Section 4.1.5 Capital Improvements

The BCWMC will continue implementing a robust capital improvement program (CIP) utilizing MN Statute 103B.251 to collect funds levied by Hennepin County to study, design, and construct large capital projects aimed at improving or protecting water quality, reducing flood risk, or mitigating water quantity issues.

Only projects that meet one or more "gatekeeper" criteria will be considered by the BCWMC for inclusion in the CIP:

- 1. Project is part of the BCWMC trunk system (See Appendix X, Figures X)
- 2. Project improves or protects water quality in a priority waterbody
- 3. Project addresses an approved Total Maximum Daily Load (TMDL), watershed restoration and protection strategy (WRAPS), or subwatershed analysis (SWA)
- 4. Project addresses flooding concern, or other high priority water quantity issue

The BCWMC focuses its resources on projects that primarily address water quality and water quantity issues; additional benefits are considered when identifying and prioritizing projects. Table X-1 lists the CIP projects the BCWMC plans to implement over the next 10 years. The 10-year CIP includes planning level costs and general timeframes for implementation. In addition to Table X-1, the BCWMC maintains a "working version" of its CIP that covers a 5-year period. The BCWMC annually reviews its working CIP to consider whether new projects should be added to the CIP or whether project implementation dates and funding sources should be changed, as necessitated by changing priorities, funding availability, partnering opportunities, or other factors. New projects suggested by the BCWMC or member cities are sent to the Technical Advisory Committee (TAC) for consideration. The TAC develops a draft working CIP which is reviewed and revised by the BCWMC. Following another round of TAC review, the BCWMC approves the working CIP.

To prioritize the most impactful projects for addressing BCWMC goals, the BCWMC scores and ranks projects being evaluated for inclusion in the working CIP using a prioritization matrix. The BCWMC will maintain and use this matrix as a guidance document and may update it, as needed. The matrix includes criteria in four over-arching categories with specific criteria in each including (but not limited to):

"Primary benefits" such as

- Project addresses a TMDL, WRAPS, or SWA
- Project addresses chloride pollution
- Project is located in a pollution "hot spot"
- Project addresses a flooding concern

"Jurisdiction" such as

- Project is in intercommunity subwatershed
- Project is located in area of social vulnerability

"Opportunity" such as

- Project partners are identified
- Coordinated with redevelopment or infrastructure project

"Secondary benefits" such as

- Habitat
- Educational
- Groundwater improvements

Once the BCWMC adds a project to its working CIP, the BCWMC follows the process outlined in the JPA and depicted in Figure X. CIP project implementation begins with the preparation of a feasibility study, which evaluates information, data, and outcomes for various alternatives. The study results in clearly analyzed alternatives for the desired outcome and enough specificity to judge the merits of each alternative, and the benefits (or lack thereof) of the project itself. (See side bar for elements of feasibility studies. This list may be updated over time and will be retained as a guidance document outside of this Plan.)

If, after reviewing the feasibility report, the BCWMC approves implementation of the project, the BCWMC must hold a public hearing on the proposed project, giving at least 45 days' notice to the clerk of each member city. After the hearing, the BCWMC may order the project by a two-thirds vote of its members and then certify a levy to Hennepin County for the cost of the project. The BCWMC may also apply for grant funds to cover project costs.

There are different phases of CIP project implementation, including design, permitting, public engagement, bidding, construction, and ongoing maintenance. Once a CIP project is ordered, the BCWMC may enter an agreement with a member city or other partner to implement all or some phases of the project. Or the BCWMC may implement the entire project on its own. This flexibility can maximize efficiency in the CIP program as entities cooperate on projects understanding that staff capacity, strengths, and experience differ between projects and among partners. Project designs must be approved by BCWMC commissioners at the 50% and 90% stage before project construction can move forward.

