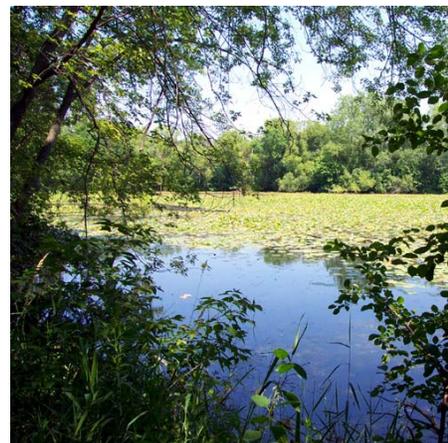


Chapter 5: OPEN SPACES PLAN

INTRODUCTION

For the purpose of this Plan, open spaces are differentiated from parks in that open spaces are undeveloped areas that do not have specific recreation facilities or uses associated with them. Mahtomedi's open spaces – its lakes, wetlands, woodlands, and prairies – have always been important to those who have lived in the area. For thousands of years, Native Americans depended on the area's natural resources for their livelihood and, consequently, they lived in harmony with the natural environment. By the mid 1800s, Euro-Americans began to settle in the Mahtomedi area. Some farmed the land, but by the late 1800s and into the early 1900s, Mahtomedi primarily functioned as a summer resort area – a place for people to get away from big cities and enjoy the tranquility and beauty of the area's lakes and open spaces. With the coming of the automobile, year-round housing began to develop throughout Mahtomedi. People could now live in Mahtomedi and enjoy the area's lakes and open spaces, but they could also have the option of working in other communities.



Hamline Pond

Today, Mahtomedi is virtually fully developed, but the existing development presents a “catch 22” when it comes to Mahtomedi's open spaces. From one perspective, thousands of people have chosen to build or move to Mahtomedi, in large part, because it is a “small town city” in a natural setting. Residents have easy access to beautiful lakes and parks. But from another perspective, development has altered the quantity and quality of open spaces in the city. And because Mahtomedi is almost fully developed, very few opportunities exist to acquire and protect additional open space.

This chapter provides an inventory and analysis of existing open spaces in Mahtomedi. It describes why open spaces are important and how they are threatened. It also guides the City of Mahtomedi in protecting and enhancing significant open spaces in the city.

INVENTORY AND ANALYSIS

Topography and Watersheds

Nearly 20,000 years ago, the Superior glacial lobe made its way from the Lake Superior basin – scouring rock and grinding it into gravel, sand, and silt as it progressed towards the Mahtomedi area. Over many years, the glacier advanced and retreated, leaving hills of mineral deposits. Occasionally, large chunks of ice broke off the glacier and were buried under the mineral deposits. Over thousands of years, these buried chunks of ice melted leaving water filled depressions, many of which we now know as our lakes and wetlands. Refer to *Minnesota's St. Croix River Valley and Anoka Sandplain: A Guide to Native Habitats*, by Daniel S. Wovcha, Barbara C. Delaney, and Gerda E. Nordquist for additional information.

Broken down into simple landforms, Mahtomedi has two high areas or hills (between 1,000 and 1,060 feet above mean sea level) – one in the eastern part of the city near the middle/senior high school and another in the western part of the city near Century College. A low-lying area or valley (between 927 and 950 feet above mean sea level) separates the two high areas of the city. At one time, the elevation of White Bear Lake was likely high enough that it extended into this low-lying area. The area of greatest elevation change in Mahtomedi occurs in the transition between the high and the low-lying areas. The most notable elevation changes are along the western shore of Lost Lake, the western border of Katherine Abbott Park, and the area between the eastern shore of White Bear Lake and State Highway 244.

Mahtomedi is within two major watersheds. The northern three-quarters of the city is in the Rice Creek Watershed District. Storm water runoff in this area drains to White Bear Lake before it eventually makes its way to the Mississippi River. The southern one-quarter of the city is in the Valley Branch Watershed District. Storm water runoff in this area drains through a series of lakes before it eventually makes its way to the Saint Croix River. Refer to Figure 5-1: Topography/Watersheds for an illustration of the topography and watersheds in Mahtomedi.

Lakes and Wetlands

Lakes and wetlands cover much of Mahtomedi and help define the city's landscape. The lakes – especially White Bear Lake – are a primary reason why many people are attracted to the area. In addition to their scenic quality, the lakes provide numerous recreation opportunities, including boating, fishing, and swimming. They also provide plant and animal habitats, and they help manage storm water runoff. The following provides a general description of the most significant lakes in Mahtomedi. Refer to Figure 5-2: Lakes and Wetlands for a map showing the location of the lakes.

