluff Creek
- WMO Jurisdictional Boundaries



History of Regulations

- 1956: Minnetonka incorporated into a village
- 1959: 1st iteration of a Water Resources Plan
- 1968: Minnetonka officially became a city
- 1974: Wetland Regulations, Floodplain
- 1982: WRMP (1st Generation) 1999: WRMP update (2nd Generation)
- 2008: WRMP update (3rd Generation)
- 2018: WRMP update (4th Generation)

WRMP Goals & Objectives

- Manage the city's water resources
- Work with watershed partners to manage flooding risk
- Prepare further for changes in climate
- Protect and restore wetlands
- Educational efforts
- Manage the rate and volume of runoff
- Protect groundwater quality/quantity
- Prevent sediment from entering water resources

2018 WRMP

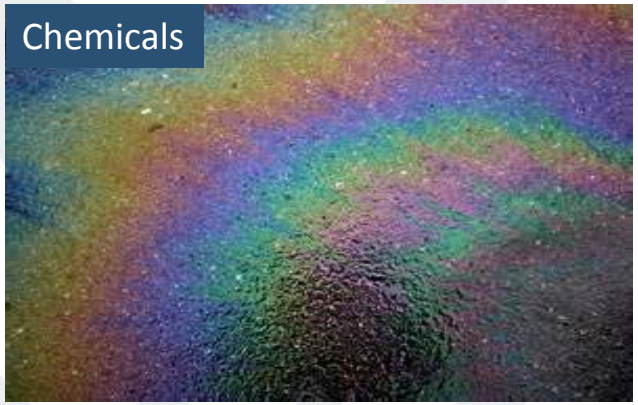
Quality vs Quantity

Water Quality: the condition of the water, physically, chemically and biologically

Nutrients

Sediment

Chemicals



Pet Waste

Salt

Trash

Quality vs Quantity

Water Quantity: The amount or volume of water

- Flooding vs Drought
- High water can impact trees and vegetation
- Low water could negatively impact the biological habitat

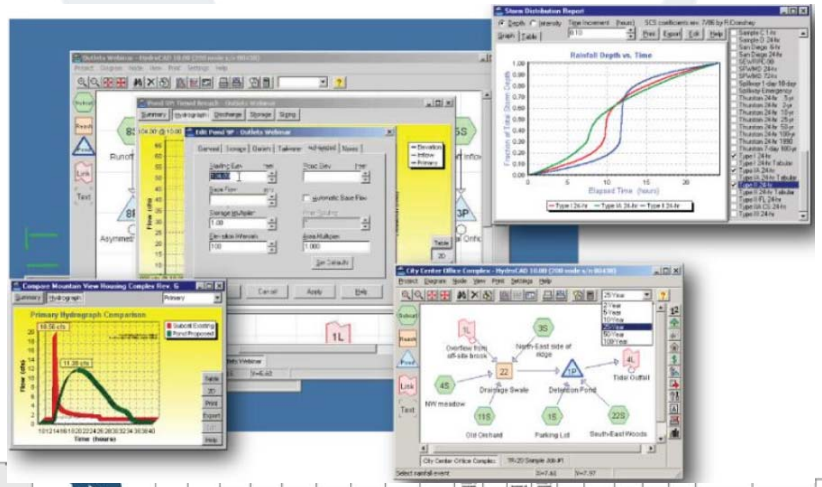
Habitat

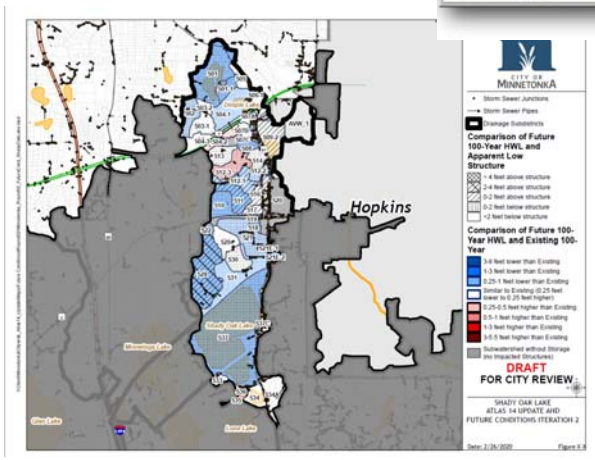
Flood Storage

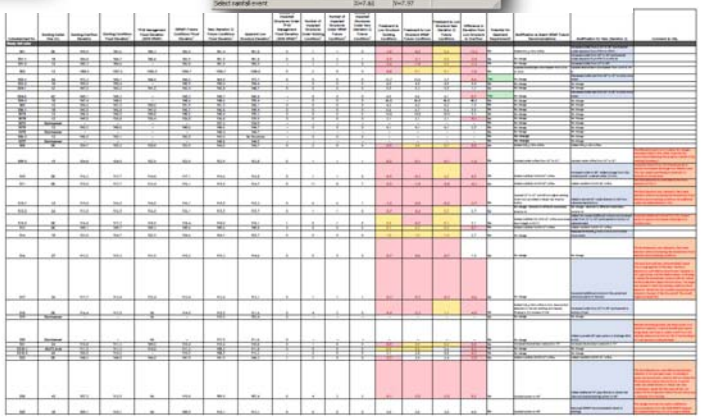
Recreation

Addressing Landlocked Basins

- City goal to install outlets to landlocked basins (WRMP)
- Careful analysis is needed to understand downstream flooding issues
- Solve one issue, create another
- Often changes cannot be made until downstream pipes are added or new ponds are created



