BCMWC 2015 Watershed Management Plan

Section 5 – Implementation

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5.0 Implementation

This section describes the responsibilities of the Bassett Creek Watershed Management Commission (BCWMC) and the responsibilities the BCWMC has delegated to its member cities. Many agencies have jurisdiction within the BCWMC; the roles and responsibilities of those agencies relevant to the management of water resources are also discussed in this section. This section presents the BCWMC implementation program, including its capital improvement program (CIP) and other implementation responsibilities (e.g., BCWMC Flood Control Project system maintenance, local water management plan review, etc.).

5.1 Responsibilities

5.1.1 BCWMC Responsibilities

The BCWMC serves many water resource management roles, as listed in Minnesota Statutes 103B and summarized in Section 1. While the BCWMC is the entity ultimately responsible for fulfilling the duties of Minnesota Statutes 103B, the BCWMC seeks to collaborate with its member cities, community groups, and others to achieve its goals. The BCWMC will work closely with its nine member cities to assign responsibility for water resource issues to most efficiently and effectively use the cities' and the Commission's planning and implementation resources. In an effort to achieve its goals through enhanced collaboration, the BCWMC will continue to:

- Partner with member cities in the management of surface and groundwater resources for the benefit of residents, businesses, and other stakeholders within the watershed and region.
- Work with residents, citizen advisory groups, and member cities to establish goals and identify, prioritize, and implement initiatives that will preserve and improve water resources within the watershed.
- Collect, develop, and distribute information regarding surface water and groundwater resources in the watershed to assist member cities in the preparation of local plans for the management of water resources and to educate residents, businesses and others about their collective impact on water resources.

The BCWMC has many specific responsibilities, as identified in policies (see Section 4) and as described in the following sections. Major responsibilities of the BCWMC include:

- Review of improvements and developments
- Management of the BCWMC Flood Control Project (see Table 2-8 and Figure 2-14) and Trunk System (see Table 2-9 and Figure 2-15)
- Implementation of the BCWMC capital improvement program (CIP)
- Intercommunity planning and design review and assistance

- Dispute resolution
- Reporting and evaluation
- Monitoring
- Total Maximum Daily Load (TMDL) implementation

5.1.1.1 Review of Improvements and Developments

Cooperation between the BCWMC, the member cities, and concerned stakeholders is critical to effectively facilitate the management of the watershed's water resources. The BCWMC does not have a permit program. The BCWMC Plan and the BCWMC *Requirements for Improvements and Development Proposals* (as amended) (Requirements document) establish goals, standards, and requirements that the member cities must incorporate into their official controls (e.g., ordinances). The BCWMC relies on its member cities to review improvement (e.g., redevelopment projects) and development proposals for compliance with BCWMC requirements, when applicable, and to issue permits only after compliance has been determined.

Member cities must inform the BCWMC of improvements or land development proposals that trigger review per the BCWMC Requirements document (available online). Consistent with BCWMC policies (see Section 4) and the joint powers agreement (see Appendix G), the BCWMC will review projects meeting specific triggers for compliance with BCWMC requirements as described in this Plan and in the BCWMC Requirements document. The BCWMC will provide information and assistance in the preliminary planning stages of these improvements or land development proposals at the request of member cities or project proposers; however, because of the large number of developments requiring review, a review procedure is necessary. Prior to BCWMC conducting its formal review, city staff completes their review and establishes that the improvement or development proposal conforms to their local municipal ordinances and regulations. The BCWMC will then review the proposal and submit their comments and recommendations to the city and other appropriate governmental agencies prior to the city or other governmental agency giving their final approval or disapproval, or the granting of any required permits.

The BCWMC established criteria (or "triggers") for the types of projects that require BCWMC review (e.g., projects located in floodplains, projects disturbing greater than 10,000 square feet). Non-linear projects generating more than one acre of new or redeveloped impervious area and linear projects creating more than one acre of net new impervious surface must also meet the BCWMC water quality requirements or Flexible Treatment Option (FTO) process, which reflect the Minnesota Pollution Control Agency's (MPCA) Minimal Impact Design Standards (MIDS) level of treatment for all nonlinear projects. The BCWMC's review procedure, submittal requirements, guidelines, design criteria, and other relevant information are provided in the BCWMC's *Requirements for Improvements and Development Proposals* (as amended). The Requirements document was updated to incorporate the policies and requirements established in this Plan. For projects located in member cities that have adopted the MIDS performance standard, the member city shall review the project for compliance with the MIDS water quality performance standards.

The BCWMC also reviews applications to the Minnesota Department of Natural Resources (MDNR) for public waters work permits.

5.1.1.2 Implementation of the BCWMC Capital Improvement Program

The BCWMC is responsible for managing its capital improvement program (CIP), which includes the development and implementation of capital projects to address water quality, flooding, and other issues within the watershed. The CIP is presented in Table 5-3. The processes the BCWMC uses to manage the CIP are described in Section 5.2.1.1.

5.1.1.3 Management of the BCWMC Trunk System and Flood Control Project

The BCWMC is responsible for managing the trunk system, which is defined as the watercourses and waterbodies listed in Table 2-9 and shown in Figure 2-14 and Figure 2-15. The BCWMC requires that all modifications to the trunk system be made in accordance with the joint powers agreement (JPA) (see Appendix G) and to the applicable requirements and procedures included in this Plan.

The BCWMC and member cities are jointly responsible for the BCWMC Flood Control Project. The Flood Control Project is defined as the structures and storage areas shown in Figure 2-14 and listed in Table 2-8. The BCWMC annually inspects the Flood Control Project, including water level control and conveyance structures, as part of its annual programs (see Table 5-4). The BCWMC maintains funds for emergency repairs and major repair/maintenance of the BCWMC Flood Control Project, including:

- Flood Control Emergency Repair Fund (fund amount currently maintained at up to $500,000)
- Flood Control Project Long-term Maintenance Fund (fund amount currently maintained at up to $1,000,000)

The BCWMC will finance major maintenance and repair of water level control and conveyance structures that were part of the original BCWMC Flood Control Project on the same basis as the original project. New road crossings of the creek that were installed as part of the project will be maintained by the city where the structure is located. Member cities are responsible for routine maintenance and repair of BCWMC Flood Control Project structures located within each city; this includes the removal of debris, brush, and trees. The BCWMC will work with member cities to determine responsibilities for major rehabilitation and replacement of the BCWMC Flood Control Project features and establish the associated funding mechanisms (see policy 22, Section 4.2.2).

The BCWMC may construct and fund modifications to existing BCWMC Flood Control Project structures and new features that increase the benefits provided by the Flood Control Project system. The BCWMC requires that all modifications to the Flood Control Project be performed according to provisions of the JPA and requirements described in this Plan.

For all proposed modifications to the BCWMC Flood Control Project system or the trunk system, including existing control structures, structures along the trunk system, and structures between storage sites, the following are applicable:

- All proposed changes must be submitted to the BCWMC for review and approval.
- The location and design of the control structure, including all proposed culverts or other controls, shall also be subject to BCWMC approval.
- The effect of the 100-year storm on the control structure, the trunk system and the storage site must be assessed by the project proposer to ensure that the design does not result in the improper operation of flood storage areas (see Figure 2-14).
- If required, the BCWMC shall modify the Flood Control Project, and the cost of the required modifications will be assessed against the municipality necessitating the modification.
- The BCWMC will not approve changes to the BCWMC Flood Control Project system that would result in effects to the Flood Control Project system components that cannot be resolved.

A joint and cooperative agreement (JCA, see Appendix I) between the BCWMC, Mississippi Watershed Management Organization (Mississippi WMO), and the City of Minneapolis defines additional management obligations for the old tunnel and new tunnel, both of which are part of the BCWMC Flood Control Project. Section 5.1 of the JCA requires the City of Minneapolis to maintain 50 cfs capacity in the old tunnel during the 100-year storm event to accommodate the overflow of stormwater that cannot be accommodated in the new tunnel. Section 6 of the JCA includes obligations relating to the new tunnel, which require BCWMC approval prior to increasing the drainage area tributary to the new tunnel, adding connections or outlets to the new tunnel, and altering the runoff to the new tunnel for the 10-, 50-, or 100-year rainfall event (see Appendix I) .

5.1.1.4 Intercommunity Planning and Design

The BCWMC relies on the member cities for primary management of runoff and water management issues. The BCWMC will provide leadership and assist member cities with intercommunity water management issues (e.g., stormwater runoff planning and design), or at the request of the member cities. To this end, the BCWMC will:

- Review city local water management plans for consistency with BCWMC goals and intercommunity consistency.
- Assist in calculating or calculate, when necessary, the apportionment of costs between adjoining cities for water resource projects with intercommunity participation. This role applies to both water quantity and water quality issues.

5.1.1.5 Dispute Resolution

If watershed management disputes should arise between the BCWMC member cities, these disputes may be referred to the BCWMC for resolution. Although the BCWMC's joint powers agreement does not specifically give the BCWMC the power to decide such disputes, the BCWMC will hear the disputes and endeavor to reach a mutually agreeable solution whenever possible. Under the joint powers agreement,

the BCWMC's findings and recommendations are not binding unless the parties to the dispute wish to make a prior agreement to that effect. The BCWMC has established the following policies regarding the procedures for the hearing of such disputes:

1. The BCWMC will mediate inter-community disputes relating to watershed management problems within the Bassett Creek watershed.

2. Disputes will be referred to a committee of three BCWMC members or alternate members from member communities who are not parties to the dispute. Members will be appointed by the BCWMC chair or vice-chair, which will also appoint one of the three members as the chair of the committee.

3. The committee chair will call a meeting where each party to the dispute will be allowed to present its suggestions to resolve the dispute.

4. The committee may consult with the members of the BCWMC staff and TAC and will prepare findings and recommendations to resolve the dispute.

5. The committee's recommendation will be presented to the full BCWMC, which may accept, reject, or amend the recommendation before forwarding the findings and recommendations to the parties of the dispute.

Disputes between a member city and the BCWMC regarding the allocation of project costs shall be resolved using the procedure describe in Section VII, Subd. 6 of the JPA (see Appendix G).

5.1.1.6 Reporting and Evaluation

The BCWMC is responsible for evaluating its progress in achieving its goals and reporting annually to the Board of Water and Soil Resources (BWSR), per Minnesota Rules 8410.0150. Within the first 120 days of the calendar year, the BCWMC must submit to BWSR an activity report for the previous calendar year; the BCWMC also posts this report to its website. The BCWMC must submit an audit report for the previous fiscal year within 180 days of the end of the BCWMC fiscal year. The required contents of the annual activity report are specified in Minnesota Rules 8410. Generally, the BCWMC's annual report includes:

- An assessment of the previous year's annual work plan that indicates whether the stated activities were completed, including the expenditures of each activity with respect to the approved budget (unless included in the audit report)

- A work plan and budget for the current year specifying which activities will be undertaken

- At a minimum of every two years, an evaluation of progress on goals and the implementation actions, including the capital improvement program, to determine if amendments to the implementation actions are necessary

- A summary of significant trends of monitoring data

The BCWMC will annually review member city compliance with the goals, policies, and requirements established in the BCWMC Plan. This action may include:

- Evaluation of the status of local water plan adoption and local implementation of activities required by the watershed management organization
- Review of member city ordinance revisions addressing management of water resources (e.g., wetlands, erosion and sediment control), including their enforcement
- A review and summary of member city permits and variances issued or denied and violations under rule or ordinance requirements of the organization or local water plan
- Review of member city annual MS4 reports
- Self-reporting by member cities using criteria or checklist established by the BCWMC

The annual review process provides an opportunity for the BCWMC to assess the effectiveness of its goals and policies. If the BCWMC determines that programmatic changes are necessary, the BCWMC may amend the Plan to reflect the needed changes and/or adopt new rules or policies that require the cities to effect the needed changes via city regulatory controls. If annual review of member city practices reveals implementation inconsistent with the BCWMC Plan, the BCWMC will take administrative or legal action to ensure that BCWMC rules and policies are being implemented by the member cities.

