Item 6Di. BCWMC 3-19-15

# Table 1. Bassett Creek Watershed Management Commission ~ Proposition

Proposed Capital Improvement Program 2017 – 2021

Project Name	Project Location (City)	Project Number	2016 <sup>ª</sup>	2017	2018	2019	2020	2021	Totals
Honeywell Pond Expansion, Main Stem		Humber							
Watershed	Golden Valley	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	New Hope	NL-1	\$676,000	\$676,000					\$1,352,000
Main Stem Channel Restoration, Cedar Lake Road to Irving Ave	Minneapolis	2017CR-M		\$800,000					\$800,000
Plymouth Creek Restoration, from Annapolis Lane to 2,500 feet upstream (west) of Annapolis Lane	Plymouth	2017CR-P		\$200,000	\$400,000				\$600,000
Water Quality Improvement Site, Main Stem Watershed	Golden Valley	BC-3			\$601,000	\$499,000			\$1,100,000
Sandburg Rd and Louisiana Ave. Water Quality Improvement and Flood Reduction Project, Main Stem	Golden Valley	BC-2/BC-8				\$501,000			\$501,000
Water quality improvements in Bryn Mawr Meadows, Main Stem Watershed	Minneapolis	BC-5				\$500,000			\$500,000
Medley Park Stormwater Treatment Facility	Golden Valley	ML-12					\$500,000		\$500,000
Restoration and stabilization of historic Bassett Creek channel, Main Stem Watershed	Minneapolis	BC-9					\$500,000		\$500,000
Main Stem Channel Restoration, Bassett Creek Dr. to Golden Valley Rd.	Golden Valley	2021CR-M						\$500,000	\$500,000
Stormwater treatment system for dissolved phosphorus removal, Sweeney Lake watershed	Golden Valley	SL-11						\$400,000	\$400,000
Dredging of accumulated sediment in Main Stem Bassett Creek just north of Hwy 55, Wirth Park	Golden Valley	BC-7						\$400,000	\$400,000
TOTAL Estimated Project Cost			\$1,878,000	\$1,676,000	\$1,001,000	\$1,500,000	\$1,000,000	\$1,300,000	\$7,454,100
City Contributions (\$450,000 for BC-4 + \$2	06,000 for NL-1)		-\$656,000	-\$0	-\$0	-\$0	-\$0	-\$0	-\$656,000
Estimated Levy (without grants)			\$1,222,000	\$1,676,000	\$1,001,000	\$1,500,000	\$1,000,000	\$1,300,000	\$6,798,100

<sup>a</sup> Projects already approved for CIP; included in current proposed Plan Amendment; total levy amount to be finalized by June2015

Project Category: Water Quality

Project Title: Main Stem Channel Restoration, Cedar Lake Road to Irving Avenue, Minneapolis

Total Estimated Cost: \$800,000

Project Number: 2017CR-M

#### **Description:**

This project is one of the BCWMC's recommended stream channel restoration projects to restore stream reaches damaged by erosion or affected by sedimentation. The identified measures include installing stream stabilization measures to address erosion problems, grading reaches of streambank, stabilizing storm sewer outfalls that discharge into the channel, and establishing new vegetation on areas disturbed by construction.

Source of Project Funding	2013	2014	2015	2016	2017
CIP account – BCWMC ad valorem levy through Hennepin County					\$800,000

#### Justification:

This project will provide water quality improvements by repairing actively eroding sites, and preventing erosion at other sites by installing preemptive measures to protect existing streambanks.

# Scheduling and Project Status:

A Feasibility Report was completed in 2011 for the 2012/2013 project upstream of this one (BCWMC Account Number 2012CR, Main Stem Restoration for sites between Golden Valley Road and Cedar Lake Road). That Feasibility Report provides preliminary analysis and information for the 2017 project (for sites between Cedar Lake Road and Irving Avenue). A new or revised Feasibility Report will be needed with greater detail about the 2017 project sites.

# Relationship to General Plan and Other Projects:

This project is consistent with the goals and policies of the BCWMC Watershed Management Plan. Although this reach is not included in the BCWMC Resource management Plan, it fits with the intent of it due to its proximity and similarity to the other stream projects included in the RMP.

# Effect on Annual Operations Costs:

No effect.



Project Category:	Water Quality	Description:
Project Title:	Plymouth Creek Stream Restoration – Annapolis Lane through Plymouth Creek Park	This project in the city of Plymouth will include bank stabilization and erosion repair methods and will remove obstructions as necessary.
Total Estimated Cost:	\$600,000	Consideration should be given to a variety of best management practices including coir logs, erosion control blanket, live staking,
BCWMC Project Number:	2017CR-P	cross veins, riffles, rip-rap, and buffers.

Source of Project Funding	2015	2016	2017	2018	2019
CIP Account – BWCMC ad valorem tax levy through Hennepin County			\$200,000	\$400,000	

The City of Plymouth erosion inventory along Plymouth Creek, includes erosion and obstructions from Annapolis Lane, 2,500 feet upstream through Plymouth Creek Park. Rehabilitation and repair of Plymouth Creek in this area is consistent with BCWMC goals regarding water quality.

