

Project Category: Water Quality/Water Capacity

Project Title: Beacon Heights 2nd Addition Stormwater Improvement Project

Total Estimated Cost: \$150,000

BCWMC Project Number: [Staff will assign number]

Description:

This project in the City of Plymouth will add stormwater treatment to an area that has minimal, if any water quality treatment currently. This project would be constructed in conjunction with a street reconstruction project in 2022. The project would propose to install water quality BMP(s) such as a hydrodynamic separator, ponding or rain gardens in the area shown.

Source of Project Funding	2018	2019	2020	2021	2022
CIP Account – BCWMC ad valorem tax levy through Hennepin County					

Staff will assign funding year.

Justification:

This project will improve downstream water quality in Medicine Lake. It would remove sediment from storm water runoff and depending on project design, control rates leaving this development to assist in downstream flooding. The drainage area for the proposed BMP includes parts of State Highway 55 and areas on the south side of the highway. Currently there are no water quality BMPs within the subwatershed

As a part of the project, staff will include educational outreach to the neighborhood.

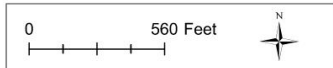
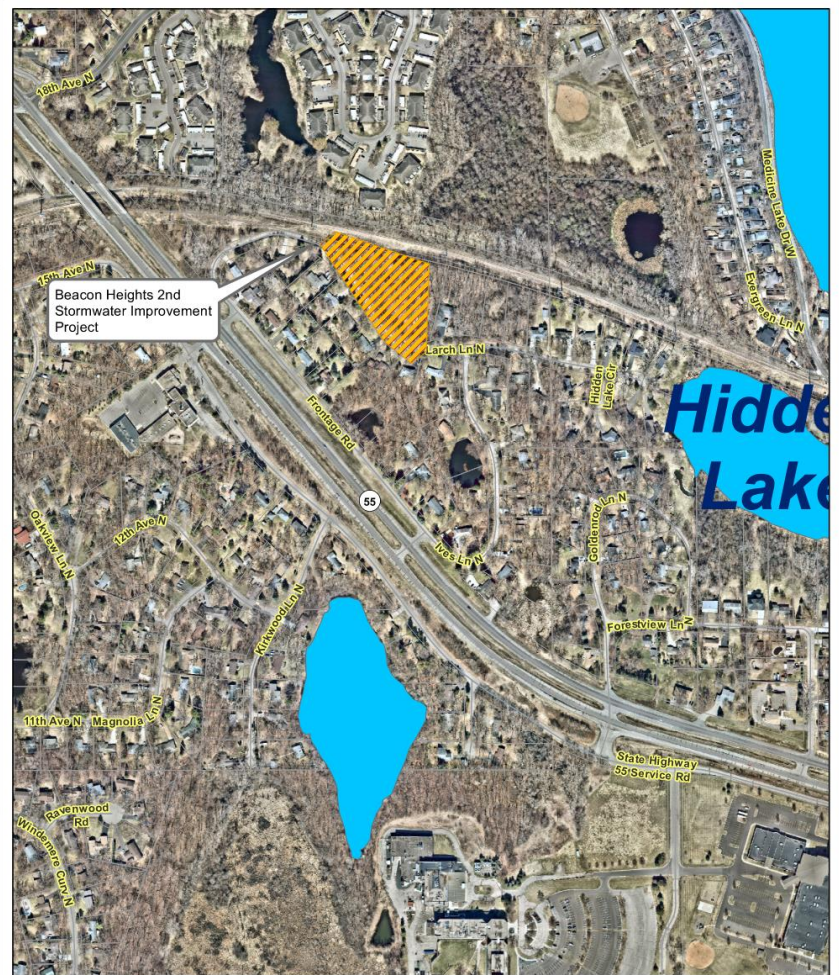
Scheduling and Project Status:
[Staff will provide this information.]

Relationship to BCWMC Plan and Other Projects:

This project is consistent with the goals and policies of the BCWMC Watershed Management Plan. This project would assist in meeting the goals of the Medicine Lake Total Maximum Daily Load project.