Most, but not all, CIP project costs are eligible for funding via BCWMC CIP project funds. Table X-2 lists the types of CIP project costs that are either eligible or potentially eligible to be funded using BCWMC CIP project funds. For CIP projects implemented by entities other than the BCWMC, the BCWMC would reimburse these CIP project costs to the implementing entity, as outlined and specified in an implementation agreement. The CIP project feasibility studies should provide enough

Elements of a CIP Feasibility Study

- Identified Commission goals (from Watershed Management Plan) that are addressed by each alternative
- Clearly analyzed pros and cons of each alternative
- Estimated annualized costs per pound pollutant removal or cost per acrefoot additional flood storage for each alternative
- Identified permitting requirements
- Estimated costs for each alternative that are appropriate for the level of detail in the study
- Identification of potential eligible project costs
- Estimated life span of the alternatives
- A "30-year cost" for each alternative
- Evaluation of new and/or innovative approaches or technologies, as appropriate.
- Input gathered from the public, technical agencies, and partners
- Consideration for incorporating educational signage and/or public art

cost information for the BCWMC to discuss and decide which project costs are eligible for funding or reimbursement from the BCWMC's CIP project funds.

Figure X. CIP Implementation Process

January/February/March each year:

- Commission approves 5-year CIP with input and recommendations from Technical Advisory Committee and review of project scoring on the CIP prioritization matrix
- An amendment to the Watershed Management Plan is proposed, if needed to keep the Plan's 10-year CIP up to date. This process includes a **public hearing**, typically held in May.

For projects officially on the CIP (either already on the existing CIP or added through the plan amendment process):

Two years before levy/implementation year:

- Summer: Commission approves scope of work and budget from the Commission Engineer for completing a feasibility study (see sidebar for feasibility study components)
- Fall: Feasibility study gets underway including outreach to local residents, businesses, and other stakeholders
- Fall: A **project webpage** is published with complete and updated information, documents, and announcements

One year before levy/implementation year:

- Spring: Commission reviews feasibility study and decides on best alternative to implement
- May or June: Commission sets maximum levy for following year. The final levy amount can be lower than the maximum levy, but cannot be higher.
- September: Commission holds a **public hearing**, and considers officially ordering the project including certifying costs to Hennepin County (i.e., setting the final levy) and entering agreements with the entities responsible for design and construction of the projects. (The implementing entity is typically the city where the project is located.)
- Fall: Implementing entity begins project design.

Year of levy/implementation:

- Spring: 60% Project Design Plans are reviewed by Commission Engineer who then makes recommendation to Commission for approval or changes. Implementing entities typically seek feedback from local residents on the draft designs.
- Summer: 90% Project Design Plans are reviewed by Commission Engineer who then makes recommendation to Commission for approval or changes
- Fall/Winter: Construction begins

Table X-2. CIP Project Costs Eligible for Funding through the BCWMC's CIP Project Fund

Project costs eligible for reimbursement from	Other project costs that will be considered for whole or							
BCWMC:	partial reimbursement on a project by project basis*:							
Feasibility study costs	Easement acquisition							
Pre-project planning, monitoring (e.g., fish surveys, feasibility study review/follow-up)	Property acquisition							
Plan amendment costs	Utility relocation							
Grant application & administration costs	City improvements associated with the project but not directly tied to the goals of the BCWMC (e.g. trails, pedestrian bridges, signage)							
Permitting costs and fees	Contaminated soils/groundwater remediation							
Engineering and design costs (plans & specs)	City staff time and expenses (if not requested prior to levy certification)							
Construction costs	Wetland mitigation or replacement							
Project bidding & advertising fees	Art/aesthetic improvements directly associated with the project							
Construction administration & observation costs	Educational signage							
Warranty period monitoring costs – e.g., wetland monitoring, vegetation monitoring, post-construction inspection								
City staff time and expenses (if requested prior to levy certification)								
Other BCWMC administration and engineering time, including tracking CIP project budget, engineering plan review and reviewing reimbursement requests								
Transfer to BCWMC administrative fund for CIP administrative expenses, as designated by the Commission								
*The BCWMC will consider potential project costs on a c								

*The BCWMC will consider potential project costs on a case-by-case basis. Factors influencing eligibility decisions include the cost effectiveness of the project such as the cost per pound of pollutant removal, the cost per acrefoot of flood storage, or similar metrics (as appropriate) relative to past BCWMC projects and other available references, along with partnerships, grant opportunities, opportunities to advance related Commission goals (such as habitat and education), and others.