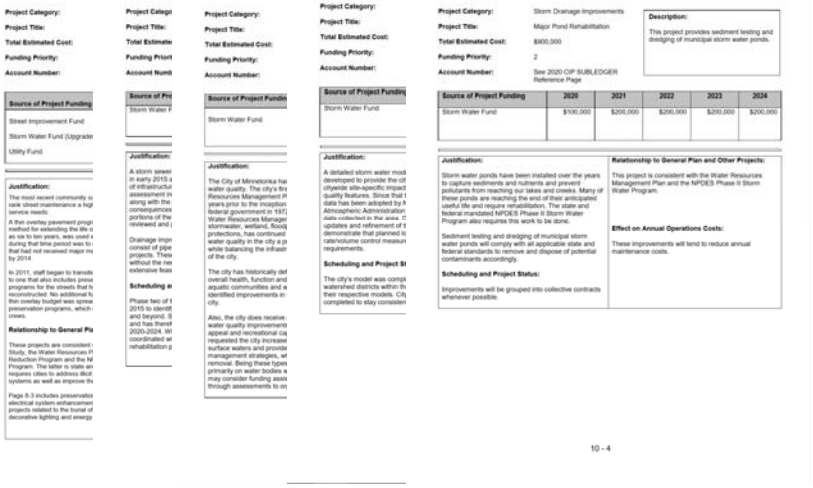


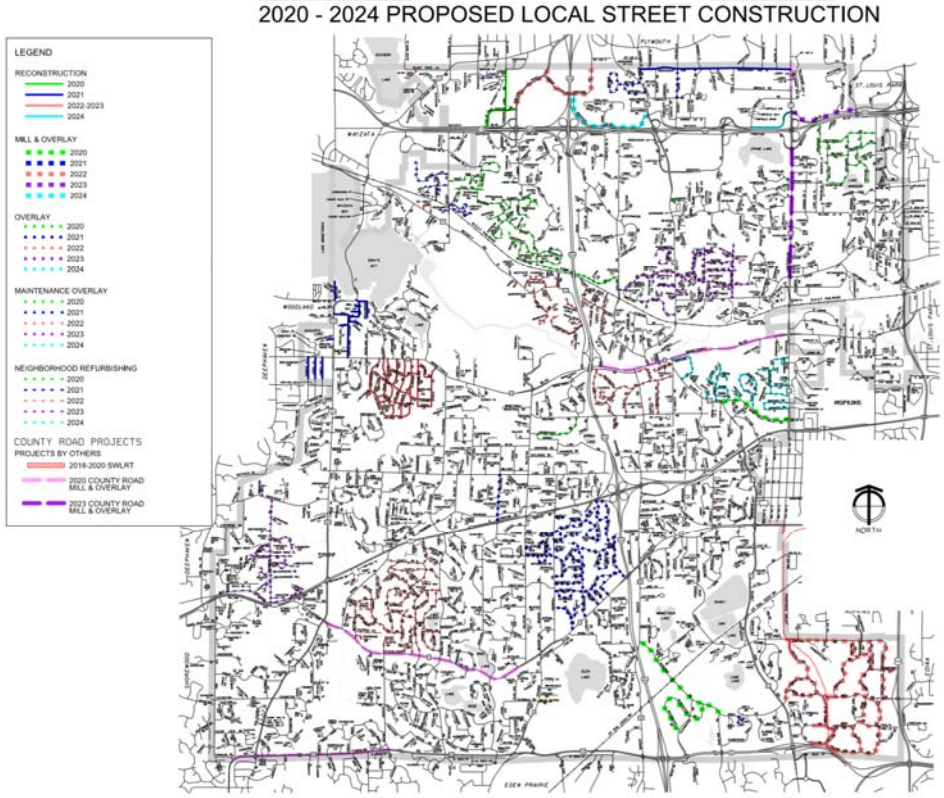


Typical Process of a Construction Project

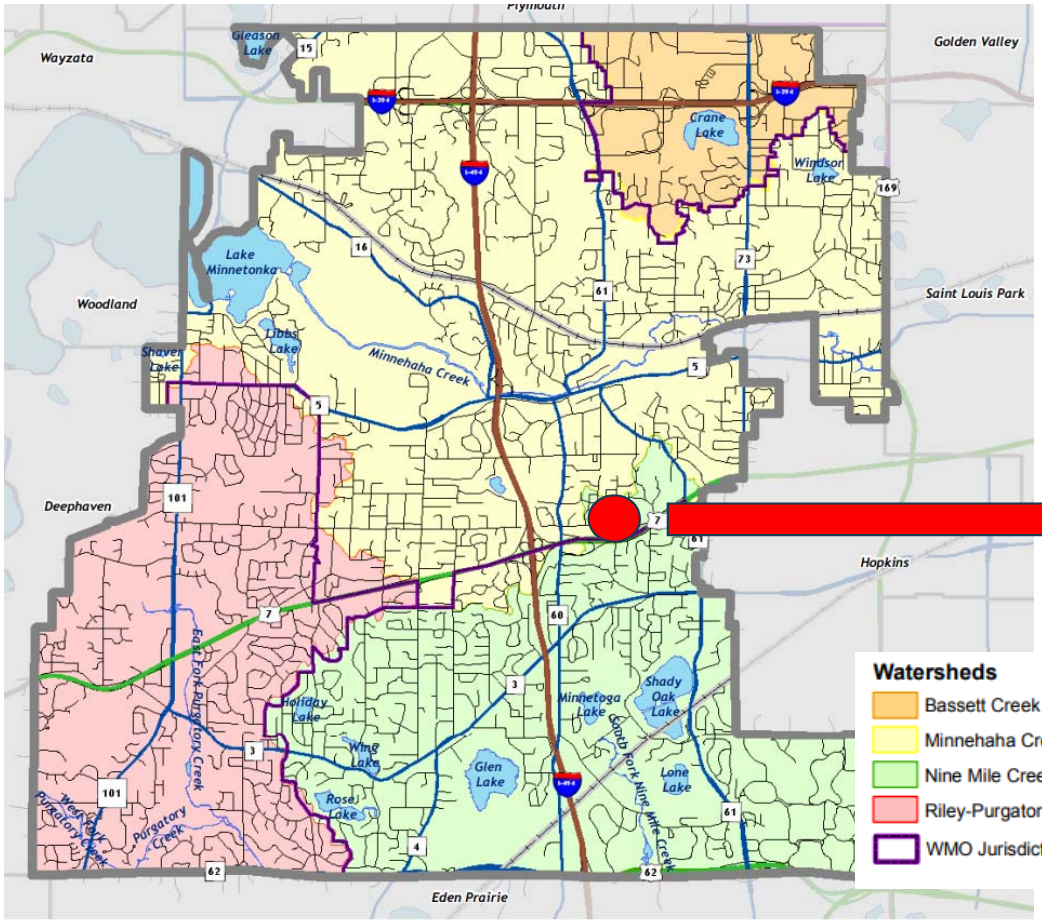
- City annually develops a 5-year Capital Improvement Plan

- Projects are primarily:
  - Replacement of existing infrastructure
  - Water quality improvements
  - Planning/Modeling





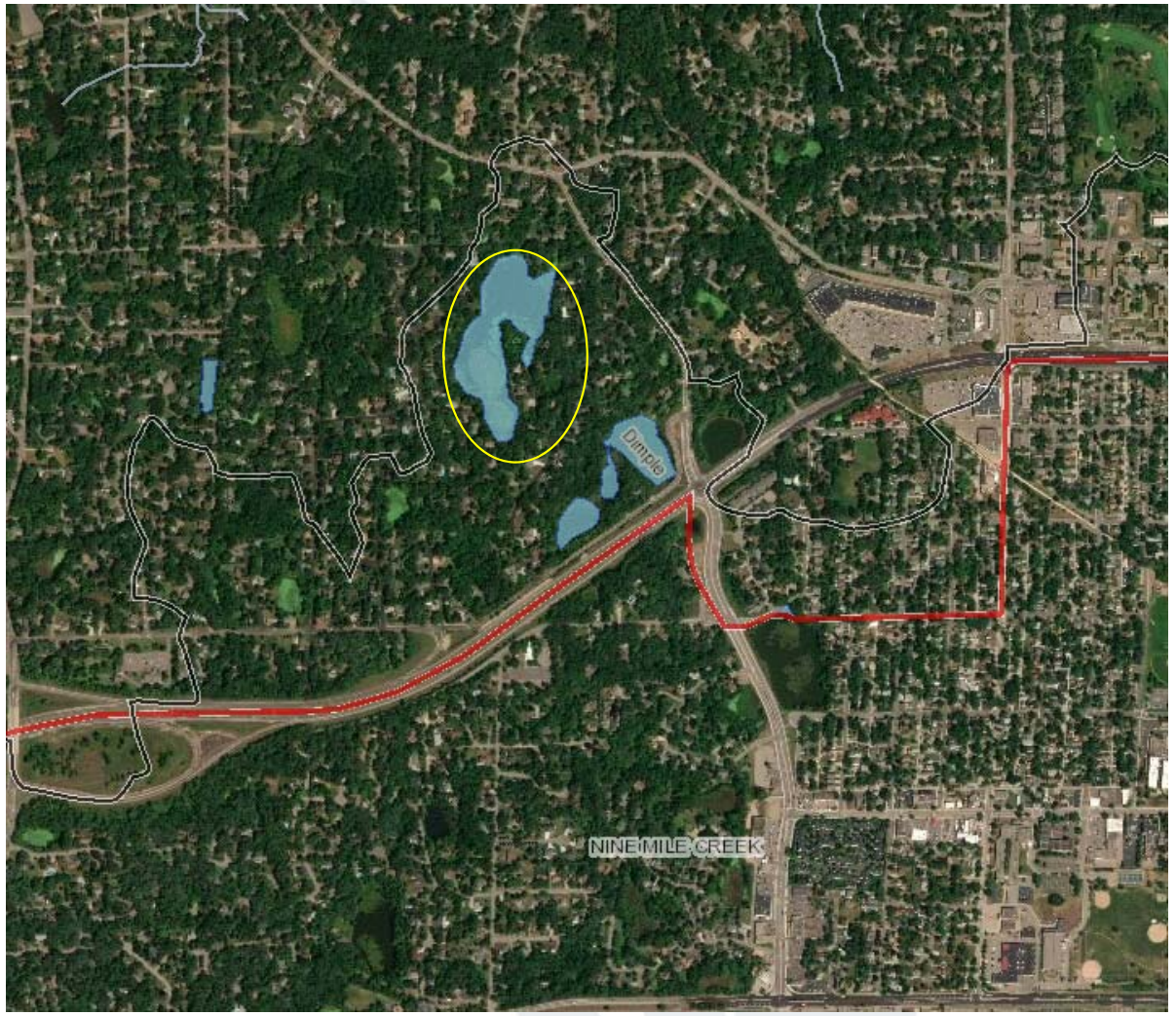
Huntingdon Pond - Background



Watershed Districts

Hydrological: Nine Mile Creek Watershed

Jurisdictional (Legal): Minnehaha Creek Watershed District



Legend

MCWD Map Layers

Hydrologic Boundary

Legal Boundary

Lakes

Source: https://maps.minnehahacreek.org/mcwd_full/

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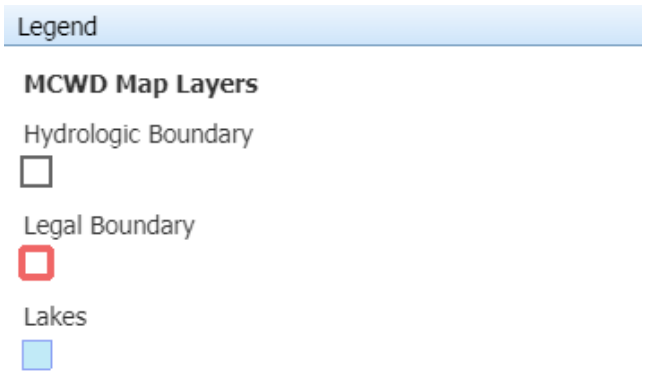