The BCWMC will continue to maintain its website, as required by Minnesota Statute 8410.0150. The website will contain the location, time, agenda, and minutes for organization meetings; contact information for the organization staff; the current watershed management plan; annual activity reports; rules and requirements; a list of the BCWMC Commissioners, Alternate Commissioners, and designated officers; and a list of employees including postal and electronic mailing addresses and telephone numbers. Additional content may be made available at the BCWMC website in accordance with the BCWMC Education and Public Outreach Plan (see Appendix B). The website will be kept current on a monthly basis or more frequently.

The BCWMC website is located at: www.bassettcreekwmo.org

5.1.1.7 Monitoring

The BCWMC will continue to monitor water quantity and water quality of waterbodies within the BCWMC, focusing on priority waterbodies (see Section 2.7.2.2). The BCWMC will coordinate its monitoring efforts with other programs (see policy 11, Section 4.2.1). Water quantity monitoring efforts may include flow monitoring of the Main Stem of Bassett Creek and water level monitoring in several lakes. Water quality monitoring may include detailed water chemistry performed at regular intervals, zooplankton and phytoplankton sampling in lakes, aquatic plant monitoring of lakes, and invertebrate monitoring in streams. Water quality and quantity monitoring programs are described in Section 2.7.1 and Section 2.8.5 of the Plan, respectively, and in the BCWMC Monitoring Plan (see Appendix A).

5.1.1.8 Total Maximum Daily Load (TMDL) Implementation

There are several waterbodies located within the BCWMC that are listed in the MPCA's impaired waters 303(d) list. To address impaired waters and protect designated uses, the MPCA utilizes total maximum daily load (TMDL) analyses (see Section 3.1). The BCWMC has participated in TMDL studies for Wirth Lake, Medicine Lake, and Sweeney Lake. In each case, the BCWMC cooperated with the MPCA in the development of TMDL reports. For the Medicine Lake TMDL, the BCWMC is the "convener" of a categorical waste load allocation (WLA) shared by the member cities. As the convener, the BCWMC cooperates with the member cities to identify and implement water quality improvements to achieve the desired reduction in pollutant loading, and helps cities report progress towards the WLA to the MPCA annually. For the Wirth Lake TMDL, the BCWMC assumed the initial lead role in implementing the actions recommended in the TMDL implementation plan (the Wirth Lake outlet project). For the Sweeney Lake TMDL, the implementation strategy in the report calls for the BCWMC to take a lead role in implementation efforts for the categorical wasteload allocations and the (internal) load reductions, and in working directly with member cities to identify funding sources and to prioritize projects and other efforts.

The BCWMC will continue to participate in future TMDL studies and may assume a lead role in carrying out the resulting TMDL implementation plans, if appropriate.

5.1.2 Member City Responsibilities

The success of the BCWMC is dependent upon its leadership and the cooperation of the nine member cities. The BCWMC relies on the member cities to perform many roles, as specified in the BCWMC's administrative policies (see Section 4.2.10), the JPA, or BCWMC actions. Generally, these roles and responsibilities include:

1. **Commissioner and Alternate Commissioner appointment**: Each member city is entitled to appoint one commissioner and one alternate commissioner to the BCWMC. See Section 1.4 for information about commissioner appointments and terms.

2. **Technical Advisory Committee (TAC)**: The BCWMC amended its bylaws in July 2001 to allow each member city to appoint a technical advisor to the BCWMC. The TAC helped maintain continuity as the BCWMC transitioned to citizen leadership, and continues to provide an important opportunity for communication between the member cities and the BCWMC. The technical advisors are welcome to ask questions and express opinions at Commission meetings, but are not allowed to vote. It is the responsibility of each member city to appoint a technical advisor and encourage the technical advisor to attend the BCWMC and TAC meetings (see policy 119, Section 4.2.10). The TAC meets regularly to discuss and provide recommendations on topics and issues assigned by the Commissioners.

3. **Project Review & Permitting**: Each member city is responsible for incorporating the BCWMC's requirements into its official controls and implementing BCWMC policies at the time of development and redevelopment. Member cities shall inform developers and other project applicants that BCWMC review of their project may be required and will direct applicants to the

BCWMC, the Requirements Document, and more information online at http://www.bassettcreekwmo.org. BCWMC staff will ensure that developers and project applicants have first contacted appropriate city staff before reviewing or discussing details of the proposed project.

Member cities shall permit only those projects that conform to the policies and standards of the BCWMC. The BCWMC will review developer's submittals and other proposed projects only after the applicant demonstrates that the project has received preliminary approval from the member city, indicating compliance with the city's local water management plan. Once the proposed project has received preliminary approval from the city, the BCWMC Application Form shall be signed by city staff and submitted to the BCWMC for its review. The signed application form authorizes the BCWMC or its staff to commence its review. Following BCWMC review, the BCWMC or its staff will send a letter of approval or disapproval to each member city, stating that the proposed project meets the requirements of the BCWMC Plan or stating how the proposed project does not meet BCWMC requirements. Member cities shall not issue construction permits, or other approvals, until the BCWMC has approved the project (see policy 121, Section 4.2.10).

4. **Local Water Management Plan:** Each member city is required to prepare a local water management plan that conforms with the BCWMC Plan. The BCWMC is required to review and approve each local water management plan. See Section 5.3.1 for more information about local water management planning and requirements.

5. **Official Controls (Ordinances)**: Each member city is required to update its ordinances (or other official controls) to conform to and implement the requirements of the BCWMC and the policies presented in this Plan (see Section 4). Affected ordinances/controls may include erosion and sediment control, wetland management, floodplain/zoning, stormwater management, and others.

6. **Capital Improvement Projects:** Member cities implement the capital improvement projects listed in Table 5-3, upon order by the BCWMC (see policy 4, Section 4.2.1).

7. **Land Acquisition:** Member cities acquire the necessary easements or right-of-way or interest in land upon order of the BCWMC (see policy 122, Section 4.2.10). The cost of land acquisition may be eligible for BCWMC reimbursement according to Table 5-1).

8. **Finances:** Each member city is required to contribute annually to the BCWMC general fund (see Section 5.2.2.1).

5.1.3 Agency Responsibilities

Various units of government are involved in regulating water resource related activities and have jurisdiction overlapping that of the BCWMC. The roles of these agencies are described in this section and summarized in Table 5-2.

5.1.3.1 Minnesota Department of Natural Resources (MDNR)

The MDNR Division of Ecological and Water Resources manages water resources through a variety of programs related to lakes, rivers and streams, watersheds, wetlands, groundwater, and climate. The MDNR administers the Public Waters Work Permit Program, the Water Use (Appropriation) Permit Program, and the Dam Safety Permit Program. MDNR Fisheries administers the Aquatic Plant Management Program and other fishery related permits The MDNR is involved in enforcement of the Wetland Conservation Act (WCA) and is responsible for identifying, protecting and managing calcareous fens. The MDNR also has model shoreland ordinances that cities and counties can adopt.

Public Waters

The MDNR's Public Waters Work Permit Program (Minnesota Statutes 103G) requires an MDNR permit for any work below the Ordinary High Water Level (OHWL) or any work that will alter or diminish the course, current, or cross-section of any public water or public waters wetland, including lakes, wetlands, and streams. For lakes and wetlands, the MDNR's jurisdiction extends to designated U.S. Fish and Wildlife Service Circular #39 Types 3, 4, and 5 wetlands which are 10 acres or more in size in unincorporated areas, or 2.5 acres or more in size in incorporated areas. The program prohibits most filling of public waters and public waters wetlands for the purpose of creating upland areas. The Public Waters Work Permit program was amended in 2000 to minimize overlapping jurisdiction with the WCA. Under certain conditions, work can be performed below the OHW level without a Public Waters Work Permit. Examples include docks, watercraft lifts, beach sand blankets, ice ridge removal/grading, riprap, and shoreline restoration. The MDNR public waters in the BCWMC are shown in Figure 2-9.

Water Appropriations and Transport

The MDNR regulates surface water and groundwater usage rate and volume as part of its charge to conserve and use the waters of the state. For example, suppliers of domestic water to more than 25 people or applicants proposing a use that exceeds 10,000 gallons per day or 1,000,000 gallons per year from surface water or groundwater sources must obtain a Water Appropriation Permit from the MDNR. Appropriation Permits from the MDNR are not required for domestic uses serving less than 25 persons for general residential purposes. An additional permit is required to appropriate or transport water from waters designated as infested with invasive species, regardless of the volume appropriated or transported.

Groundwater

In addition to regulating appropriations from groundwater, the MDNR is also responsible for mapping sensitive groundwater areas, conducting groundwater investigations, addressing well-interference problems, and maintaining the observation well network.

Dam Safety

The MDNR administers the state's Dam Safety Program (MN Rules 6115.0300 – 6115.0520), which applies to all impoundments that pose a potential threat to public safety or property. Dams 6 feet or lower in height and dams that impound 15 acre-feet or less of water are exempt from the rules. Dams less than 25

feet high that impound less than 50 acre-feet of water are also exempt, unless there is a potential for loss of life. The dam safety rules require that the downstream impacts of a dam failure be analyzed under high-flow conditions (i.e., greater than a 100-year flood).

Other Regulations

In addition to permit programs, the MDNR oversees the Floodplain Management Program, the Public Waters Inventory Program, the Shoreland Management Program, the Flood Damage Reduction Grant Program, the Wild and Scenic Rivers Program, various surface and groundwater monitoring programs, and the Climatology Program.

Questions concerning the MDNR's role in water resource management should be directed to the MDNR Division of Ecology and Water Resources, Metro Region, 1200 Warner Road, St. Paul, MN 55106 (651-259-5774). More information is available at the MDNR website: http://www.dnr.state.mn.us

5.1.3.2 Minnesota Board of Water and Soil Resources (BWSR)

BWSR oversees the state's watershed management organizations (both joint powers and watershed district organizations), oversees the state's Soil and Water Conservation Districts, and administers the rules for the WCA and metropolitan area watershed management. BWSR also administers the Clean Water Fund (CWF) grant program, funded by the Clean Water Land and Legacy amendment passed in 2008. The purpose of the CWF is to protect, enhance, and restore water quality in lakes, rivers, and streams and to protect groundwater and drinking water sources from degradation. Applicants eligible for CWF grants include counties, watershed districts, watershed management organizations, soil and water conservation districts, and cities working under a current BWSR-approved and locally adopted local water management plan.

Questions concerning BWSR's role in water resource management should be directed to the Minnesota Board of Water and Soil Resources, 520 Lafayette Road North, St. Paul, MN 55107 (651-296-3767). More information is available at the BWSR website: http://www.bwsr.state.mn.us

5.1.3.3 Minnesota Pollution Control Agency (MPCA)

The MPCA administers the State Discharge System/National Pollutant Discharge Elimination System (NPDES) Permit program (point source discharges of wastewater), the NPDES General Stormwater Permit for Construction Activity, the NPDES General Industrial Stormwater Permit Program, the NPDES Storm Water Permit Program, and the individual sewage treatment system regulations (7080 Rules). The MPCA also reports the state's "impaired waters" to the U.S. Environmental Protection Agency. Spills should be reported directly to the MPCA.

