



## **Lake & Pond Management Policy**

### **Purpose**

This policy establishes the service levels for aquatic vegetation management of lakes and ponds within the city and prioritizes the management of these waterbodies based on their physical characteristics, use, and resident involvement. Policy development included an extensive public process that took place in early 2014.

### **Background**

Edina is a fully urbanized city. There are a large number of water bodies within Edina, including streams, lakes, ponds, and wetlands. The water bodies within Edina are a vital part of the stormwater system. Storm pipes direct water from the land into the water bodies, providing storage to reduce the chances of flooding and settling and filtering pollutants in the water before the water is discharged from the water body. The water generally makes its way downstream (sometimes through multiple other water bodies) into either Nine Mile Creek or Minnehaha Creek.

Compared to undeveloped land, stormwater runoff from urban areas such as Edina contains pollutants and excess nutrients that travel into the lakes and ponds. These pollutants and excess nutrients have an effect on the condition of these lakes and ponds. The excess nutrients allow aquatic vegetation to grow more than it would in an undeveloped area. The fully urbanized nature of Edina also means that many residents live directly adjacent to a lake or pond.

Aquatic vegetation has an important place in the ecosystem of lakes and ponds. It provides food and shelter to fish and wildlife, and uses phosphorus for its growth, isolating it from the water column and leading to greater water clarity. While aquatic vegetation is beneficial to aquatic life and water quality, it can also be a detriment to recreation and aesthetics, especially when excess nutrients cause overgrowth.

Over the years, as excess nutrients caused additional aquatic plant growth, the city provided service to many ponds to reduce the amount of aquatic plants. This included the use of algaecides, herbicides, and mechanical removal. In most cases, the city contracted and paid for the treatment. In a few cases, shoreline residents around the water bodies wanted a higher level of service, so the city managed the contracts for them and special assessed the cost back to the shoreline residents each year. As demand for this type of service grows, a policy is needed to guide staff in providing service, while balancing the many uses of the lakes and ponds. This policy establishes a system to prioritize the waterbodies for management, define management service levels, and lay out a process to involve shoreline owners in choosing the level of management.

## **Stakeholder Engagement**

In early 2014, the city engaged stakeholders to determine their uses, values, and desires for Edina's water bodies. The stakeholders included Edina residents, representatives from the watershed districts and Department of Natural Resources (DNR), and city staff. The public process ran from January through March and consisted of a series of three meetings where stakeholders discussed water body benefits and values, prioritization, and service levels. It included a session to educate stakeholders on the multiple functions of water bodies and aquatic plants, prior aquatic vegetation control, and current regulations. The city also maintained a distribution list of over 80 interested stakeholders and conducted a survey that was completed by 49 of those stakeholders. Stakeholders had an opportunity to review the policy and provide feedback. Stakeholder input is referred to throughout the policy due to the high level of engagement during its development.

## **Benefits and Values**

Stakeholders identified the following benefits of lakes and ponds in Edina:

- Aesthetics
- Wildlife
- Water Quality
- Flood control and drainage
- Recreation

Shoreline owners highly value aesthetics and wildlife habitat, and moderately value water quality. Watershed districts more highly value water quality. The DNR, as a regulating body for aquatic plant management of Public Waters, values wildlife habitat, recreation, and water quality. The city's core services include providing flood control, drainage, and water quality services.

The differing values for the water bodies lead to management conflicts. Shoreline owners generally define high-quality aesthetics as a low amount of aquatic plants. However, aquatic plants provide wildlife habitat and take up some of the excess nutrients that lead to water quality impairments. Aquatic plants can also be a barrier to on-lake recreation. These conflicts make it difficult to find a management strategy that addresses all stakeholder values for the lakes and ponds.

## **Water Body Prioritization**

There are over 200 water bodies in Edina, ranging from tiny, quarter-acre ponds to Lake Cornelia, a 53-acre lake. There is water quality data for a few lakes, but not all. Some lakes and ponds have a significant amount of public use, such as parks and trails, and some are entirely surrounded by private property. Shoreline owners vary in their desire to be involved in the management of the lakes and ponds. Stakeholders identified the following criteria to give a higher priority to water bodies:

- Size (large to small)
- Water quality (low to high)
- Aesthetics and nuisance abatement
- Shoreline owner involvement (high to low)
- Public access and use (high to low)

