
5.0 Goals and Policies

The City has developed a number of goals and policies to proactively manage stormwater and surface water resources within the City. The goals and policies described here are designed to continue to improve the quality and effectiveness of water resource planning and management in the City. These goals and policies have been developed to complement county, regional, and state goals, policies and management activities (note that county, regional, and state requirements may apply in addition to the goals, strategies, and policies described herein).

5.1 Goals

The City has established the following goals related to stormwater and surface water management:

1. Manage the risk of flooding to minimize adverse effects to life, property, and infrastructure.
2. Manage surface water resources to promote healthy ecosystems, preserve water quality, and meet applicable water quality standards.
3. Manage stormwater runoff to reduce negative impacts to water resources and infrastructure.
4. Protect, restore, and enhance wetlands and natural areas.
5. Protect the quality and quantity of groundwater.
6. Protect water and natural resources through responsible management of development and redevelopment activities.
7. Promote stewardship of water and environmental resources through education, public involvement, and cooperation.

5.2 Policies

The City has developed policies to support the goals identified in Section 5.1. The policies included in this section are organized into the following topic areas:

- Flooding, water quantity, and rate control
- Surface water quality
- Stormwater management
- Wetland and natural area management
- Groundwater management
- Development and redevelopment
- Education and public outreach

Note that while policies are categorized for ease of reference, several policies address more than one issue or resource and/or promote multiple benefits.

5.2.1 Flooding, water quantity, and rate control policies

Policy 1.1 The City requires all of the following minimum building elevations for structures constructed as part of new development and re-development projects:

- The lowest floor (including basement) shall be:

- at least 1 feet above the estimated 100-year water surface elevation
- at least 3 feet above the seasonal high local groundwater elevation
- The lowest opening shall be:
 - at least 3 feet above the estimated 100-year water surface elevation
 - at least 1 foot above the stormwater facility emergency overflow elevation

Policy 1.2 The City shall establish and maintain estimated 100-year flood elevations within its jurisdiction based on National Oceanographic and Atmospheric Administration Atlas 14 Volume 8 – herein referred to as Atlas 14.

Policy 1.3 The City shall consider events larger than the 100-year event, extended duration events, and flood/drought cycles when establishing minimum building elevations and considering resilience of stormwater infrastructure, focusing on areas with large tributary watersheds and landlocked basins.

Policy 1.4 The City shall identify areas of potential flooding within the city and develop strategies to reduce the risk of flooding in these areas. In areas where strategies to provide 100-year flood protection are not feasible, the City will develop emergency response plans.

Policy 1.5 The City requires that new development and redevelopment activities do not increase peak runoff rates relative to pre-project runoff rates for the 1-year, 2-year, 10-year, and 100-year critical storm event. The City may impose more stringent rate control requirements if the capacity of the downstream system is limited.

Policy 1.6 Within the VRWJPO, the City adopts numerical intercommunity flow standards at boundaries as identified in the VRWJPO Hydrologic Model (2009, as amended).

Policy 1.7 The City requires that development and redevelopment within landlocked basins do not increase runoff volume relative to pre-project conditions.

5.2.2 Surface water quality policies

Policy 2.1 The City will classify and manage priority waterbodies in a manner consistent with the management and regulatory requirements of watershed management organizations and other applicable state and local agencies.

Policy 2.2 The City will cooperate with the MPCA and watershed management organizations in the development and implementation of Total Maximum Daily Load (TMDL) studies and Watershed Restoration and Protection Strategies (WRAPS) studies.

Policy 2.3 The City will develop and implement strategies to preserve or improve existing water quality in waterbodies that currently meet state and WMO water quality criteria.