Long term (on-going) maintenance of BCWMC-funded CIP projects (such as stormwater ponds, streambank stabilization, underground storage, pipes, culverts, etc.) is typically the responsibility of the city where the project is located and is memorialized in an agreement with the city or other partner, as appropriate. This is due, in part, to the Joint Powers Agreement not allowing the BCWMC to own property. The BCWMC may pursue the establishment of a CIP Maintenance Levy through Hennepin County for maintenance of certain types of projects (typically non-structural projects) such as alum treatments, carp management, regular dredging, etc. Some smaller CIP project maintenance performed by cities can also be funded through the Commission's Channel Maintenance Fund, including pond dredging and streambank repair. Once a project has come to the end of its expected life, a new CIP project to reconstruct or rehabilitate the project could be added to the CIP list.

To date, the BCWMC's CIP has focused projects on public lands such as parks and easements along stream corridors. However, moving forward, as space for improvement projects on public land diminishes, it is likely that the BCWMC may want to partner with non-public entities (including developers) on CIP projects. To enable this, the BCWMC may develop a framework for public-private partnerships or a cost share program with public, private, or non-profit entities that incentivizes these entities to implement practices that go "above and beyond" pollutant removals or flood management required by regulations. The BCWMC could develop such a program utilizing the experience of other watershed organizations with similar programs; the program could result in significant watershed improvements within the context of the CIP.

For projects not currently included in Table X-1, the BCWMC must initiate a plan amendment to add the project to its CIP prior to certifying a levy to Hennepin County. The amendment process is described in Section X and requires a public hearing. Inclusion of a project in the BCWMC CIP Table X-1 allows the BCWMC to certify a levy to Hennepin County for the project, as well as apply for various grant funds. Following adoption of the plan amendment, the BCWMC will proceed with certifying a levy to Hennepin County, and project implementation as described herein.

The BCWMC may implement the projects listed in Table X-1 on a different schedule than shown in the table as circumstances dictate. For example, the availability of grants and partnerships could result in either acceleration or delay of projects. The BCWMC will consider such shifts in the schedule or adjustments to budgets as consistent with this Plan and will not require a plan amendment.