1. **White Bear Lake.** White Bear Lake is the primary lake in Mahtomedi and one of the premier lakes in the metropolitan area. Arguably,



White Bear Lake

Insert Figure 5-1: Topography/Watersheds

Insert Figure 5-2: Lakes and Wetlands

White Bear Lake had a greater impact on the history and development of Mahtomedi than any other event or natural feature. The Chautauqua Association, summer cottages, and the Wildwood Amusement Park of early Mahtomedi, centered on White Bear Lake. Today, White Bear Lake continues to draw residents and visitors to Mahtomedi. It is a very popular lake for fishing, boating, and swimming. There are three public boat accesses on the lake – none of which is in Mahtomedi. However, the City’s swimming beach and Chautauqua Park are on White Bear Lake. It is a relatively clear lake with visibility generally being over ten feet. The White Bear Lake Conservation District oversees the use and management of the lake itself, whereas the adjacent cities regulate the land next to the lake. Contact the White Bear Lake Conservation District for more detailed information about the lake.

2. **Lost Lake.** Many years ago, when the elevation of White Bear Lake was considerably higher than it is today, Lost Lake was part of White Bear Lake. Today, the lake levels are such that the two lakes are separated by land and housing. When the State of Minnesota constructed State Highway 244, it divided Lost Lake into Upper and Lower Lost Lake. Lower Lost Lake is associated with Wildwood Park and a fishing pier. It has a maximum depth of 26 feet and the Department of Natural Resources stocks it with a variety of fish including, crappie, bluegill, and northern pike. It is a relatively clear lake with visibility of 6 to 12 feet. Several houses have frontage on the south side of the lake.



Lower Lost Lake

Single-family residences and State Highway 244 surrounds most of Upper Lost Lake, but a good vegetative buffer exists around most of the lake. Although there is a small amount of City land along the northeast shore of Upper Lost Lake, there is no public access to the lake. It is shallower than Lower Lost Lake and the water clarity is in the 1.5 to 3.0 foot range.

3. **Lake Washington.** Lake Washington is a relatively shallow, passive lake that is mostly in Willernie, but a portion of the lake is in Mahtomedi. Single-family residences surround the lake, but the lake has a good vegetative buffer around it. The City of Mahtomedi owns open space on Lake Washington known as Vincent Square.
4. **Echo Lake.** Echo Lake is a relatively shallow, passive lake in southwest Mahtomedi. Century College and Echo Shores Park are on the west shore of the lake. The west shore of the lake has a good vegetative buffer. Single-family residential development and a City canoe storage/launch area exists on the east shore of the lake. Water clarity is in the three to six foot range.
5. **Long Lake (North).** Long Lake (North) is in the northern part of Mahtomedi. The east shore of the



Echo Lake

lake is in a rural area with large lot single-family residences and agriculture land. The west shore is in a suburban single-family residential area. There is no public access to the lake, but the lake accommodates motorboats. Water clarity is in the 6 to 12 foot range.

6. **Long Lake (South).** Long Lake (South) is in the southern part of Mahtomedi. The northern part of the Lake is in Mahtomedi and the southern part of the lake is in Pine Springs. Single-family residences on private sewer and water surround the lake. There is no public access to the lake, but one could conceivably access the lake from Long Lake road, which borders the north shore of the lake. The lake accommodates motorboats. Water clarity is in the three to six foot range.
7. **Weber Pond.** Weber Pond is a small natural environment lake in the southern part of Mahtomedi. Industrial land borders the south shore of the lake and 60th Steer North and single-family residences border the north shore of the lake. Southwest Park is to the northeast of the park. There is no public access to the lake, but one could conceivably access the lake from 60th Street North.

In addition to its lakes, Mahtomedi has many ponds and wetlands scattered throughout the city. The most significant ponds and wetlands are in the low-lying areas around Lost Lake and in the Dwinell Nature Area. Figure 5-2: Existing Lakes and Wetlands, shows the wetlands identified in the National Wetlands Inventory. However, the inventory does not show all existing wetlands in Mahtomedi. Furthermore, some of the wetlands shown on the inventory no longer exist. Therefore, the City should use this inventory as a general guide rather than as a detailed inventory.



