

BCMWC 2025 Watershed Management Plan

Section 4 – Implementation

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4.0 Implementation

Red text indicates internal, working notes. Blue highlight indicates references to be updated later. Yellow highlight is content flagged for PSC discussion.

This section describes the BCWMC implementation program – the programs, activities, and projects carried out by the BCWMC to achieve its goals (see [Section X](#)). This section includes **specific policies** (numbered and in bold) and guidance describing how the BCWMC goes about its work and it identifies relevant roles and responsibilities the BCWMC delegates to its member cities.

4.1 BCWMC Roles and Tools for Implementation

The following sections describe the operational tools the BCWMC uses to [address issues and](#) pursue its goals. These tools are generally defined as:

- Review of Development, Redevelopment, and Other Projects
- Inter-agency Planning and Collaboration
- Studies, Subwatershed Assessments, and Other Non-Capital Projects
- Capital Improvement Program
- Trunk System Maintenance and Flood Control Project
- Aquatic Invasive Species Management
- Monitoring and Modeling
- Education and Engagement
- Evaluation and Assessment

[There are often multiple tools that are used to address a particular issue and each tool can be used to make progress on goals for multiple issues. The matrix in Table 4-1 presents these complex relationships.](#)

The following sections include guidance and specific policies of the BCWMC. Additional details and guidance of select tools are also included in relevant Plan appendices (e.g., Education and Engagement Plan, Monitoring Plan) and the BCWMC Requirements document.

Table 4-1. Matrix of Issues vs. Tools

ISSUE	PRIORITY	TOOLS								
		Development Requirements	Inter-Agency Coordination	Studies & Assessment (BCWMC lead)	CIP	Flood Control Project	AIS Management	Monitoring & Modeling	Education & Engagement	Evaluation & Assessment
Impaired Waters	Hi	X	X	X	X		X	X	X	X
Chloride Loading	Hi	X	X	X	X			X	X	X
Streambank & Gully Erosion	Med	X	X	X	X			X	X	X
Lakeshore Erosion	Med		X	X	X			X	X	X
Wetland Health & Restoration	Med	X	X	X	X		X	X	X	X
Aquatic Invasive Species	Med		X		X		X	X	X	X
GW – Surface Water Interaction	Med	X	X	X	X			X	X	X
Degradation of Riparian Areas	Low	X	X	X	X			X	X	X
Degradation of Upland Areas	Low		X					X	X	X
Groundwater Quality	Low	X	X		X				X	X
Flooding & Impact of Climate Change on Hydrology	Hi	X	X	X	X	X		X	X	X
Bassett Creek Valley	Hi	X	X	X	X	X		X	X	X
Groundwater Quantity	Low	X	X		X				X	X
Public Awareness & Action	Med		X		X		X	X	X	X
Engagement of Diverse Communities	Med		X	X	X		X	X	X	X
Recreation Opportunities	Low		X				X	X	X	
Organizational Staff & Capacity	Hi		X		X	X			X	X
Funding Mechanisms	Hi	X	X		X	X			X	X
Progress Assessment	Hi			X				X		X
Implementation with DEIA Lens	Med		X		X				X	X
Public Ditch Management	Low		X					X		
BCWMC Project Carbon Footprint	Low			X	X				X	X

4.1.1 Review of Requirements for Development, Redevelopment, and Other Projects

The BCWMC does not have a permit program (i.e., does not issue permits for development, redevelopment, or other projects) but it does review projects that trigger specific criteria for compliance with BCWMC- requirements and performance standards published in the BCWMC *Requirements for Improvements and Development Proposals* (as amended) (Requirements document). [For non-linear projects, the BCWMC requirements follow the Minimal Impact Design Standards \(MIDS\) and were adopted by the Commission in conjunction with its 2025 Watershed Plan. BCWMC development requirements are a primary and critical function of the Commission that reduces the potentially harmful impacts of stormwater runoff. At a high level, r](#)Requirements address:

- Floodplains
- Stormwater rate control
- Water quality
- Erosion and sediment control
- Lake, Stream, and Wetland impacts
- Diversion of surface water runoff
- Utility crossings and bridges
- Modifications to the Bassett Creek tunnels
- [Groundwater quality and quantity](#)

The BCWMC has established criteria (“triggers”) to determine which projects require BCWMC project review and which requirements apply to specific projects. Generally, BCWMC requirements apply to any non-linear project creating one or more acres of new or redeveloped impervious area and linear projects that [placeholder for triggers TBD]. Specific requirements and triggers for review are included in the most current version of the Requirements document.