The MPCA administers and enforces laws relating to pollution of the state's waters, including groundwater. The MPCA monitors ambient groundwater quality and administers subsurface sewage treatment system (SSTS) design and maintenance standards. The MPCA is responsible for administering the programs regulating construction and reconstruction of SSTS. The MPCA requires an inspection

program for SSTS that meets MPCA standards. Minnesota Rules 7080 govern administration and enforcement of new and existing SSTS. The Tanks and Spills Section of the MPCA regulates the use, registration, and site cleanup of underground and above-ground storage tanks.

The MPCA resumed selective administration of the Section 401 of the Clean Waters Act – Water Quality Certification Program in 2007. The program is primarily administered by the U.S. Army Corps of Engineers (USACE). Section 401 Certification is required to obtain a federal permit for any activity that will result in a discharge to navigable waters of the United States. Formal applications for 401 Certification must be sent to the MPCA.

Municipal Separate Storm Sewer System (MS4) Permitting

The federal Clean Water Act (CWA) established the National Pollutant Discharge Elimination System (NPDES) to regulate point sources of pollution, with the MPCA as the delegated permitting authority. This program was later expanded to include both point and non-point sources of pollution, including the regulation of stormwater runoff, and created a two-phase comprehensive national program to address stormwater runoff. Phase I of the program was implemented in 1990 and covered two general categories of stormwater discharge including 11 categories of industrial activities (including construction) and Municipal Separate Storm Sewer Systems (MS4s) serving populations of 100,000 or more. A few years later, Phase II of the program was implemented. Phase II was a broader program that included smaller construction sites, municipally owned or operated industrial activities, and many more municipalities (MS4s).

In 2013, the MPCA reissued the MS4 General Permit, which replaced the Phase II permit. The permit focus shifts from permit program development to increasing emphasis on measured progress and beginning some of the implementation measures. Some of the requirements of the reissued MS4 permit include:

- More stringent construction related erosion control
- Post-construction controls to reduce volume, total phosphorus, and total suspended solids
- Documented enforcement response procedures
- Submittal of additional information on all stormwater ponds and outfalls
- Inventories of municipal facilities that could contribute pollutants to stormwater discharges

All of the member cities within the BCWMC are required to maintain an MS4 permit from the MPCA. As part of the permit program, each member city must annually submit an MS4 report to the MPCA. The numerous and expanded requirements of the MPCA's MS4 permit present opportunities for the BCWMC to cooperate with member cities to prevent redundancy in implementing or reporting on activities related to water quality.

More information about the MPCA's stormwater program can be found at the MPCA's website: http://www.pca.state.mn.us/index.php/water/water-types-and-programs/stormwater/index.html

Impaired waters and Total Maximum Daily Loads (TMDLs)

In administering the CWA in Minnesota, the MCPA also maintains a list of impaired waters (see Section 2.7.2.1). The CWA requires the development of a total maximum daily load (TMDL) study for impaired waterbodies. A TMDL is a threshold calculation of the amount of a pollutant that a waterbody can receive and still meet water quality standards. A TMDL establishes the pollutant loading capacity within a waterbody and develops an allocation scheme amongst the various contributors, which include point sources, non-point sources, and natural background levels, as well as a margin of safety. As a part of the allocation scheme a waste load allocation (WLA) is developed to determine allowable pollutant loadings from individual point sources (including loads from storm sewer networks). A load allocation (LA) establishes allowable pollutant loadings from non-point sources and natural background levels in a waterbody.

A watershed restoration and protection strategy (WRAPS) is similar to a TMDL and may examine other waterbodies in the watershed in addition to impaired waterbodies. Both TMDLs and WRAPSs may result in implementation plans to address water quality issues of the affected waterbodies. Approved TMDLs within the BCWMC are listed in Table 2-5 – note that in 2014 the MPCA recommended to the USEPA that Wirth Lake be removed from the list of waters impaired by nutrients. The USEPA is expected to agree with this recommendation.

Future TMDL and/or WRAPS implementation presents an opportunity for the BCWMC to coordinate water quality improvement efforts between the member cities, especially for waterbodies with intercommunity drainage areas. Depending upon its role in future TMDLs, the BCWMC may be responsible for reporting project implementation and TMDL progress to the MPCA as the TMDL implementation authority. Under such an arrangement, efforts may be made to eliminate any redundancies between the BCWMC and member cities in TMDL reporting to the MPCA.

Guidance for Dredged Materials

The MPCA considers material excavated below the OHW level of waterbasins, watercourses, public waters, or public waters wetlands (as defined by Minnesota Statutes 103G.005) to be dredged material. Dredged material is defined as waste and regulated by the MPCA. The MPCA provides guidance for the management of dredged material on its website: http://www.pca.state.mn.us/index.php/water/water-types-and-programs/wastewater/dredged-materials-management.html

In 2012, the MPCA developed specific guidelines for the removal of sediment from stormwater ponds. Guidance for the removal of sediment from municipal stormwater ponds differs from guidance for other dredged materials in three primary ways:

1. Permits are not required when performing routine maintenance on stormwater conveyance and collection systems.

2. The MPCA does not need to be notified of sediment removal activities. The MPCA recommends that cities keep records and documentation of sediment removal projects.

3. Best management practices were revised to include guidance from cities that have experience performing sediment removal projects.

Disposal options for sediment dredged from municipal stormwater ponds vary according to the level of contamination present in the excavated material. The document provides guidance for collecting samples and testing sediment, and calculating chemical concentrations relative to soil reference values (SRVs). The number of samples to be collected depends on the surface area of the pond. More detailed information regarding the disposal of sediment from stormwater ponds is available from the MPCA website: http://www.pca.state.mn.us/index.php/view-document.html?gid=18075

Questions concerning MPCA's role in water resource management should be directed to the Minnesota Pollution Control Agency, 520 Lafayette Road, St. Paul, MN 55155-4194 (651-296-6300). More information is available at the MPCA website: http://www.pca.state.mn.us

5.1.3.4 Minnesota Department of Health (MDH)

The MDH is the official state agency responsible for addressing all public health matters, including drinking water protection. The MDH administers the Well Management Program, the Wellhead Protection Program, and the Safe Drinking Water Act rules. The MDH also issues fish consumption advisories. The MDH is responsible ensuring safe drinking water sources and limiting public exposure to contaminants. Through implementation of the federal Safe Drinking Water Act, the MDH conducts the Public Water Supply Program, which allows the MDH to monitor groundwater quality and train water supply system operators. The 1996 amendments to the federal Safe Drinking Water Act require the MDH to prepare source water assessments for all of Minnesota's public water systems and to make these assessments available to the public.

Through its Well Management Program, the MDH administers and enforces the Minnesota Water Well Code, which regulates activities such as well abandonment and installation of new wells. The MDH also administers the Wellhead Protection Program, which is aimed at preventing contaminants from entering public water supply wells.

The Wellhead Protection Program rules (Minnesota Rules 4720.5100 to 4720.5590) went into effect in 1997. These rules require all public water suppliers that obtain their water from wells to prepare, enact, and enforce wellhead protection plans (WHPPs, see Section 2.5.3). The MDH prepared a prioritized ranking of all such suppliers in Minnesota. Regardless of the ranking, Minnesota Rules 4720 required all public water suppliers to have initiated wellhead protection measures for the inner wellhead management zone prior to June 1, 2003. All cities within the BCWMC have MDH-approved WHPPs. If a city with an existing WHPP drills a new well and connects it to the distribution system, the WHPP must be amended.

Wellhead protection plans include: delineation of groundwater "capture" areas (wellhead protection areas), delineation of drinking water supply management areas (DWSMA), an assessment of the water supply's susceptibility to contamination from activities on the land surface, management programs such as identification and sealing of abandoned wells, and education/public awareness programs. As part of its

role in wellhead protection, the MDH developed the guidance document "Evaluating Proposed Stormwater Infiltration Projects in Vulnerable Wellhead Protection Areas" (MDH 2007, as amended).

Questions concerning the MDH's role in water resource management should be directed to the Minnesota Department of Health, P.O. Box 64975, St. Paul, MN (651-201-5000). See the Minnesota Department of Health website for more information about these programs: http://www.health.state.mn.us/divs/eh/water/index.html

5.1.3.5 Minnesota Environmental Quality Board (EQB)

The EQB administers the state's environmental review program, including Environmental Assessment Worksheets (EAW), Environmental Impact Statements (EIS), and Alternative Urban Area-wide Reviews (AUAR). With respect to water resources, the EQB is responsible for developing the state water plan, a state water monitoring plan, biennial water policy and priorities reports, and biennial reports on trends in water quality and availability and research needs. Questions concerning the EQB's role in water resource management should be directed to the Minnesota Environmental Quality Board, 520 Lafayette Road North, St. Paul, MN 55155 (651-296-9027). More information is available at the EQB website: http://www.eqb.state.mn.us

5.1.3.6 Minnesota State Historic Preservation Offices (SHPO)

Following the National Historic Preservation Act of 1966, Minnesota's State Historic Preservation Office (SHPO) was established by state statute in 1969. The director of the Minnesota Historical Society serves as State Historic Preservation Officer. The mission of the SHPO is to preserve and promote Minnesota history by identifying, evaluating, registering, and protect Minnesota's historic and archaeological properties and assisting government agencies in carrying out their historic preservation responsibilities. The SHPO maintains the National Register of Historic Places (NRHP) for the state. This includes several listed or eligible to be listed places within the BCWMC. To ensure the protection of places eligible for listing or listed in the NRHP, SHPO review is required for all state and federally funded projects, and all United States Army Corps of Engineers (USACE) projects.

Questions concerning SHPO's role in historical resource management should be directed to the Minnesota State Historic Preservation Office, 345 Kellogg Boulevard West, St. Paul, MN 55102-1903 (651-259-3450). More information is available at the SHPO website: http://www.mnhs.org/shpo/

5.1.3.7 Minnesota Department of Transportation (MnDOT)

The MnDOT is responsible for major maintenance and reconstruction of storm water infrastructure associated with state highways. In the BCWMC, these locations include Interstate 494, Interstate 394, US Highway 169, Highway 100, and Highway 55.

Questions concerning MnDOT's role in water resource management should be directed to the Minnesota Department of Transportation, 395 John Ireland Boulevard, St. Paul, MN 55101-1638 (651-296-3000). More information is available at the MnDOT website: http://www.dot.state.mn.us

5.1.3.8 U.S. Army Corps of Engineers (USACE)

The USACE administers several regulatory permit programs, including Section 10 of the Rivers and Harbors Act permit program, the Section 404 permit program, and Section 401 Certifications. The USACE updated Section 10 of the Rivers and Harbors Act Permit and the Section 404 Permit in March 2012 to streamline the requirements of the Clean Water Act (CWA). The updated permits provide expedited review of projects that have minimal impact on the aquatic environment. These projects may include linear transportation projects, bank stabilization activities, residential development, commercial and industrial development, aids to navigation, and some maintenance activities. Permit programs are described briefly in this section.

Through Section 10 of the Rivers and Harbors Act, the USACE is responsible for administering this program, which regulates the placement of structures and/or work in, or affecting, navigable waters of the United States.