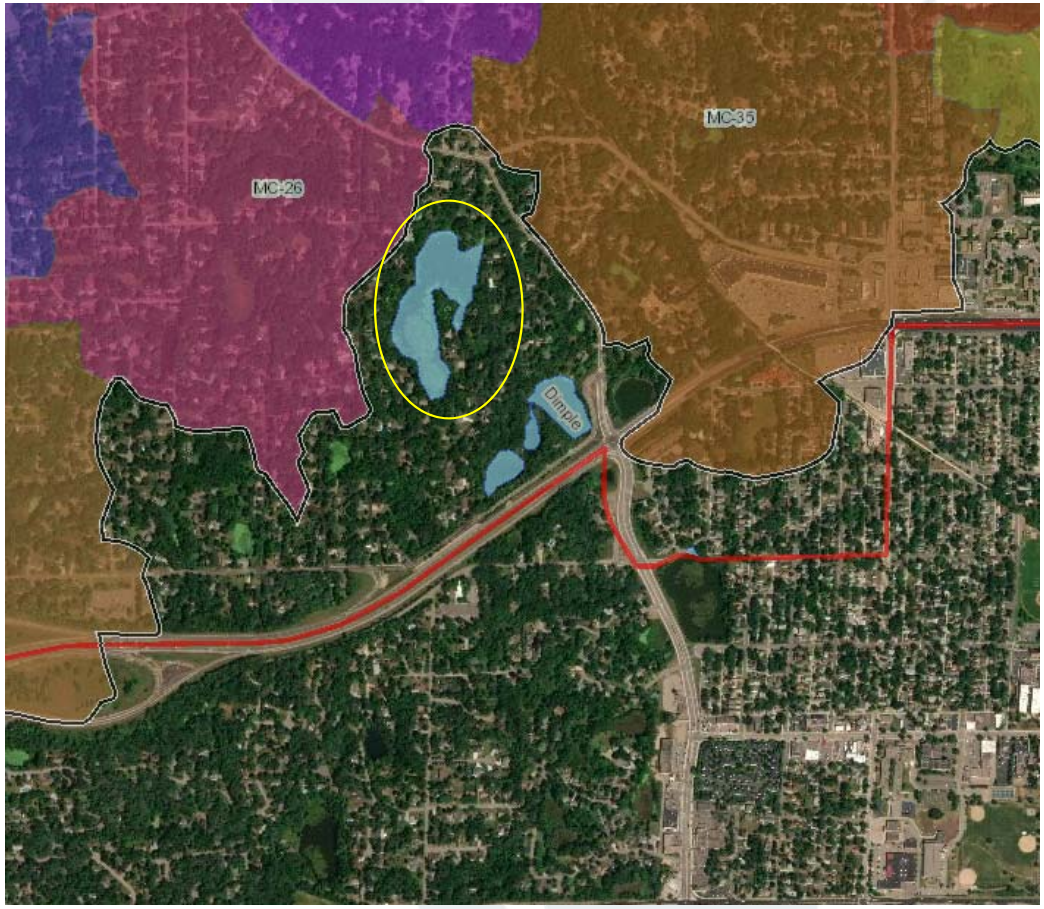

Source: https://maps.minnehahacreek.org/mcwd_full/

Historical Aerials

- 1937

Source: Minnesota Historical Aerial Photographs Online
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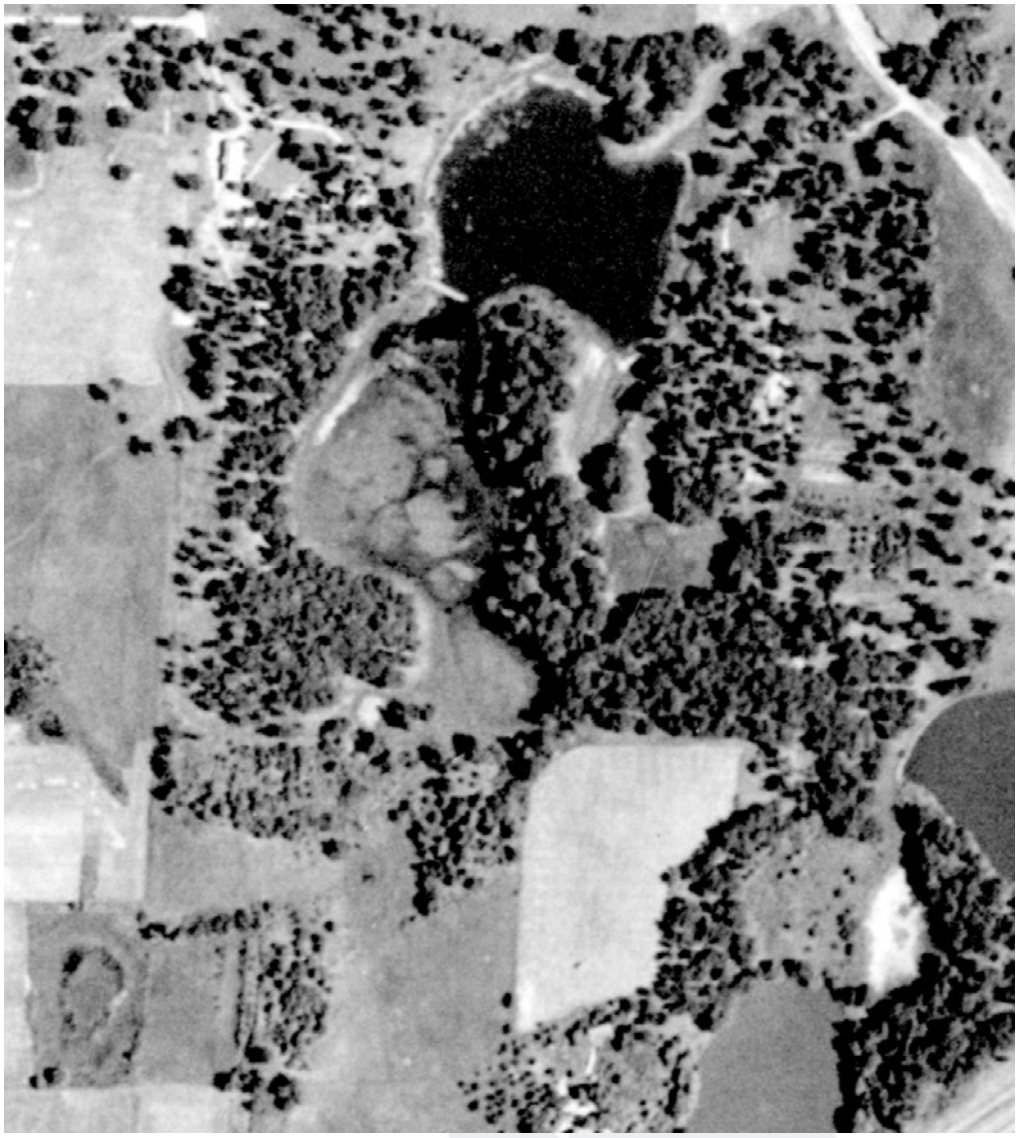