Member cities must incorporate standards and requirements included in the Requirements document into their official controls (e.g., ordinances). Member cities must inform developers and other project applicants regarding BCWMC requirements (Policy 1).

The BCWMC requires public agencies to comply with the requirements and standards published in the Requirements document (Policy 2).

The BCWMC will work with member cities to periodically review and update the Requirements document outside of the Plan update process (Policy 3).

4.1.1.1 Project Review and Permitting Process

The BCWMC relies on its member cities to review development and redevelopment proposals for compliance with BCWMC requirements, when applicable, and to issue permits only after compliance has been determined.

Member cities shall not issue construction permits, or other approvals, until the BCWMC has approved the project (Policy 4).

Member cities must inform the BCWMC of development, redevelopment, and other project proposals that trigger review per the BCWMC Requirements document (see Appendix X). Prior to BCWMC conducting its formal review, city staff completes their review and establishes that the development, redevelopment, or other project 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.

For projects subject to BCWMC review and erosion and sediment control standards, the BCWMC requires that member cities perform regular erosion and sediment control inspections (Policy 5). *Consider adding an offer to cities for assistance with ESC enforcement.*

At the request of member cities and/or project proposers, the BCWMC will provide information and assistance in the preliminary planning stages of these improvements or land development proposals. The BCWMC will also review projects that would not otherwise trigger review per the Requirements document at the request of the member cities.

The BCWMC will review applications to the Minnesota Department of Natural Resources (MDNR) for public waters work permits and groundwater appropriations permits (Policy 6).

4.1.1.2 Wetland Conservation Act

The BCWMC cooperates with member cities to manage wetlands. [Proper wetland management can help improve wetland health and is involved in wetland restoration projects – a medium level priority issue for the Commission.](#) Most cities in the watershed serve as the Local Government Unit (LGU) administering the Wetland Conservation Act (WCA). The BCWMC will assist the member cities with managing wetlands in accordance with the WCA, as requested. The MnDOT is the LGU within its rights-of-way.

The BCWMC will serve as the local governmental unit (LGU) responsible for administering the Wetland Conservation Act (WCA) in member cities, when officially delegated. The BCWMC is currently the LGU for the Cities of St. Louis Park, Robbinsdale, and Medicine Lake (Policy 7).

Per the requirements of WCA, each city must maintain a comprehensive wetland inventory or inventory, classify, and assess the functions and values of wetlands on an as-needed basis. The BCWMC adopts the [Minnesota Rapid Assessment Method \(MnRAM\)](#) [placeholder for pending new State classification system or adapted BCWMC classification system] and encourages member cities to use this method when performing functions and values assessments.

The BCWMC encourages member cities to complete comprehensive wetland management plans as part of their local water management plans and encourages member cities to pursue wetland restoration projects, as opportunities allow (Policy 8).

4.1.2 Inter-Agency Planning and Collaboration

The BCWMC is one of many organizations responsible for managing natural resources and collaborates with partners to implement this Plan. This collaboration [is critical to much of the Commission's work](#) and is especially important with respect to those resources and/or issues for which the BCWMC is not the primary managing entity. [A robust mechanism for collaborating and partnering with others helps improve the Commission's organizational capacity, extending its reach and impact. It also improves government efficiency and the responsible use of public funds.](#)

Groundwater

The BCWMC recognizes the groundwater management authorities of other local and state agencies and identifies the BCWMC's role as primarily one of support and collaboration. The BCWMC encourages and supports public and private landowners to pursue

conservation practices and supports cities in the implementation of their water conservation grant or cost-share programs. [These activities will help address the Commission's issues of groundwater quality and quantity.](#)

The BCWMC encourages local and state agencies to develop a groundwater action plan and will collaborate on implementation of a plan if/when it's developed in an effort to gain a better understanding of groundwater-surface water interaction and develop management strategies that consider the protection of both resources (Policy 9).

Public Ditches

The BCWMC encourages member cities to petition Hennepin County to transfer authority over public ditches in the BCWMC to the member cities (per MN Statute 383B.61). [BCWMC goals related to public ditches indicate that if](#) authority is transferred to the member cities, the BCWMC and cities will manage these drainages similar to other BCWMC waterways, in accordance with the BCWMC's latest adopted Plan.