The Federal Clean Water Act requires that anyone who wants to discharge dredged or fill material into U.S. waters, including wetlands, must first obtain a Section 404 Permit from the USACE. Examples of activities that require a Section 404 Permit include: construction of boat ramps, placement of riprap for erosion protection, placing fill in a wetland, building a wetland, construction of dams or dikes, stream channelization, and stream diversion. When Section 404 Permit applications are submitted to the USACE, the applications are typically posted for the U.S. Fish and Wildlife Service, the U.S. Forest Service, the U.S. EPA, and other federal agencies to review and provide comments. The USACE evaluates permit requests for the potential impact to various functions and values of the wetland.

Section 401 Certification is required to obtain a federal permit for any activity that will result in a discharge to navigable waters of the United States. The program is primarily administered by the USACE along with the MPCA. A Section 401 Water Quality Certification may be granted if the applicant demonstrates that the proposed activity "will not violate Minnesota's water quality standards or result in adverse long-term or short-term impacts on water quality." Greater protection is given to a category of waters designated by the MDNR as Outstanding Resource Value Waters (ORVW). The waters in this category have received this designation because of their exceptional value. These waters include such groups as scientific and natural areas, wild, scenic and recreational river segments, and calcareous fens.

Questions concerning the USACE's role in water resource management should be directed to the U.S. Army Corps of Engineers, St. Paul District, 180 East 5th Street, St. Paul, MN 55101-1678 (651-290-1678). More information is available at the USACE website: http://www.usace.army.mil/

5.1.3.9 The Metropolitan Council

The Metropolitan Council provides regional planning and wastewater services (collection and treatment) for the seven county metropolitan area. The Metropolitan Council also operates the Citizen Assisted Monitoring Program (CAMP), which monitors lake water quality, and the Watershed Outlet Monitoring Program (WOMP), which monitors stream flow and water quality (see Section 2.7.1).

Questions concerning the Metropolitan Council's role in water resource management should be directed to the Metropolitan Council, 390 Robert Street North, St. Paul, MN 55101 (651-602-1000). More information is available from the Metropolitan Council's website: http://www.metrocouncil.org/

5.2 Implementation Program

5.2.1 Implementation Program Components

Table 5-3 and Table 5-4 are a comprehensive list of the projects, activities, and programs that comprise the BCWMC implementation program. Table 5-3 is the BCWMC's 10-year capital improvement program (10-year CIP). Table 5-4 lists the BCWMC's annual water quality and flood control programs, administrative actions, and education actions (i.e., non-capital projects). Table 5-5 lists the past accomplishments of the BCWMC.

5.2.1.1 Capital Improvement Program and Project Implementation

Table 5-3 lists the capital improvement projects the BCWMC plans to implement over the next 10 years. Many of the capital projects listed in Table 5-3 are water quality improvement projects. The current 10-year CIP is an estimate, and includes projects that may not be completed in the next 10 years.

In addition to Table 5-3, the BCWMC maintains a "working version" of its CIP that covers a 5-year period. As part of the annual BCWMC budgeting process, the BCWMC 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 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. In evaluating projects for inclusion in the working CIP, the BCWMC and TAC will consider the criteria identified in Policy 110 (see Section 4.2.10). The BCWMC focuses its resources on projects that primarily address water quality and water quantity (i.e., flooding) issues; additional benefits are considered when identifying and prioritizing projects.

Once a project has been added to the BCWMC's working CIP, the BCWMC goes through a process outlined for capital improvement projects as outlined in the JPA. This process begins with the preparation of a feasibility study, estimating costs (including costs eligible for reimbursement by the BCWMC), and issuing a report on the proposed project. The BCWMC develops a one-page project summary for all projects added to the working CIP (available from the Commission). Project-related costs incurred by member cities and eligible for reimbursements are listed in Table 5-1 (see Policy 122, see Section 4.2.10).

Following receipt of the feasibility report, 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. If the BCWMC decides to proceed with a project included in its CIP (Table 5-3) following the feasibility study process and public hearing, the BCWMC will certify a levy to Hennepin County for the cost of the project as determined during the

feasibility study process, and apply for grant funds, if applicable. The BCWMC begins project implementation through an agreement with the member city where the project is located.

Table 5-1 Project Costs Eligible for BCWMC Reimbursement

Project costs eligible for reimbursement from BCWMC:	Other project costs that will be considered for whole or 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	
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 the cost effectiveness of the project including the cost per pound of pollutant removal relative to guidance to be established by the BCWMC (for water quality projects), along with partnerships, grant opportunities, and other factors in determining reimbursement of other project costs.

For projects not currently included in its BWSR-approved CIP (Table 5-3), the BCWMC must initiate a plan amendment to add the project to its CIP (Table 5-3) prior to certifying a levy to Hennepin County. The amendment process is described in Section 5.5 and requires a public hearing. Inclusion of a project in the

BCWMC CIP Table 5-3 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 above.

The BCWMC may implement the projects listed in Table 5-3 at a different time than shown in the table (e.g., year 2020 rather than 2018) 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 time schedule to also be consistent with the Plan and not require a plan amendment.

5.2.1.2 Programs

Table 5-4 presents the on-going programs implemented by the BCWMC, which generally include:

- Administrative responsibilities
- Monitoring programs
- Flood Control Project activities
- Education programs

Table 5-4 presents the estimated cost for each program over the 10 year life of this Plan. Note that estimated costs for education, monitoring, and other actions may vary according to future revisions to the Education and Outreach Plan (see Appendix B) and the Monitoring Plan (see Appendix A).

5.2.1.3 Annual Reporting

Per Minnesota Statute 103B, the BCWMC reports its accomplishments and progress toward goals in an annual report submitted to the Minnesota Board of Water and Soil Resources (BWSR) and posted on the BCWMC website (see also Section 5.1.1.6).

5.2.2 Financial Considerations

This section provides a brief summary of the funding sources available to the BCWMC, followed by a discussion of the BCWMC proposed method(s) of funding the various items in its implementation program (Table 5-3 and Table 5-4).

5.2.2.1 Funding Mechanisms Available to the BCWMC

Ad Valorem Tax

Minnesota law (Minnesota Statutes 103B.231) requires watershed districts and joint powers WMOs within the metropolitan area to prepare a watershed management plan. The statute requires that a capital improvement program be part of the watershed management plan. Another statute (Minnesota Statute 103B.251) allows WMOs to certify capital improvements to the county for payment, if those improvements are included in the WMO's watershed management plan. The county then issues bonds and levies an ad valorem tax on all taxable property in the WMO (or subwatershed unit of the WMO) to pay for the projects. This process requires sufficient lead time and coordination with the County, as formal County

approval of any amendments to a WMO's plan and associated levy amounts is required. A WMO may also raise funds through direct ad valorem taxation (Minnesota Statutes 103B.241), but only if the WMO is specifically listed as a special taxing district in Minnesota Statutes 275.066. If a WMO is given taxing authority, the WMO may also accumulate funds to finance improvements as an alternative to issuing bonds (Minnesota Statutes 103B.241).

Emergency Projects

Minnesota law allows local units of government or WMOs to declare an emergency and order work to be done without a contract, and without levy limits (Minnesota Statutes 103B.252).

BCWMC General Fund

Through the BCWMC JPA, each member city contributes annually to the BCWMC general fund. The general fund is to be used for administrative purposes and certain operating expenses. Each city's annual contribution is based 50 percent on the assessed valuation of property in the watershed and 50 percent on the ratio of area of each member city within the watershed to the total BCWMC area. The general fund is used to pay for general BCWMC administrative expenses, monitoring program, watershed management plan development, TMDL involvement, special studies, and various projects (e.g., XPSWMM model and P8 model). The general fund may also be used to pay for routine repair and maintenance of facilities. The general fund could also be used to pay for the administrative expenses related to a capital project, such as preparing feasibility reports, conducting hearings, educating the public about the capital projects, etc.

CIP Project Funding – BCWMC Improvement Fund

The BCWMC JPA calls for the establishment of an improvement fund for each improvement project ordered by the BCWMC. In accordance with the current JPA, the BCWMC may use one of the following three methods to apportion project costs to the member cities:

1. Negotiated settlement among the member cities.

2. Use the same basis as the BCWMC general fund (50 percent property value/50 percent watershed area), which can be varied (by a two-thirds vote of the BCWMC) under certain circumstances, and with credits given for land acquisition. Any member city unhappy with the cost allocation may appeal the decision and submit it for arbitration.

3. If the project is certified to the county for payment using Minnesota Statutes 103B.251, the costs will be apportioned according to a levy on all taxable property in the watershed.

Channel Maintenance Fund

The BCWMC maintains a channel maintenance fund. Each year, funding is set aside to help member cities off-set the cost of minor stream maintenance, repair, stabilization, and restoration projects, and portions of larger stream restoration projects. The BCWMC transfers $25,000 per year from the General Fund to this fund; those monies are part of the member cities' contribution to the BCMWC general fund.

Flood Control Project Long-term Maintenance Fund

The BCWMC maintains a long-term maintenance fund for its Flood Control Project. This fund was originally started with a portion of the funds remaining from the construction of the Flood Control Project. Each year, funding is set aside to help off-set the cost of maintenance of the Flood Control Project. The BCWMC has estimated the long-term replacement cost of the Flood Control Project and will clarify maintenance and replacement responsibilities between the BCWMC and the member cities (see Policy 22, Section 4.2.2). The BCWMC transfers $25,000 per year from the General Fund to this fund; those monies are part of the member cities contribution to the BCMWC general fund. The BCWMC seeks to maintain the fund balance at (but not exceed) $1,000,000.

Flood Control Project Emergency Fund

The BCWMC maintains this fund to address emergency repairs to the Flood Control Project. This fund was created using a portion of the remaining funds from the original construction of the Flood Control Project. The BCWMC does not add to this fund on an annual basis.

5.2.2.2 Past and Proposed Funding Mechanisms

In the past, the BCWMC has used the BCWMC general fund for administrative costs, monitoring, education, studies, and select projects. The BCWMC's Bassett Creek Flood Control Project was financed through a combination of state and federal grants and member city contributions (see Section 2.8.1).

The implementation program of this Plan includes both capital (structural) projects and nonstructural activities. The capital projects will be funded in accordance with the joint powers agreement, as described in Section 5.2.2.1. In particular, the BCWMC proposes to finance all of the capital improvement projects listed in Table 5-3 through an ad valorem tax levied by Hennepin County (per Minnesota Statutes 103B.251). The BCWMC will also seek grants, partnerships, etc. to reduce the BCWMC's share of the project costs.

If individual cities wish to fund their share of the project costs using a different funding source than the proposed ad valorem tax levy, Hennepin County would need to establish taxing districts based on city boundaries. The BCWMC will explore this possibility with Hennepin County if requested by member cities. If Hennepin County is willing to set up these separate taxing districts, the BCWMC will allow the cities to use this funding option.

Since the BCWMC proposes to finance the capital projects using Minnesota Statutes 103B.251 (an ad valorem tax levied by Hennepin County), BCWMC and the county will follow the process outlined in the statute. This process includes BCWMC forwarding a copy of the improvement plan to the county board prior to the BCWMC's public hearing on the project.

The nonstructural activities listed in Table 5-4 will be financed through the BCWMC general fund, as described in Section 5.2.2.1. In accordance with the JPA, the BCWMC must adopt a budget before July 1st of each year and decide upon the total amount needed for the general fund. Budget approval requires a

two-thirds vote (six Commissioners). The cities have until August 1st to register any objections to the budget.

5.2.2.3 Member City Funding

Funding mechanisms available to the member cities include:

- City General Funds
- Special Assessments
- Ad Valorem Taxes
- Stormwater Utility
- Development Fees
- Tax Increment Financing
- Hennepin County Grants (e.g., Natural Resource Grants, Environmental Response Fund)

5.2.2.4 State Funding Sources

In addition to stormwater utility fees, taxes, assessments, and the other funding sources discussed above, the cities and/or the BCWMC could obtain funding from various state sources, such as grant and loan programs. The city could use loans for projects instead of city-issued bonds. The following paragraphs list various state-funded sources, grouped according to the state agency that administers the various funding programs.