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Historical Aerials

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Source: Minnetonka GIS

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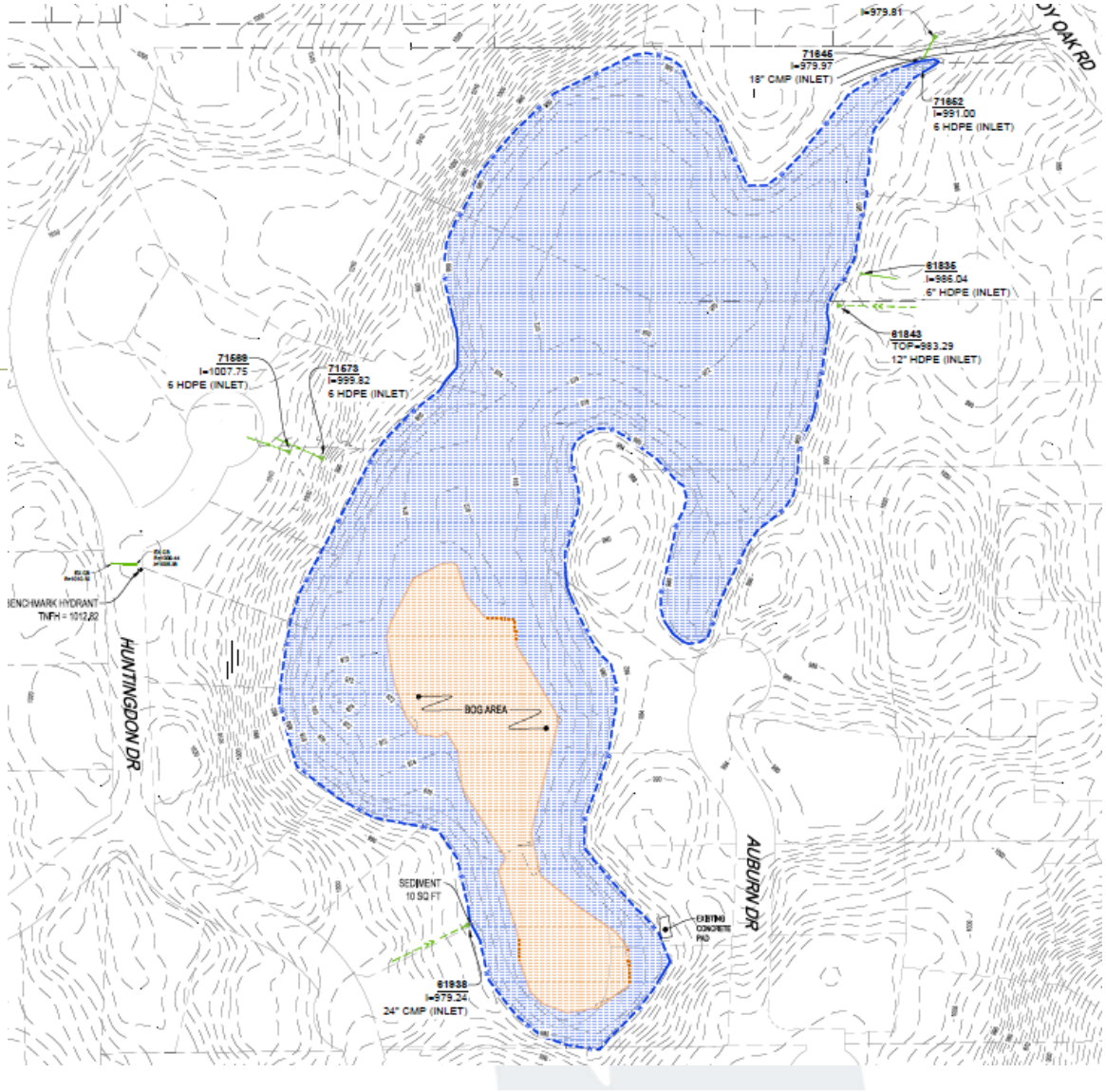
- 2002
- 2012
- 2015

Source: Minnetonka GIS

Stormwater Pond Sedimentation Survey 2019



LEGEND	
▶	STORM - FLARED END SECTION (INLET OR OUTLET)
— — — W — — —	NORMAL WATER ELEVATION (NWL)
— — -101- — —	EXISTING CONTOUR (MINOR INTERVAL)
— — —100— — —	EXISTING CONTOUR (MAJOR INTERVAL)

Huntingdon Pond Sub-watershed

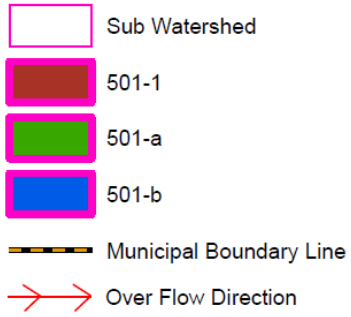
- Water Body Surface Area: 10.2 acres
- Sub-watershed total area: 42.4 acres
- Maximum Depth: 11.3 feet

