

## FLOODING AND CLIMATE RESILIENCY

### Impact of climate change on hydrology, water levels, and flood risk – High Priority

**Issue Statement:** Extreme fluctuations in precipitation amounts and intensities increase flood risk and prolonged drought cycles that contribute to significant changes to water level and stream flow and may negatively impact the natural and built environment, (e.g. ecology, water quality, public health and safety, economy, and recreation)

Desired Future Condition	Goal (10-year)	Strategy, Action, or Task (some potential examples; <b>highlight</b> = new activity)
Watershed residents, businesses, and infrastructure are protected from flood damages and water fluctuations	1. Identify areas, populations, and ecosystems most vulnerable to flooding and hydrologic risk resulting from existing and future climate trends	<ul style="list-style-type: none"> <li>- Perform a risk analysis and prioritization considering vulnerable populations, critical infrastructure, and priority resources</li> <li>- Acknowledge projected future climate trends in flood risk analyses</li> <li>- Identify potential flood risk reduction projects</li> <li>- Maintain/update watershed-wide hydrologic and hydraulic model</li> <li>- Encourage/assist cities or partners with development of flood emergency response plans</li> <li>- Map areas of higher risk where additional flood storage is needed</li> </ul>
	2. Reduce flood risk for structures and infrastructure within the floodplain	<ul style="list-style-type: none"> <li>- Update implementation program to include flood risk reduction projects that increase watershed storage and/or reduce peak flows – CIP</li> <li>- Create a grant or cost-share program to reduce flood risk for habitable structures</li> </ul>
	3. Implement <u>at least</u> 3 CIP projects that reduce flood risk on structures or infrastructure.	<ul style="list-style-type: none"> <li>- Review development and redevelopment projects for compliance with BCWMC floodplain requirements – fee for service</li> <li>- Help with promotion of FEMA’s Flood Insurance Study and Community Rating System among residents and property owners</li> <li>- Review overall BCWMC Flood Control Project for effectiveness; continue inspection and maintenance program</li> <li>- Maintain H&amp;H model</li> <li>- Implement CIP projects that reduce flood risk on structures or infrastructure</li> </ul>
Waterbodies are resilient to changes in water levels and	4. Evaluate impacts of climate trends on hydrology, ecology, and	<ul style="list-style-type: none"> <li>- Monitor water quality of priority waterbodies</li> <li>- Maintain/update watershed-wide hydrologic and hydraulic model</li> </ul>

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climate such that their beneficial functions are maintained or enhanced	recreation of priority streams and lakes.	<ul style="list-style-type: none"> <li>- Develop climate resilience study/plan that evaluates potential impacts to priority waterbodies</li> <li>- Work with Met Council or other agencies to map groundwatersheds and evaluate groundwater-surface water interactions – new activity (\$50,000 possible estimate)</li> </ul>
	5. Enhance climate resilience through BCWMC projects and programs by incorporating climate mitigation and adaptation functions, including in the majority of BCWMC CIP projects.	<ul style="list-style-type: none"> <li>- Develop climate resilience study/plan that evaluates climate adaptation strategies (e.g., tree planting to increase canopy, incorporating native plantings, etc.) and potential impacts to priority waterbodies</li> <li>- Continue to implement APM/AIS rapid response plan</li> <li>- Update APM/AIS rapid response plan (if needed based on findings of above study/plan)</li> <li>- Encourage and support public and private landowners to maintain, preserve or restore open space and native habitats to improve climate resiliency (\$50K in 2024 for current education programs)</li> </ul>
	6. Incorporate climate resiliency improvements into the majority of CIP projects.	<ul style="list-style-type: none"> <li>- Implement CIP projects to protect or restore ecological functions of priority waters and tributary watersheds - CIP</li> <li>- Evaluate CIP projects relative to climate trends before implementation. – CIP</li> </ul>

## Bassett Creek Valley flood risk reduction and stormwater management opportunities — High Priority

**Issue Statement:** Current conditions in the Bassett Creek Valley present significant challenges to sustainable development and resilient, healthy ecosystems and people due to floodplain extents, environmental hazards, and limited space for stormwater management.

Desired Future Condition	Goal (10-year)	Strategy, Action, or Task (some potential examples; highlight = new activity)
The Bassett Creek Valley supports healthy ecosystems and communities with reduced flood risk, improved water quality, and neighborhood access to the creek corridor.	1. Collaborate on evaluation, sequencing, and implementation of multi-beneficial projects within the Bassett Creek Valley to create regional flood storage, reduce floodplain by at least 8 acres,	<ul style="list-style-type: none"> <li>- Assist multi-jurisdictional partners with evaluating and prioritizing multi-benefit project opportunities within the Bassett Creek Valley</li> <li>- Implement CIP project(s) to increase storage, reduce peak flow, and/or improve water quality in the Bassett Creek Valley while providing multiple benefits - CIP</li> </ul>

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	improve regional stormwater management, <a href="#">and improve creek access.</a>		
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## Groundwater quantity – Low Priority

**Issue Statement:** Groundwater levels may be negatively impacted by overuse, loss of recharge, or extreme changes in precipitation.

Desired Future Condition	Goal (10-year)	Strategy, Action, or Task (some potential examples; <b>highlight</b> = new activity)
Groundwater levels support drinking water needs and do not negatively impact groundwater-sensitive resources	1. Reduce negative impacts to groundwater quantity from proposed projects in the Bassett Creek watershed.	<ul style="list-style-type: none"> <li>- Review development and redevelopment projects for compliance with BCWMC requirements – fee for service</li> <li>- Review MDNR groundwater appropriation permit applications in the BCWMC that are forwarded to the BCWMC - \$3,000</li> <li>- Coordination with the MDNR to ensure its review of proposed water appropriation projects prevents negative impacts to groundwater quantity (i.e., ensure water appropriations are not negatively impacting adjacent creeks, lakes, wetlands and other water resources, including groundwater)</li> </ul>
	2. Incorporate <b>stormwater</b> reuse practices into 2 BCWMC CIP projects.	<ul style="list-style-type: none"> <li>- CIP projects are evaluated relative to groundwater quantity impacts before implementation. - CIP</li> </ul>
	3. Increase the use of groundwater conservation practices among watershed residents	<ul style="list-style-type: none"> <li>- Encourage and support public and private landowners to pursue conservation practices (\$50K in 2024 for current education programs)</li> <li>- Support cities in the implementation of their water conservation grant or cost-share programs</li> <li>- Advocate that Hennepin County map and prioritize groundwater recharge areas</li> </ul>
	4. <a href="#">Increase groundwater recharge through required and encouraged stormwater infiltration practices</a>	<ul style="list-style-type: none"> <li>- <a href="#">Enforce BCWMC stormwater infiltration requirements</a></li> </ul>