

BCWMC 5-year Capital Improvement Program 2021 – 2025 (with additional years shown for context)

Project Name	City	Number	2019	2020	2021	2022	2023	2024	2025	2026	Totals
Medicine Lake Rd & Winnetka Ave Long Term Flood Mitigation Plan Project (DeCola Ponds B&C Improvement Proj. + DeCola Pond F Flood Storage & Diversion Project + SEA School Flood Storage Project)	GV, Crystal, New Hope	BC-2,3,8, 10	\$1,031,500	\$500,000		\$300,000	\$1,000,000		\$1,100,000	\$200,000	\$4,131,500
Water quality improvements in Bryn Mawr Meadows, Main Stem Watershed	MPLS	BC-5		\$100,000	\$400,000						\$500,000
Medley Park Stormwater Treatment Facility	GV	ML-12				\$200,000	\$300,000				\$500,000
Restoration and stabilization of historic Bassett Cr channel, Main Stem Watershed	MPLS	BC-9								\$500,000	\$500,000
Mt. Olivet Stream Restoration Project	PLYM	ML-20			\$400,000						\$400,000
Dredging of accumulated sediment in Main Stem Bassett Creek just north of Hwy 55, Wirth Park	GV/MPLS	BC-7			\$100,000	\$300,000					\$400,000
Westwood Lake Water Quality Improvement Project	St. Louis Park	WST-2	\$404,500								\$300,000
Stormwater Pond in Jevne Park to alleviate flooding/improve water quality	Medicine Lake	ML-21		\$500,000							\$500,000
Crane Lake Improvement Project via Ridgedale Drive	Minnetonka	CL-3		\$380,000							\$300,000
Parkers Lake Drainage Improvement Project	Plymouth	PL-7			\$100,000	\$300,000					\$400,000
Bassett Creek Main Stem Restoration - Regent Ave to Golden Valley Rd	Golden Valley	2021-CR-M						\$300,000	\$200,000		\$500,000
Bassett Creek Park Water Quality Improvement Project	Minneapolis	BC-11						\$500,000			\$500,000
Ponderosa Woods Stream Restoration	Plymouth	ML-22						\$475,000			\$500,000
Sweeney Lake Water Quality Improvement Project (alum + carp management) ¹	Golden Valley	SL-8		\$20,000 ¹	\$200,000 ¹						\$220,000
TOTAL Estimated Project Cost			\$1,436,000	\$1,500,000	\$1,200,000	\$1,100,000	\$1,300,000	\$1,275,000	\$1,300,000	Not complete	

¹Local match required for 319 grant

Project Category: Flood Reduction

Project Title: **Medicine Lake Road and Winnetka Avenue Long Term Flood Mitigation Plan Implementation**

Total Estimated Cost: \$4,200,000

BCWMC Project Number: BC-2, 3, 8, 10

Description:

Implementation of the Medicine Lake Road and Winnetka Avenue Long Term Flood Mitigation Plan Study prepared for the cities of Crystal, Golden Valley, and New Hope. Potential projects in this area include rate control facilities with potential water quality features, structural flood proofing and other projects as determined.

Source of Project Funding	2019	2020	2021	2022	2023	2024	2025	2026
CIP Account – BCWMC ad valorem tax levy through	\$1,031,500	\$500,000		\$300,000	\$1,000,000		\$1,100,000	\$200,000

Justification:

The Medicine Lake Road and Winnetka Avenue Flood Mitigation Plan Study identified over \$22M in projects that are needed to reduce the effect of repeat flooding on the roadway and adjacent properties. Projects will reduce the depth of flooding on the roadways and will lower flood elevations to help protect structures from flood damage. Flood damage reduction and improving water quality in Bassett Creek are consistent with BCWMC goals.

The DeCola Ponds B & C Improvement Project was implemented in 2019/2020. Additional identified projects include the DeCola Pond F Flood Storage and Diversion Project and the SEA School Flood Storage Project, estimated at \$1.3M each and slated for 2022/2023 and 2025/2026.