#### **Scheduling and Project Status:**

A Feasibility Study should begin on or about April 1, 2015. This project is anticipated for construction during the winter of 2016-2017.

# **Relationship to General Plan and Other Projects:**

This project is consistent with the goals and policies of the BWCMC Watershed Management Plan and is included in the City of Plymouth CIP.

#### **Effect on Annual Operations Costs:**



Project Category:	Water Quality	Description:
Project Title:	Main Stem Water Quality Improvement Sites – Wirth Park (north of Plymouth Ave, east of Wirth Pkwy)	This project will include construction of a water quality pond or similar storm water treatment facility benefitting the main stem of Bassett Creek.
Total Estimated Cost:	\$1,100,000	
BCWMC Project Number:	BC-3	

Source of Project Funding	2015	2016	2017	2018	2019
CIP Account – BWCMC ad valorem tax levy through Hennepin County				\$601,000	\$499,000

This water quality improvement project will remove sediment and pollutants from storm water runoff in the residential and park areas generally located north of Plymouth Ave and east of Theodore Wirth Pkwy. Improving water quality in Bassett Creek 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 2018.

# Relationship to General Plan and Other Projects:

This project is consistent with the goals and policies of the BWCMC Watershed Management Plan and is included in the plan as a "potential future" CIP project (Table 12-3). Per the Bassett Creek Main Stem Watershed Management Plan (2000), this project would treat the storm water runoff from a 115-acre area and remove an estimated 131 pounds of phosphorus per year. The project is included in the BCWMC Resource Management Plan. A minor plan amendment will be required to add this project to the BCWMC CIP.

# Effect on Annual Operations Costs:



Project Category: Project Title:	Water Quality & Flood Control Sandburg & Louisiana Water Quality Improvement and Flood Reduction Project			<b>Description:</b> This project will include construction of improvements to improve water quality and reduce flooding in the DeCola Ponds area. The improvements will be made in the area south of the intersection of Sandburg Rd and Louisiana Ave.			
Total Estimated Cost: BCWMC Project Number:	\$501,000 BC-2 / BC-8						
Source of Project Funding		2015	2016		2017	2018	2019
CIP Account – BWCMC ad valorem tax levy through Hennepin County							\$501,000

Justification:	Relationship to General Plan and Other Projects:
	This project has been added back in to replace projects
This flood reduction and water quality improvement	BC-2 and BC-8 and will be constructed as one project
project in the area south of the intersection of Sandburg	west of original BC-2 location.
Rd and Louisiana Ave will help protect nearby	
residences from flooding and remove sediment and	This project is consistent with the goals and policies of
pollutants from storm water runoff generated by the	the BWCMC Watershed Management Plan. Projects
surrounding industrial area. Reducing flooding impacts	BC-2 and BC-8 are included in the plan as "potential
and improving water quality in Bassett Creek is	future" CIP projects (Table 12-3). Per the Bassett Creek
consistent with BCWMC goals.	Main Stem Watershed Management Plan (2000),
	project BC-2 would remove an estimated 67 pounds of
Scheduling and Project Status:	phosphorus per year. Projects BC-2 and BC-8 were
	included in the BCWMC Resource Management Plan.
A feasibility study will need to be prepared for this	A minor plan amendment will be required to add this
project. A minor plan amendment will also be required.	project to the BCWMC CIP. The cost is a placeholder
Construction of the project is anticipated for 2019.	cost estimate. Project cost estimate expected in 2013.

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	Description:
Project Title:	Medley Park Pond – Medicine Lake Watershed	This project in the City of Golden Valley will include construction of a storm water
Total Estimated Cost:	\$500,000	treatment pond. Built in the City's Medley Park, the pond will remove phosphorous and
BCWMC Project Number:	ML-12	sediment from runoff. The park currently has poor soils which are not conducive to recreational programming.

Source of Project Funding	2016	2017	2018	2019	2020
CIP Account – BWCMC ad valorem tax levy through Hennepin County					\$500,000

Stormwater runoff from the roughly 100 acre watershed in the northwest section of the City of Golden Valley currently flows into ponds on the western side of Medley Park. The proposed stormwater pond would add storage and treatment capabilities to the existing ponds and would remove solids and phosphorous upstream of Medicine Lake.

#### Scheduling and Project Status:

The project is currently in the very early stages. Design and construction has not yet been scheduled.

#### **Relationship to General Plan and Other Projects:**

This project is consistent with the goals and policies of the BWCMC Watershed Management Plan and will be included in the City of Golden Valley CIP.