In consideration for the original function of public ditches to provide drainage of agricultural lands, the BCWMC will support the efforts of other entities to pursue legislation abandoning public ditches on land zoned non-agricultural.

The BCWMC will manage public ditches that are part of the trunk system consistent with this Plan and BCWMC Requirements document (Policy 10).

Member cities are responsible for management of public ditches that are not on the trunk system but are currently part of their municipal drainage system.

Rare Species and Land Conservation

Although the BCWMC's work is primarily concentrated on aquatic resources, the BCWMC encourages and supports public and private landowners to maintain, preserve or restore open space and native habitats. [Collaboration with others will help make progress toward BCWMC related to degraded upland habitats.](#)

The BCWMC will submit data, as available, and encourages others to submit data regarding occurrences of rare and endangered species and native plant communities to the State's Natural Heritage Information System (Policy 11).

The BCWMC will cooperate, when appropriate and as resources allow, with partners and organizations that identify and work to preserve connected greenway corridors and other natural areas and encourages member cities to participate in these efforts (Policy 12).

4.1.2.1 Intercommunity Planning and Design

The BCWMC relies on the member cities for primary management of runoff and water management issues. The BCWMC works to provide leadership, encourage collaboration, and assist member cities with intercommunity water management issues. Member cities may request that the BCWMC provide technical assistance, coordination, or dispute resolution for specific issues. This may include calculating the apportionment of costs between adjoining cities for water resource projects with intercommunity participation

Member cities must update their local water management plans to incorporate consistency with BCWMC goals, policies, and requirements. The BCWMC will review city local water management plans for consistency with BCWMC goals (Policy 13).

The BCWMC may review proposed changes to member city development regulations (e.g., zoning and subdivision ordinances) at its discretion or the request of the member cities (Policy 14).

4.1.2.2 Dispute Resolution

If watershed management disputes should arise between the BCWMC member cities, member cities may refer these to the BCWMC for resolution. 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 make a prior agreement to that effect.

The BCWMC will follow this process for the hearing of such disputes (Policy 15):

1. The BCWMC will mediate inter-community disputes relating to watershed management problems within the Bassett Creek watershed, as requested by member cities.
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 procedures described in the JPA (see [Appendix X](#)).

4.1.3 Studies, Subwatershed Assessments, and Other Non-capital Projects

The BCWMC conducts studies and other non-capital projects to assess watershed and resource conditions and to identify and evaluate opportunities for improvements [across multiple issue areas](#). Studies allow the BCWMC and its partners to objectively assess improvement opportunities and [prioritize and](#) target actions that are feasible and most effective in accomplishing their goals.

Studies are an important element of the BCWMC's adaptive management approach. Studies rooted in sound science provide the information the BCWMC and partners need to take appropriate actions. Further studies and monitoring evaluate the results of these actions, allowing the BCWMC and partners to adjust implementation strategies, as needed.

Placeholder for infographic of adaptive management approach?

BCWMC studies focus on the priority issues identified in this plan (see [Section X](#)) and are included in the Plan implementation schedule (see Table X). The BCWMC may perform targeted monitoring as part of these studies in addition to routine BCWMC and/or partner monitoring efforts (see Section 4.1.7.1 and [Appendix X](#)).

The BCWMC will cooperate with member cities, the MPCA and other partners to develop water quality studies (e.g., total maximum daily load (TMDL) studies) and/or perform subwatershed assessments for degraded priority waterbodies and those listed on the MPCA's impaired waters 303(d) list (Policy 16).

The BCWMC will work to align recommended actions resulting from these studies and assessments into its implementation schedule (see [Table X](#)) and will seek funding partners and grant opportunities for implementation..

When updated precipitation is published (e.g., Atlas 15), the BCWMC will reevaluate flood elevations and flood risk based on the most recent precipitation data and identify potential actions for flood risk reduction, including partnering with and applying for grants from Federal and State agencies.

4.1.4 BCWMC Capital Improvement Program (CIP)

Content omitted in this draft; tool/process to be discussed at later PSC meeting(s).

