Item 4D.
BCWMC 8-16-18

**PROPOSED REVISIONS Table 5-3 BCWMC 2015-2025 CIP (Amended July 2017): Proposed additions and changes in yellow**

| BCWMC ID | Capital Project Description | | Estimated Capital Cost[1] | 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 | | | | | | | | $200,000 | $300,000 | | |
| ML-14[3] | | Medicine Lake shoreland restoration | $ 100,000 | | | | | | | After 2023 | | | | |
| ML-15 | | Wet pond (0.5 acre) at downstream end of each major subwatershed | $ 2,000,000 | | | | | | | After 2023 | | | | |
| ML-16 | | Water quality retrofits to existing ponds upstream of Medicine Lake | $ 11,000,000 | | | | | | | After 2023 | | | | |
| ML-17 | | In-lake alum treatment (Option 18 in Medicine Lake Plan) | $ 1,400,000 | | | | | | | After 2023 | | | | |
| ML-19[4] | | Chemical treatment of inflow to Medicine Lake from watershed | $ 1,000,000 | | | | | | | After 2023 | | | | |
| ML-20 | | Mt. Olivet Stream Restoration Project | $ 400,000 | | | | | | | $400,000 | | | | |
| ML-21 | | Medicine Lake to alleviate flooding/improve water quality | $ 500,000 | | | | | | $ 500,000 | | | | | |
| MN-22 | | Ponderosa Woods Stream Restoration | $ 475,000 | | | | | | | | | | $475,000 | |
| **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 | | $ 863,573 | | | $ 580,930 | $ 282,643 | | | | | | | |
| **Sweeney Lake** | | | | | | | | | | | | | | |
| SL-3[6] | horus load reduction eney Lake TMDL | Schaper Pond Diversion Project | $ 612,000 | | | | | | | | | | | |
| SL-4 | | Sweeney Lake shoreland restoration | $ 300,000 | | | | | | | After 2023 | | | | |
| SL-5 | | Water quality retrofits to existing ponds upstream of Sweeney Lake | $ 800,000 | | | | | | | After 2023 | | | | |
| SL-6 | | Dredging of Spring Pond and diversion of Sweeney Lake branch into Spring Pond. | $ 1,000,000 | | | | | | | After 2023 | | | | |
| SL-7 | | Projects to reduce loading from untreated Hennepin County and MnDOT right-ot-way | $ 400,000 | | | | | | | After 2023 | | | | |

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|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | | | 2015 | 2016 | 2017 | 2018 | 2019 | 2020 | 2021 | 2022 | 2023 | 2024 | 2025 |
| SL-8 | Projects to address phosp requirements in-Swee: In-lake alum treatment of Sweeney Lake | $ 275,000 | | | | | | | After 2023 | | | | |
| SL-9[4] | ~~Chemical treatment of inflow to Sweeney~~ Lake from Sweeney Lake Branch of Bassett Creek | $ 1,000,000 | | | | | | | After 2023 | | | | |
| SL-10 | Impervious area runoff retention and retrofits, including bioretention, rainwater gardens, and soil restoration (various locations) | $ 500,000 | | | | | | | After 2023 | | | | |
| SL-11 | Stormwater treatment system for dissolved phosphorus removal in Golden Valley | $ 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 | | | | | | | |
| **Northwood Lake** | | | | | | | | | | | | | |
| NL-1[7] | Northwood Lake Water Quality Project to reduce phosphorus loading | $ 1,769,070 | | $ 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 | $ 1,064,472 | | | $ 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 | | | | | | | ~~TBD~~ | ~~TBD~~ | ~~TBD~~ | $ 300,000 | $ 200,000 |
| BC2,3,8, 10 | Medicine Lake Road and Winnetka Avenue Long Term Flood Mitigation Plan Implementation | $ 2,900,000 | | | | | $ 1,100,000 | $ 500,000 | | $ 300,000 | $ 1,000,000 | | |
| 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~~ | $ 100,000 | $ 400,000 | | | | |
| 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 | | | | |

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|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | | | 2015 | 2016 | 2017 | 2018 | 2019 | 2020 | 2021 | 2022 | 2023 | 2024 | 2025 |
| BC-9 | Restoration and stabilization of historic Bassett Creek channel, Main Stem Watershed (Minneapolis) to reduce phosphorus and sediment loading | $ 500,000 | | | | | | | | $ 500,000 | | | |
| BC-11 | Bassett Creek Park Water Quality Improvement Project | $ 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 | | | | | | | $ 100,000 | $ 300,000 | | | |
| **Crane Lake** | | | | | | | | | | | | | |
| CL-3 [14] | Retention of impervious area drainage at Ridgedale area (e.g., bioswales, tree trenches, rain gardens) to reduce phosphorus loading | $300,000 | | | | | | $ 300,000 | ~~TBD~~ | ~~TBD~~ | ~~TBD~~ | ~~TBD~~ | ~~TBD~~ |
| | **Total Annual Estimated Cost[2]** | **$36,729,115** | **$1,503,000** | **$1,878,000** | **$2,074,000** | **$1,947,115** | **$1,400,000** | **$1,400,000** | **$1,300,000** | **$1,300,000** | **$1,300,000** | **$1,275,000** | |

**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. 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
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.
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.
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.
9. 2015CR-M: Project is based on recommendations in the Feasibility Study for 2015 Bassett Creek Main Stem Restoration Project (2014). Project already levied: the BCWMC certified a levy to the county for 2015 ($1,000,000); remaining
10. 2017CR-M: Project is based on recommendations in the Feasibility Study for 2012 Bassett Creek Main Stem Restoration Project (2011).
12. BC-4: Project diverts 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).