Table X-1 Capital Improvement Program

											Years of Imp	lementation				
ID I	Resource or Area	Project Title (status, if applicable)	Plan issue/goal addresses	Project description/need	Potential Partners	Planning Level Cost	2026	2027	2028	2029	2030	2031	2032	2033	2034	2035
1 N	1edicine Lake	Projects resulting from Medicine Lake TMDL Assessment	Impaired Waters: Medicine Lake delisting for nutrients	Projects and BMPs will vary depending on assessment results	Plymouth, Medicine Lake, TRPD	\$ 2,000,000					\$ 1,000,000	\$ 1,000,000				
2 N	1edicine Lake	Medicine Lake Shoreland Restoration (ML-14) (included in 2015 watershed plan but not implemented)	Lakeshore Erosion: Increase percentage of properties with native buffers on nutrient impaired lakes.	(This project may be redundant to #21 below and/or may be captured in Medicine Lake TMDL assessment recommendations from #1 above.)	Plymouth, Medicine Lake, TRPD	\$ 150,000		\$ 50,000	\$ 50,000	\$ 50,000						
3	Northwood Lake	Projects resulting from Northwood Lake TMDL and Subwatershed Analysis (SWA)	Impaired Waters: Northwood Lake WQ improvements	Projects and BMPs will vary depending on assessment results	New Hope	\$ 1,000,000						\$ 500,000	\$ 500,000			
4	Lost Lake	Projects resulting from Lost Lake TMDL and Subwatershed Analysis (SWA)	Impaired Waters: Lost Lake WQ improvements	Projects and BMPs will vary depending on assessment results	Plymouth	\$ 1,000,000							\$ 500,000	\$ 500,000		
5	Crane Lake	Retention of impervious area drainage at Ridgedale area (CL-3) (included in 2015 watershed plan but not implemented)	Impaired Waters: Impaired Waters: Maintain or improve water quality in priority lakes and streams	Crane Lake outlets to Medicine Lake; Examples of projects include bioswales, tree trenches, rain gardens	Minnetonka	\$ 300,000	\$ 300,000									
6		Bassett Creek Main Stem Restoration - Regent Ave to Golden Valley Rd	Impaired Waters: Achieve stable streambanks along all priority streams; Maintain or improve macroinvertebrate indices of biological integrity (MIBI) in priority streams; Maintain or improve water quality in priority streams	Will reduce phosphorus and sediment loading to downstream resources including Bassett Creek and Mississippi River. May possibly improve riparian and in-stream habitats.	City of Golden Valley	\$ 2,241,000	\$ 653,500									
7	Main Stem assett Creek	Medicine Lake Road and Winnetka Avenue Long Term Flood Mitigation Plan Implementation - DeCola Pond F Flood Storage & Diversion Project	Flooding/Climate Change Impacts: Reduce flood risk to structures and infrastructures	Based on projects identified in the Medicine Lake Rd. and Winnetka Ave. Long Term Flood Mitigation Plan. Two projects already constructed (DeCola Ponds B&C and SEA School & Wildwood Park Projects).	Golden Valley, New Hope, Crystal	\$ 2,000,000		\$ 1,000,000	\$ 1,000,000							
8		Bassett Creek Valley floodplain reduction and stormwater management projects	Bassett Creek Valley: Collaborate on evaluation, sequencing, and implementation of multi-beneficial projects within the Bassett Creek Valley to create regional flood storage, reduce floodplain by at least 8 acres, improve regional stormwater management, and improve creek access.	Projects that result in regional flood storage, reduce floodplain by at least 8 acres, improve regional stormwater management, and improve creek access.	Minneapolis, MPRB, Hennepin County	\$ 5,000,000						\$ 1,000,000	\$ 1,000,000	\$ 1,000,000	\$ 1,000,000	\$ 1,000,000