Wetland in Dwinell Nature Area

Wetlands are a particularly important part of Mahtomedi's open space system. Wetlands provide plant and animal habitat, they help control and store storm water runoff, and they help cleanse storm water runoff before it enters our lakes. Compared to many other communities, Mahtomedi has relatively strict ordinances to protect its wetlands. Nevertheless, Mahtomedi's wetlands are threatened by development, invasive non-native plant species, chemicals, and sedimentation that enter the wetlands via storm water runoff.

Vegetation

Mahtomedi's vegetation has been gradually evolving since the last glacier retreated from the area nearly 20,000 years ago. In the mid 1800s, oak barrens consisting of scattered northern pin oak, bur oak, white oak, aspen, and underbrush dominated the Mahtomedi area. Patches of dry sand-gravel prairie likely existed in the area, too. The sandy and gravelly soils in the area contributed to a relatively dry condition that promoted fires. The fires, in turn, maintained the oak barrens and dry prairies. Areas of oak forests may have existed in moister areas where fires were not prevalent. In addition, a variety of wetlands would have existed in the low-lying areas.

Since the mid 1800s, Mahtomedi's vegetative cover has changed dramatically. The oak barrens were likely converted to grazing or farmland and then eventually subdivided and urbanized. With the suppression of wildfires, some of the oak barrens and dry prairies likely transitioned into small patches of forest. Pine plantations replaced other oak barrens. Many wetlands were filled or drained. In addition, portions of lakes and ponds were filled to facilitate road and housing construction.

In the late 1980s, the Minnesota County Biological Survey identified only three areas where significant natural communities still existed in Mahtomedi (see Figure 5-3: Ecological Patches):

1. An oak forest on the west side of Warner Avenue, south of Lake Washington; and
2. An oak forest, emergent marsh, and shrub swamp between the City of Willernie and Old Wildwood Road; and
3. A dry prairie and aspen forest in the southwest corner of Katherine Abbott Park.

In reality, residential developments have replaced the oak forests identified by the Minnesota County Biological Survey. While some existing residential developments may have preserved a significant number of trees, the roads, houses, and yards have fragmented the forest so that it no longer functions as a true oak forest. This does not mean that the existing trees and landscape in these areas are no longer valuable, but rather that the landscape has been altered to a point that it no longer functions as it once did.

The emergent marsh and shrub swamp between the City of Willernie and Old Wildwood Road are of significant ecological value. Herbaceous plants such as cattails, bulrushes, and sedges dominate emergent marshes. Tall shrubs such as speckled alder, pussy willow, and red osier dogwood dominate shrub swamps. Unfortunately, it appears that cattails have begun to crowd out other plant species typically found in emergent marshes. This change is likely due to nutrient-rich runoff and sedimentation entering the marsh, and due to artificial water level changes that are affected by the road and culvert system.

The dry prairie in the southwest portion of Katherine Abbott Park is particularly significant. Very few areas of prairie still exist in the metropolitan area. The Minnesota County Biological Survey identified the dry prairie in Katherine Abbott Park as a sand-gravel prairie, which is typically dominated by little bluestem, side-oats grama, and porcupine grass. However, it is likely that this prairie was disturbed by grazing. In



*Example of Typical Oak Barrens
(Source: Minnesota's St. Croix River
Valley and Anoka Sandplain)*



*Emergent Marsh off Old Wildwood Rd
showing Signs of Cattail Domination*

addition, the prairie shows signs of change with the invasion of sumac, buckthorn, and non-native grasses.

The aspen forest in Katherine Abbott Park appears to be representative of a true aspen forest, albeit a small patch of forest. However, this particular aspen forest was possibly created through some disturbance in the area 30 to 50 years ago, rather than being native to this area for many years. Nevertheless, it still has significant ecological value.

In short, Mahtomedi's vegetative landscape has changed significantly since the mid 1800s, but Mahtomedi's existing vegetation contributes greatly to the City's vision of being a "small town city" in a natural setting. Though the oak barrens and oak forests have been lost, there are still a significant number of oak trees scattered throughout the city. In addition, residents and developers have planted countless new trees, albeit many are not native to the Mahtomedi area. In the 1990s, Mahtomedi adopted relatively stringent shoreland and wetland overlay ordinances that have helped protect and enhance vegetative buffers around lakes and wetlands. Furthermore, Mahtomedi's parks (most notably Katherine Abbott Park) have helped preserve significant areas of native vegetation.