Relationship to BCWMC Plan and Other Projects:

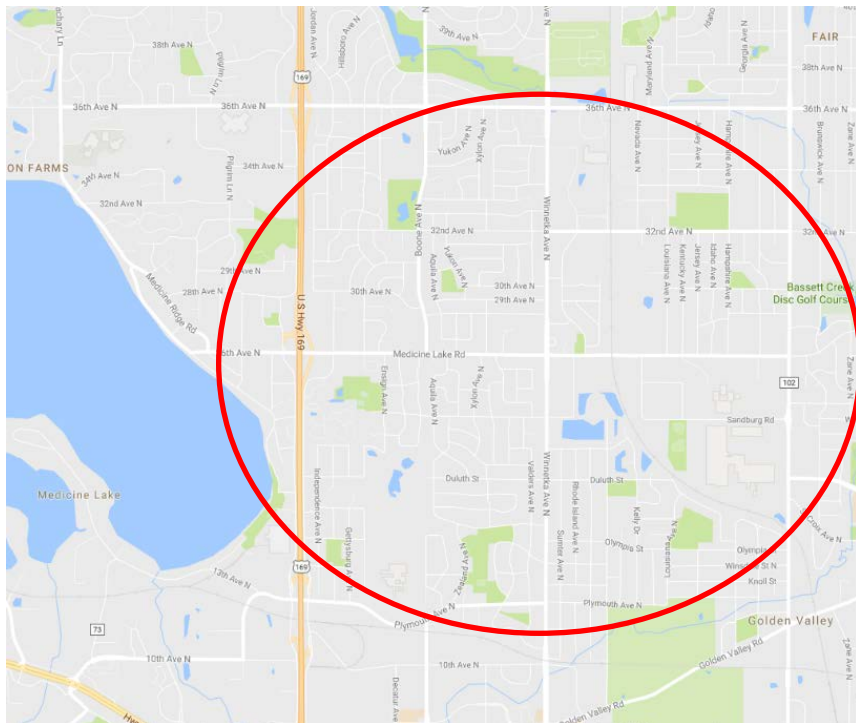
This project is consistent with the goals and policies of the BCWMC Watershed Management Plan. It meets the “gatekeeper” criteria (policy 110) of addressing flooding concerns, and may also improve water quality in a priority waterbody (Bassett Creek). This project also meets the additional criteria (policy 110): addresses an intercommunity drainage issue, the tributary sub watershed includes more than one community, and it addresses significant infrastructure or property damage concerns. The project is one of many that have been identified in the Medicine Lake Road and Winnetka Avenue Long Term Flood Mitigation Plan.

Effect on Annual Operations Costs:

This project has no effect on BCWMC Annual Operations Costs.

Scheduling and Project Status:

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



Project Category: Water Quality

Project Title: Bryn Mawr Meadows Water Quality Improvement Site, Minneapolis

Total Estimated Cost: \$500,000

Project Number: BC-5

Description:
 This project was described as Option 7 in the Bassett Creek Main Stem Watershed Management Plan (June 2000). The project consists of the construction of a new stormwater Best Management Practice (BMP) in a park near the intersection of Morgan Ave and Laurel Ave, in the City of Minneapolis.

Source of Project Funding	2017	2018	2019	2020	2021
CIP account – BCWMC ad valorem levy through Hennepin County			\$500,000		

Justification:

As described in 2000, the BMP would treat runoff from 209 acres of land and would remove an estimated 22 lbs. of phosphorus per year, on average.

Scheduling and Project Status:

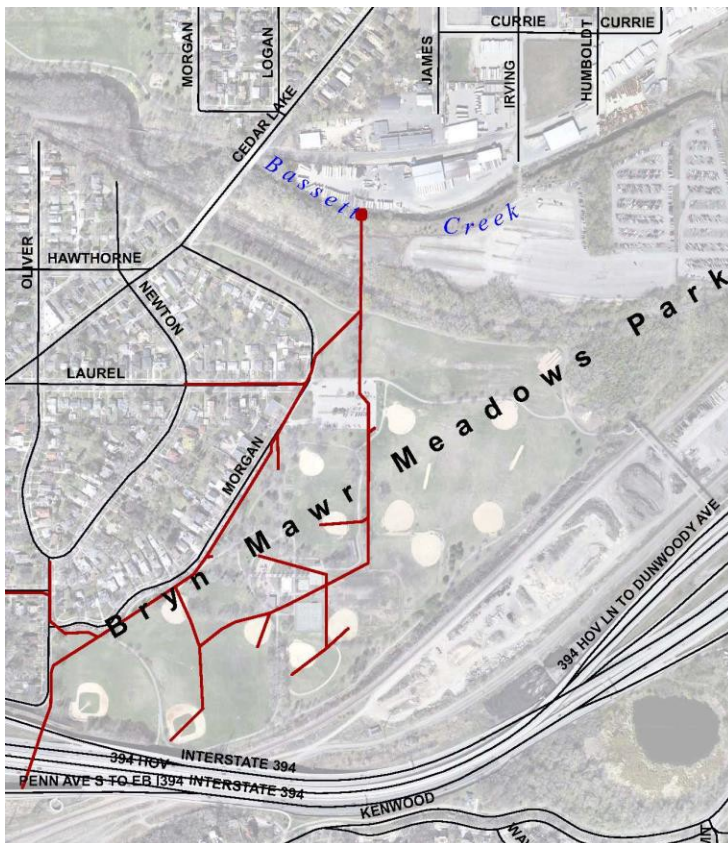
A feasibility study will need to be prepared for this project. As the project progresses, additional information will be provided.