4.1.5 Trunk System Management and Flood Control Project

The BCWMC “Trunk System” and Flood Control Project (FCP) are described in Section A.8, Appendix A. Figure A-11 presents the waterbodies and watercourses included in the trunk system. [The FCP is considered critical infrastructure and includes the 2.4-mile Bassett Creek Tunnel that travels under Minneapolis to the Mississippi River, and several smaller control structures upstream along the trunk system. Proper inspection and maintenance of the FCP is crucial to a high priority goal of reducing flood risk throughout the watershed.](#) In general, the trunk system includes the primary streams of the watershed (Bassett Creek, Plymouth Creek, North Branch of Bassett Creek, and Sweeney Lake Branch of Bassett Creek), along with connected, significant ponds and storage areas (e.g., Grimes Pond, North and South Rice Ponds) Table A-25 lists the FCP infrastructure and water storage areas; these elements are also shown in Figure A-11.

The BCWMC cooperates with its member cities to manage the trunk system and FCP to minimize the risk of flooding and associated negative impacts. The BCWMC manages the trunk system according to its Joint Powers Agreement ([Appendix X](#)), the guidance and policies described in this section, and actions included in the BCWMC implementation program (see [Table X](#)).

4.1.5.1 System Modifications

The BCWMC requires the following criteria be met for all proposed modifications to the BCWMC FCP or the trunk system, including those to existing control structures, structures along the trunk system, and structures between storage sites (Policy 17):

- All proposed changes must be submitted to the BCWMC for review and approval.

- The location and design of any control structures, including all proposed culverts or other controls, are also subject to BCWMC approval.
- The effect of the 100-year storm on potentially impacts control structures, portions of the trunk system, and storage sites must be assessed by the project proposer to ensure that the design does not adversely affect FCP performance.

The BCWMC will not approve changes to the BCWMC Flood Control Project system that would result in negative impacts to the Flood Control Project system components or performance (Policy 18).

The BCWMC will update, as necessary, the existing 100-year water elevations to reflect any increases resulting from modifications to the FCP system, following the approval of those modifications by the BCWMC, local and state agencies, and after a public hearing on the modification plan has been held (if required).

As part of its planning roles and responsibilities (see [Section X](#)), the BCWMC reviews changes in local water management plans, comprehensive land use plans, and other plans, for their effect on the FCP, trunk system, and associated floodplains, when such plans are submitted to BCWMC.

A joint and cooperative agreement (JCA, see [Appendix X](#)) between the BCWMC, Mississippi Watershed Management Organization (MWMO), and City of Minneapolis defines additional management obligations for the old tunnel and new tunnel, both of which are part of the BCWMC FCP. Section 5.1 of the JCA requires the City of Minneapolis to maintain 50 cubic feet per second (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 performing the following activities:

- Increasing the drainage area tributary to the new tunnel.
- Adding connections or outlets to the new tunnel
- Altering the runoff to the new tunnel for the 10-, 50-, or 100-year rainfall event.

Placeholder for new agreement (or reference) with Minneapolis regarding inspection and maintenance of new tunnel.

4.1.5.2 FCP Inspection, Maintenance, and Repair/Rehabilitation/Replacement

The BCWMC will continue to implement an inspection and maintenance program for FCP features consistent with the *Bassett Creek Flood Control Project Operation and Maintenance Manual* with the following increased inspection frequencies (Policy 19):

- Annual inspection of all non-tunnel FCP features
- Inspection of the double box culvert at least every 5 years
- Inspection of 3rd Avenue Deep Tunnel at least every 5 years (in conjunction with City of Minneapolis I-94 tunnel inspection)
- Inspection of the 2nd Street Deep Tunnel 10 years

The BCWMC funds the FCP inspection program through its FCP Long-term Maintenance Fund. The BCWMC may consider funding more frequent/complex inspections if requested by member cities.

The BCWMC will distribute annual inspection reports to cities (and copy the US Army Corps of Engineers) regarding the condition and maintenance and/or repair needs of the FCP features in their cities.

Member cities must formally notify the Commission Engineer regarding their completed maintenance and repair actions on any of the FCP project features (Policy 20).

The BCWMC will include city maintenance information in the following year's inspection reports. The BCWMC's communication of the annual inspection report will note that the cities are required to report on their maintenance and repair actions. The inspection and reporting are essential to ensure the BCWMC maintains its eligibility to receive federal funds to repair or replace FCP features in the event of an emergency.

Member cities are responsible for routine maintenance and repair of FCP features as outlined in

Table 4-2. (Policy 21).