Dry Prairie at Katherine Abbott Park showing signs of Sumac Invasion

Importance of Open Spaces and Threats to Open Spaces

There are many reasons why open spaces are important to Mahtomedi. Some reasons are clear-cut; for example, open spaces provide recreation opportunities and they help enhance the quality of life for residents. Other reasons are perhaps less obvious, but nevertheless important; for example, open spaces promote plant and animal diversity, they help control pollution, and they provide economic benefit by making Mahtomedi a desirable place to live and work.

Unfortunately, many of Mahtomedi's open spaces are threatened. Primary threats include, insensitive development, alteration of natural drainage patterns, erosion and sedimentation, chemical runoff, succession due to lack of fires, diseases, and invasion of non-native species, such as buckthorn and purple loosestrife. But perhaps the biggest threat to Mahtomedi's open spaces is lack of awareness and understanding. Until everyone becomes aware of the importance of open spaces and until they become aware of the negative consequences of certain actions (like inappropriate application of fertilizer) open spaces will continue to be threatened.

The Need for Intergovernmental Cooperation

Water, plants, animals, and the like are not bounded by governmental boundaries. Consequently, the protection and enhancement of open spaces requires intergovernmental cooperation. How a community deals with its storm water runoff affects all communities further down the watershed. A community that allows invasive species and diseased vegetation to remain unchecked, creates challenges for neighboring communities that are trying to control invasive species and diseased vegetation. In short, governments (and individual property owners) need to work together if we are to make progress in our efforts to protect and enhance our open space. Mahtomedi and the surrounding region can make much greater progress by working together, rather than individually.

Insert Figure 5-3: Natural Communities

Existing Open Spaces

For the purpose of this Plan, open spaces are differentiated from parks in that open spaces do not have specific recreation uses associated with them. Mahtomedi has both public and private open spaces. Public open spaces include relatively large areas of City land in the Dwinnell Nature area in northern Mahtomedi, as well as small parcels of City land scattered throughout the city that consist mostly of wetlands or drainage ponds. The City acquired some of these parcels through tax forfeiture. Private open spaces include wetlands or other lands that are difficult to develop. They may also include undeveloped portions of relatively large parcels of land. For example, many relatively large single-family residential lots in Mahtomedi have preserved woodlands that contribute to Mahtomedi's open space system.

Figure 5-4: Existing Open Spaces, shows public open spaces in Mahtomedi as well as the perceived private open spaces. Again, many of the public open spaces involve relatively small parcels of land that contain small wetlands or drainage ponds.

Significant Public Open Spaces. The following describes the most significant open areas in Mahtomedi.

1. **Dwinnell Nature Area.** The Dwinnell Nature Area is a collection of public parcels in the northern part of Mahtomedi that includes roughly 20 acres of City property and 1.4 acres of State property. Single-family residences with onsite water and sanitary sewer are interspersed among the woods, wetlands, ponds, and public land. Many of the existing single-family residential lots are non-conforming because, by current standards, they do not have the required minimum area to be served by onsite sanitary sewer. However, it is unlikely that this area will be served by public sewer and water in the near future. Consequently, the City should decide what its long-term vision for this area is. The City could potentially acquire additional property from willing sellers and preserve additional open space in the area. Or, the City could eventually extend public sewer and water to the area, which would bring additional pressure to develop the remaining private open space in the area.



Doe in the Dwinnell Nature Area

2. **Hilton Trail Open Space.** The Hilton Trail Open Space is on the west side of Hilton Trail, directly east of O.H. Anderson Elementary School. This triangular City parcel has an area of roughly one acre. The easiest way to access this property is via the elementary school. The City has explored several possibilities for this parcel including the following: 1) placing a City entrance sign on the parcel; 2) developing a bicycle trail rest area on the parcel; and 3) allowing O.H. Anderson Elementary School to use a portion of this parcel for nature interpretation.
3. **Lost Lake Open Space.** In addition to Wildwood Park on Lower Lost Lake, the City owns roughly 15,000 square feet of upland on west shore of Lower Lost Lake. The City also owns

roughly 1.5 acres of land along the east shore of Upper Lost Lake. Neither parcel is easily accessible. However, both provide valuable habitats for plants and animals. The State of Minnesota also owns the right-of-way that divides Upper and Lower Lost Lake, but also provides habitat for plants and animals.

