Item 5Cii.
BCWMC 7-20-17

PROPOSED REVISIONS Table 5-3 BCWMC 2015-2025 CIP
Gray boxes indicate revised areas including additions (underlined) and deletions (strikeout)

BCWMC ID	Capital Project Description		Estimated Capital Cost[1,2]	Year										
				2015	2016	2017	2018	2019	2020	2021	2022	2023	2024	2025
Watershed-wide														
WS-1	Remove sediment deltas in lakes downstream of intercommunity watersheds to reduce phosphorus and sediment loading, following evaluation of sediment sources and upstream source control (Policy 56)									TBD	TBD	TBD	TBD	TBD
	Implementation of water quality improvement projects resutling from Metro Chloride TMDL (pending) to address chloride loading (Policy 18)									TBD	TBD	TBD	TBD	TBD
	Implementation of water quality improvement projects resutling from the Upper Mississippi River Bacteria TMDL (Policy 7, generally)									TBD	TBD	TBD	TBD	TBD
	Implementation of water quality improvement projects resulting from future TMDLs (Policy 7, generally)									TBD	TBD	TBD	TBD	TBD
Medicine Lake														
ML-12	Projects address phosphorus load reduction requirements in Medicine Lake TMDL	Medley Park Stormwater Treatment Facility, Golden Valley	$ 500,000						~~$ 500,000~~		$200,000	$300,000		
ML-14 [3]		Medicine Lake shoreland restoration	$ 100,000							After ~~2020~~ 2023				
ML-15		Wet pond (0.5 acre) at downstream end of each major subwatershed	$ 2,000,000							After ~~2020~~ 2023				
ML-16		Water quality retrofits to existing ponds upstream of Medicine Lake	$ 11,000,000							After ~~2020~~ 2023				
ML-17		In-lake alum treatment (Option 18 in Medicine Lake Plan)	$ 1,400,000							After ~~2020~~ 2023				
ML-19 [4]		Chemical treatment of inflow to Medicine Lake from watershed	$ 1,000,000							After ~~2020~~ 2023				
ML-20		Mt. Olivet Stream Restoration Project	$400,000							$400,000				
ML-21		Jevne Park Stormwater Pond, City of Medicine Lake to alleviate flooding/improve water quality	$500,000						$ 200,000	$300,000				
Plymouth Creek														
2017CR-P [5]	Plymouth Creek Restoration, from Annapolis Lane to 2,500 feet upstream (east) of Annapolis Lane to reduce phosphorus and sediment loading, and improve habitat		~~$600,000~~ $863,573			~~$200,000~~ $580,930	~~$400,000~~ $282,643							
Sweeney Lake														
SL-3 [6]	Projects address phosphorus load reduction requirements in Sweeney Lake TMDL	Schaper Pond Diversion Project	$ 612,000											
SL-4		Sweeney Lake shoreland restoration	$ 300,000							After ~~2020~~ 2023				
SL-5		Water quality retrofits to existing ponds upstream of Sweeney Lake	$ 800,000							After ~~2020~~ 2023				
SL-6		Dredging of Spring Pond and diversion of Sweeney Lake branch into Spring Pond.	$ 1,000,000							After ~~2020~~ 2023				
SL-7		Projects to reduce loading from untreated Hennepin County and MnDOT right-ot-way	$ 400,000							After ~~2020~~ 2023				

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			2015	2016	2017	2018	2019	2020	2021	2022	2023	2024	2025
SL-8	Projects to address phosphorus load reductions identified in the Sweeney Lake TMDL: In-lake alum treatment of Sweeney Lake	$ 275,000							After ~~2020~~ 2023				
SL-9[4]	Chemical treatment of inflow to Sweeney Lake from Sweeney Lake Branch of Bassett Creek	$ 1,000,000							After ~~2020~~ 2023				
SL-10	Impervious area runoff retention and retrofits, including bioretention, rainwater gardens, and soil restoration (various locations)	$ 500,000							After ~~2020~~ 2023				
SL-11	Stormwater treatment system for dissolved phosphorus removal in Golden Valley	$ 400,000							~~$400,000~~	After 2023			
Twin Lake													
TW-2[6]	In-lake alum treatment of Twin Lake to reduce internal phosphorus loading	$ 160,000											
Bassett Creek Park Pond													
BCP-2	Dredging of Bassett Creek Park Pond and upstream channel improvements for water quality treatment to reduce phosphorus loading					$1,000,000			~~TBD~~	~~TBD~~	~~TBD~~	~~TBD~~	~~TBD~~
Northwood Lake													
NL-1[7]	Northwood Lake Water Quality Project to reduce phosphorus loading	~~$676,000~~ $1,769,070		$ 676,000	~~$676,000~~ $1,093,070								
NL-2[8]	Four Seasons Mall Area Water Quality Improvements to reduce phosphorus loading	$ 990,000											
	Implementation of water quality improvement projects recommended in future Northwood Lake TMDL study								TBD	TBD	TBD	TBD	TBD
Bassett Creek Main Stem													
2015CR-M[9]	Restore Main Stem channel, 10th Avenue to Duluth Street, Golden Valley to reduce phosphorus and sediment loading	$ 1,503,000	$ 1,503,000										
2017CR-M[10]	Main Stem Channel Restoration, Cedar Lake Road to Irving Ave to reduce phosphorus and sediment loading	~~$400,000~~ $1,064,472			$ 400,000	~~$400,000~~ $664,472							
2021CR-M	Main Stem Channel Restoration, Bassett Creek Drive to Golden Valley Road (in Golden Valley) to reduce phosphorus and sediment loading	$ 500,000							~~$ 500,000~~	After 2023			
~~BC-2/BC-8~~[11]	~~Sandburg Rd and Louisiana Ave. Water Quality Improvement and Flood Reduction Project, Main Stem Watershed (Golden Valley) to reduce phosphorus loading and reduce flooding~~	~~$ 501,000~~					~~$ 201,000~~	~~$ 300,000~~					
~~BC-3~~	~~Water Quality Improvement Site in Theodore Wirth Regional Park (Golden Valley) to treat untreated stormwater runoff to reduce phosphorus and sediment loading~~	~~$ 1,100,000~~				~~$ 501,000~~	~~$ 599,000~~						
BC2,3,8, 10	Medicine Lake Road and Winnetka Avenue Long Term Flood Mitigation Plan Implementation	$ 2,900,000					$ 500,000	$1,100,000		$300,000	$1,000,000		