Effect on Annual Operations Costs:

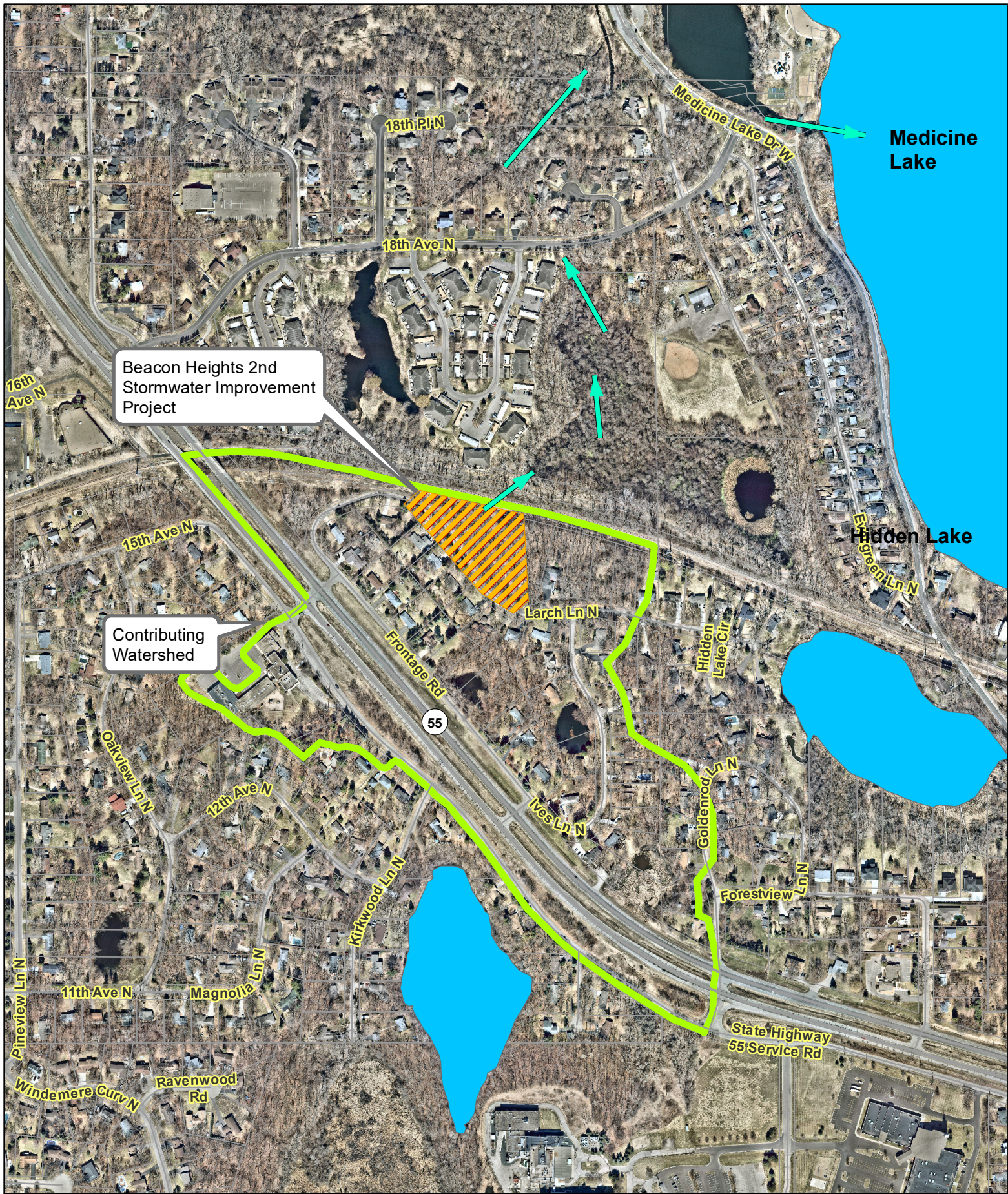
This project has no effect on BCWMC Annual Operations Costs.



Beacon Heights 2nd Stormwater Improvement Project



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Beacon Heights 2nd Stormwater Improvement Project

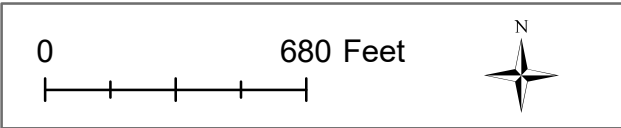
Contributing Watershed

Medicine Lake

Hidden Lake

55

State Highway 55 Service Rd



Beacon Heights 2nd Stormwater Improvement Project



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Project Category: Water Quality
Project Title: Enhanced Street Sweeper
Total Estimated Cost: \$150,000
BCWMC Project Number: [Staff will assign number]

Description: This project will help the City of Golden Valley upgrade an existing street sweeper from a mechanical sweeper to an enhanced regenerative sweeper. Street sweeping is one of the most cost-effective best management practices for improving water quality and reducing pollutant loading to impaired waters. Utilizing an enhanced street sweeper in Golden Valley will improve the City’s street sweeping program and provide direct benefits to water resources.

Source of Project Funding	2018	2019	2020	2021	2022
CIP Account – BCWMC ad valorem tax levy through Hennepin County					

Staff will assign funding year.

Justification:

The City is seeking to purchase a high-efficiency street sweeper to upgrade from a mechanical sweeping machine. Per the BCWMC CIP equipment purchase policy, only the incremental cost of the upgrade to better equipment is eligible for CIP funds.