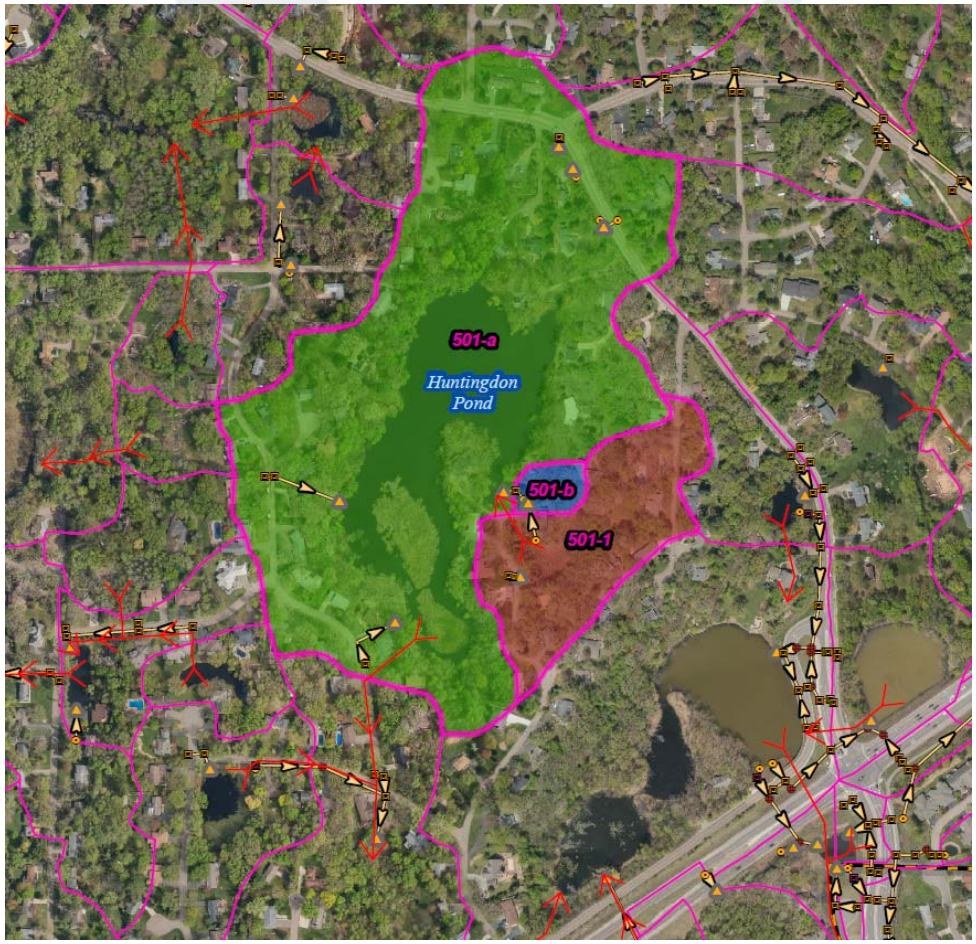
1982 Water Resources Management Plan

- Historical Normal Elevation: 977.8
- Flood Elevation: 980

2018 Water Resources Management Plan

- Normal Elevation: 979.3
- 1% Flood Elevation: 980.3

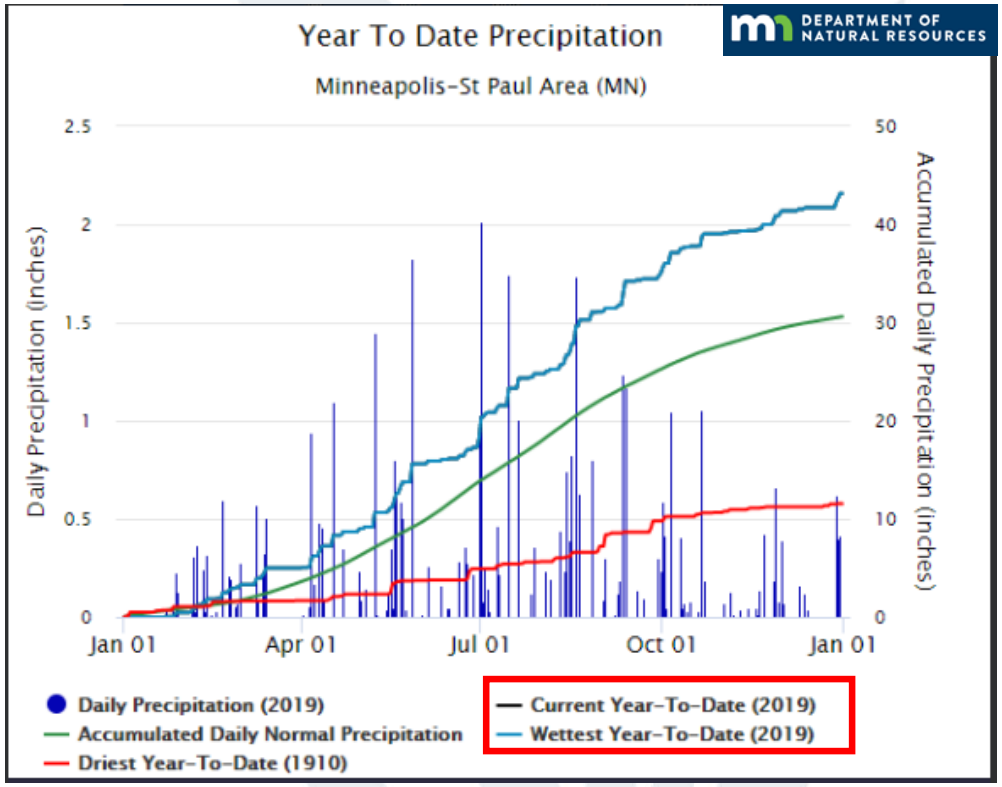




2019 Rainfall Data

- 2019 was the wettest year on record according to the MN DNR
- Spring flooding throughout Minnetonka due to snow melt
- Steady rainfall throughout 2019 resulted in accumulated water in ponds throughout the twin cities

Twin Cities	Observed	Normal	Ranking
Average Temp	45.0°	46.2°	Below Normal
Precipitation	43.17"	30.61"	Record Wettest



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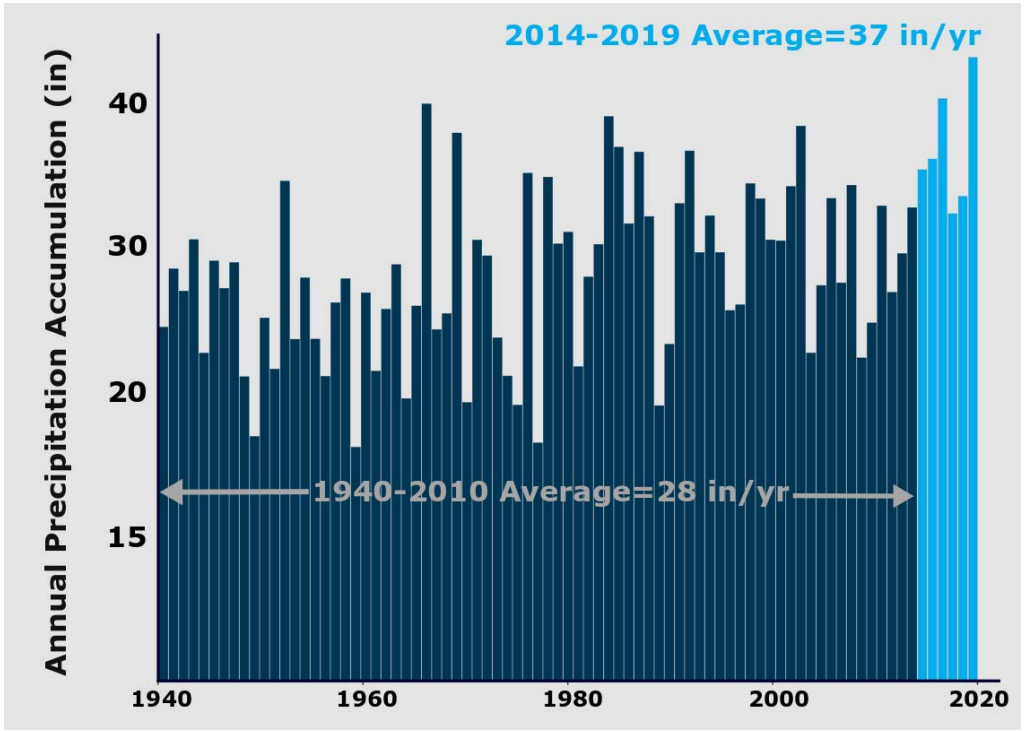
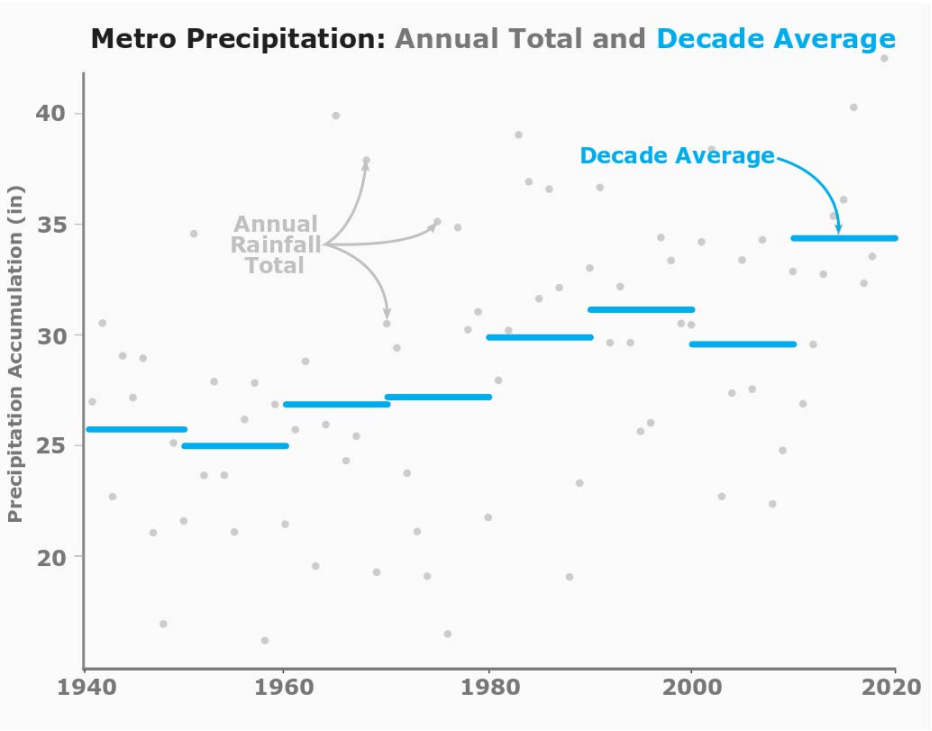




Source: Minnehaha Creek Watershed District

Petition to Pump: Fall 2019

DEPARTMENT OF NATURAL RESOURCES

Minnehaha Creek Watershed

9 MILE CREEK WATERSHED DISTRICT


MINNETONKA

Due to resident concerns for the potential of property damage occurring from high water levels on Huntingdon Pond, the Huntingdon Shoreline Collaborative is requesting the City of Minnetonka pump water from Huntingdon Pond to Nine Mile Creek to lower water levels to the ordinary high water level (OHW).

Please review the attached map that outlines the proposed pump location and pumping route. Note that the pump itself may be noisy and that properties located on the pumping route will not have driveway access during pumping and will need to park on the road. Pumping may last weeks or months, depending on how quickly the city is able to pump.

Based on the results of this petition, the city will determine if there is support to move forward. The city would then complete a technical study and stormwater modeling to determine if pumping is feasible without flooding downstream properties. If feasible, the city would then apply for a Water Appropriation Permit from the Department of Natural Resources, in coordination with the Nine Mile Creek Watershed and Minnehaha Creek Watershed.

Homeowners will not be assessed for any work associated with this project.