Stakeholders were clear in their feedback that no one criterion should determine the level of management a pond receives. The identified criteria should all have an effect on the prioritization of the water bodies. Using these criteria, this policy provides a point system to prioritize water bodies:

Table 1

Size	Points Awarded	Water Quality	Points Awarded
Large (10+ acres)	4	303(d) Impaired Waters List	4
Medium (5-10 acres)	3	Drains directly to impaired water or a water body which meets water quality goals and is in protection mode	3
Small (2.5-5 acres)	2	Data shows that water body does not meet applicable state or watershed water quality goals	2
Tiny (1-2.5 acres)	1	No data	0

Using Table 1, determine the number of points given to a water body by adding the points awarded for size and points awarded for water quality status. Ponds that are less than one acre will not be eligible for management by the city. Use the total points to find the service level from Table 2.

Table 2

Service Level	Points Required
High	7-8
Medium	5-6
Low	3-4
None	0-2

The service level of the water body may be raised one level based on:

- forming a lake group or association with 50% or more of the shoreline owners participating, or
- providing significant public access and use

Water bodies may only move up one category, even if they have both an association and public access.

For full prioritization criteria, rating system, and examples, see Appendix A.

## Service Levels

Defining service levels is complicated by the conflicting values for the water bodies. There are also constraints on aquatic plant management from the DNR. Incorporating stakeholder input, budget, and regulations, the city developed four service levels: High, Medium, Low, and None. The highest priority water bodies will be eligible for the High management level, medium priority water bodies will be eligible for the Medium management level, and so on. Below is a table that summarizes the service levels; complete descriptions and details are included in Appendix B.

Service Level	City-funded activities						Additional Elective Services*		
	Whole lake algae treatment (as permitted/required)	Invasive aquatic plant treatment	Lake study (up to 2 lakes per year)	Aquatic vegetation treatment for public recreation	City staff support (see list)	DNR Permits and Facilitation	Aquatic vegetation management	Alternative methods	DNR permits and facilitation
High	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Medium	Yes	Yes	Yes	No	Yes	Yes	No	No	No
Low	Yes	Yes	No	No	Yes	Yes	No	No	No
None	At City's discretion, lowest priority						No	No	No

## Shoreline Owner Involvement

Shoreline owners want a way to be more involved in choosing the level of management for their water body. With multiple property owners on most water bodies, shoreline owners need to have a way to come to an agreement about the type of management they would like, and to communicate that to the city as a group. To do this, residents may form a lake association or lake group. A lake association is a formal organization that has incorporated as a nonprofit organization with the state of Minnesota. A lake association is required in order to special assess any costs to property owners. This ensures that residents are a part of the decision-making process for treatments to the water body that they will be financially responsible. A lake group is less formal, and is not required to incorporate as a nonprofit. Lake associations and lake groups must include greater than 50% of the residents living on a water body.

## Additional Management Opportunities

In addition to the aquatic vegetation management described in this plan, there are opportunities for stakeholders to reduce nutrient runoff into the water bodies and improve water quality.

The city currently provides a number of services that affect lakes and ponds through its ongoing programs. There are also areas where there are opportunities to expand or modify city activities that affect lakes and ponds. These include:

- Pollution source controls:
  - Stormwater education
  - Street sweeping
  - Buffers and erosion prevention
- In-lake management activities:
  - Lake and pond aquatic vegetation management
  - Lake and pond in-lake nutrient management
  - Shoreline owner coordination (including in-lake activities and small site pollution controls)
- Structural pollution controls:
  - Storm sewer and system maintenance
  - Implementation of a Living Streets Policy
  - Installation of stormwater treatment structures where appropriate during road reconstruction projects

The watershed districts have many activities that affect lakes and ponds. These include:

- Stormwater education
- Grant funding for the installation of stormwater best management practices (BMPs)
- Water quality testing

There are also many things that private property owners can do to positively impact lakes and ponds. These include:

- Forming a lake group or association
- Educating friends and neighbors about stormwater
- Reducing or eliminating the amount of fertilizer used
- Reducing or eliminating the amount of salt used during the winter
- Participating in the Citizen-Assisted Monitoring Program, collecting water quality data
- Creating a natural shoreline buffer
- Installing raingardens

The city will also consult the water body prioritization in this plan when determining operations plans, CIP projects, and maintenance.

Appendix A: Prioritization Criteria and Rating System

Appendix B: Management Service Levels

Appendix C: Prioritization List

Appendix D: Prioritization Chart