4. Neville Pond. Neville Pond is a 1.5-acre City parcel near the southwest intersection of Neville Avenue and Locust Street. A wetland covers most of the site, but there is also a small amount of upland with a short informal trail in the northeast corner of the site. Existing single-family houses border the west side of the wetland. The wetland was likely considerably deeper in the past, but it appears it has begun to fill with sediments.



Neville Pond

5. Lincolntown Avenue Overlook. This City parcel is in on the west side of Lincolntown Avenue, just north of the entrance to Katherine Abbott Park. The parcel has roughly 0.75 acres of upland and provides a scenic view of the wetland and wooded areas to the northwest. The site is nicely landscaped, but it is not easily accessible because Katherine Abbott Park and the Streetcar Trail are on the east side of Lincolntown Avenue. A drainage easement covers the site.



Lincolntown Avenue Overlook

6. Vincent Square. This open space is located on the southwest shore of Lake Washington. It has roughly 1.2 acres of upland. The site is tucked between and behind existing houses and there are neither markings nor signs that indicate that the space is public open space. The site has the potential to be developed into a passive neighborhood park if desired by the City and neighborhood residents.
7. Wedgewood Drive Open Space. This is a 3.4-acre parcel of land north of Wedgewood Drive and south of the City of Birchwood. The site primarily serves to help manage storm water runoff, but it also provides habitat for plants and animals. The site is not easily accessible from Mahtomedi, except for those residents that live directly to the south. The site can potentially be accessed from White Pine Lane in Birchwood.

Other Public Open Spaces. There are numerous other public open spaces in Mahtomedi, most of which are small parcels consisting of wetlands or drainage ways. Although these parcels may not offer much in the way of parks and recreation areas, several of these parcels help manage storm water runoff, and they have the added benefit of providing habitat for plants and animals.

Insert Figure 5-4: Existing Open Spaces

Many street right-of-ways in Mahtomedi, though not open spaces per se, are heavily vegetated and they contribute greatly to the Mahtomedi's image of a "small town in a natural setting". The City should not overlook the importance and value of protecting and enhancing vegetation in the street right-of-ways. Funding is available from the state to help beautify state right-of-ways, like State Highway 244.

Existing Private Open Spaces. A considerable amount of open space in Mahtomedi is associated with private lands. Many large lots in Mahtomedi are only partially developed. The undeveloped portions of these lots often consist of wetlands that will likely never be developed, but in some cases, they consist of wooded uplands that could potentially be developed. As developable land becomes scarcer in the metropolitan region, the open space associated with these large lots become more valuable from a development point of view. The City will need to carefully consider the costs and benefits of allowing additional development to occur on these properties. From one perspective, allowing additional development to occur in areas already served by public sewer and water helps reduce urban sprawl. On the other hand, the City needs to be careful that future development does not destroy significant open space, and consequently adversely affect the natural environment and the quality of life in Mahtomedi.

GOALS, OBJECTIVES, AND POLICIES

The following goals are broad statements that reflect the City's vision for open spaces. The following objectives are specific, measurable, intermediate ends that are achievable and mark progress towards the goals. The following policies are a course of action to accomplish the stated objectives.

Goal 1: Mahtomedi residents, City government, and developers understand the value of preserving and enhancing open spaces and natural resources.

Objective 1.1: Use print, broadcast, and website medias to promote an understanding of the value of preserving and enhancing open spaces and natural resources.

- Policy 1.1.a: Prepare articles for the City newsletter that discuss the value of preserving and enhancing open spaces and natural resources in Mahtomedi. *(Park Commission, City Staff: Ongoing)*
- Policy 1.1.b: Provide information about open spaces and natural resources on the City's website and provide links to other websites, including the Minnesota Department of Natural Resources and the Watershed Districts. *(City Staff with input from the Park Commission: 2006-ongoing)*
- Policy 1.1.c: Work with the City's cable television provider to provide public service announcements about open spaces and natural resources on the local government access channel. *(City Staff, Park Commission: 2006-ongoing)*
- Policy 1.1.d: Work with the White Bear Press to promote articles, editorials, and letters to the editor, about preserving and enhancing open spaces and

natural resources in the region. *(Park Commission, Mayor, and City Staff: Ongoing)*

Policy 1.1.e: Include information about preserving and enhancing open spaces and natural resources in the City's "information package" that new (and existing) residents can request from City Hall. *(Park Commission and City Staff: 2006-ongoing)*

Policy 1.1.f: Maintain a library of natural resource educational materials at City Hall, including pamphlets, books, and videos that residents can have or borrow. *(City Staff, Park Commission: Ongoing)*

Policy 1.1.g: Develop and implement an awards program that recognizes outstanding efforts by residents or organizations concerning the preservation and enhancement of open spaces and natural resources in Mahtomedi. *(Park Commission, City Council: 2006-ongoing)*

Objective 1.2: Provide (and encourage others to provide) educational presentations about open spaces and natural resources in Mahtomedi.