Relationship to General Plan and Other Projects:

This project is consistent with the goals and policies of the BCWMC Watershed Management Plan and is included in the BCWMC's Resource Management Plan.

Effect on Annual Operations Costs:

Not known at this time. This will be identified in the Feasibility Study.



Project Category: Water Quality/Flood Reduction

Project Title: **Medley Park Stormwater Quality Treatment Facility**

Total Estimated Cost: \$500,000

BCWMC Project Number: ML-12

Description:

This project in the City of Golden Valley will include construction of a storm water treatment pond or similar treatment facility. The BMP will be built in the City's Medley Park, the facility will treat storm water and create flood storage. The park currently has poor soils which is not conducive to recreational programming.

Source of Project Funding	2020	2021	2022	2023	2024
CIP Account – BCWMC ad valorem tax levy through Hennepin County			\$200,000	\$300,000	

Justification:

Storm water runoff from the roughly 100 acre watershed in the northwest section of Golden Valley currently flows into ponds on the western side of Medley Park. The proposed storm water quality treatment facility would add flood storage and treatment capabilities to the sub watershed. It would also increase the capacities of the downstream ponds to remove solids and phosphorous upstream of Medicine Lake. The proposed facility would help achieve the goals of the Medicine Lake TMDL.

Scheduling and Project Status:

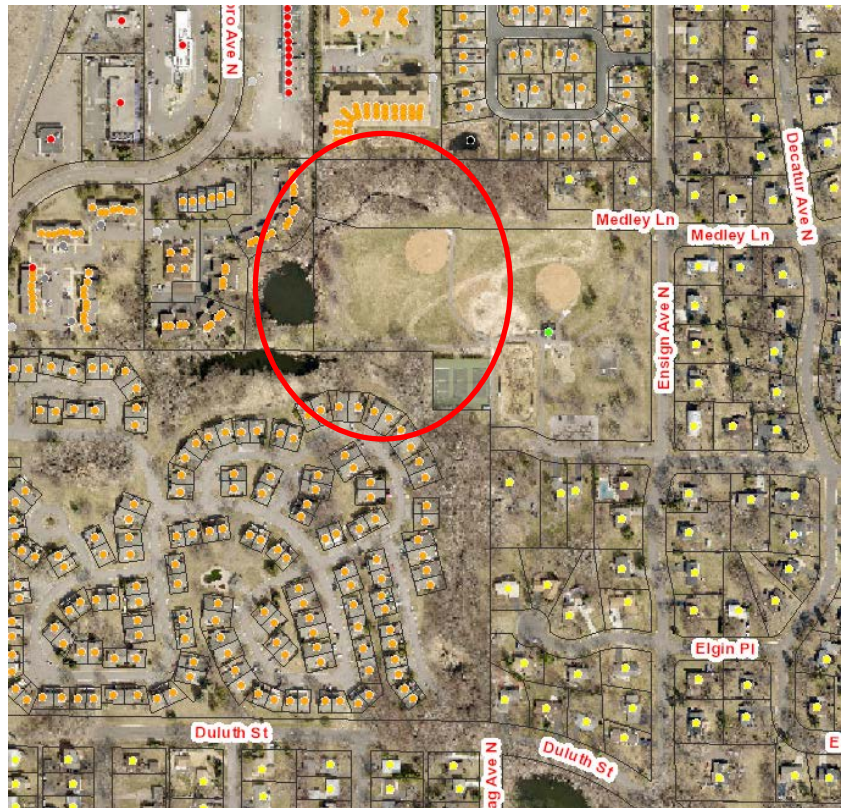
A Feasibility Study will need to be prepared for this project.

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 110) of addressing flooding concerns, and would also improve water quality in a priority waterbody (Medicine Lake). 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: Channel Restoration

Project Title: Restoration & Stabilization of Historic Bassett Creek Channel

Total Estimated Cost: \$500,000

BCWMC Project Number: BC-9

Description:

This project in the City of Minneapolis will include bank stabilization and erosion repair methods and will remove obstructions as necessary. The project aims to mitigate impacts from flooding. It's believed that work associated with the Bottineau Light Rail Line will make most of the necessary repairs, however this work proposed for 2020-2021 may also be needed.