Member cities (or other road authority) where the FCP structures are located are responsible for maintenance, repair and replacement of road crossings, and their corresponding conveyance structures, that were installed as part of the FCP.

Some maintenance and repair activities may be classified as major based on the extent. The BCWMC will reimburse cities (if requested) for maintenance and repairs that are over \$25,000, using funds from the FCP Long-term Maintenance Fund. Cities must perform regular, routine maintenance and repair activities before receiving BCWMC funding to prevent excessive reimbursement costs resulting from neglected routine activities. Cities shall inform the BCWMC in advance (e.g., two years) of their request for reimbursement.

Table 4-2. FCP Routine and Major Maintenance and Repair

Classification as Routine vs. Major	Maintenance or Repair Activity
Routine	Vegetation: removal of trees, removal of brush, chemical treatment of stumps, control of noxious weeds, establish vegetation on bare areas.
Routine	Removal of debris: woody debris, riprap, trash from channel, inlets, culverts
Routine	Repair erosion; channels, inlet and outlet structures, culvert ends
Routine	Repair/replace riprap: on inlet and outlet ends of culverts, channels, banks
Routine	Remove sediment from channels, structures, culverts, etc.
Routine	Repair/maintain guard rails, hand-rails and fencing: remove rust, prime and paint, repair damaged rails and posts, replace rusted-out sections, repair cables, replace posts, repair chain link fence
Routine	Repair concrete pipe: repair joints, tie-bolts, spalling, connection to culverts, breakage
Routine	Repair/maintain debris barrier: removal of debris, repair cables, replace poles
Routine	Repair/maintain tunnel inlet trash rack: repair/replace trash rack rods, loose or broken, vandalized, bent
Routine	Repair/replace catch basins, manholes, casting assemblies, grates
Routine	Street repairs: pavement, curb and gutter, cracks, depressions, settlement
Varies by extent	Repair scouring/undercutting at structures and culvert outlets
Varies by extent	Repair concrete structures: cracking, spalling, breakage
Varies by extent	Culverts/Bebo sections: joints, settlement, separation, concrete spalling, wing walls –movement and breakage
Major	Repair/replace gabion baskets
Major	Remove sediment/dredge ponds, basins, etc.
Major	Tunnel repairs: concrete and other repairs to the new Bassett Creek tunnel

The BCWMC will identify major repair, rehabilitation, and replacement activities, as needed, through its inspection process and will consider adding maintenance and repair projects that are more than \$100,000 to the BCWMC CIP (see [Table X](#)). These projects will be funded by the ad valorem levy (via Hennepin County).

The BCWMC maintains a FCP emergency repair fund for funding emergency repairs of FCP features. Member cities shall perform the initial response to an emergency involving FCP structures, as the BCWMC is not equipped to perform emergency management and response services. The BCWMC shall assist the cities in obtaining reimbursement for the emergency response, either through BCWMC funds or grants (e.g., FEMA funding).

4.1.6 Aquatic Invasive Species Management

[BCWMC goals related to AIS issues include preventing the spread of AIS and lessening the impacts of AIS. To that end, the BCWMC works with its member cities and partners to manage aquatic invasive species \(AIS\) to protect and improve water quality and ecological health of BCWMC priority waterbodies. The BCWMC monitors for the presence of AIS plants as part of its monitoring program \(see \[Appendix X\]\(#\)\) and reviews available fish survey data relative to AIS presence.](#)

The BCWMC requires that member cities annually inspect wetlands classified as Preserve (or equivalent) for terrestrial and emergent aquatic invasive vegetation, such as buckthorn and purple loosestrife, and attempt to control or treat invasive species, where feasible.

The BCWMC cooperates with partners to train groups or individuals on early detection of AIS in all waterbodies. BCWMC roles may include advertising training sessions, recruiting participants, assisting with venue coordination, reimbursing registration costs for Commissioners and volunteers, and modest funding support. This includes recruiting and training volunteers to detect zebra mussels on all Priority 1 lakes, aiming for at least one volunteer in each lake quadrant. The BCWMC may also provide funds to assist boat launch owners with inspections, equipment purchase, educational signage, and staff training through an AIS Prevention Grant Program.

The BCWMC developed an AIS Rapid Response Plan that describes BCWMC and partner actions taken in response to the detection of some AIS.