The **Board of Water and Soil Resources** (BWSR) administers several grant programs, including the Clean Water Fund (CWF) program; cities and WMOs are eligible for CWF grants.

The **Minnesota Pollution Control Agency** (MPCA) administers the Clean Water Partnership (CWP) grant and loan program, USEPA funded Section 319 programs (including a TMDL implementation grant program), the Surface Water Assessment Grant program, Phosphorus Reduction Grant program, and the Clean Water State Revolving Fund program.

The **Minnesota Department of Natural Resources** (MDNR) administers many grant programs that could be appropriate for the cities or WMOs, including the Flood Hazard Mitigation Grant Assistance program, the Parks and Trails Legacy Grant program, trail grants programs, aquatic invasive species prevention grants and other aquatic plant management grant programs, shoreland habitat restoration grant program, and dam safety program. Funding for many of these programs changes after each legislative session.

Other state funding programs include the Legislative-Citizen Commission on Minnesota Resources' (LCCMR) funds for non-urgent demonstration and research projects, the Minnesota Department of

Employment and Economic Development's (DEED) Contaminant Cleanup Development Grant Program, the Minnesota Department of Transportation (MnDOT) State Aid Funds, and ISTEA funds.

5.2.2.5 Federal Funding Sources

The BCWMC and member cities may also receive funding from various federal sources, a few of which are discussed in the following paragraphs.

The **U.S. Environmental Protection Agency** (USEPA) has discretionary funds available through each division and program area of the USEPA and administers the Clean Lakes Program (CLP) established by Section 314 of the Clean Water Act; the CLP is similar to the MPCA's Clean Water Partnership program. The USEPA also administers the 604b Grant Program that targets water quality improvements in urban areas, and the Environmental Education Grant that finances local environmental education initiatives.

The **U.S. Army Corps of Engineers** administers the Planning Assistance to States (Section 22) program, the Project Cooperation Agreement (PCA) program, also known as the LCA (Local Cooperation Agreement) program for construction of Flood Control Projects, the Section 14 bank protection program, the Flood Plain Management Services Program, and the Aquatic Plant Control Program and provides many GIS products through its GIS Center.

The **U.S. Fish and Wildlife Service** administers the North American Wetlands Conservation Fund, as part of the North American Wetlands Conservation Act (WCA), and the Partners for Wildlife Grant Program.

The **Natural Resource Conservation Service** (NRCS) has funds available for technical assistance on various surface water projects, operations and maintenance, inspections and repairs. The NRCS also administers the Environmental Quality Incentives Program (EQIP), which was established through the 1996 Farm Bill Program.

The **Federal Emergency Management Agency** (FEMA) has funds available to restore areas (including water resources) damaged or destroyed by a disaster.

5.2.2.6 Private Funding Sources

In addition to state and federal funding sources, some private funding sources may be available. Examples include (but are not limited to):

- Ducks Unlimited and Pheasants Forever funds are available for projects that enhance, create, or protect waterfowl or pheasant habitat,
- Individual entities needing to provide wetland mitigation in compliance with the Wetland Conservation Act (WCA) may have funds and/or technical resources available to restore or create wetland function and values lost or intended to be destroyed as part of a project.
- Service organizations (e.g.., Lions Club and Elks), youth groups (e.g., Boy/Girl Scouts), Adopt-a-Highway/River cleanup groups, and sportsman clubs may also provide funds or assistance.

5.3 Impacts on Local Government

This section discusses how the BCWMC's implementation program will affect local government in terms of cost and administrative issues.

The BCWMC's intention is to minimize the duplication of efforts with member cities, and to limit additional requirements imposed upon local units of government as much as possible while still accomplishing the BCWMC's purposes and implementing the Plan. The BCWMC Plan's capital improvements (listed in Table 5-3) will be implemented by the member cities, but will be funded through a Hennepin County tax levy requested by the BCWMC. These improvements would not affect the member cities' finances directly since the tax levy would not apply towards the cities' levy limits. However, there would be a financial impact to the residents of the member cities that reside in the BCWMC watershed.

As in the past, the BCWMC's implementation of its annual water quality, flood control, and education programs will be funded through the BCWMC's general fund, as will its engineering and administrative services. Since the member cities contribute funds directly to the BCWMC general fund, this has a direct financial impact on the member cities.

In placing requirements on the member cities, the BCWMC recognizes the associated financial burden, and seeks to most efficiently utilize finite financial resources to accomplish its goals. Some BCWMC policies place increased responsibility on member cities (see Section 4). Some of the implementation program elements reflect the goals, policies, and requirements of state and regional units of government that local units of government would need to address regardless.

Some of the member cities already have ordinances in place that address many of the BCWMC requirements. Applicable ordinances address shorelands, floodplains, wetland protection, stormwater management, erosion control, and stormwater system maintenance. Local governments must adopt the MDNR's shoreland regulations, if required by the MDNR.

The BCWMC is not increasing the wetland regulation burden for the member cities since those cities that are already acting as the Local Government Unit for the WCA will continue to do so (no change).

5.3.1 Local Water Management Plans and Official Controls

It is anticipated that most of the member cities will need to revise their local plans and official controls to bring them into conformance with the BCWMC's revised Plan, Minnesota law (Minnesota Statutes 103B), and Minnesota Rules (Minnesota Rules 8410). BCWMC member cities must revise and adopt local water management plans according to the timeline established in MN Rules 8410 and Minnesota Statutes 103B.235. The BCWMC requires member cities to revise their official controls and management programs (e.g., ordinances) affected by the BCWMC Plan within 2 years of adoption of the BCWMC Plan.

A member city can assume as much management control as it wishes through its approved local water management plan. The BCWMC assumes that the member cities will continue to be the permitting authority for all land alteration activities (see Section 5.1.1.6). To continue as the permitting authority, the

local government must outline its permitting process in its local water management plan, including the preliminary and final platting process.

5.3.1.1 Requirements for Local Water Management Plans and Official Controls

Local water management plans are required to conform to Minnesota law (Minnesota Statutes 103B.235), Minnesota rules (Minnesota Rules 8410), and the BCWMC Plan. Minnesota Rules 8410 and Minnesota Statutes 103B.235 Subd. 2 include specific requirements for local water management plan contents.

The policies and goals established in each city's local water management plan must be consistent with the BCWMC Plan. The section of the local plan covering assessment of problems must include those problems identified in the BCWMC Plan that affect the city. The corrective action proposed must consider the individual and collaborative roles of the BCWMC and its member cities and must be consistent with the BCWMC Plan. A city may use all or part of the BCWMC Plan when updating its local plan.

Local units of government are to maintain stormwater systems (storm sewers, ponding areas, ditches, water level control structures, etc.) under their jurisdiction in good working order to prevent flooding and water quality problems. The BCWMC requires that local plans assess the need for periodic maintenance of public works, facilities and natural conveyance systems, including the condition of public ditches constructed under Minnesota Statutes 103D or 103E, if they are under the cities' jurisdiction.

The BCWMC also requires local water management plans to assess the need to establish a waterbody management classification system to provide for water quality and quantity management. If a different classification system than the BCWMC classification system is used, it must be correlated to the BCWMC system and approved by the BCWMC. Local plans must evaluate the need for other management programs, if necessary.

The local water management plan must identify official controls and programs (e.g., ordinances, management plans) which are used to enforce the policies and requirements of the BCWMC. Member city ordinances, management programs, and other official controls required by the BCWMC Plan must be implemented within 2 years of BCWMC Plan adoption. Revisions to local water management plans or local controls that are potentially inconsistent with the BCWMC plan must be submitted by the member cities to the BCWMC for review.

The BCWMC reserves the right to recommend to a member city that a project the BCWMC considers to be inconsistent with the local management plan be denied.

Section 4 of the BCWMC Plan (Goals and Policies) describes other requirements for local water management plans (local plans).

5.3.1.2 BCWMC Review of Local Water Management Plans

Before a member city adopts its local water management plan, the new or revised plan must be submitted to all of the affected watershed management organizations, the Metropolitan Council, and Hennepin County (if the County adopts a groundwater plan) for concurrent review. Within 60 days of receipt of the

local plan, the BCWMC will review the local plan for conformance with the BCWMC Plan. As part of its review, the BCWMC will take into consideration any comments received from the Metropolitan Council and the County. The BCWMC will approve or disapprove all or part of the local plan within the 60-day time frame, unless the city agrees to an extension. If the BCWMC does not complete its review, or fails to approve/disapprove the plan within the allotted time, and the city has not given an extension, the local plan will be considered approved (per Minnesota Rules 8410 and Minnesota Statutes 103B.235, Subd. 3 and 3a).

Once the BCWMC approves the local plan, the local government must adopt and implement its plan within 120 days and amend its official controls within 180 days of plan approval. Each member city must notify the BCWMC (and the other affected WMOs) within 30 days of plan adoption and implementation, and adoption of necessary official controls.

Any amendments to the local plan must be submitted to the BCWMC for review and approval prior to their adoption by the member city. The BCWMC review process for amendments is the same as for the original or revised local plan.

5.4 Plan Approval and Adoption

This Plan was submitted to the member cities, the BWSR, the MPCA, the MDNR, the Minnesota Department of Agriculture (MDA), the Minnesota Department of Health (MDH), the Metropolitan Council, the Minnesota Pollution Control Agency (MPCA), the Minnesota Department of Transportation (MnDOT), and Hennepin County for review, in accordance with Minnesota statutes. The BCWMC held a public hearing on the Plan on May 21, 2015; BWSR approved the Plan on August 27, 2015; the BCWMC formally adopted this Plan on September 17, 2015.

5.4.1 Stakeholder and Public Involvement

Input from review agencies and other public stakeholders was solicited during the development of this Plan. Prior to drafting the Plan, the BCWMC compiled recommendations regarding technical changes needed in the BCWMC Plan; this compilation is referred to as the "gaps analysis" (see Appendix D).The gaps analysis considered responses to the Plan notification letter received from the BWSR, MDNR, Metropolitan Council, and Three Rivers Park District.

The gaps analysis considered concerns raised by the BCWMC commissioners, as well as responses from the BCWMC Technical Advisory Committee to a series of five surveys distributed from 2010 through 2012 and addressing the following topics:

- Public education and involvement
- Erosion and sediment control
- Flood and rate control
- Public education and involvement
- Water quality
- Wetlands

- Funding
- Groundwater
- Planning process
- Public ditches
- BCWMC/City responsibilities
- BCWMC/City evaluation, accountability and enforcement
- New issues not otherwise raised

The BCWMC gathered input from the residents, elected and appointed officials, city staff, state agencies and other partners through its Watershed Assessment and Visioning Exercise (WAVE) process. The WAVE process included soliciting input via an online survey and hosting a series of 11 small group meetings. The small group meetings were held with city councils, city commissions, lake associations, neighborhood associations, and other resident groups at different locations within the watershed in spring 2013. The objectives of these meetings were to:

- Gather input from member communities to guide the development of the BCWMC Plan
- Gather the thoughts and ideas about issues facing BCWMC water resources from watershed residents, elected and appointed officials, city staff, state agencies, and other partners
- Understand how the Commission can improve water resources while serving the member communities effectively and efficiently
- Prioritize watershed issues to inform the development of goals and policies in the BCWMC Plan

The results of the survey and workshops were presented at a "summit" meeting in June 2013, attended by the member city representatives, commissioners, review agencies, and the public. The outcome of the summit was a prioritized list of issues facing the BCWMC. The BCWMC commissioners considered the results of the summit in the development of Plan. Survey responses and summit ranking results are provided in Appendix E.)