Source of Project Funding	2018	2019	2020	2021	2022
CIP Account – BWCMC ad valorem tax levy through Hennepin County					\$500,000

Justification:

This portion of the Main Stem of Bassett Creek was cut off from the current main channel in the 1940s-50s when Highway 55 was constructed but remains part of the BCWMC Trunk System. Flows from the current main stem channel sometimes overflow into this area causing localized flooding and extreme sedimentation, along with trash and debris. There is damage to retaining walls and storm outlet structures. The City of Minneapolis cleaned up the area in 2015. Changes for the LRT project are likely to address the structural damage. This project is a placeholder in anticipation of remaining remediation after the LRT project has been constructed.

Scheduling and Project Status:

A Feasibility Study should be completed in 2021. This project is anticipated for construction during the winter of 2022 - 2023.

Relationship to General Plan and Other Projects:

This project is consistent with the goals and policies of the 2015 BCWMC Watershed Management Plan.

Effect on Annual Operations Costs:

This project has no effect on BCWMC Annual Operations Costs.



Project Category: Water Quality/Water Capacity

Project Title: Mount Olivet Stream Restoration

Total Estimated Cost: \$400,000

BCWMC Project Number: ML-20

Description:

This project in the city of Plymouth will reduce erosion, total suspended solids, and phosphorous loading to Medicine Lake, a State listed impaired water with an approved total maximum daily load plan, and a Priority 1 water body of the Bassett Creek Watershed.

Source of Project Funding	2018	2019	2020	2021	2022
CIP Account – BCWMC ad valorem tax levy through Hennepin County				\$400,000	

Justification:

This project meets two gatekeeper criteria including improving/protecting water quality in a priority water body and addressing an approved TMDL. In addition to gatekeeper criteria, this project also protects previous investments in Medicine Lake by the Commission, addresses erosion and sedimentation issues, and addresses multiple Commission goals of improved water quality, aesthetics, and wildlife habitat.

Scheduling and Project Status:

This project will require a feasibility study to begin in 2019.

Relationship to BCWMC Plan and Other Projects:

Medicine Lake is regarded as a Priority 1 Deep Lake and receives surface water runoff from Plymouth, Golden Valley, New Hope, Minnetonka, and Medicine Lake. Capital Improvement partnerships between Plymouth and the Commission to the benefit of Medicine Lake include:

1. East Medicine Lake Water Quality Ponds (1)
2. West Medicine Lake Water Quality Ponds (2)
3. Plymouth Creek Stream Restoration (Medicine Lake to ~26th Ave.) (3)

In addition, the City of Plymouth has completed additional capital improvements:

- A. Wood Creek Stream Restoration (A)
- B. Timber Creek Erosion Repair (Phase I & II) (B)
- C. County Roads 9/61 Stream Restoration in partnership with TRPD and BWSR. (C)

Effect on Annual Operations Costs:

This project has no effect on BCWMC Annual Operations Costs.



Project Category: Water Quality

Project Title: Dredging Accumulated Sediment In Main Stem Bassett Creek, Wirth Park

Total Estimated Cost: \$400,000

BCWMC Project Number: BC-7

Description:

This project in Theodore Wirth Park in the city of Golden Valley consists of dredging sediment that has accumulated over decades within the Main Stem of Bassett Creek just north of Hwy 55. During the winter (on frozen ground), equipment such as backhoes will be used to remove sediment within the channel. The removal of sediment improves stream flow and habitat, will reduce in-stream erosion and will improve stream water quality.

Source of Project Funding	2018	2019	2020	2021	2022
CIP Account – BWCMC ad valorem tax levy through Hennepin County				\$100,000	\$300,000

<p>Justification: The removal of accumulated sediment will improve stream flow and reduce in-stream erosion, ultimately improving stream water quality. Additionally, habitat for fish and macroinvertebrates in the stream should improve as layers of sediment are removed, possibly exposing rock or cobble for spawning beds and interstitial micro-habitats.</p> <p>Scheduling and Project Status: A Feasibility Study should begin on or about April 1, 2020. Project implementation is anticipated during the winter 2021 - 2022.</p>	<p>Relationship to General Plan and Other Projects: This project is consistent with the goals and policies of the 2015 BWCMC Watershed Management Plan.</p> <p>Effect on Annual Operations Costs: This project has no effect on BCWMC Annual Operations Costs.</p>
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Project Category: Water Quality

Project Title: Westwood Nature Center Water Quality Improvement Project

Total Estimated Cost: \$300,000

BCWMC Project Number: 2019-WST-2

Description:
 The Westwood Hills Nature Center is in the planning phase of a complete reconstruction of its facilities in 2019. These improvements include a proposed LEED Certified building and other improvements. As part of this project, the city is proposing additional water quality improvement, which may include a pervious paver parking lot, which would eliminate runoff from the existing parking area, improvements to the existing stormwater pond, adjacent to the parking lot, or a vegetation management and stabilization project for the outlet channel. Further information will be available once the plans for the new building are developed and the budget and scope of the project are refined.