-
- Policy 2.4 The City will manage lakes to promote abundant and diverse emergent and submergent native-dominated plant communities.
- Policy 2.5 The City will cooperate with the Minnesota DNR and Dakota County to manage the negative impact of aquatic invasive species on City waterbodies.
- Policy 2.6 The City will continue to monitor water quality of priority waterbodies in cooperation with watershed management organizations, the Metropolitan Council Citizen-Assisted Monitoring Program (CAMP), and others.
- Policy 2.7 The City will emphasize adaptive management in implementing its surface water management program. The City will evaluate the performance of management actions and use the results to inform future management decisions, using quantitative data, where available.
- Policy 2.8 The City will prioritize water resource management projects with consideration for estimated benefit, cost, feasibility, and probability of success (reference implementation program). Prioritization will include consideration of multiple benefit types (e.g., water quality benefits, flood risk reduction benefits, public access, public health and safety) and the relative degree or extent of each benefit.
- Policy 2.9 The City will consider both in-lake and watershed best management practices (BMPs) in managing water resources. The City will use best-available science to determine factors affecting water quality in specific waterbodies and will cooperate with other jurisdictions to employ the full range of available management strategies in a feasible manner.
- Policy 2.10 The City shall prioritize the use of natural materials and soft-armoring techniques for shoreline stabilization and shall consider specific site conditions, energy dissipation potential, preservation of natural processes and habitat, and aesthetics.
- Policy 2.11 The City will cooperate with watershed management organizations, lake associations, residents, and other stakeholders to develop and implement individual resource management plans to address specific resources, as needed.

5.2.3 Stormwater management policies

- Policy 3.1 The City will continue to implement the stormwater system maintenance best management practices/good housekeeping practices defined in its Municipal Separate Storm Sewer System (MS4) Stormwater Pollution Prevention Program (SWPPP).
- Policy 3.2 The City shall maintain its stormwater management system to ensure the continued effectiveness of stormwater treatment, conveyance, and flood risk reduction functions.
- Policy 3.3 The City will tailor its winter road management practices (e.g., de-icing) to reduce negative environmental impacts while achieving public safety. The City will consider tools and practices

identified in the MPCA's Twin Cities Metro Area Chloride Management Plan to quantify current practices, identify areas of improvement, and track progress.

Policy 3.4 The City shall continue to fund stormwater management activities through its stormwater utility. The City may use storm sewer improvement taxing districts to fund specific projects, as necessary.

5.2.4 Wetland and buffer policies

Policy 4.1 The City will continue to serve as the Local Government Unit (LGU) for administration of the Wetland Conservation Act of 1991 and all subsequent amendments in all applicable portions of the City. The City will also apply appropriate wetland protection standards promulgated through the NPDES MS4 permit and the watershed organizations covering the city.

Policy 4.2 The City will maintain a wetland inventory. The City will continue to use the Minnesota Routing Assessment Method (MnRAM) to assess wetland functions and values and will identify priority wetlands for restoration and enhancement opportunities.

Policy 4.3 The City will continue to require that applications for new development or redevelopment activities include a field inventory/delineation and classification of wetlands on the impacted property (or a determination that no wetlands are present).

Policy 4.4 The City requires water quality treatment of all stormwater prior to discharge to wetlands.

Policy 4.5 The City requires that hydrologic impacts to wetlands resulting from development and redevelopment activities do not exceed the following:

Wetland Classification	Allowable bounce	Allowable inundation period (1-year event)	Allowable inundation period (2-year event)	Allowable inundation period (10-year event)
Protect	Existing	Existing	Existing	Existing
Manage 1	Existing + 0.5 ft	Existing + 1 day	Existing + 1 day	Existing + 7 days
Manage 2	Existing + 1.0 ft	Existing + 2 days	Existing + 2 days	Existing + 14 days
Manage 3	Existing + 4.0 ft	Existing + 7 day	Existing + 7 day	Existing + 21 days

Policy 4.6 The City requires vegetated buffers zones adjacent to wetlands to be established for development and redevelopment activities. Required buffer zone widths from the delineated edge of the wetland are based on the type of development and wetland classification, as follows:

Development Type	Wetland Classification	Average buffer width (ft)	Minimum buffer width (ft)	Minimum building setback from buffer (ft)
New development and subdivisions	Protect	50	30	10
	Manage 1	40	30	10
	Manage 2	30	25	10