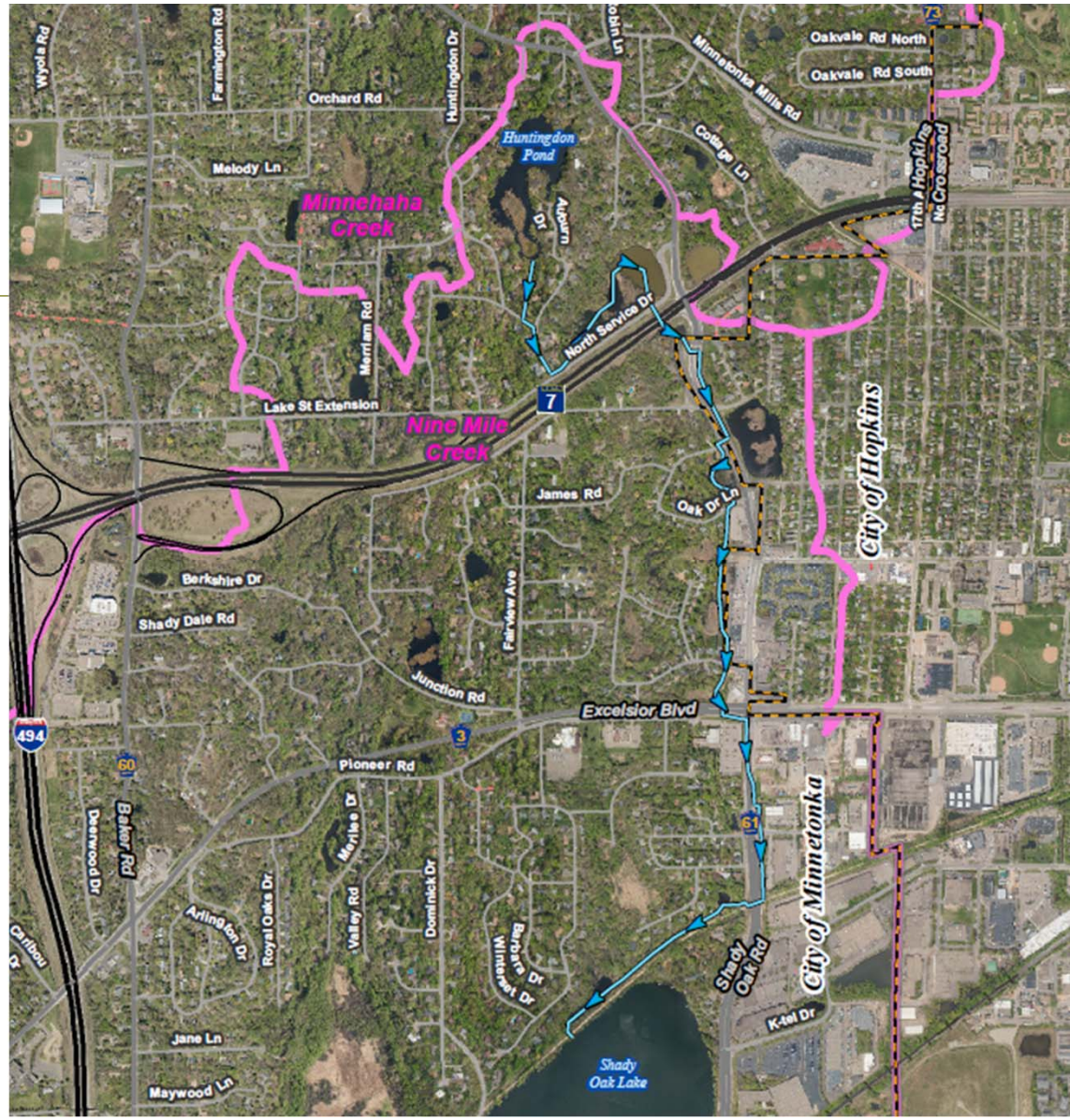
If you have any questions about the pumping proposal, please contact Sarah Schweiger from the Engineering Department at 952-939-8233.

Property Owner Name	Address	Approve	Do Not Approve	Signature
		X		
		X		
		X		
		X		
		X		
		X		
		X		
		X		
		✓		

Huntingdon Pond Pumping Route

Stormwater Modeling:

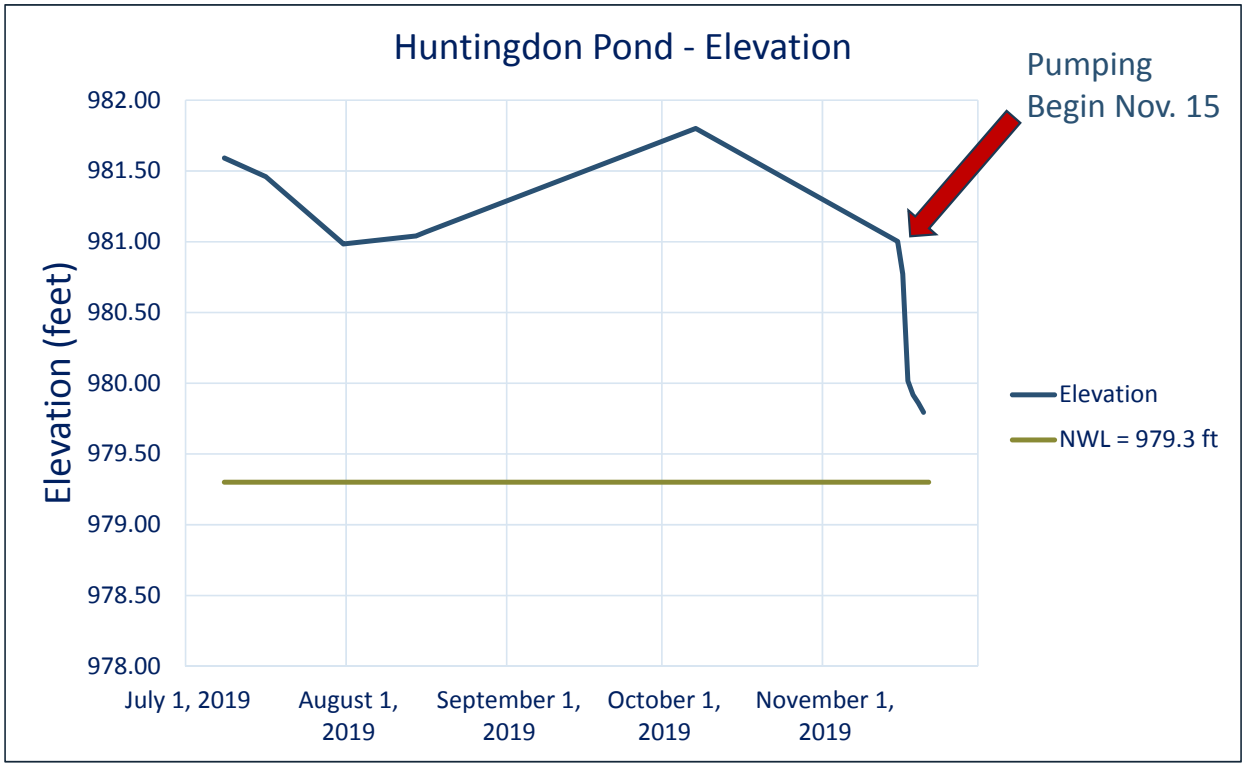
- Consultant analysis: Barr Engineering
- Impacts to downstream water bodies
- Results determined the need to turn off pump with greater than at 2-inch rainfall to prevent downstream flooding
- 48 homes within the 100-year floodplain