Source of Project Funding	2017	2018	2019	2020	2021
CIP Account – BWCMC ad valorem tax levy through Hennepin County			\$300,000		

Justification:

This project will improve the water quality and recreational suitability of Westwood Lake and Bassett Creek by removing sediment and pollutants from storm water runoff generated by the surrounding impervious road surfaces.

Scheduling and Project Status:

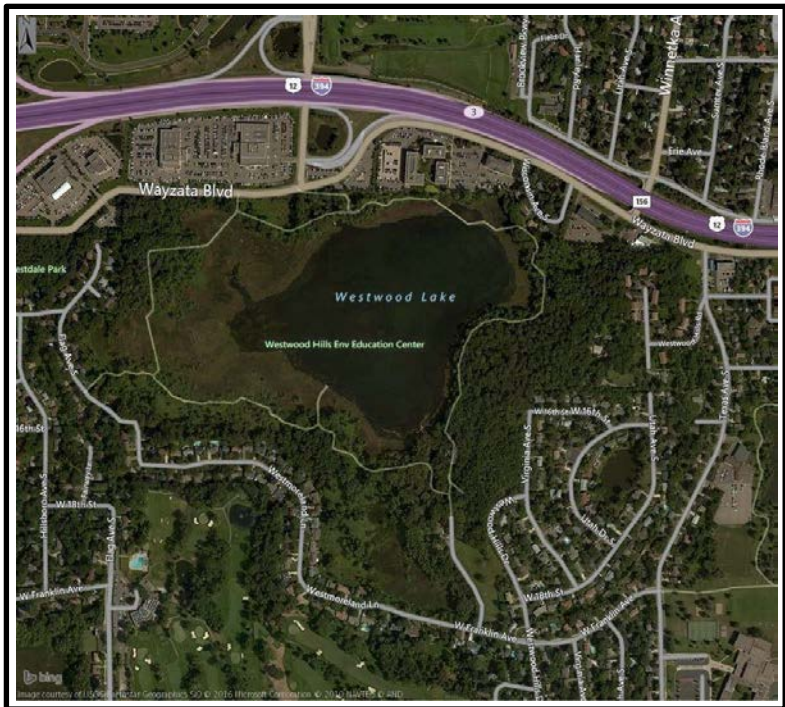
A Feasibility Study should be completed on or about April 1, 2018. This project is anticipated for construction during the summer of 2019.

Relationship to General Plan and Other Projects:

This project is consistent with the goals and policies of the 2015 BWCMC Watershed Management Plan. However, this project is not included in the Plan’s Capital Improvement Program and may require a Plan Amendment.

Effect on Annual Operations Costs:

This project has no effect on BCWMC Annual Operations Costs.



Project Category: Water Quality/Water Capacity

Project Title: Water Retention Pond in Medicine Lake’s Jevne Park

Total Estimated Cost: \$500,000

BCWMC Project Number: ML-21

Description:
 This project in the City of Medicine Lake will increase the capacity of an existing pond and wetlands located within the city’s Jevne Park to collect and store stormwater runoff during heavy rainfall to improve the water quality of Medicine Lake and reduce flooding of properties.

Source of Project Funding	2019	2020	2021	2022	2023
CIP Account –BCWMC ad valorem tax levy through Hennepin County		\$200,000	\$300,000		

Justification:

As the city of Medicine Lake is nearly surrounded by Medicine Lake, maintaining and improving the quality of the lake itself is paramount. **IMPORTANT:** When Medicine Lake levels are abnormally high, water from the lake flows back onto the peninsula. *This project does not seek to remedy backflow.* Rather, the construction of an improved water retention pond in Jevne Park will result in:

- better management of storm water runoff as the city has no municipal storm sewer system
- increased capacity for stormwater storage within the pre-existing natural pond and swale in Jevne Park
- better way to route, carry and store excess stormwater which can minimize flooding within Jevne Park and on adjacent residential properties (approximately 15)
- reduced sediment and phosphorus loading to Medicine Lake therefore *improved water quality of Medicine Lake*
- reduced city of Medicine Lake capital and maintenance expenditures associated with road and culvert repair caused by excessive volumes and rates of runoff
- sustainability of existing waterfowl and wildlife habitats

Project Specifications & Estimated Cost: \$284,250

The improved and reclaimed water retention pond envisioned for Jevne Park mirrors the three already-functioning holding ponds in Plymouth located on the West Beach, the East Beach and near the At-the-Lake Apartments. At this time, possible wetland impacts resulting from the project and groundwater levels are unknown. There are many technical aspects of a potential project that need study. A future feasibility study will determine what, if any project can be located with the park to improve water quality and reduce flooding of roads and properties.