9	Main Stem assett Creek	Restoration and stabilization of historic Bassett Cr channel north of Hwy 55, Minneapolis (<i>included</i> <i>in 2015 watershed plan but not implemented</i>)	Impaired Waters: Maintain or improve water quality in priority streams	Will reduce phosphorus and sediment loading to downstream resources including Bassett Creek and Mississippi River. Removed from CIP list due to low priority	Minneapolis	\$ 1,200,000				\$ 600,000	\$ 600,000					
10	assett Creek	Bassett Creek Park water quality improvements or wetland restoration, Minneapolis (<i>included in</i> 2018 version of CIP list but later removed due to low priority)	Wetland Health & Restoration: Restore or enhance priority wetlands as opportunities arise or adjacent CIP projects are planned	Construction of BMPs benefitting Bassett Creek, potentially in conjunction with MPRB park renovations. May be an opportunity for a wetland restoration on the south side of Bassett Creek. Provides a better neighborhood connection to the creek.	Minneapolis, MPRB	\$ 700,000			\$ 350,000	\$ 350,000						
111		Deep Tunnel (Double Box Culvert) Repair (FCP-1) (<i>slated for 2026/2027)</i>	Flooding/Climate Change Impacts: Reduce flood risk to structures and infrastructures	Maintenance of Flood Control Project; project would address needed repairs along the 5,600-foot- long tunnel	Minneapolis	\$ 1,200,000	\$ 850,000	\$ 350,000								
12	Main Stem Bassett Creek	Toledo Ave/Minnaqua Pond Stormwater Improvements & Flood Reduction (BC-13) – (<i>slated for 2028/2029</i>)	Impaired Waters: Maintain or improve water quality in priority lakes and streams; Flooding/Climate Change Impacts: Reduce flood risk to structures and infrastructures	Relocating infrastructure, creating flood storage, and redesigning the pond/stream interface will lower flood risk and damage, improve water quality of Bassett Creek and downstream waters, improve maintenance, and enhance vegetation and wildlife habitat.	Golden Valley	\$ 900,000			\$ 400,000	\$ 500,000						
12		Bassett Creek Lagoon Dredging in Theodore Wirth Park (BC-7) (<i>slated for 2027/2028)</i>	Impaired Waters: Maintain or improve water quality in priority streams; improve habitats for macroinvertebrates and fish	Original project was not completed to specifications. This project will finish the project and/or complete a project with similar outcomes in upstream areas.	Golden Valley, MPRB	\$ 800,000		\$ 200,000	\$ 600,000							
14	Main Stem assett Creek	Deep Tunnel Sediment Removal	Flooding/Climate Change Impacts: Reduce flood risk to structures and infrastructures	Maintenance of Flood Control Project; sediment removal near the outfall to the Mississippi River in conjunction with 2030 scheduled deep tunnel inspection.	Minneapolis, USACE	\$ 2,000,000					\$2,000,000					
15	Main Stem assett Creek	Deep Tunnel repairs	Flooding/Climate Change Impacts: Reduce flood risk to structures and infrastructures	Maintenance of Flood Control Project; perform repairs identified in tunnel inspection reports, including void filling, infiltration repairs, concrete debris removal, and shaft modifications, plus any additional repairs identified in the 2030 inspection.	Minneapolis, USACE	\$ 5,000,000										\$ 5,000,000
16	Main Stem Bassett Creek	Bassett Creek restoration within Brookview Golf Course	Impaired Waters: Achieve stable streambanks along all priority streams; Maintain or improve macroinvertebrate indices of biological integrity (MIBI) in priority streams; Maintain or improve water quality in priority streams	From Golden Valley staff	Golden Valley	\$ 1,200,000	???	???	???	???	\$ 600,000	\$ 600,000	???	???	???	???