Pumping 2019

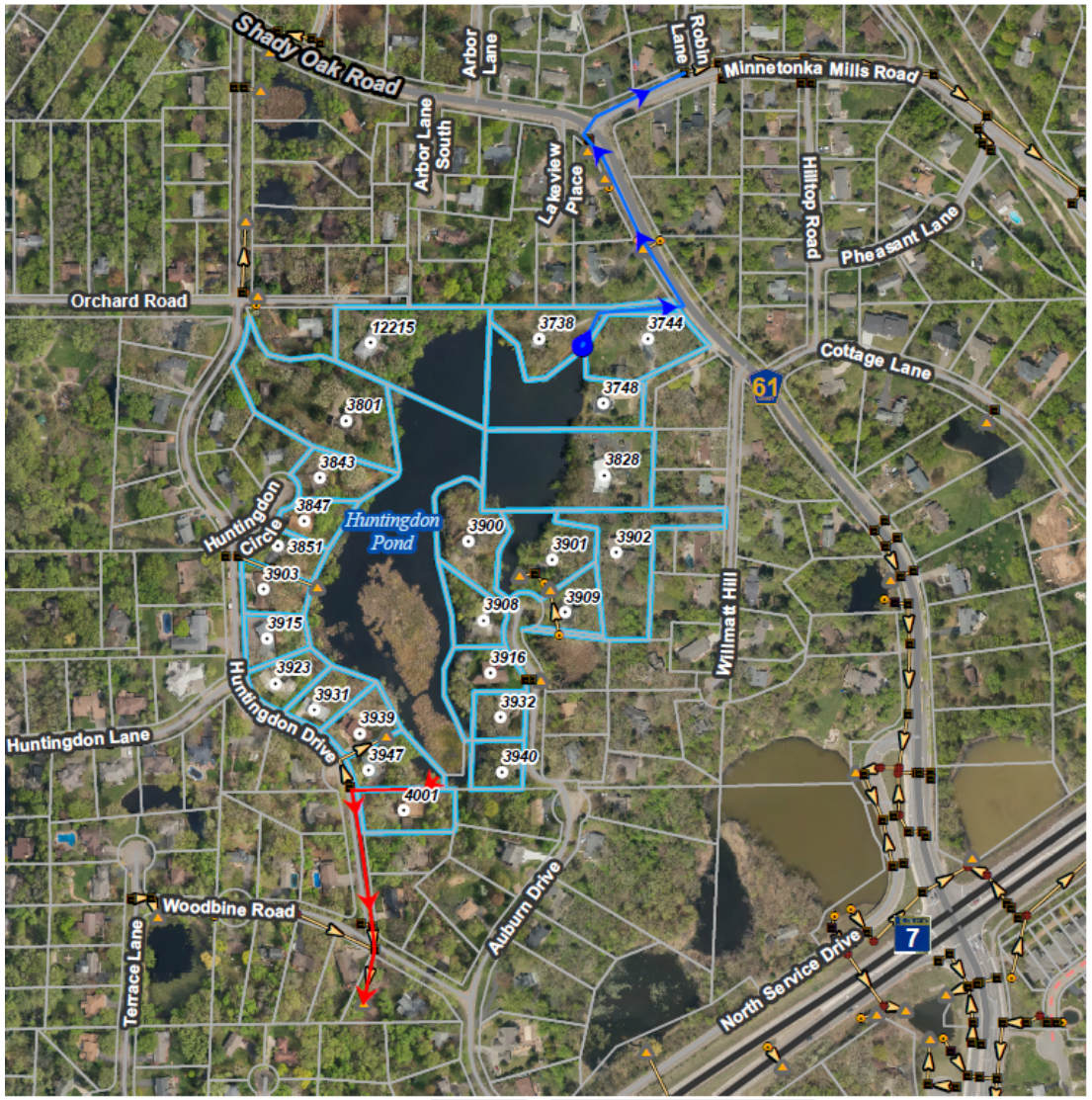
Pond Pumping: November 2019

- Peak elevation: 981.8
- Ending elevation: 979.9
- Normal Water Level: 979.3



Proposed Outlet Options

- Manage normal water elevation at 979.3 ft.
- Provide flood protection
- Establish consistent shoreline

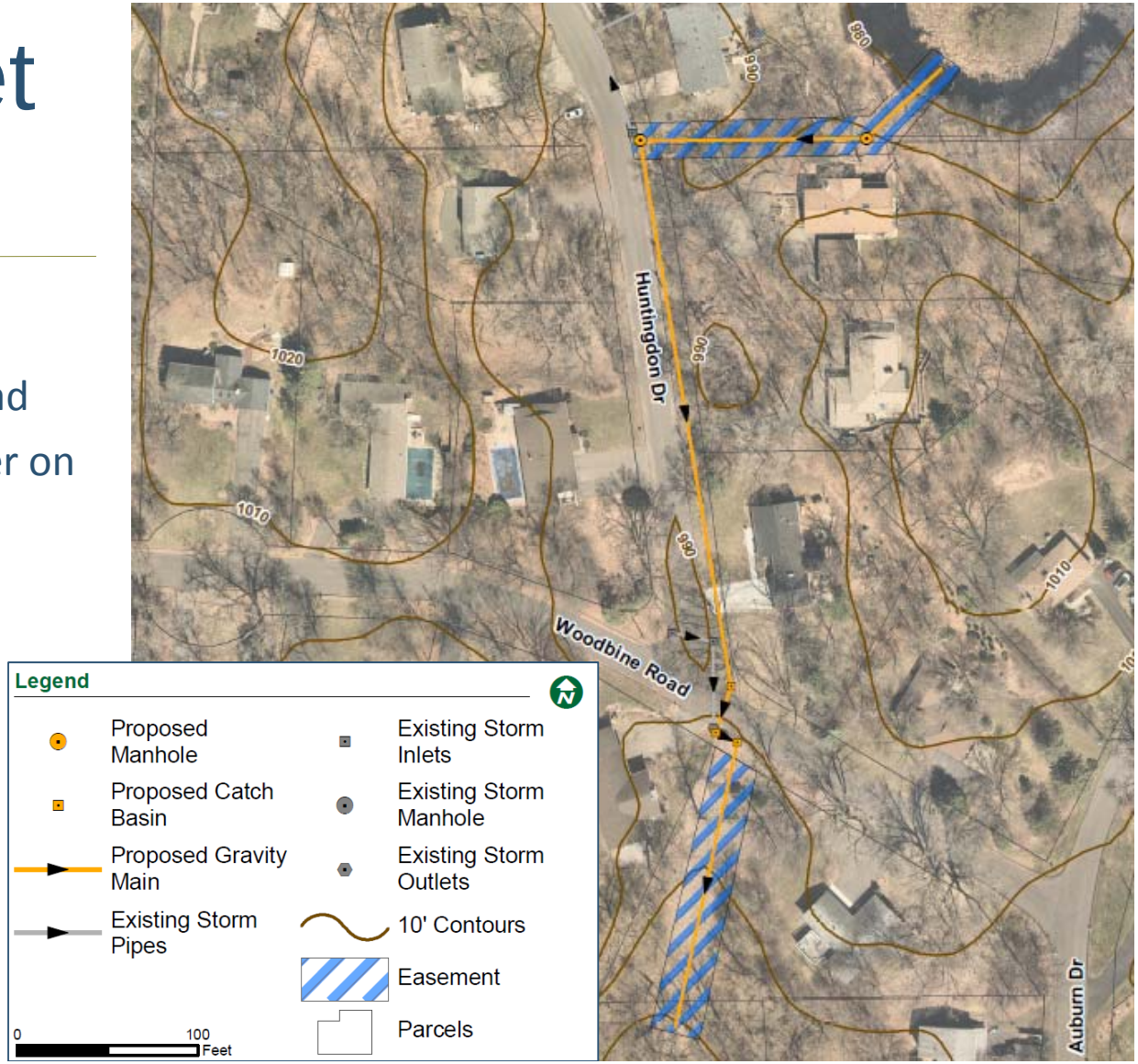


Huntingdon Pond Outlet Location and Properties Affected

- Potential Outlet Location 1
- Potential Outlet Location 2
- Lift Station
- Existing Stormwater Pipe
- Properties Affected