The new sweeper will be used to expand pollutant load-reducing activities by capturing and removing finer particles that cannot be captured by mechanical means. Enhanced sweepers are effective at collecting fine sediment and residual pollutants, chlorides, pollens and leaf litter debris, and small debris that isn’t effectively collected by standard mechanical sweepers.

The new sweeper will be used to address nutrient impairments in Medicine and Sweeney Lakes, biota impairments in Bassett Creek, and chloride impairments in Medicine Lake, Sweeney Lake, and Bassett Creek.

The city will expand on its existing subwatershed prioritization process in targeting use of the new sweeper. The city will evaluate and prioritize early spring sweeping to focus on subwatersheds with nutrient (and chloride) impaired waters, late spring sweeping during leaf out period to focus on subwatersheds with nutrient impaired waters and high mature tree canopy, and fall sweeping in subwatersheds with nutrient impaired waters and high tree canopy area with phased sweeping based on prevalence of tree species and timing of leaf drop.

Effectiveness Documentation:

The city currently use technology (Precise AVL/GPS, GIS, and Cartegraph) to track and document sweeping routes and frequencies and bulk material collected, and storm sewer sumps inspected (with sediment measured) and maintained and bulk material collected. The city will meet the 5-yr documentation requirement by reporting the same information above, also used for MS4 Permit reporting. The city is in the process of evaluating and updating our MS4 Permit and will inform the BCWMC of any changes made to the City’s sweeping program.

Scheduling and Project Status:

For purchase within the next 5 years.

Relationship to BCWMC Plan and Other Projects:

This request meets the CIP “gatekeeper questions” in Policy 110 and the equipment purchase policy. There are impaired waters located within and downstream of Golden Valley. The City is fully developed leaving few opportunities for BMPs, including chloride reduction. Increased or enhanced street sweeping is listed in the BCWMC Plan and TMDL Implementation Plans as a BMP that can improve impaired waters.

Street sweeping is included in the City’s Surface Water Management Plan as a BMP to address water quality impairments.

Effect on Annual Operations Costs:

This project has no effect on BCWMC Annual Operations Costs.

Project Category: Water Quality/Flood Reduction

Project Title: Toledo Avenue/Minnaqua Pond Stormwater Improvements

Total Estimated Cost: \$4,000,000
(BCWMC portion \$700,000; HSEM 2,250,000; City 750,000, TRPD 300,000)

BCWMC Project Number: BC-xx

Description:

This project in the City of Golden Valley will include water quality and flood reduction improvements in the Minnaqua Pond area. Key partnerships and funding sources will be utilized to lower flood risk, relocate infrastructure out of the floodplain and improve water quality in Bassett Creek. A redesigned Minnaqua Pond & Bassett Creek will include stormwater treatment, expanded native vegetation buffers, and additional flood storage.

Source of Project Funding	2023	2024	2025	2026	2027
CIP Account – BCWMC ad valorem tax levy through Hennepin County					\$350,000

Justification:

Streets, driveways, and regional trail near Minnaqua Pond are impassable for residents and emergency response vehicles due to frequent flooding. In addition, Bassett Creek flows through Minnaqua Pond depositing sediment and phosphorus at a rate that requires more frequent maintenance and creates a nuisance condition. Bassett Creek is an impaired water.

Relocating infrastructure, creating flood storage, and redesigning the pond/stream interface will lower flood risk and damage, improve water quality of Bassett Creek and downstream waters, improve maintenance, and enhance vegetation and wildlife habitat.

Scheduling and Project Status:

A Feasibility Study will need to be prepared for this project.

Relationship to BCWMC Plan and Other Projects:

This project is consistent with the goals and policies of the BCWMC Watershed Management Plan. It meets the “gatekeeper” criteria (policy 111) of addressing flooding concerns, and would also improve water quality in a priority waterbody (Bassett Creek). The project is also included in the City of Golden Valley CIP.

Effect on Annual Operations Costs:

This project has no effect on BCWMC Annual Operations Costs.

Project Category: Water Quality/Water Capacity

Project Title: **Plymouth Creek Stream Restoration – Dunkirk Lane to Yuma Lane**

Total Estimated Cost: \$350,000

BCWMC Project Number: [Staff will assign number]

Description:

This project in the city of Plymouth will repair erosion and sedimentation that is occurring in Plymouth Creek from Dunkirk Lane to Yuma Lane. Various methods of repairing erosion will be investigated including installing of storm sewer pipe, bioengineering techniques, rip rap and gabion installation.

Source of Project Funding	2018	2019	2020	2021	2022
CIP Account – BCWMC ad valorem tax levy through Hennepin County					

Staff will assign funding year.

Justification:

This stream restoration project will remove sediment from storm water runoff and repair erosion and sedimentation within this segment of Plymouth Creek.