	Manage 3	25	16.5	10
Re-development	All types	16.5	16.5	10

- Policy 4.7 The City requires that protective buffer zones be established consistent with the procedures and criteria established in City ordinance chapter 152.57. The protective buffer zone shall be memorialized in perpetuity by a written document approved by the City and a certified survey of the property which shall be recorded by Dakota County. The document shall establish the location of any buffer zones, restrictions, allowances, and management requirements.
- Policy 4.8 Where protective buffer zones are established, the City requires the upland boundary line to be identified by permanent markers, approved by the City.
- Policy 4.9 The City requires vegetated buffer zones of at least 16.5 feet in width to be established for development and redevelopment activities on properties abutting the following named waterbodies:
- a. Alimagnet Lake
 - b. Lac Lavon
 - c. Long Lake
 - d. Keller Lake
 - e. Farquar Lake
- Policy 4.10 The City requires vegetated buffer zones of at least 16.5 feet in width to be established for development and redevelopment activities on properties abutting stormwater ponds that were not constructed upon pre-existing or altered wetlands. Altered wetlands shall be consistent with Policy 4.6.
- Policy 4.11 The City will pursue opportunities to enhance the functions, values, and ecological diversity of wetlands and adjacent uplands, as resources allow.

5.2.5 Groundwater management policies

- Policy 5.1 The City requires owners of properties containing subsurface sewage treatment systems (SSTS) to have those SSTS inspected every three years and to submit inspection records, signed by a certified septic tank inspector, to the City.
- Policy 5.2 The City will collaborate with Minnesota DNR, Dakota County, Metropolitan Council, watershed management organizations, and other stakeholders in the development of groundwater management guidance and resources, as opportunities dictate.
- Policy 5.3 The City will consider potential impacts to groundwater quality and quantity in evaluating and implementing City projects.

Policy 5.4 The City will promote the use of infiltration, conservation, and water reuse to protect groundwater supply through its education program or other opportunities.

Policy 5.5 The City will maintain an updated Wellhead Protection Plan (WHPP) and implement the best management practices identified in the WHPP.

5.2.6 Development, redevelopment, and land disturbance policies

Policy 6.1 The City requires compliance with all applicable post-construction water quality criteria for new and redevelopment activity adopted by the Black Dog Watershed Management Organization and the Vermillion River Watershed Joint Powers Organization, as described in the BDWMO Watershed Management Plan (2012, as amended) and VRWJPO Standards (2016, as amended).

Policy 6.2 The City requires that all new, redeveloped, or expanded commercial, industrial, multiple residential, or institutional development provide infiltration for a volume equivalent to 0.5 inches of runoff over the area of the development.

Policy 6.3 The City requires that new and redevelopment activity of 0.2 acres or more shall be required to achieve no-net-increase in average annual total suspended solids (TSS) and total phosphorus (TP) loading compared to the pre-development condition of the site.

Policy 6.4 The City may require additional treatment measures as needed for any development or re-development activity to protect downstream receiving waters, including, but not limited to, additional measures in TMDLs or WRAPS watersheds plans.

Policy 6.5 New and redevelopment activity of 0.2 acres or more shall be required to achieve no-net-increase in average annual runoff volume compared to the pre-development condition; linear projects that do not increase the amount of impervious surface are exempt from this policy.

With consideration for site-specific factors, the City may prohibit infiltration systems:

- Where industrial facilities are not authorized to infiltrate industrial stormwater under an NPDES/SDS Industrial Stormwater Permit issued by MPCA.
- Where vehicle fueling and maintenance occur.
- Where the bottom of the infiltration basin is less than 3 feet to bedrock or seasonally saturated soils.
- Where high levels of contaminants in soil or groundwater will be mobilized by infiltration.
- Within the areas designated as Very High Vulnerability and High Vulnerability within the Drinking Water Supply Management Area (DWSMA)

The City restricts the use of infiltration systems in areas:

- With low permeability soils (i.e., Hydrologic Soil Group D soils) or where a confining layer exists below the proposed basin. Filtration or conservative drawdown rates should be considered in designing systems in HSG C soils.
- Within 1,000 feet upgradient or 100 feet down gradient of active karst features.
- Within the areas designated as: Moderate Vulnerability; and Low to Very Low Vulnerability within the Drinking Water Supply Management Area (DWSMA)
- Where soil infiltration rates are more than 8.3 inches per hour.

