

TAC Recommended BCWMC Capital Improvement Program 2019 – 2023

(Underlined/struck text = additions/deletions from 2018-2022 list)

Item 5Fii.
BCWMC 3-16-17

Project Name	City	Number	2016	2017	2018	2019	2020	2021	2022	2023	Totals
Honeywell Pond Expansion, Main Stem Watershed	GV	BC-4	\$1,202,000								\$1,202,000
Northwood Lake Improvement Project: Construct pond upstream of lake & install underground stormwater treatment and reuse system and bioinfiltration cells ^a	NH	NL-1	\$676,000	\$964,000 \$1,093,070							\$1,640,000 \$1,769,070
Main Stem Channel Restoration, Cedar Lake Road to Irving Ave	MPLS	2017CR-M		\$400,000	\$400,000 \$664,472						\$800,000 \$1,064,472
Plymouth Creek Restoration, from Annapolis Lane to 2,500 feet upstream (west) of Annapolis Lane	Plymouth	2017CR-P		\$710,000 \$580,930	\$150,000 \$282,643						\$860,000 \$863,573
Water Quality Improvement Site, Main Stem Watershed	GV	BC-3				\$300,000	\$800,000				\$1,100,000
Sandburg Rd and Louisiana Ave. Water Quality Improvement and Flood Reduction Project, Main Stem Watershed	GV	BC-2/BC-8				\$201,000	\$300,000				\$501,000
Medicine Lake Rd and Winnetka Ave Long Term Flood Mitigation Plan Project	GV, Crystal, New Hope	BC-2,3,8				<u>\$500,000</u>	<u>\$1,100,000</u>				<u>\$1,600,000</u>
Water quality improvements in Bryn Mawr Meadows, Main Stem Watershed	MPLS	BC-5				\$500,000					\$500,000
Medley Park Stormwater Treatment Facility	GV	ML-12					\$100,000	\$400,000	<u>\$200,000</u>	<u>\$300,000</u>	\$500,000
Restoration and stabilization of historic Bassett Cr channel, Main Stem Watershed	MPLS	BC-9							\$500,000		\$500,000
Main Stem Channel Restoration, Bassett Creek Dr. to Golden Valley Rd. (move to 2024-2025)	GV	2021CR-M						\$100,000	\$400,000		\$500,000
Stormwater treatment system for dissolved phosphorus removal, Sweeney Lake watershed (move beyond 2023)	GV	SL-11						\$400,000			\$400,000
<u>Mt. Olivet Stream Restoration Project</u>	<u>PLYM</u>	<u>ML-14</u>						<u>\$400,000</u>			<u>\$400,000</u>
Dredging of accumulated sediment in Main Stem Bassett Creek just north of Hwy 55, Wirth Park	GV/MPLS	BC-7						\$400,000			\$400,000
DeCola Ponds & Medicine Lk Rd Subwatershed Flood Reduction Project <u>Medicine Lake Rd and Winnetka Ave Long Term Flood Mitigation Plan Project</u>	Crystal, GV, or New Hope	BC-10							\$300,000	\$1,000,000	\$1,300,000
Bassett Creek Park Pond Dredging	Crystal	BCP-2			\$800,000 \$1,000,000						\$800,000 \$1,000,000
Westwood Lake Water Quality Improvement Project	St. Louis Park	WST-2				\$250,000 \$300,000					\$250,000 \$300,000
<u>Stormwater Pond in Jevne Park to alleviate flooding/improve water</u>	<u>Medicine Lake</u>	<u>ML-13</u>					<u>\$200,000</u>	<u>\$300,000</u>			<u>\$500,000</u>
<u>Parkers Lake Drainage Improvement Project</u>	<u>Plymouth</u>	<u>PL-7</u>						<u>\$200,000</u>	<u>\$200,000</u>		<u>\$400,000</u>
TOTAL Estimated Project Cost			\$1,878,000	\$2,074,000	\$1,350,000 \$1,947,115	\$1,300,000	\$1,300,000	\$1,300,000	\$1,200,000	\$1,300,000	\$12,299,115
City Contribute (\$450,000 for BC-4 + \$276,400 for NL-1)			-\$450,000	-\$276,400	-\$0	-\$0	-\$0	-\$0	-\$0	-\$0	-\$726,400
Grants Received ^b			-\$206,000	-\$494,000	-\$600,300						-\$1,300,300
Estimated Levy ^c			\$1,222,000	\$1,303,600	\$1,350,000 \$1,346,815	\$1,300,000	\$1,300,000	\$1,300,000	\$1,200,000	\$1,300,000	\$10,272,415