Image 1) Medicine Lake plat map and Jevne Park delineation
Image 2) Aerial view of Medicine Lake, Jevne Park. Blue = probable wetland. Yellow = potential wetland.
 SOURCE: Hennepin County GIS Interactive Maps, Natural Resources division.

Project Category: Water Quality/Water Capacity

Project Title: Crane Lake Water Quality and Capacity Improvements

Total Estimated Cost: \$300,000

BCWMC Project Number: CL-3

Description:

The city of Minnetonka is in the planning phase of the reconstruction of Ridgedale Drive from Plymouth Road to I-394. This project will include the installation of water quality best practices to protect and improve the water quality of Crane Lake. Improvements may be located in adjacent park space, boulevards, or upstream basins.

Source of Project Funding	2019	2020	2021	2022	2022
CIP Account –BCWMC ad valorem tax levy through Hennepin County		\$300,000			

Justification:

Storm water runoff from approximately 250 acres south and west of Crane Lake currently flows into Crane Lake via the storm sewer system and a series of ponds adjacent to and south of Ridgedale Drive. The drainage area to Crane Lake is nearly developed and includes the Ridgedale Center shopping mall and associated parking lot. The reconstruction of Ridgedale Drive will include the net reduction of impervious surfaces in the project area and installation of water quality best practices to protect/improve the water quality of Crane Lake.

Scheduling and Project Status:

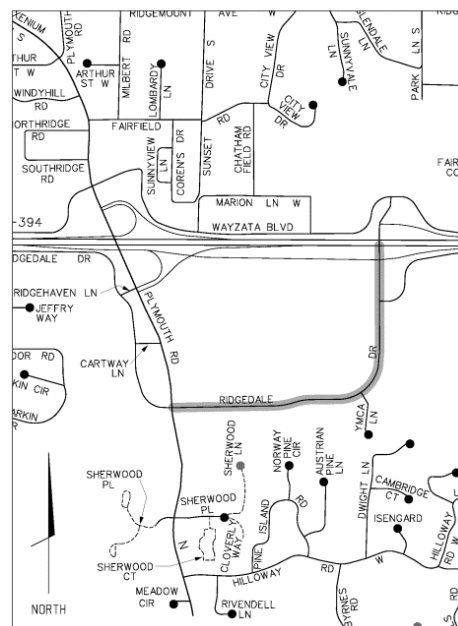
A concept plan should be completed in May 2018. The project is scheduled for construction in 2019 – 2020.

Relationship to BCWMC Plan and Other Projects:

Crane Lake is a shallow 30-acre lake in the Bassett Creek Watershed that drains northerly into Medicine Lake. Crane Lake is designated as a Priority 2 lake. This project meets the gatekeeper criteria of improving/protecting water quality in a priority water body and is likely to address additional Commission goals including improved wildlife habitat. Education components are also being evaluated and may be included in the project. The project is also included in the city of Minnetonka CIP but would require a minor amendment to the Bassett Creek Watershed Management Plan.

Effect on Annual Operations Costs:

This project has no effect on BCWMC Annual Operations Costs.



Project Category: Water Quality/Water Capacity

Project Title: Parkers Lake Drainage Improvement

Total Estimated Cost: \$400,000

BCWMC Project Number: PL-7

Description:

This project in the city of Plymouth will reduce erosion, total suspended solids, and phosphorous loading to Parkers Lake, a Priority 1 water body of the Bassett Creek Watershed.

Source of Project Funding	2018	2019	2020	2021	2022
CIP Account – BCWMC ad valorem tax levy through Hennepin County				\$100,000	\$300,000

Justification:

This project meets the gatekeeper criteria of improving/protecting water quality in a priority water body and will help protect water quality in Parkers Lake. In addition to gatekeeper criteria, this project also enhances previous investments intended to protect Parkers Lake by the Commission as well as addressing erosion/sedimentation issues and the Commission goals of improved water quality, aesthetics, and wildlife habitat.

Scheduling and Project Status:

This project will require a feasibility study to begin in 2019.