Policy 1.2.a: Proactively work with the Mahtomedi School District, the Department of Natural Resources, White Bear Lake Conservation District, Rice Creek Watershed District, Valley Branch Watershed District, adjacent communities, environmental organizations, and others to promote opportunities for residents to learn about natural resources and open spaces in Mahtomedi, through public workshops, classes, displays, and other techniques. *(Park Commission, City Council: Ongoing)*

Policy 1.2.b: Support Mahtomedi School District and Community Education's efforts to teach about open spaces and natural resources. Make public open spaces available for fieldtrips and encourage Park Commission members to contribute towards classroom learning exercises. *(Park Commission: Ongoing)*

Policy 1.2.c: Where appropriate, encourage Park Commission members to attend community events, such as Pumpkin Mania, and discuss and distribute information about open spaces and natural resources. *(Park Commission: 2006-ongoing).*

Objective 1.3: Promote an understanding of the value of open spaces and natural resources through interpretive displays and demonstration areas.

Policy 1.3.a: Work with the Mahtomedi School District, the Department of Natural Resources, environmental organizations, and others to develop and implement a plan to provide interpretive exhibits at Katherine Abbott Park. *(Park Commission, City Staffs, City Council: 2006-2010)*

- Policy 1.3.b: Develop and implement a plan to provide interpretive signs and displays in parks and along trails in key areas throughout the city. *(Park Commission, City Staff, City Council: 2006-2010)*
- Policy 1.3.c: Work with the Department of Natural Resources, the Watershed Districts, and others to develop and implement a plan to provide a lakescaping, landscaping, and storm water management demonstration area within in Mahtomedi to help residents learn about techniques that can help protect and enhance our open spaces and natural resources – particularly our water resources. *(Park Commission, City Staff, City Council: 2006-2010)*

Goal 2: Significant open spaces and natural resources are preserved and enhanced throughout Mahtomedi.

Objective 2.1: Identify and implement measures to protect and enhance the City's water resources.

- Policy 2.1.a: Consider the City's lakes and wetlands as valuable "open space" and, in consultation with the Minnesota Department of Natural Resources and the Watershed District Offices, implement best management practices to enhance them. *(City Staff: 2006-ongoing)*
- Policy 2.1.b: Work with the Department of Natural Resources, Rice Creek Watershed District, Valley Branch Watershed District and others to identify, rank, and address threatened or degraded natural resources in Mahtomedi. *(City Staff, Park Commission: 2006-2010)*
- Policy 2.1.c: Develop written recommendations for lake aeration, erosion control, nutrient loading, riparian vegetation, exotic species control, waterfowl habitat, and other water resource management goals for the wetlands, ponds, and lakes in Mahtomedi. *(City Staff: 2006-2010).*
- Policy 2.1.d: Review and amend the City's Shoreland Overlay Ordinance and Wetland Ordinance as necessary to protect and enhance Mahtomedi's water resources. *(City Staff, Planning Commission, City Council: 2006-2010)*
- Policy 2.1.e: Continue to budget money in the Capital Improvements Plan for maintenance of storm water management ponds and for other storm water management measures. *(City Staff, City Council: 2006-ongoing).*

Objective 2.2: Identify and implement measures to protect and enhance the City's plant and animal habitats.

- Policy 2.2.a: Use primarily native plant materials to restore disturbed open spaces and to provide landscaping on public property, where appropriate. *(City Staff: 2006-ongoing)*

- Policy 2.2.b: Develop and implement a natural resource management plan for Katherine Abbott Park and other pertinent City parks and open space. *(City Staff, Park Commission, City Council: 2006-2010)*
- Policy 2.2.c: Continue to organize and promote events to remove buckthorn (and other exotic and invasive plant species) on public land in Mahtomedi. *(Park Commission, City Staff: Ongoing)*
- Policy 2.2.d: Continue to assist private landowners in removing exotic and invasive plants from their property. Also, assist private landowners in identifying, treating, or removing diseased plants. *(Park Commission, City Staff, City Council: Ongoing)*
- Policy 2.2.e: Review and amend the City's Woodland Preservation Ordinance and Landscaping Ordinance as necessary to protect and enhance plant and animal habitats in Mahtomedi. *(City Staff, Planning Commission, City Council: 2006-2010)*
- Policy 2.2.f: Continue to apply for grants to help protect and enhance open spaces and natural resources. *(City Staff, Park Commission: Ongoing)*

Objective 2.3: From a park system point of view, acquire, maintain, and dispose of open space with the best interest of the natural ecosystem in mind.