All project costs are estimates and are presented in 2016 dollars
^a NL-1 costs increased due to higher construction bids and reflects 2/18/16 action by Commission
^b \$300,000 MPCA Clean Water Partnership grant + \$400,000 BWSR Clean Water Fund grant for NL-1 (2016 and 2017); \$450,000 for 2017CR-P (2018) + \$150,300 for 2017CR-M (2018)
^c Levy amount for 2016 and 2017are actual figures

Project Category: Flood Reduction

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

Total Estimated Cost: \$1,600,000

BCWMC Project Number: BC-2, 3, 8

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	2017	2018	2019	2020	2021
CIP Account – BCWMC ad valorem tax levy through Hennepin County			\$500,000	\$1,100,000	

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. Identified 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.

Scheduling and Project Status:

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

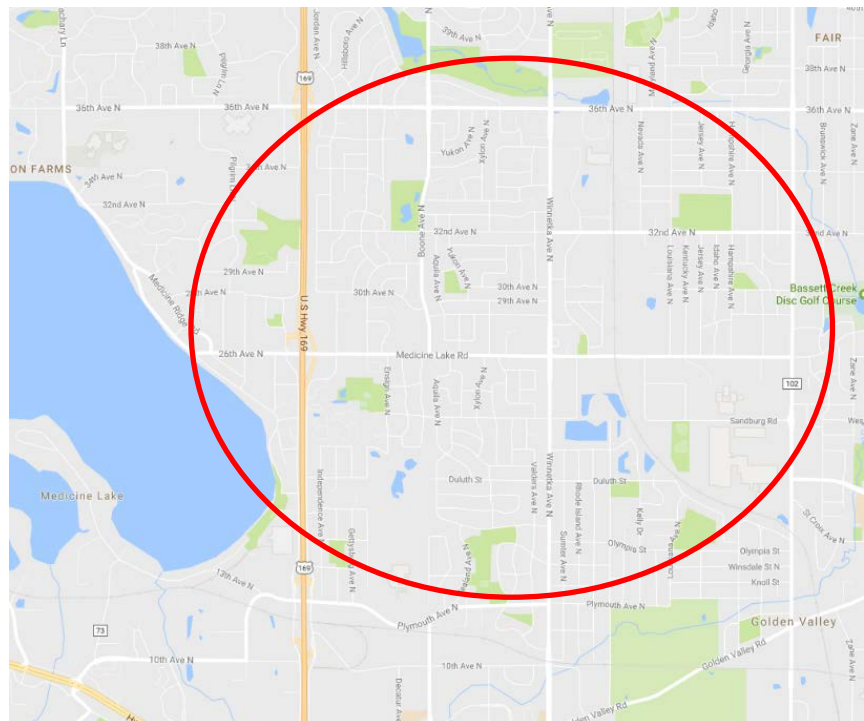
Relationship to BCWMC Plan and Other Projects:

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 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.

This project is one of many that will work to reduce flooding on Medicine Lake Road and adjacent properties as well as increase water quality entering Bassett Creek.

Effect on Annual Operations Costs:

This project has no effect on BCWMC Annual Operations Costs.



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:

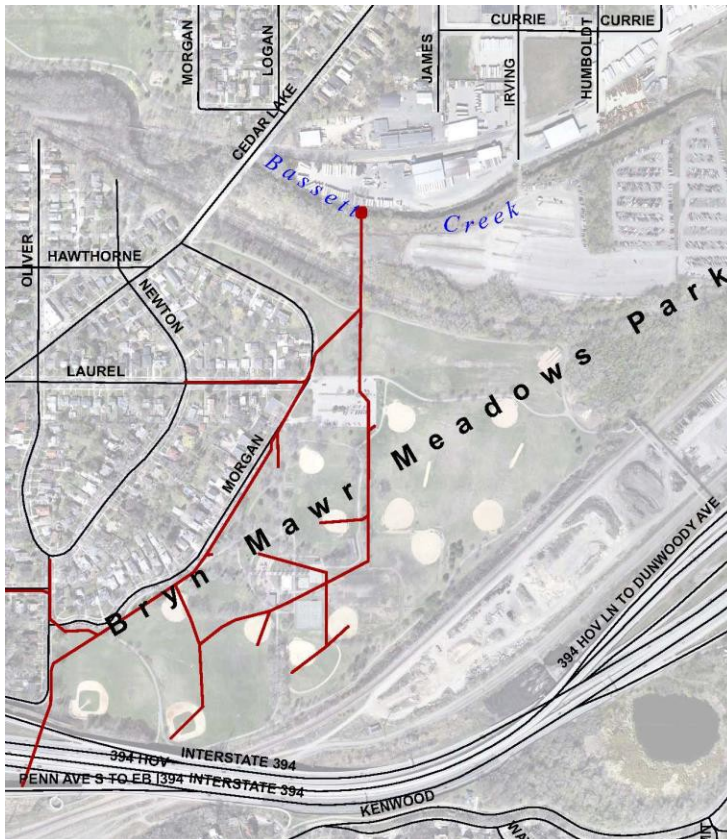
A feasibility study will need to be prepared for this project. As the project progresses, additional information will be provided.

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:

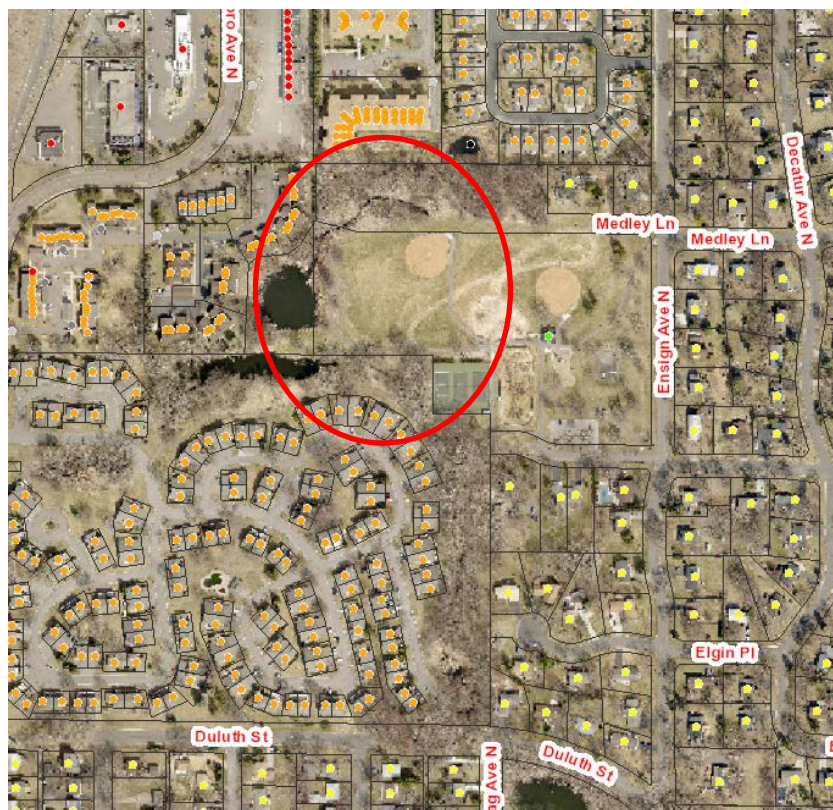
A Feasibility Study will need to be prepared for this project.

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-14

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	2017	2018	2019	2020	2021
CIP Account – BWCMC ad valorem tax levy through Hennepin County					\$400,000

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.

Scheduling and Project Status:

A Feasibility Study should begin on or about April 1, 2020. Project implementation is anticipated during the winter 2021 - 2022.

Relationship to General Plan and Other Projects:

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

Effect on Annual Operations Costs:

This project has no effect on BCWMC Annual Operations Costs.

Project Category: Flood Reduction

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

Total Estimated Cost: \$1,300,000

BCWMC Project Number: BC-10

Description:

Implementation of the Medicine Lake Road and Winnetka Avenue 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
CIP Account – BCWMC ad valorem tax levy through Hennepin County				\$300,000	\$1,000,000

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. Identified 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.