Relationship to BCWMC Plan and Other Projects:

Parkers Lake is the second largest lake in the Bassett Creek Watershed and is regarded as a Priority 1 Deep Lake. Parkers receives surface water runoff from Plymouth and small portion of Minnetonka and eventually drains to Medicine Lake. Previous capital improvement partnerships between Plymouth and the Commission to the benefit of Parkers Lake include:

1. Circle Park Pond Improvement
- In addition, the City of Plymouth has completed additional capital improvements:
- A. Parkers Lake Rock Weir
 - B. South Parkers Lake Tributary Stream Restoration
 - C. 9th & Niagara Stream Restoration

Effect on Annual Operations Costs:

This project has no effect on BCWMC Annual Operations Costs.



Project Category: Water Quality

Project Title: **Bassett Creek Main Stem Restoration - Regent Ave to Golden Valley Rd**

Total Estimated Cost: \$500,000

BCWMC Project Number: 2021 CR-M

Description:

This project in the City of Golden Valley will include bank stabilization measures and erosion repair methods. Consideration will be given to a variety of best management practices. Per BCWMC policy, the Commission will strive to utilize soft armoring techniques as much as possible and where feasible, including bio-logs, erosion control blanket, live stakes and fascines, and native vegetation buffers.

Source of Project Funding	2021	2022	2023	2024	2025
CIP Account – BCWMC ad valorem tax levy through Hennepin County				\$300,000	\$200,000

Justification:

The City of Golden Valley's annual creek inventory identified significant erosion in this reach of the creek. Continued erosion along the stream will result in increased sediment and pollutant loading downstream. Restoration and repair of the Main Stem in this area will reduce phosphorus and is consistent with BCWMC goals regarding water quality.

Scheduling and Project Status:
 A Feasibility Study should be completed in 2024. The project is anticipated for construction during the winter of 2025-2026.

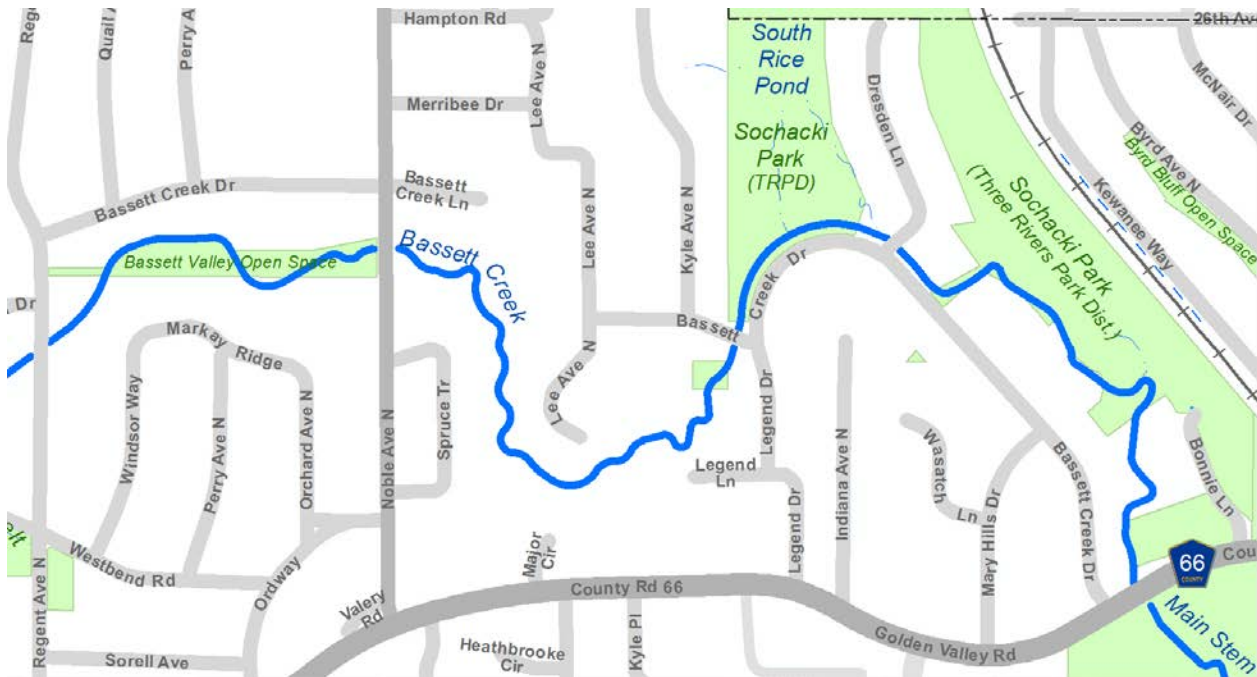
Relationship to BCWMC Plan and Other Projects:

This project is consistent with the goals and policies of the BCWMC Watershed Management Plan. It meets the criteria (policy 111) of protecting and improving water quality in a priority waterbody (Bassett Creek) and addressing erosion and sedimentation issues.