- Policy 2.3.a: Allow only minimal alterations (for example, nature trails) in existing public open spaces. Do not expect open spaces to function as parks and recreation areas. *(Park Commission, City Staff: Ongoing)*
- Policy 2.3.b: Consider disposing of existing small parcels of public open space only if safeguards to ensure the protection and maintenance of the associated natural resources are put into place. *(Park Commission, City Council: Ongoing)*
- Policy 2.3.c: Accept tax forfeit parcels and acquire parcels from willing sellers only if there is a clear understanding of how the parcels fit into City's Open Space System. Recognize that some tax forfeit parcels will not have significant value as City open space and that these parcels should not necessarily be acquired. *(Park Commission, City Council: Ongoing)*
- Policy 2.3.d: Consider acquiring additional parcels of open space primarily in those areas where available parcels could be combined with existing parcels of open space (for example, in the Dwinnell Nature Area) and/or in areas that have high ecological value (for example, the Weber Pond area and the Lost Lake area). *(Park Commission, City Council: Ongoing)*
- Policy 2.3.e: Partner with environmental organizations and other government agencies to identify, preserve, and enhance significant, unprotected

open space in the city. *(Park Commission, City Council: Ongoing)*

Objective 2.4: In all land use decisions, acknowledge the interrelationship and balance between natural resources, the economy, and the social aspects of life in Mahtomedi and the surrounding region.

- Policy 2.4.a: Encourage the use of incentive based tools to conserve significant open spaces. *(City Staff, Planning Commission, City Council: Ongoing)*
- Policy 2.4.b: Closely review all development proposals and building permit requests to ensure that existing natural resources are reasonably protected. Where the loss of natural resources cannot be avoided, require mitigation and replacement plans as necessary. *(City Staff, Planning Commission, City Council: Ongoing)*
- Policy 2.4.c: Solicit input from the City Forester, the Minnesota Department of Natural Resources, the Watershed Districts, and others when considering the impact of proposed developments on existing natural resources. *(City Staff, Planning Commission, City Council: Ongoing)*
- Policy 2.4.d: Promote cooperation between adjacent and overlapping governments as a critical component in addressing natural resource issues, especially water quality issues. *(City Staff, City Council: Ongoing)*
- Policy 2.4.e: Especially during the development review process, promote ways to connect fragmented open spaces, both public and private. *(City Staff, Planning Commission, City Council: Ongoing)*

Objective 2.5: Strengthen Mahtomedi's image as a community that lives in harmony with nature.

- Policy 2.5.a: Maintain and use all City property in a manner that is sensitive to the natural environment. Be a role model for the community. For example, implement innovative storm water management techniques, install sustainable landscaping, provide energy efficient lighting, promote recycling, and so on. *(City Staff, City Council: Ongoing)*
- Policy 2.5.b: Provide attractive entrances to the City with signage and landscaping that reflects Mahtomedi's vision of being a "small town city in a natural setting". *(City Staff, City Council: 2006-2010)*
- Policy 2.5.c: Protect and enhance trees, shrubs, and other landscaping within City right-of-ways, while being sensitive to traffic safety and utility conflicts. *(City Staff: Ongoing)*
- Policy 2.5.d: Proactively work with the State of Minnesota and Washington County to beautify and enhance their highway right-of-ways with plantings. *(City Staff, Park Commission, City Council: 2006-2010)*

OPEN SPACES PLAN

This section summarizes and expands on the key concepts and actions discussed in the inventory and analysis section, and the goals, objectives, and policies section of this chapter.