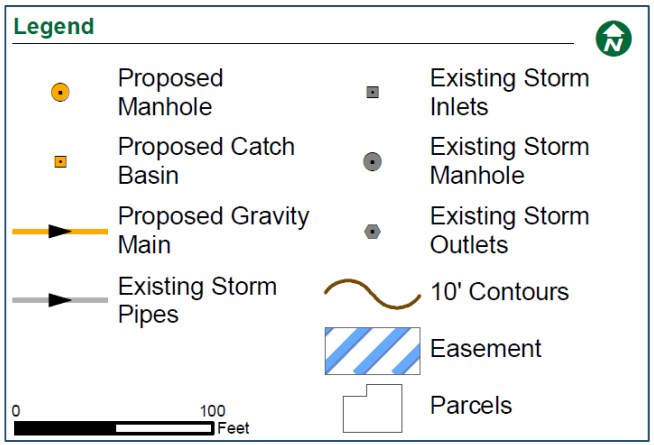
Potential Outlet Location 1

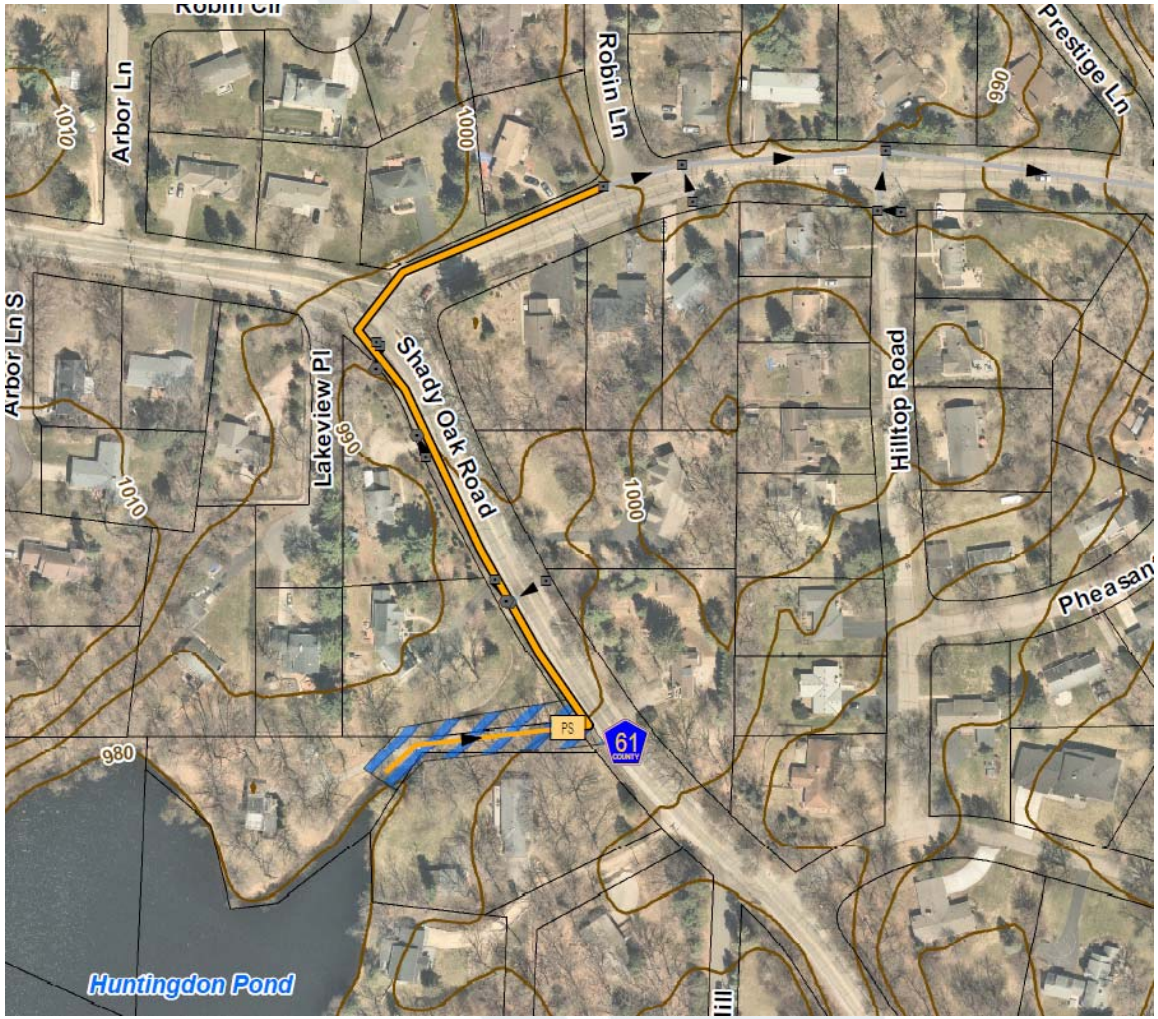
- New gravity storm sewer along Huntingdon Drive/Woodbine Road
- Connect into existing storm sewer on Huntingdon Drive
- Easements required
- Cost: $1,000,000



Potential Outlet Location 2

- Lift station (pump) required
- New storm sewer along Shady Oak Road
- Easements required
- Cost: $1,200,000





Permanent Outlet - Pros & Cons

- Pros
  - Stabilize the water level and shoreline
  - Maintain flood storage
  - Prevent erosion
  - Lower risk for invasive species with less significant water level fluctuation

- Cons
  - Water level will be lower during dry periods
  - Shallow areas of pond could see a change in aquatic animals
  - Shallow areas of pond could see a change in vegetation, such as more cattails
  - Shallow areas could become more marshy

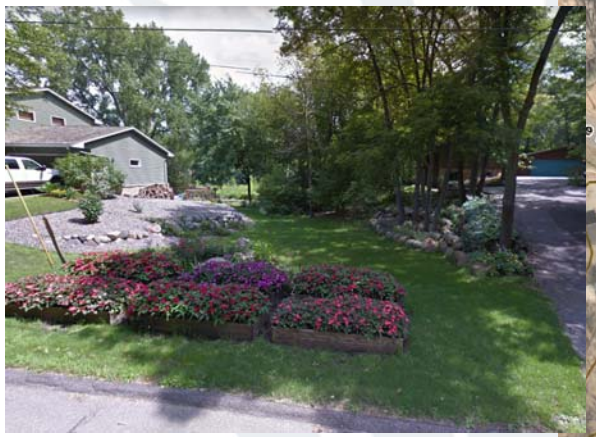
Permitting Process: Permanent Outlet

- Minnesota DNR is the permitting authority
- Stormwater modeling required to ensure there are not impacts to downstream properties
- Other public agencies (cities, watershed, Three Rivers Park District, etc.) will be involved and will comment on potential downstream impacts
- Permit approval is not guaranteed

Construction Impacts

Easements/Impacts

- Temporary construction impacts to adjacent neighbors and roadways
- Typical construction impacts:
  - Tree removal
  - Landscaping impacts
  - Driveway impacts
- Easements are likely required from properties adjacent to the pipes
- Easements could be by purchase or donation

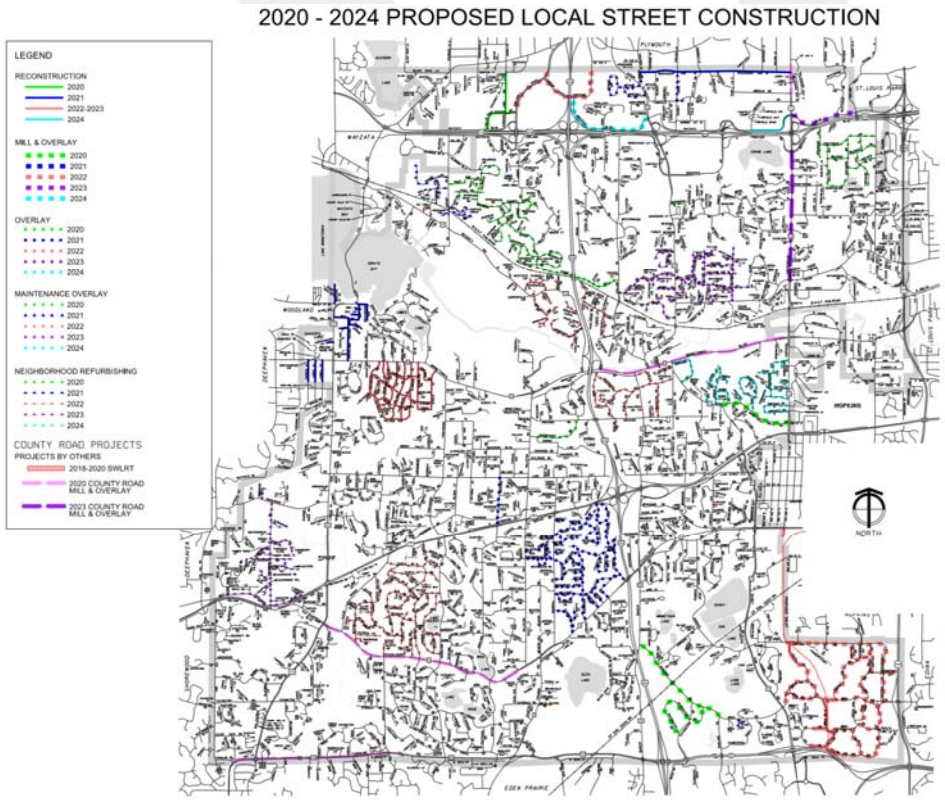


Process to develop a project

- This project is not currently funded in the city's 5-year Capital Improvements Plan
- City is currently developing the 2021 – 2025 Capital Improvement Plan
  - Huntingdon Pond is planned to be listed as an unfunded project
- Resident feedback for this potential project will be provided to the City Council with staff recommendation
- A petition is available if residents are interested in supporting or opposing an outlet option

Current Planned Projects

- 2020 - Ridgedale Drive Improvements Project
- 2020 – Opus Area
- 2020 - Twelve Oaks Center Drive/Parkers Lake Road Improvement
- 2021 – Ridgemount Ave. and Groveland Bay
- 2022 – Tonka-Woodcroft Phase I
- 2023 – Tonka-Woodcroft Phase II
- 2024 – Wayzata Blvd



Typical Schedule of a Funded Project in CIP

- Year prior to construction:
  - City staff would work with a consultant to begin preliminary design and stormwater modeling work
  - Discussions with permitting agencies: DNR, watersheds, adjacent cities, etc.
  - Final design would begin with preliminary agreement of stormwater modeling
  - Neighborhood meeting to discuss proposed improvements and impacts
  - Final design completed
  - City council approval: Bidding and awarding contract

Questions?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