Following the June 2013 summit, the BCWMC began in earnest developing sections of the Plan, facilitated by its Plan Steering Committee. The Plan Steering Committee was comprised of Commissioners, TAC representatives, and BCWMC staff. The Plan Steering Committee provided direction to BCWMC staff and preliminary review of draft Plan sections prior to review and discussion with the TAC, state review agencies, and the full BCWMC Board of Commissioners. The Plan Steering Committee hosted workshops to discuss draft Plan content. Workshops were attended by commissioners and alternates, city staff, and review agencies. Plan sections were revised per the comments received at these workshops.

The BCWMC Plan was submitted for formal 60-day review in November 2014 and revised per comments received during that period. Comments received during the formal review period can be found on the BCWMC website (www.bassettcreekwmo.org).

5.5 Plan Revision and Amendment

This Plan remains in effect for ten (10) years from the year it was approved and adopted, unless it is superseded by adoption and approval of a succeeding Plan. All amendments to this Plan must follow the procedures set forth in this section, or as required by revised laws and rules. Plan amendments may be proposed by any person to the BCWMC, but only the BCWMC may initiate the amendment process. The BCWMC may amend its Plan in the interim if either changes are required or if problems arise that are not addressed in the Plan, or if new projects need to be added to the CIP (see Section 5.2.1.1).

In accordance with Minnesota Statutes 103B.231, Subd. 3a, BWSR may develop a priority schedule for the revision of water management plans. BWSR uses the schedule to inform WMOs of when they will be required to revise their plans. If BWSR does not notify a WMO that a plan revision is required and the plan expires, Minnesota Statutes 103B.231, Subd. 3a states that the existing plan, authorities, and official controls of the WMO remain in full force and effect until a revision is approved. The same statute also allows a WMO to submit a draft plan revision for review prior to BWSR's scheduled date. If BWSR fails to adjust its priority review schedule and begin review of the submitted plan within 45 days of plan submittal, the WMO may adopt and implement their plan without formal BWSR approval.

Minnesota Rules 8410 provide additional information regarding plan amendments. Minnesota Rules 8410 requires WMOs to evaluate the implementation actions periodically. The BCWMC will review its implementation program annually. A plan amendment is required to add a project to the CIP (Table 5-3). A plan amendment is not required if projects listed in Table 5-3 are implemented at a different time than shown in the table.

5.5.1 General Amendment Procedure

The BCWMC will follow the plan amendment process described in Minnesota Statutes 103B.231, Subd. 11 unless the proposed amendment is considered a minor amendment according to the criteria described in Minnesota Rules 8410. In accordance with Minnesota Statutes 103B.231, Subd. 11, the plan amendment process is the same as the Plan review process, and is as follows:

1. The BCWMC must submit the amendment to the member cities, Hennepin County, the state review agencies (Minnesota Department of Natural Resources, the Minnesota Pollution Control Agency, Minnesota Department of Agriculture, and the Minnesota Department of Health), the Metropolitan Council, and the Minnesota Board of Water and Soil Resources, for a 60-day review.

2. The BCWMC must respond in writing to any concerns raised by the reviewers.

3. The BCWMC must hold a public hearing on the proposed amendment.

4. The BCWMC must submit the final revised amendment and response to comments to the BWSR for a 90-day review and approval.

The BCWMC will consider sending drafts of proposed amendments to all plan review authorities to receive input before establishing a hearing date or beginning the formal review process.

The BCWMC may update its Requirements document (see Appendix H), Education and Outreach Plan (see Appendix B), and Monitoring Plan (see Appendix A) without performing a plan amendment.

5.5.2 Minor Plan Amendments

The BCWMC will follow the following review process for minor plan amendments, provided that the amendment meets the criteria for a minor amendment as established in Minnesota Rules 8410:

1. The BCWMC will send copies of the proposed minor plan amendment to the affected local cities, the Metropolitan Council, Hennepin County (if the amendment is a minor amendment to the BCWMC capital improvement program), and the state review agencies for review and comment.

2. The BCWMC will hold a public meeting to explain the amendments and publish a legal notice of the meeting twice, at least 7 days and 14 days before the date of the meeting. The BCWMC will also provide mailed notice of the public meeting to the city clerk of each member city. The notice will be mailed not less than 45 days before the public meeting.

3. If the proposed amendment is a minor amendment to the BCWMC capital improvement program, Hennepin County must approve the minor amendment.

4. For proposed amendments with a project cost greater than $500,000, the County review period will be 75 days. The BCWMC will submit detailed feasibility reports for these projects to the County along with the request for a minor plan amendment.

The minor plan amendment process is more streamlined than the general plan amendment process, since it requires only one (30-day) review.

5.5.3 Amendment Format and Distribution

The BCWMC will prepare and distribute plan amendments in a format consistent with Minnesota Rules 8410. The BCWMC will maintain a distribution list of everyone who receives a copy of the Plan. Within 30 days of adopting an amendment, the BCWMC will distribute copies of the amendment to everyone on the distribution list and post the amendment on the BCWMC website. The BCWMC may consider sending drafts of proposed amendments to all plan review authorities to seek their comments before establishing a hearing date or commencing the formal review process, if schedule allows.

Table 5-2 Permit Authority of Agencies with Jurisdiction within the BCWMC

Agency	Type of Approval	Description
Federal		
U.S. Army Corps of Engineers (USACE)	Section 10 of the Rivers and Harbors Act	Applies to placement of structures and/or work in, or affecting, navigable waters of the United States.
	Section 404 Permit	Applies to the discharge of dredged or fill material into waters of the United States. There are two types of Section 404 permits: regional and nationwide general permits, and individual permits.
Note: Section 401 Certification is implemented in coordination with the MPCA.	Section 401 of the Clean Water Act Water Quality Certification	Applies to activities that require a Corps of Engineers Section 10, Corps of Engineers Section 404 or Federal Energy Regulatory Commission permit. These activities must first obtain Section 401 water quality certification.
State		
Minnesota Department of Natural Resources (MDNR)	Public Waters Work Permit	Applies to any work that will alter the course, current or cross-section of any MDNR public water lake, wetland or watercourse; also applies to any work below the ordinary high water mark of MDNR public waters.
	Groundwater or Surface Water Appropriation Permit	Applies to suppliers of domestic water to more than 25 people or for any use of groundwater or surface water that exceeds 10,000 gallons/day or 1,000,000 gallons/year.
	Dam Safety Permit	Applies to impoundments that pose a potential threat to public safety or property. Dams 6 feet high or less and dams that impound 15 acre-feet of water or less are exempt from the rules. Dams less than 25 feet high that impound less than 50 acre-feet of water are also exempt unless there is a potential for loss of life.
	Riprap Shore Protection Permit	Applies to the placement of riprap shore protection or placement of fill to recover shoreland lost to erosion.
	Aquatic Plant Management Permit	Applies to chemical or mechanical removal of aquatic plants, including submerged, emergent, and floating vegetation.
	Fisheries Permit	Applies to transport and stocking of fish and the removal of rough fish.
Minnesota Environmental Quality Board (EQB)	Environmental Assessment Worksheet	Broad environmental assessment required for certain proposed developments and other activities.
Minnesota Department of Health (MDH)	Well Management Program	Applies to drilling of new water wells and sealing of abandoned water wells. Includes Wellhead Protection Program.
	Safe Drinking Water Act	Applies to construction of new water wells and other public water supply systems
	State Discharge System/National Pollutant Discharge Elimination System (NPDES) Permit	Applies to all discrete sources of wastewater discharge to surface waters, including sanitary wastewater, process wastewater, etc.
	NPDES/SDS Construction Stormwater Permit	Applies to construction activities that disturb 1 or more acres of land.

Table 5-2 Permit Authority of Agencies with Jurisdiction within the BCWMC

Agency	Type of Approval	Description
Minnesota Pollution Control Agency (MPCA)	NPDES General Industrial Stormwater Permit	Applies to certain industrial/ commercial activities that come into contact with stormwater. Requires preparation of stormwater pollution prevention plan.
	NPDES General Storm Water Permit for small Municipal Separate Storm Sewer Systems (MS4s) Note: Minneapolis is a large MS4 and operates under an individual permit.	Applies to municipal storm sewer systems serving populations fewer than 100,000 located in urbanized areas, MnDOT, counties, and other public systems (e.g., universities). Requires permitees to implement public education programs, detect and eliminate illicit discharges, control construction site and post-construction stormwater runoff on sites that disturb 1 or more acres of land, and address pollution prevention at municipal operations.
	NPDES Phase 1 MS4 Storm Water Permit	Applies to municipal storm sewer systems serving populations over 100,000 (in Minnesota, only Minneapolis and St. Paul). Requires practices similar to permit for small MS4s, plus additional requirements.
Minnesota Pollution Control Agency (MPCA)	Permit for disposal of dredged material (permit not required for stormwater ponds)	Applies to material excavated at or below the ordinary high water level of waterbasins, watercourses, public waters, or public waters wetlands (note: specific guidance provide for material removed from stormwater ponds).
Note: Section 401 Certification is implemented in coordination with the USACE.	Section 401 of the Clean Water Act Water Quality Certification	Applies to activities that require a Corps of Engineers Section 10, Corps of Engineers Section 404 or Federal Energy Regulatory Commission permit. These activities must first obtain Section 401 water quality certification.

Table 5-3 BCWMC 2015-2027 CIP (Amended August 2021)

BCWMC ID	Capital Project Description	Estimated Capital Cost[1]	Year 2015	2016	2017	2018	2019	2020	2021	2022	2023	2024	2025	2026	2027
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[17]	Projects address phosphorus load reduction requirements in Medicine Lake TMDL: Medley Park Stormwater Treatment Facility, Golden Valley	$ 2,000,000								$400,000	$300,000	$ 800,000			
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	$ 178,100							$178,100						
ML-21	Jevne Park Stormwater Pond, City of Medicine Lake to alleviate flooding/improve	$ 500,000						$ 500,000							
ML-22	Ponderosa Woods Stream Restoration	$ 475,000										$475,000			
ML-23	Cost Sharing Purchase of High Efficiency Street Sweeper for city of Plymouth	$ 75,000							$75,000						
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									
2026CR-P	Plymouth Creek Restoration Project, Old Rockford Road to Vicksburg Lane	$ 500,000												$500,000	
2027CR-P	Plymouth Creek Restoration Project, Dunkirk Ln to Yuma Ln & Vicksburg Ln to Cty Rd 9	$ 600,000													$600,000
Sweeney Lake															
SL-3[6]	Projects to address phosphorus load reduction requirements in Sweeney 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						
SL-8	Sweeney Lake Water Quality Improvement Project (alum + carp management)[15]	$ 568,080						$568,080							
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				$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									
2024CR-M	Main Stem Channel Restoration, Regent Ave. to Golden Valley Road (in Golden Valley) to reduce phosphorus and sediment loading	$ 700,000										$ 100,000	$ 600,000		
BC2,3,8, 10	Medicine Lake Road and Winnetka Avenue Long Term Flood Mitigation Plan Implementation	$ 4,200,000					$ 1,100,000	$ 500,000		$ 300,000	$ 1,000,000		$600,000	$700,000	
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)[16]	$ 912,000						$ 100,000	$ 812,000						
BC-7[18]	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	$ 2,759,000							$ 600,000	$1,100,000	$859,000	$200,000			
BC-11	Bassett Creek Park Water Quality Improvement Project	$ 500,000										$ 200,000	$300,000		
BC-12	Cost share purchase of high efficiency street sweeper for city of Golden Valley	$ 150,000											$150,000		
BC-13	Toledo Ave/Minnaqua Pond Stormwater Improvements & Flood Reduction	$ 700,000													$700,000
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	$485,000							$ 485,000						
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							
CL-4	Crane Lake Chloride Reduction Demonstration Project at Ridgedale Mall	$300,000												$ 300,000	
Flood Control Project															
FCP-1	Flood Control Project Double Box Culvert Repairs	$1,200,000													$1,200,000
	Total Annual Estimated Project Cost[2]	**$46,681,295**	**$1,503,000**	**$1,878,000**	**$2,074,000**	**$1,947,115**	**$1,400,000**	**$1,968,080**	**$2,150,100**	**$1,800,000**	**$2,159,000**	**$1,775,000**	**$1,650,000**	**$1,500,000**	**$2,500,000**