The BCWMC will consider the following AIS management actions as conditions warrant and consistent with the AIS Rapid Response Plan (Policy 22):

- Herbicide spot treatments of AIS plants where the following conditions are met:
 - Treatment of the plant is considered a management tool for improving water or habitat quality according to an approved management plan (e.g., TMDL); and
 - Another entity or organization is sharing the cost of the treatment
- Herbicide spot treatment of AIS plants considered on a case-by-case basis for lakes without an approved plan
- Whole lake herbicide treatments in coordination with the MDNR
- Carp population management in Priority 1 lakes if fish surveys and other data indicate that carp are a significant problem
- Water level management to manage AIS considered on a case-by-case basis if the action is recommended in an approved management plan
- Biological treatment (e.g., beetles to manage purple loosestrife) considered on a case-by-case basis

The BCWMC may periodically convene meetings of lake groups and other interested parties to discuss issues and management options concerning AIS. The BCWMC also communicates activities and information regarding AIS through its education and engagement program (see [Appendix X](#)). Actions may include:

- Providing printed educational materials during events
- Distributing newsletter articles to cities about AIS
- Adding AIS information to news items to the BCWMC website home page
- Considering ideas or requests from cities/lake groups for tailored educational materials through Education Committee's annual work and budget planning

4.1.7 Monitoring and Modeling

The BCWMC uses data based on sound science to make decisions and target actions that are most likely to achieve BCWMC goals. The BCWMC routine monitoring and modeling of the watershed provides data used [in this process to assess and target work across almost all issues and goals](#). Additionally, Section 4.1.3 describes the BCWMC's use of targeted studies and assessments to collect data not available through routine BCWMC efforts.

4.1.7.1 Monitoring

The BCWMC uses monitoring data to evaluate the condition of the watershed and waterbodies, evaluate trends, and assess progress towards [water quality and ecological](#) goals. Recent BCWMC monitoring activities and results are summarized in the Land and Water Resource Inventory in Appendix A. Generally, BCWMC-led monitoring includes:

- Lake water quality monitoring (including chemistry, phytoplankton, and zooplankton)
- Lake aquatic vegetation monitoring
- Lake level monitoring
- Stream biological monitoring
- Stream flow and water quality monitoring

The BCWMC will continue to perform routine monitoring of the BCWMC’s priority waterbodies consistent with the *BCWMC Monitoring Plan* (Appendix X), the guidance and policies described in this section, and actions included in the BCWMC implementation program (see Table X) (Policy 23).

The BCWMC prepares an annual monitoring report for waterbodies monitored by the BCWMC the previous year, posts the data on its website, and submits the data to the MPCA in an appropriate format.

The BCWMC may perform additional studies or investigations outside of routine monitoring to achieve specific objectives (see Section X). The BCWMC also cooperates and coordinates with partners to augment the collection of monitoring data, avoid duplication of monitoring efforts, and participate in joint and volunteer monitoring programs, including (but not limited to):

- Metropolitan Council Watershed Outlet Monitoring Program (WOMP)
- Metropolitan Council Citizen Assisted Monitoring Program (CAMP)
- Member city monitoring programs
- Three Rivers Park District monitoring programs
- Minneapolis Park and Recreation Board monitoring programs

The BCWMC uses an adaptive management approach to most efficiently pursue its highest priorities. The BCWMC may update the BCWMC Monitoring Plan or conduct studies (see Section X) , as needed, in response to changing waterbody and watershed conditions.

4.1.7.2 Modeling

The BCWMC uses models to support and prioritize its projects and programs. Models are useful to assess current resource and watershed conditions and to evaluate the potential impact of future changes including climate trends, land use changes, and improvement projects. The BCWMC has developed and maintains a watershed-wide water quality model and hydrologic and hydraulic model (H&H). The BCWMC uses these models to evaluate flood risk and water quality impacts of proposed BCWMC and partner projects (see [Section X](#) of [Appendix X](#)).

The BCWMC's watershed-wide H&H model is based on the EPA's Storm Water Management Model (SWMM) framework. The BCWMC periodically updates the H&H model to reflect updated watershed conditions and precipitation data. The current iteration of the H&H model includes precipitation amounts based on the National Oceanographic and Atmospheric Administration's (NOAA's) Atlas 14 publication. Publication of Atlas 15, including updated precipitation data and future climate forecasts is expected after adoption of this Plan. The BCWMC will update the SWMM model to incorporate the most current precipitation data when it is published. [\[placeholder to add information on the H&H model conversion project\]](#)

The BCWMC's watershed-wide water quality model is built in the P8 modeling framework. The P8 model estimates pollutant (e.g., sediment, phosphorus) loading from the watershed and pollutant removal achieved by downstream best management practices (BMPs), but does not simulate in-lake or in-stream water quality. The BCWMC uses the P8 model to identify areas of high pollutant loading and/or limited treatment (i.e., hot spots) and estimate the performance of proposed improvement projects. The BCWMC periodically updates the P8 model to reflect current watershed conditions.