Policy 6.6 New development and re-development activities of one acre or more of new impervious area are required to keep runoff volume for the 2-year 24-hour storm at or under the runoff volume for the existing condition. At its discretion, the City may modify or waive these requirements, based on consideration of any of the following:

- Soil borings indicate unsuitability for infiltration (e.g., hydrologic group soil types C or D, near active karst, within drinking water supply management areas, or where high levels of contaminants may be mobilized).
- Infiltration of the equivalent runoff volume is accomplished elsewhere within the same City drainage district and prior to discharge to a City jurisdictional boundary or priority lake.
- A significant potential for groundwater contamination exists based on Minnesota Department of Health’s guidance document “Evaluating Proposed Storm Water Infiltration Projects in Vulnerable Wellhead Protection Areas”.
- Other circumstances that may affect feasible and prudent implementation of this policy.

Policy 6.7 The City encourages infiltration as a preferred method of water quality treatment and volume control, where feasible. Infiltration practices should be designed with consideration for the guidance documents identified in policy 6.10.

Policy 6.8 The City will identify areas of significant regional infiltration in the city and manage these areas to preserve infiltration capacity.

Policy 6.9 The City encourages the use of Low Impact Design (LID) techniques to minimize negative effects of development and redevelopment on stormwater infrastructure and natural resources.

Policy 6.10 The City promotes the use of the following reference documents to guide application and design of Best Management Practices (BMPs) and Low Impact Development (LID) to achieve the performance standards described in this Plan and applicable City regulatory documents:

- The Vermillion River Watershed Joint Powers Organization Standards
- Minimal Impact Design Standards (MIDS) calculator (2013, as amended)
- Minnesota Pollution Control Agency’s *Minnesota Stormwater Manual* (http://stormwater.pca.state.mn.us/index.php/Main_Page)

Policy 6.11 Per City ordinance chapter 152, the City will continue to require a Natural Resources Management permit for projects that include:

- Movement of more than 20 cubic yards of soil
- Disturbance of 3,500 square feet or more of soil
- Any cutting, removal, destroying, or loss of 10% or more of the significant trees on any land (as defined in City ordinance chapter 152)
- Any other activity that changes the existing or natural contour of the land which changes drainage

The Natural Resources Management permit includes erosion and sediment control requirements consistent with the requirements of the NPDES Construction Stormwater General Permit and the City's MS4 permit.

Policy 6.12 For projects triggering an NPDES Construction Stormwater General Permit, the City requires project proposers to submit the NPDES SWPPP to the City as part of the application for City review.

Policy 6.13 The City inspects construction sites to ensure compliance with the existing erosion and sediment control ordinance and with the site permit under NPDES rules administered by the MPCA (if applicable).

Policy 6.11 The City will continue to require development and re-development to pay pro-rated costs to dedicate land and construct water quality infrastructure meeting City requirements.

5.2.7 Education and public outreach policies

Policy 7.1 The City will continue to perform the education and public involvement activities described in its MS4 SWPPP, including at least one public opportunity to comment on the SWPPP.

Policy 7.2 The City will continue to provide training to City staff regarding water resource management regulations and best management practices and demonstrate good watershed stewardship through City staff actions.

Policy 7.3 The City will continue to provide regular updates to the City Council, Parks and Recreation Advisory Committee, and Planning Commission on the City's water resource management programs.

Policy 7.4 The City will implement and revise its public education and involvement program to inform businesses, residents, and other stakeholders of the impact of human activities on water resources and promote behaviors that contribute to watershed stewardship.

Policy 7.5 The City will cooperate with watershed management organizations and others to develop and distribute educational materials addressing water resource management issues (e.g., aquatic invasive species, groundwater conservation).

Policy 7.6 The City will share relevant monitoring, project, and education information with WMOs and other cooperating agencies, as requested.