#### **Effect on Annual Operations Costs:**



**Description: Project Category: Channel Restoration** This project in the City of Minneapolis will **Project Title: Restoration & Stabilization of** include bank stabilization and erosion repair Historic Bassett Creek Channel methods and will remove obstructions as necessary. The project aims to mitigate **Total Estimated Cost:** \$500,000 impacts from flooding. It's believed that work associated with the Bottineau Light Rail Line will make most of the necessary **BCWMC Project Number:** BC-9 repairs, however this work proposed for 2020-2021 may also be needed.

Source of Project Funding	2017	2018	2019	2020	2021
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 is cleaning 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 begin on or about April 1, 2019. This project is anticipated for construction during the winter of 2020 - 2021.

# 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:**







City of Minneapolis PW-SWS/Ie March 2015

		Description:
Project Category:	Water Quality	This project in the city of Golden Valley will
Project Title:	Bassett Creek Main Stem Stream Restoration – Bassett Creek Drive to Golden Valley Road	include bank stabilization and erosion repair methods and will remove obstructions as necessary. Consideration should be given to a variety of best management practices
Total Estimated Cost:	\$500,000	including coir logs, erosion control blanket, live staking, cross veins, riffles, rip-rap, and buffers. Per BCWMC policy, the
BCWMC Project Number:	2021CR-M	Commission will strive to utilize soft armoring techniques as much as possible and wherever feasible.

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

The City of Golden Valley inventoried streambank conditions and areas of erosion along the main stem of Bassett Creek. This area is adjacent to Rice Lake Nature Area and Mary Hills Nature Area. The creek will be accessible for repairs and stabilization through public property. Rehabilitation and repair of Bassett Creek in this area is consistent with BCWMC goals regarding water quality.

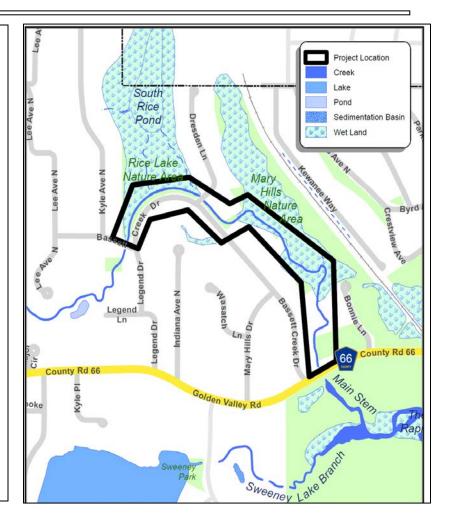
# Scheduling and Project Status:

A Feasibility Study should begin on or about April 1, 2020. This project is anticipated for construction during the winter of 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:



		Description:
Project Category:	Water Quality	This preject in the sity of Colden Volley will
Project Title:	Stormwater Treatment for Dissolved Phosphorus Removal, Sweeney Lake Watershed	This project in the city of Golden Valley will use an emerging technology to treat water in the Sweeney Lake Branch of Bassett Creek with spent lime or a similar product to reduce dissolved phosphorus
Total Estimated Cost:	\$400,000	concentrations. A portion of flow in the creek would be diverted for treatment; more than one treatment location may be
BCWMC Project Number:	SL-11	used. The "cleaned" creek water would be returned to the natural channel to flow on through Schaper Pond and into Sweeney Lake.

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

Sweeney Lake is on the State's Impaired Waters List for nutrients. While the Schaper Pond Project is projected to greatly improve water quality in Sweeney Lake, it's likely that dissolved phosphorus levels will still need to be reduced in the lake. This project was identified in the Sweeney Lake TMDL as a possible chemical treatment option.

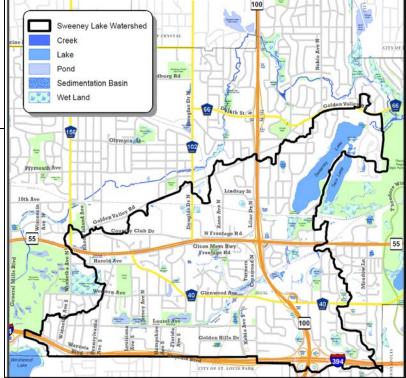
#### Scheduling and Project Status:

A Feasibility Study should begin on or about April 1, 2020. This project is anticipated for construction 2021.

# 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:



		Description:
Project Category:	Water Quality	This preject in Theodore Witth Dark in the
Project Title:	Dredging Accumulated Sediment In Main Stem Bassett Creek, Wirth Park	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
Total Estimated Cost:	\$400,000	winter (on frozen ground), equipment such as backhoes will be used to remove sediment within the channel. The removal
BCWMC Project Number:	BC-7	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	Relationship to General Plan and Other Projects:
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	This project is consistent with the goals and policies of the 2015 BWCMC Watershed Management Plan.
exposing rock or cobble for spawning beds and interstitial micro-habitats.	Effect on Annual Operations Costs:
	This project has no effect on BCWMC Annual
Scheduling and Project Status:	Operations Costs.
A Feasibility Study should begin on or about April 1,	
2020. Project implementation is anticipated during the winter 2021 - 2022.	