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 - 2020 dollars, depending on when project was added to CIP.
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
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 BCWMC levied for the project defined as option 1 in the 2012 feasibility study. Now project planned to coincide with redevelopment of the Four Seasons Mall area.
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).
15. Project now involves carp management and includes federal grant funding through MPCA.
16. Estimated cost increased from original estimate of $500,000; State grant funds awarded
17. City of Golden Valley to provide $500,000
18. Grant funds of $325,000 secured from state and county

Table 5-4 BCWMC Annual Implementation Program (non-CIP)

Implementation Program Item			Cost[1] by Year of Implementation									
			2016	2017	2018	2019	2020	2021	2022	2023	2024	2025
Admin.	Administration (non-technical)		$140,000	$137,000	$137,000	$137,000	$137,000	$137,000	$137,000	$137,000	$137,000	$137,000
Engineering & Monitoring	Technical Services		$120,000	$120,000	$120,000	$120,000	$120,000	$120,000	$120,000	$120,000	$120,000	$120,000
	Development/Project Review (offset by fees)		$65,000	$65,000	$65,000	$65,000	$65,000	$65,000	$65,000	$65,000	$65,000	$65,000
	Development/Project Review (non-fee)		$15,000	$15,000	$15,000	$15,000	$15,000	$15,000	$15,000	$15,000	$15,000	$15,000
	Commission/TAC meetings		$14,500	$14,500	$14,500	$14,500	$14,500	$14,500	$14,500	$14,500	$14,500	$14,500
	Surveys/Studies		$20,000	$20,000	$20,000	$20,000	$20,000	$20,000	$20,000	$20,000	$20,000	$20,000
	Detailed Water Quality Monitoring[3]		$76,000	$63,000	$137,000	$101,000	$45,000	$106,000	$76,000	$45,000	$131,000	$101,000
	Water Quantity Monitoring		$11,500	$11,500	$11,500	$11,500	$11,500	$11,500	$11,500	$11,500	$11,500	$11,500
	Flood Control Project Inspections[5]		$10,000	$10,000	$10,000	$29,000	$10,000	$10,000	$10,000	$10,000	$29,000	$10,000
	Watershed Inspections (for ESC in cities, etc.)		$1,000	$1,000	$1,000	$1,000	$1,000	$1,000	$1,000	$1,000	$1,000	$1,000
	WOMP Implementation[2]		$17,000	$17,000	$17,000	$17,000	$17,000	$17,000	$17,000	$17,000	$17,000	$17,000
	Municipal Plan Review		$8,000	$8,000	$8,000							
	Management Plan Update									$40,000	$40,000	$40,000
	Annual updates to P8 model		$10,000	$10,000	$10,000	$10,000	$10,000	$10,000	$10,000	$10,000	$10,000	$10,000
	TMDL Work		$20,000	$20,000	$20,000	$20,000	$20,000	$20,000	$20,000	$20,000	$20,000	$20,000
	Modeling to update flood levels (Policy 25)		$85,000	$85,000	$85,000							
	Flood protection funding criteria (Policy 27)					$5,000						
	Habitat Monitoring Program (Policy 78)		$5,000									
	Aquatic Invasive Species Work (Policy 79)		$5,000	$5,000	$5,000	$5,000	$5,000	$5,000	$5,000	$5,000	$5,000	$5,000
	Groundwater Work (Policies 46 & 47)		$5,000	$5,000	$5,000	$5,000	$5,000	$5,000	$5,000	$5,000	$5,000	$5,000
Education	Annual Report/Publications		$4,000	$4,000	$4,000	$4,000	$4,000	$4,000	$4,000	$4,000	$4,000	$4,000
	Website Maintenance		$2,000	$2,000	$2,000	$2,000	$2,000	$2,000	$2,000	$2,000	$2,000	$2,000
	Watershed Education Partnerships		$15,500	$15,500	$15,500	$15,500	$15,500	$15,500	$15,500	$15,500	$15,500	$15,500
	Education and Public Outreach[4]		$17,000	$17,000	$17,000	$17,000	$17,000	$17,000	$17,000	$17,000	$17,000	$17,000
	Public Communications		$3,000	$3,000	$3,000	$3,000	$3,000	$3,000	$3,000	$3,000	$3,000	$3,000

Table 5-4 BCWMC Annual Implementation Program (non-CIP)

Implementation Program Item			Cost[1] by Year of Implementation									
			2016	2017	2018	2019	2020	2021	2022	2023	2024	2025
Maintenance	Annual allocation to Channel Maintenance Fund		$25,000	$25,000	$25,000	$25,000	$25,000	$25,000	$25,000	$25,000	$25,000	$25,000
	Annual allocation to Flood Control Project Long-Term Maintenance Fund		$25,000	$25,000	$25,000	$25,000	$25,000	$25,000	$25,000	$25,000	$25,000	$25,000
	Flood Control Project rehabilitation and replacement plan (Policy 22)		$5,000									
Total Annual Cost (non-CIP)			$724,500	$698500	$772,500	$667,500	$587,500	$648,500	$618,500	$627,500	$732,500	$683,500

Notes:
All costs presented in 2015 dollars
[1] All of the items in this table are funded under the BCWMC General Fund
[2] Cost-sharing provided by the Metropolitan Council for operation of WOMP station. Costs shown include only the BCWMC share of the costs.
[3] Estimated annual costs may vary based on revisions/updates to the BCWMC Monitoring Plan.
[4] Estimated annual costs may vary based on revisions/updates to the BCWMC education and outreach plan.
[5] Inspection of the double box culvert at the tunnel entrance performed every 5 years (2019, 2024); inspection of the deep tunnel is performed every 20 years (next planned for 2028).

Table 5-5 Past BCWMC Accomplishments (since approval of 2004 Plan)

Implementation Item	Project No Table 12-2 of 2004 Plan (as amended) [1]	Year Implemented[2]	Status / Description
Administrative and Review Activities			
Review projects for consistency with BCWMC requirements	NA	Ongoing	Number of development proposals reviewed: • 2007 – 26 • 2008 – 31 • 2009 – 13 • 2010 – 28 • 2011 – 32 • 2012 – 37 • 2013 – 41
Review of member city local water management plans	NA	Periodic	• 2006 – Minneapolis • 2008 – Golden Valley, Minnetonka, New Hope, Plymouth • 2009 – St. Louis Park, Crystal 2010 – Robbinsdale, Medicine Lake
Complete minor and major plan amendments as necessary to update the Capital Improvement Program (CIP)	NA	Ongoing	Annually (2004 – 2013)
Erosion Control Inspections	NA	Ongoing	Performed monthly at construction sites within the watershed 2004 – 2013.
Flood control project inspections	NA	Annual	Performed annually; results are summarized and provided to appropriate municipalities and MnDOT.
Inspection of the double box culvert at the entrance to the Bassett Creek tunnel	NA	Every 5 years	Performed in 2004, 2009, and 2014.
Bassett Creek tunnel inspection	NA	2008	Performed every 20 years in coordination with City of Minneapolis, MnDOT, and U.S. Army Corps of Engineers
Long-term maintenance of the Flood Control Project	NA	Ongoing	Funded by annual assessments. Portion of funds used to complete Sweeney Lake outlet project (see Table 5-5).
Complete annual report, submit to BWSR and post to website	NA	Annually	Completed annually; available at BCWMC website.
Apply for grants and/or assist in city application for grants	NA	Ongoing	The BCWMC has received multiple grants for projects, including: • $360,000 BWSR Clean Water Fund for stream restoration projects on Plymouth Creek and Bassett Creek Main Stem (2010) • $75,000 BWSR Clean Water Fund for Wirth Lake outlet modifications (2010) $217,500 BWSR Clean Water Fund for Bassett Creek Main Stem restoration projects (2011)
Complete annual audit and submit to BWSR	NA	Annually	Completed annually.

Table 5-5 Past BCWMC Accomplishments (since approval of 2004 Plan)

Implementation Item	Project No Table 12-2 of 2004 Plan (as amended) [1]	Year Implemented[2]	Status / Description
Update BCWMC Watershed Management Plan	NA	2012-	The BCWMC began updating its 2004 Watershed Management Plan in 2012, including establishing a Steering Committee and public participation process. Plan approval and adoption expected in 2015. A gaps analysis was completed in 2012.
Water Quality and Quantity Monitoring and Studies			
Detailed lake water quality monitoring *(Note that additional water quality monitoring is performed by other entities with varying levels of cooperation by the BCWMC)*	NA	Annual	BCWMC performed detailed monitoring of waterbodies within the watershed on a rotating schedule: • 2007 – Crane Lake, Westwood Lake • 2008 – Sweeney Lake, Twin Lake • 2009 – Sweeney Lake, Twin Lake, Northwood Lake, North Rice Pond, South Rice Pond • 2010 – Medicine Lake • 2011 – Crane Lake, Westwood Lake • 2012 – None • 2013 – Northwood Lake, North Rice Pond, South Rice Pond • 2014 – Sweeney Lake, Twin Lake
Operate stormwater runoff monitoring station (i.e., WOMP)	NA	Ongoing	Performed in cooperation with the Metropolitan Council and Minneapolis Parks and Recreation Board (MPRB). MPRB's involvement ended in 2012.
Conduct Fish Index of Biological Integrity of Bassett Creek Main Stem	NA	2008	Performed in cooperation with MPCA.
E. coli bacteria monitoring of Bassett Creek Main Stem	NA	2008, 2009, 2010	Performed in cooperation with MPCA. Analysis of monitoring results completed in 2010.
Biotic index monitoring of Bassett Creek Main Stem and tributaries	NA	2006, 2009, 2012	Performed every 3 years at sampling sites on the Main Stem of Bassett Creek, North Branch of Bassett Creek, Plymouth Creek, and Sweeney Lake Branch of Bassett Creek
Lake and stream gauging program (water level readings)	NA	Ongoing	Lake level data collected at Medicine Lake, Sweeney Lake, Parkers Lake, Westwood Lake, Crane Lake, and Northwood Lake. Readings taken twice monthly from April 1 – September 30 and one per month in other months.
Twin Lake internal loading investigation	NA	2010-2011	Investigation included water quality monitoring and sediment analysis of Twin Lake. Report completed in 2011.
Updates to watershed-wide hydrologic/hydraulic model	NA	2012-2013	Converted existing models to a single watershed-wide XP-SWMM model.
Updates to the P8 water quality model	NA	2012-2013	Portions of the existing P8 water quality model were updated to reflect current land use and BMP conditions.
Completion of a *Resource Management Plan*	NA	2009	BCWMC completed a plan to expedite US Army Corps of Engineers' permitting process for water quality improvement projects in the BCWMC CIP.