Upon request (typically annually), member cities shall provide the BCWMC with information on development, redevelopment, and BMPs constructed within their city such that the BCWMC can appropriately update the models (Policy 24).

The BCWMC shares model results with member cities and other partners to support local resource management issues and member city MS4 reporting requirements.

4.1.8 Education and Engagement

[Education and engagement is identified in this plan as both an issue with related goals, and a tool used to address almost all other issues and goals. With proper awareness and tools community members, businesses, and institutions can help improve water](#)

[resources through specific activities and everyday actions. Engaged officials, community leaders, volunteers, lake homeowners, and others can be a critical component watershed protection and improvement.](#)

The BCWMC will implement an education and engagement program in cooperation with member cities and partners in pursuit of the goals described in this Plan (Policy 25).

The BCWMC aims to coordinate education activities with member cities such that they augment but do not duplicate activities. The BCWMC's Education and Engagement Plan ([see Appendix X](#)) describes these activities in greater detail. The Education and Engagement Plan incorporates multiple avenues to convey various educational messages and to engage with different audiences including:

- Commissioner training
- Public meetings, open houses, and community conversations
- Digital communications
- Printed materials
- Signage, displays, and promotional items
- Events, presentations, and workshops
- Leveraging education through partnerships
- Program evaluation

Funding for implementation of education and engagement activities comes from the BCWMC annual operating budget (primarily), collaboration with other entities, and possible grant funding. Each year, the Commission's Education Committee will recommend to the Commission a plan and budget for education and engagement activities. The Education and Engagement Plan serves as a "menu" of options for each year's annual education plan.

The Commission's Education Committee, volunteers, and staff will be the primary plan implementers. The BCWMC will also maintain partnerships and seek new opportunities for collaboration to help achieve the goals set out in this Plan. The BCWMC will annually provide a Letter of Understanding to member cities describing the BCWMC's educational activities from the previous year for use in MS4 reporting, as appropriate.

The BCWMC regularly updates its website (www.bassettcreekwmo.org) as a primary means of communicating information to watershed residents and other partners. The BCWMC website includes content as required by Minnesota Statute 8410.0150 in as well as additional content consistent with the BCWMC Education and Engagement Plan (see [Appendix X](#)).

The BCWMC will evaluate the success of its education and engagement activities as described in the Education and Engagement Plan (see [Appendix X](#)).

4.1.9 Evaluation and Assessment

The BCWMC evaluates its accomplishments to assess organizational performance. The BCWMC tracks the execution of its implementation schedule (see Table X) annually. **The BCWMC will assess progress towards the goals presented in this Plan at least every two years, using quantitative metrics where appropriate (Policy 26).**

The BCWMC reports its accomplishments in an annual report submitted to the Board of Water and Soil Resources (BWSR) consistent with MN Rules 8410.0150. The BCWMC also annually submits an audit for the previous fiscal year. MN Rules 8410 specify required contents of the annual report. Generally, the BCWMC annual report includes:

- An assessment of accomplishments relative to the previous year's annual work plan
- A work plan and budget for the current year specifying which activities will be undertaken
- A summary of significant trends of monitoring data and trends

The annual review process is an opportunity for the BCWMC to assess the effectiveness of its goals, requirements/policies, strategies, and actions. If the BCWMC determines that programmatic changes are necessary, the BCWMC may amend this Plan to reflect the needed changes and/or adopt new polices or strategies that require action by the member cities (see Section X).

The BCWMC regularly reviews member city compliance with this Plan. This review may include:

- Evaluating the status of local water plan adoption and implementation of BCWMC-required activities (see [Section X](#))
- Reviewing updates to member city official controls (e.g., ordinances, local water plans) addressing water and watershed management, including enforcement

- Reviewing member city permits and variances issued or denied and violations under rule or ordinance requirements of the organization or local water plan
- Reviewing of member city annual MS4 reports