As a part of the stream restoration project, educational efforts including outreach and signage along the trail will be included

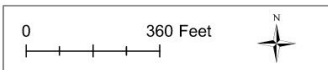
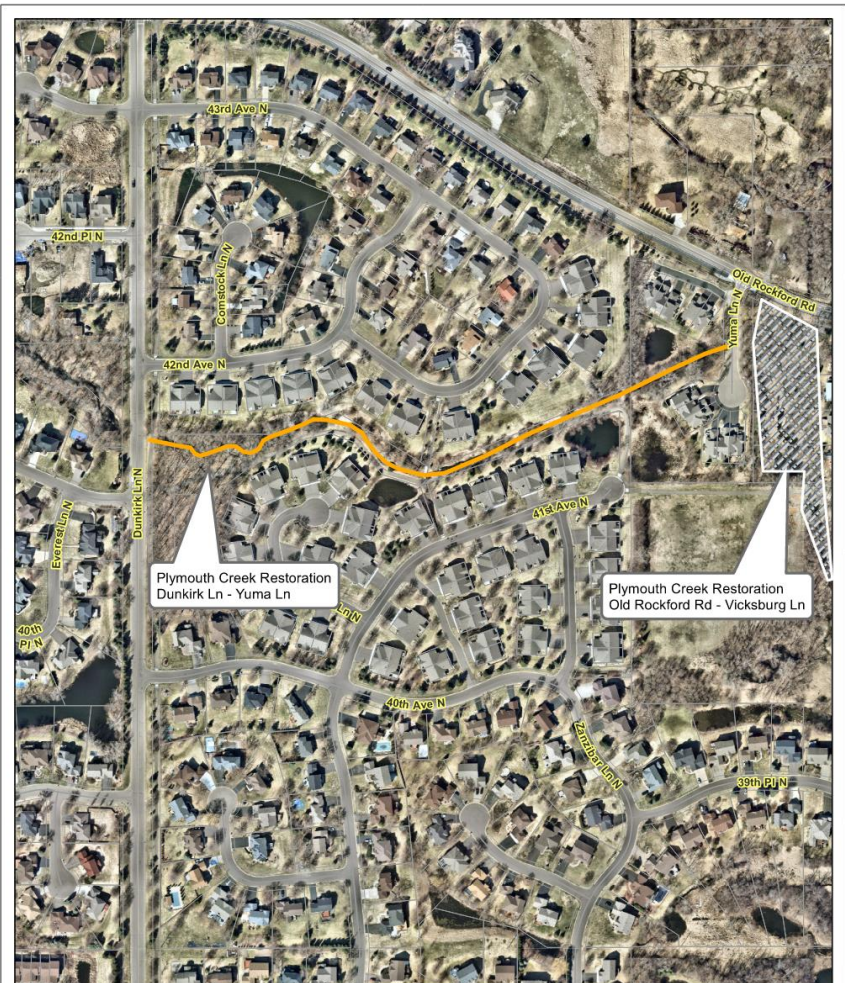
Scheduling and Project Status:
[Staff will provide this information.]

Relationship to BCWMC Plan and Other Projects:

This project is consistent with the goals and policies of the BCWMC Watershed Management Plan. This project would assist in meeting the goals of the Medicine Lake Total Maximum Daily Load project.

Effect on Annual Operations Costs:

This project has no effect on BCWMC Annual Operations Costs.



**Plymouth Creek Restoration
Dunkirk Lane to Yuma Lane**



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Project Category: Water Quality/Water Capacity

Project Title: **Plymouth Creek Stream Restoration – Vicksburg Lane to County Road 9**

Total Estimated Cost: \$250,000

BCWMC Project Number: [Staff will assign number]

Description:

This project in the city of Plymouth will repair erosion and sedimentation that is occurring in Plymouth Creek from Vicksburg Lane to County Road 9. Various methods of repairing erosion will be investigated including installing of storm sewer pipe, bioengineering techniques, rip rap and gabion installation.

Source of Project Funding	2018	2019	2020	2021	2022
CIP Account – BCWMC ad valorem tax levy through Hennepin County	Staff will assign funding year.				

Justification:

This stream restoration project will remove sediment from storm water runoff and repair erosion and sedimentation within this segment of Plymouth Creek.

As a part of the stream restoration project, educational efforts including outreach and signage along the trail will be included

Scheduling and Project Status:
[Staff will provide this information.]

Relationship to BCWMC Plan and Other Projects:

This project is consistent with the goals and policies of the BCWMC Watershed Management Plan. This project would assist in meeting the goals of the Medicine Lake Total Maximum Daily Load project.

Effect on Annual Operations Costs:

This project has no effect on BCWMC Annual Operations Costs.



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