Table 5-5 Past BCWMC Accomplishments (since approval of 2004 Plan)

Implementation Item	Project No Table 12-2 of 2004 Plan (as amended) [1]	Year Implemented[2]	Status / Description
Sweeney Lake TMDL Study and Implementation Plan	NA	2007-2010	BCWMC cooperated with the MPCA to undertake the Sweeney Lake TMDL study beginning with Phase I in 2007-2008 and continuing in 2008-2009 with Phase 2. A draft of the TMDL was completed in 2010. The TMDL was approved by the MPCA and USEPA in 2011.
Medicine Lake TMDL Study and Implementation Plan	NA	2008-2010	BCWMC cooperated with the MPCA to undertake the Medicine Lake TMDL study beginning in 2008 with the MPCA taking the lead role. BCWMC partnered with the MPCA and Three Rivers Park District to develop the TMDL Implementation Plan beginning in 2009. The TMDL was approved by the MPCA and USEPA in 2011.
Wirth Lake TMDL Study and Implementation Plan	NA	2008-2010	BCWMC cooperated with the MPCA to undertake the Wirth Lake TMDL study beginning in 2008 with the MPCA taking the lead role. A draft of the TMDL was completed in 2009. The TMDL was approved by the MPCA and USEPA in 2010
Education and Outreach			
Publishing articles in local newspapers	NA	Ongoing	
Conducting tours of the watershed	NA	Approximately every other year	Conducted tours in 2005, 2007, 2009, 2011, 2014
Co-sponsoring MetroBlooms rainwater garden workshops	NA	2008, 2011 - 2014	
Staffing informational booths at fair, expos, and other events	NA	Ongoing	Events include: • Plymouth Yard/Garden Expo • Plymouth Environmental Quality Fair Golden Valley Days
Participating in Blue Thumb	NA	Ongoing since 2008	Blue Thumb is a local program that encourages homeowners to use native planting, rain gardens, and shoreline stabilization to reduce runoff.
Participating in Metro WaterShed Partners	NA	Ongoing	Including the Minnesota Waters "Let's Keep Them Clean" campaign
Conducting surveys of watershed residents	NA	Periodically	Surveys include a 2007 survey of residents' knowledge of water-related issues and 2013 resident survey intended to guide next generation Plan development.
Participated in watershed education alliance (West Metro Watershed Alliance, WMWA) with four neighboring WMOs	NA	Ongoing since 2009	
Giving away native seed packets	NA	Ongoing	
Participating in the development of educational materials distributed to target audiences	NA	Periodically	Including the "10 Things You Can Do" brochure distributed to member cities (2009 and 2014)
Maintaining the Technical Advisory Committee	NA	Ongoing	The TAC meets about six times per year to review and make recommendations regarding topics assigned by the Commission.

Table 5-5 Past BCWMC Accomplishments (since approval of 2004 Plan)

Implementation Item	Project No Table 12-2 of 2004 Plan (as amended) [1]	Year Implemented[2]	Status / Description
Maintain the BCWMC Website	NA	Ongoing	Continually update website with Commission meeting materials and minutes, technical reports and studies, and watershed news.
Capital Projects by Watershed			
Medicine Lake			
Construction of wet detention pond to treat runoff from subwatershed BC94B1	ML-1	Pre-2004	Pond constructed by the City of Plymouth prior to 2004 Plan without BCWMC funding.
Reduce goose loading by 75 percent	ML-2	Ongoing	Option 17 in the Medicine Lake Plan. Periodically performed by the City of Plymouth.
Reroute flows from subwatershed BC94 to wet detention pond for BC92	ML-3	2006	Option 9a from the Medicine Lake Plan and included the dredging of accumulated sediment. Performed by the City of Plymouth.
Construction of Medicine Lake East Beach wet detention pond for subwatershed BC107	ML-4	2006	Option 11 from the Medicine Lake Plan. Constructed by the City of Plymouth.
Construction of wet detention pond for subwatersheds BC98, BC98A and BC98B	ML-5	2004	Option 10a from the Medicine Lake Plan. Constructed by the City of Plymouth.
In-lake Herbicide Treatment	ML-7	2004, 2005, 2006, 2008	Herbicide application to treat curlyleaf pondweed was performed in multiple years; a report was published in 2007. Performed by the City of Plymouth.
Construction of Lakeview Park Pond	ML-8	On Hold	Project includes <1 acre pond located in periodically-flooded are of Lakeview park. Pond will provide water quality treatment for an area draining to Medicine Lake currently without treatment.
West Medicine Lake Park Ponds water quality project	ML-11	2010	Project to improve quality of stormwater runoff to Medicine Lake. Constructed by the City of Plymouth
Plymouth Creek			
Channel restoration – Medicine Lake to 26th Avenue (Plymouth)	PC-1	2010-2012	Project completed by the City of Plymouth. Partially funded by BWSR CWF grant.
Channel restoration –26th Avenue to 37th Avenue (Plymouth)	PC-2	Not Implemented	
Parkers Lake			
Improvements to stormwater basin in PL-A13 near Circle Park	PL-6	2010	Project completed by the City of Plymouth as part of street redevelopment.
Wirth Lake			
Dredging of detention pond in subwatershed FR-5	WTH-1	2007	Option 2 in the Wirth Lake Plan
Highway 55 detention pond	WTH-2	Not Implemented	Wirth Lake water quality has improved significantly. In 2014, it was removed from the Impaired Waters List. Project may be considered in future if necessary (see Table 5-3).
In-lake alum treatment of Wirth Lake	WTH-3	Not Implemented	Wirth Lake water quality has improved significantly. In 2014, it was removed from the Impaired Waters List.

Table 5-5 Past BCWMC Accomplishments (since approval of 2004 Plan)

Implementation Item	Project No Table 12-2 of 2004 Plan (as amended) [1]	Year Implemented[2]	Status / Description
Wirth Lake outlet modification to prevent backflow	WTH-4	2012	Project included the addition of two rubber check valves to prevent backflow from Bassett Creek into Wirth Lake under flooding conditions, reducing annual phosphorus loading to Wirth Lake. Project is part of the Wirth Lake TMDL Implementation Plan. The project was constructed by the City of Golden Valley and was partially funded by a BWSR CWF grant.
Sweeney Lake			
Sweeney Lake outlet replacement	FC-1	2012	Project included stabilization of eroding embankments and replacement of outlet structure to prevent further erosion and maintain lake level for flood control purposes. Funded through BCWMC Flood Control Project Long-term Maintenance Fund and constructed by the City of Golden Valley.
Schaper Pond diversion project	SL-3	2015	Project includes rerouting of inflow from Highway 55 inlet to northwest side of the pond to improve phosphorus removal efficiency within the pond. Project is anticipated to meet required load reduction of the Sweeney Lake TMDL.
Twin Lake			
Pond expansion	TW-1	Not Implemented	Option 1 in the Twin Lake Plan. Project delayed due to site contamination and right-of-way issues.
In-lake alum treatment of Twin Lake	TW-2	2015	*Twin Lake Feasibility Study* (2013) recommended in-lake alum treatment as the most feasible option to reduce phosphorus and algae in Twin Lake to pre-2008 levels. Pending approval further review of recent water quality data.
Westwood Lake			
Construction of detention/ skimming facility at Flag Avenue	WST-1	2009	Option 1 in Westwood Lake Plan. Constructed by the City of St. Louis Park.
Bassett Creek Park Pond – *None Proposed*			
Northwood Lake			
Construction of ponds NB-35A, NB-35B, NB-35C and ponds NB-29A, NB-29B	NL-1	In progress	Option 4 in the Northwood Lake Plan. The City of New Hope constructed ponds NB-35A, NB-35B, and NB-35C, but not to degree of Northwood Lake Plan. Construction of ponds NB-29A, NB-29B, and a pond west of Northwood Lake (Jordan Outlet Pond) is planned for 2017-2018.
Four Seasons Mall area water quality project	NL-2	In Progress	Scenario 1 of a 2012 feasibility study. Project includes: • Construction of water quality treatment pond one site • Construction of water quality treatment pond southwest of the mall near the intersection of 40th Avenue N and Pilgrim Lane Restoration of an existing eroding stream channel.

Table 5-5 Past BCWMC Accomplishments (since approval of 2004 Plan)

Implementation Item	Project No Table 12-2 of 2004 Plan (as amended) [1]	Year Implemented[2]	Status / Description
Diversion of Lancaster Lane storm sewer	NL-3	Removed from CIP list	After more analysis, it was determined this project is not needed as the Lancaster Lane stormsewer already discharges to the wetland on the west side of Lancaster.
Construction of ponds NB-36A, NB-37A, and NB-38A.	NL-4	2007	Option 5 in the Northwood Lake Plan. Ponds were constructed by the City of New Hope.
Northwood Lake East Pond water quality project	NL-7	2009	The City of New Hope constructed a pond to improve quality of stormwater runoff to Northwood Pond.
Bassett Creek Main Stem			
Construction of Pond BC 10-3	BC-1	2004	This project was completed as part of the Boone Ave and Brookview Golf Course improvement projects in 2004. Project completed without BCWMC funding.
Channel restoration – Crystal Border to Regent Avenue (Crystal/Golden Valley)	2010CR	2011	Project partially funded by a BWSR CWF grant.
Channel restoration – Wisconsin Ave. to Rhode Island Ave. and Duluth St. to Crystal/Golden Valley border	2011CR	2013	
Briarwood / Dawnview water quality improvement project (Golden Valley)	BC-7	2015	This project includes the installation of a stormwater management pond to treat 184 acres of residential area.
Channel restoration – Golden Valley Rd. to Irving Ave. N. (Golden Valley/Minneapolis)	2012CR	In Progress	Project restores streambank on Bassett Creek main stem. Project partially funded by a BWSR CWF grant.
Sweeney Lake Branch of Bassett Creek			
Channel Restoration – from Cortlawn Pond to Turner's Crossroad		2008	Constructed by the City of Golden Valley.
North Branch of Bassett Creek			
Channel restoration – 32nd Ave. N. to Douglas Dr. N. (Crystal)	2011CR-NB	2013	Restored streambanks from 32nd Avenue North to Douglas Drive North, in Crystal
Grimes, North Rice and South Rice Ponds			
Construction of Grimes Pond wet detention pond	GR-2	Not Implemented	Option 4 in the Rice and Grimes Ponds Plan
Crane Lake			
Construction of detention/skimming facility at Ramada Inn	CL-1	Not Implemented	Option 1 in the Crane Lake Plan
Construction of wet detention pond at Joy Lane	CL-2	Not Implemented	Project deemed not feasible by the City of Minnetonka in 2008.
Turtle Lake – *None Proposed*			
Lost Lake – *None Proposed*			
Flood Control Project			
Perform flood-proofing of homes along Bassett Creek Trunk System		2008	Funded by remaining portion of the Flood Control Project construction funds.

Table 5-5 Past BCWMC Accomplishments (since approval of 2004 Plan)

Implementation Item	Project No Table 12-2 of 2004 Plan (as amended) [1]	Year Implemented[2]	Status / Description

Notes:

[1] Project Number is based on Table 12-2 of the 2004 Plan (as amended). Table 12-2 from the 2004 Plan is updated as Table 5-3 in this Plan.

[2] Based on year of substantial progress (project completion may occur at a later date).

Flysheet Line 1

Flysheet Line 2

Flysheet Line 3