Scheduling and Project Status:

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

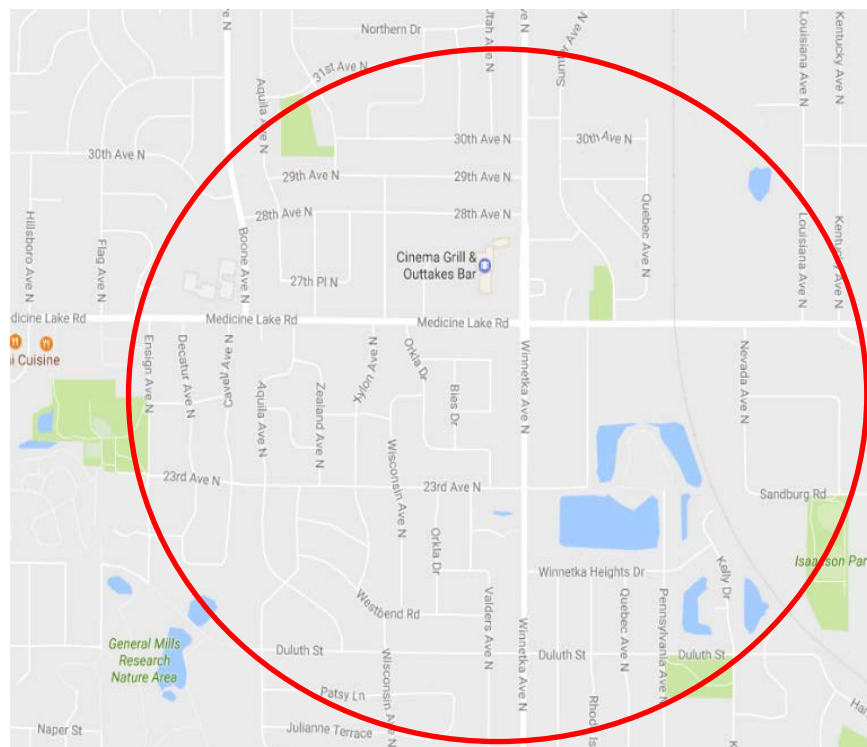
Relationship to BCWMC Plan and Other Projects:

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 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.

This project is one of many that will work to reduce flooding on Medicine Lake Road and adjacent properties as well as increase water quality entering Bassett Creek.

Effect on Annual Operations Costs:

This project has no effect on BCWMC Annual Operations Costs.



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:

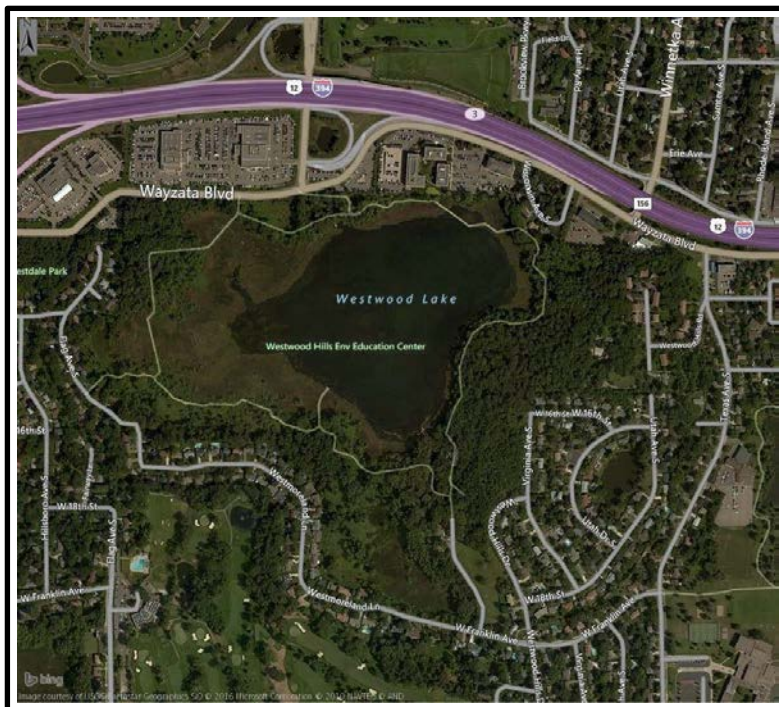
A Feasibility Study should be completed on or about April 1, 2018. This project is anticipated for construction during the summer of 2019.

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-13

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: **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				\$200,000	\$200,000

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.