Three Rivers Park District has an interest in Sochacki Park and has been identified as a potential funding partner in this project.

Effect on Annual Operations Costs:

This project has no effect on BCWMC Annual Operations Costs.



Project Category: Water Quality

Project Title: Bassett Creek Park Water Quality Improvement Project

Total Estimated Cost: \$500,000

BCWMC Project Number: BC-11

Description:
 This project will include construction of water quality treatment facilities benefitting the main stem of Bassett Creek in cooperation with the MPRB park renovation. There is an opportunity for a wetland restoration component on the south side of Bassett Creek. Providing a better neighborhood connection to the creek and educational signage will also be considered as components of this project.

Source of Project Funding	2020	2021	2022	2023	2024
CIP Account – BWCMC ad valorem tax levy through Hennepin County					\$500,000

Justification:
 This water quality improvement project will remove sediment and pollutants from storm water runoff in the residential and park areas that discharge into Bassett Creek through Bassett Creek Park. The project meets gatekeeper criteria by improving water quality in a priority waterbody and is consistent with BCWMC goals.

Scheduling and Project Status:
 A feasibility study will need to be prepared for this project. A minor plan amendment will also be required. Construction of the project is anticipated for 2024.

Relationship to General Plan and Other Projects:
 While this project is consistent with the goals and policies of the BWCMC Watershed Management Plan it is not included in the current BCWMC CIP. A minor plan amendment will be required to add this project to the CIP. This project would be phased to take advantage of the MPRB park reconstruction. The overall project will improve water quality within Bassett Creek and will provide improved wildlife habitat and access to recreation in the creek.

Effect on Annual Operations Costs:
 This project has no effect on BCWMC Annual Operations Costs.



Project Category: Water Quality

Project Title: Ponderosa Woods Stream Restoration

Total Estimated Cost: \$475,000

BCWMC Project Number: ML-22

Description:

This project will restore a stream near Medicine Lake and which drains directly into the Plymouth Creek Water Quality ponds.

Source of Project Funding	2021	2022	2023	2024	2025
CIP Account – BWCMC ad valorem tax levy through Hennepin County				\$475,000	

Justification:

This stream restoration project will remove sediment from storm water runoff in the residential and park areas. Improving water quality in the Medicine Lake watershed is consistent with BCWMC goals.

Scheduling and Project Status:

A feasibility study will need to be prepared for this project. A minor plan amendment will also be required. Construction of the project is anticipated to begin in 2022 or 2024.

Relationship to General 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. A minor plan amendment will be required to add this project to the BCWMC CIP.

Effect on Annual Operations Costs:

This project has no effect on BCWMC Annual Operations Costs.



Project Category: Water Quality

Project Title: Sweeney Lake Water Quality Improvement Project

Total Estimated Cost: \$550,000

BCWMC Project Number: SL-8

Description:

This project in the city of Golden Valley will be partially funded with a Federal 319 grant from the MPCA. This project includes carp removal and management in Schaper Pond to reduce phosphorus entering Sweeney Lake from the pond, and an alum treatment in Sweeney Lake. Estimated total project cost is \$550,000. 40% local match is required or \$220,000.

Source of Project Funding	2020	2021	2022	2023	2024	2025
CIP Account – BCWMC ad valorem tax levy through Hennepin County	\$20,000 (+ \$330,000 grant funds)	\$200,000				

Justification:

This project has the real potential to effectively “flip” the lake from a eutrophic, algae dominated system, to a healthy, clear water system that can fully support aquatic recreation and a balanced ecosystem for aquatic biota. More than 35 watershed BMPs were constructed or improved between the mid-1980s and 2011. The city of Golden Valley recently inventoried more than 17 BMPs that have been implemented within the direct drainage to Sweeney Lake, alone. Watershed modeling completed for the TMDL study confirmed that the Schaper Pond outflow is the most critical source of watershed phosphorus entering Sweeney Lake and in-lake water quality modeling confirmed that the internal phosphorus load (from sediment phosphorus release) accounts for approximately 320 pounds of the summer phosphorus budget for the lake. Implementation of the proposed improvement options will address the final critical sources of internal and external phosphorus loads needed to meet the TMDL wasteload and load allocation objectives, and attain the State and BCWMC goals and standards for Sweeney Lake.

Scheduling and Project Status:

If awarded, the grant funding must be spent between spring 2020 and August 2023.