)	ears of Imple	ementation					
ID	Resource or Area	Project Title (status, if applicable)	Plan issue/goal addresses	Project description/need	Potential Partners	Planning Level Cost	2026	2027	2028	2029	2030	2031	2032	2033	2034	203	15
17	Main Stem Bassett Creek	City Hall Campus Redesign Stormwater Improvements & Interpretive Area	Impaired Waters: Maintain or improve water quality in priority streams; potentially address chloride water quality goals and engagement goals	From Golden Valley staff; could be an opportunity to do something like MWMO plus Indigenous installation/reflection/vegetation, community gathering space, etc	Golden Valley	???	???	???	???	???	???	???	???	???	???	??	?
18	Main Stem Bassett Creek	Stormwater & Habitat Improvements in Hampshire Park (includes flood mitigation)	Impaired Waters: Maintain or improve water quality in priority streams; Flooding/Climate Change Impacts: Reduce flood risk to structures and infrastructures	From Golden Valley staff	Golden Valley	???	???	???	???	???	???	???	???	???	???	??	?
19	Main Stem Bassett Creek	Stormwater & Habitat Improvements in Orkla Park (includes flood mitigation)	Impaired Waters: Maintain or improve water quality in priority streams; Flooding/Climate Change Impacts: Reduce flood risk to structures and infrastructures	From Golden Valley staff	Golden Valley	???	???	???	???	???	???	???	???	???	???	??	?
20		Bassett Creek Park Pond Dredging and Upstream Channel Improvements, Crystal	Impaired Waters: Maintain or improve water quality in priority streams	This project was originally studied in 2017 in conjunction with a study of Winnetka Pond dredging. The final project resulted only in dredging of Winnetka Pond with an understanding the Bassett Creek Park Pond dredging would be completed in the future.	Crystal	\$ 1,200,000				ç	\$ 600,000	\$ 600,000					
21	Plymouth Creek	Plymouth Creek Restoration Project Dunkirk Lane to Plymouth Ice Center	Impaired Waters: Achieve stable streambanks along all priority streams; Maintain or improve macroinvertebrate indices of biological integrity (MIBI) in priority streams; Maintain or improve water quality in priority streams	Will reduce phosphorus and sediment loading to downstream resources including Medicine Lake. May possibly improve riparian and in-stream habitats.	Plymouth	\$ 2,600,000	\$ 1,300,000										
22	Plymouth Creek	Fernbrook Regional Stormwater Improvements	Impaired Waters: Maintain or improve water quality in priority streams; Flooding/Climate Change Impacts: Reduce flood risk to structures and infrastructures	This project in the city of Plymouth will construct a regional stormwater treatment system to reduce flooding and improve water quality in downstream Plymouth Creek and Medicine Lake in the area north of Highway 55 on Fernbrook Lane.	Plymouth	\$ 3,000,000		\$ 500,000	\$ 500,000	\$ 2,000,000							
23	Sweeney Branch Bassett Creek	Culvert Repair/Replacement: Sweeney Lake to Sweeney Branch Bassett Creek, Golden Valley	Flooding/Climate Change Impacts: Reduce flood risk to structures and infrastructures	This project in Golden Valley will repair or replace aging infrastructure that facilitates the flow of the Sweeney Lake Branch of Bassett Creek, helps to protect critical regional watermain infrastructure, and prevents flooding of nearby buildings and property.	Golden Valley	\$ 1,000,000			\$ 500,000	\$ 500,000							
24	Watershed- wide	Shoreline improvement projects on priority lakes	Lakeshore Erosion: Increase percentage of properties with native buffers on nutrient impaired lakes.		Cities	\$ 500,000		\$ 50,000	\$ 50,000	\$ 50,000 \$	50,000	\$ 50,000	\$ 50,000	50,000	\$ 50,00	00 \$ 5	0,000
25	Watershed- wide	Streambank restoration and channel/habitat improvements on priority streams; various segments	Impaired Waters: Achieve stable streambanks along all priority streams; Maintain or improve macroinvertebrate indices of biological integrity (MIBI) in priority streams; Maintain or improve water quality in priority streams	Based on surveys of streambanks and riparian areas; projects to restore streams, introduce in- channel habitat, overhanging vegetation, and woody debris	Cities	\$ 2,400,000						\$ 600,000	\$ 600,000		\$ 600,00	00 \$ 60	J,000
26	Watershed- wide	Curly-leaf pondweed control for WQ improvement	Impaired Waters: Improve lake water quality AIS: Mitigate the impact of existing AIS infestations	Per AIS management policies.	Cities, Hennepin County, TRPD, MDNR	\$ 200,000	\$ 20,000	\$ 20,000	\$ 20,000	\$ 20,000 \$	5 20,000	\$ 20,000	\$ 20,000	\$ 20,000	\$ 20,00	00 \$ 2	3,000
27	Watershed- wide	Implementation of recommendations from Street Sweeping Prioritization Project	Impaired Waters: Improve lake and stream water quality; reduce chloride loading to lakes and streams; reduce chloride concentrations in Bassett Creek by 10%	Potentially includes equipment purchase cost share or augmented street sweeping programs	Cities	\$ 400,000	\$ 40,000	\$ 40,000	\$ 40,000	\$ 40,000 \$	6 40,000	\$ 40,000	\$ 40,000	40,000	\$ 40,00	00 \$ 4),000
28	Watershed- wide	Private Developer Cost-share for Project Performance Beyond Minimum Standards (water quality and/or flood control)	Multiple goals including water quality improvements and flood reduction	Requested on multiple occasions by TAC. Fewer and fewer opportunities for projects on public land. Cooperation with private property owners is needed.	Cities	\$ 900,000		\$ 100,000	\$ 100,000	\$ 100,000 \$	5 100,000	\$ 100,000	\$ 100,000	\$ 100,000	\$ 100,00	00 \$ 10	0,000
29		Chloride Reduction Projects or cost-share program	Impaired Waters: Reduce chloride loading to lakes and streams	Prioritization given to areas tributary to chloride- impaired waters. Cost share program could be developed for city and private entities. Examples include equipment upgrades, brining equipment, porous pavement, heated surfaces, reconfiguring sites for less ice build-up	Cities	\$ 450,000		\$ 50,000	\$ 50,000	\$ 50,000 \$	50,000	\$ 50,000	\$ 50,000 \$	50,000	\$ 50,00	00 \$ 5	D,000
30	Watershed- wide	Flood risk reduction cost share program (for habitable structures)	Flooding/Climate Change Impacts: Reduce flood risk to structures and infrastructures	Floodproofing or flood risk reduction projects for homes	Cities	\$ 400,000			\$ 50,000	\$ 50,000 \$	50,000	\$ 50,000	\$ 50,000	50,000	\$ 50,00	00 \$ 5	0,000
31		Implementation of water quality improvement projects resulting from the Upper Mississippi River Bacteria TMDL (WS-1) (included in 2015 watershed plan but not implemented)	Impaired Waters: Reduce sources of bacteria to priority streams	Goose management, pet waste management projects, reduction of bacteria loading from ponds and pipes	Cities, MPCA	\$ 100,000				\$	50,000	\$ 50,000					
32	Watershed- wide	CIP Project Maintenance	Multiple goals across all areas	Maintenance of past CIP projects	Cities	\$ 450,000		\$ 50,000	\$ 50,000	\$ 50,000 \$	50,000	\$ 50,000	50,000	50,000	\$ 50,00	00 \$ 5	J,000