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			2015	2016	2017	2018	2019	2020	2021	2022	2023	2024	2025
BC-4 [12]	Honeywell Pond Expansion, Main Stem Watershed (Golden Valley) to reduce phosphorus loading and provide water quantity benefits	$ 1,202,000		$ 1,202,000									
BC-5 [13]	Water Quality Improvements (phosphorus reduction) in Bryn Mawr Meadows, Main Stem Watershed (Minneapolis)	$ 500,000					$ 500,000						
BC-7	Dredging of accumulated sediment in Main Stem of Bassett Creek just north of Highway 55, Theodore Wirth Regional Park, to reduce phosphorus loading and improve habitat	$ 400,000							$ 400,000				
BC-9	Restoration and stabilization of historic Bassett Creek channel, Main Stem Watershed (Minneapolis) to reduce phosphorus and sediment loading	$ 500,000						~~$ 500,000~~		$500,000			
Westwood Lake													
WST-2	Westwood Lake Water Quality Improvement Project in Westwood Hills Nature Center	$300,000					$300,000						
Parkers Lake													
PL-7	Parkers Lake Drainage Improvement Project to reduce erosion, suspended solids, and total phosphorus to Pakers Lake	$400,000							$200,000	$200,000			
Crane Lake													
CL-3 [14]	Retention of impervious area drainage at Ridgedale area (e.g., bioswales, tree trenches, rain gardens) to reduce phosphorus laoding								TBD	TBD	TBD	TBD	TBD
	Total Annual Estimated Cost[15]	**~~$31,395,000~~ $35,239,115**	**$1,503,000**	**$1,878,000**	**~~$400,000~~ $2,074,000**	**~~1301000~~ $1,947,115**	**$1,300,000**	**$1,300,000**	**$1,300,000**	**~~TBD~~ $1,200,000**	**~~TBD~~ $1,300,000**		

Notes:

TBD = To be determined, usually at the time the project is listed in the working (5-year) CIP.

1. Project costs presented in 2015 dollars.

2. Estimated costs are from TMDL studies or from BCWMC 2017-2021 working CIP; as projects are added to the CIP, preliminary cost estimates will be added to the 5-year working CIP and refined through the feasibility study process.

3. ML-14: Project may include lakeshore restoration projects administered by the BCWMC. The City of Plymouth has already performed lakeshore restoration on some properties adjacent to Medicine Lake.

4. Estimated cost of projects ML-19 and SL-9 do not include the annual cost of chemical precipitant and operation/maintenance of treatment facility.

5. 2017CR-P: Project is based on recommednations in the 2009 Plymouth Creek Restoration feasibility study. Changes in figures reflect updated estimates

6. SL-3 and TW-2: Projects already levied, to be constructed in 2015.

7. NL-1: Project based on Option 4 of the 1996 Northwood Lake Watershed and Lake Management Plan. Project includes construction of a pond upstream of Northwood Lake and installation of underground stormwater treatment and reuse system, and bioinfiltration cells. Changes in figures reflect actual costs.

8. NL-2: The Four Seasons Mall Area Water Quality Project could include construction of stormwater treatment ponds,-restoration of an eroding stream channel, alum treatment of stormwater, or other projects to address phosphorus loading. The projects stem from recommendations from the 1996 *Northwood Lake Watershed and Lake Management Plan* . The 2012 feasibility study for the Four Seasons Mall Area Water Quality Project is still being considered and refined. The BCWMC has already levied for the project defined as option 1 in the 2012 feasibility study.

by BCWMC closed project account; to be constructed in 2015.

10. 2017CR-M: Project is based on recommendations in the Feasibility Study for 2012 Bassett Creek Main Stem Restoration Project (2011). Changes in figures reflect updated estimates.

11. BC-2/BC-8: Option 2 BC-HH1111-1 and Option 3 BC-HH11-1 in the Bassett Creek Main Stem Watershed Management Plan (2000).

12. BC-4: Project would divert currently untreated stormwater runoff to the pond.

13. BC-5: Project based on Option 7 in the Bassett Creek Main Stem Watershed Management Plan to treat currently untreated stormwater runoff to reduce phosphorus loading.

14. CL-3: Project is based on recommendations in the Crane Lake Watershed and Lake Management Plan (1995).

15. Includes estimated costs for projects not yet assigned an implementation year. Annual Estimated Costs do not necessarily reflect actual Hennepin County levy amount due to grants, financial contributions from cities, and use of CIP fund balance.