Acquisition of Land for Public Open Space

Because Mahtomedi is almost fully developed, very little opportunity exists to acquire additional land for public open space through the traditional subdivision process. The most likely option to increase public open space is for the City to acquire private open space from willing sellers. The City could also potentially pick up some open space through the tax forfeit process, but these parcels are generally very small and may not hold significant value as open space. This Plan identifies five general areas where the City could potentially acquire additional public open space (refer to Figure 5-5: Open Spaces Plan):

1. Dwinnell Nature Area. As discussed earlier in this chapter, the City should further refine its long-term vision for the Dwinnell Nature Area. Approximately half of this area is already in public open space. The other half accommodates 28 single-family residences, many of which are on non-conforming lots. The City essentially has three long-term options for dealing with this area:
 - a. Maintain the existing situation - do not acquire additional property, do not extend public sewer and water, and do not promote future subdivisions in the area;
 - b. Acquire additional public open space (preferably from willing sellers); and
 - c. Extend public sewer and water to the area and allow future subdivisions that are sensitive to the natural resources in the area.

This Plan advocates studying options for acquiring additional public open space in this area. The City could potentially acquire some non-conforming lots from willing sellers. Alternatively, the City could help facilitate a redevelopment process that would extend public sewer and water to a portion of the area. In turn, this could potentially allow some existing non-conforming residences to relocate to a “cluster development” of homes in an area that would be served by public sewer and water. The vacated homes could then be razed and the lots restored into public open space.

The City should work closely with property owners when refining its long-term vision for the area. The City should also work with the Minnesota Department of Natural Resources to identify possible funding sources to expand public open space in this area.

2. The East Shore of Long Lake (North). The east shore of Long Lake (North) is one of the few large areas that could potentially be subdivided in Mahtomedi. Because this area is not easily accessible from other parts of the city and because the population in this area is relatively low, the Park System Plan does not advocate acquiring additional parkland in this area. Nevertheless, if a property owner in this area were to propose to subdivide, the City should explore options for preserving open space in the area through the subdivision

Insert Figure 5-5: Open Spaces Plan

process. Specifically, the City should study whether the open space should be private or public.

3. Lost Lake Open Space. A significant amount of the existing wetlands in the Lost Lake and Wildwood Park area are in the private ownership. It is highly unlikely that this area could ever be developed. However, the storm water management qualities, ecological qualities, and scenic qualities of the wetlands in this area make them highly valuable to the City. These wetlands could likely be better maintained (and perhaps used for public interpretive purposes) if they were in public ownership. The City, in consultation with the Minnesota Department of Natural Resources and the property owner, should explore opportunities to acquire this property and incorporate it into the City's open space system.
4. Weber Pond Open Space. The City's Comprehensive Plan guides this area for industrial/business development. However, it does not appear that all of this area is suitable for industrial/business use. The site is not easily accessible from the public road system and high voltage power lines divide the property. Nevertheless, this scenic area has quality natural features that are worth protecting. As discussed in the Park System Plan, part of this area could potentially be incorporated into Southwest Park. If this land were to subdivide, the City could possibly acquire approximately three acres of land through the subdivision process. Or, if the property owner is willing, the City could consider purchasing the property. Alternatively, the City could work with the property owner to explore other ways of protecting the area, for example by means of a conservation easement. In short, this land would be an excellent addition to Mahtomedi's open space. However, whether the land is private or public, the City should strive to ensure that the natural features in this area are protected.

Options for Private Landowners

As discussed above, it is unlikely that the City can acquire a substantial amount of open space through the subdivision process. And unless a property owner is willing to donate open space to the City, the City would have to budget sufficient funds to purchase additional open space from willing sellers. Following are a few options private landowners can consider to protect and enhance their private open space:

1. Conservation Easement. Enter into a conservation easement to protect land from inappropriate development in perpetuity.
2. Property Tax Relief Program. Participate in a property tax relief program that reduces, eliminates, or defers taxes on lands that protect significant natural areas.
3. Restoration Cost-Share Program. Participate in a restoration cost-share program that compensates the landowner for some of the costs involved in restoring and protecting natural areas on their land.
4. Donations. There are many ways that a landowner can donate land. Landowners can donate unrestricted or restricted title to their land. If they donate restricted title, then the receiver of the land must use the land according to the stated restrictions. For example, if a landowner donates land with a restricted title to the City, the landowner may require that the

City leave the land in an undeveloped or passive, nature-oriented state. Landowners can also donate land through their will. Conversely, if landowners want to claim a tax deduction during their lifetime, they can donate land through what is known as reservation of life estate. This allows the landowner the right to live out their life on the donate property.

Most landowners who seek to protect open space do so because they believe it is important – not because it will benefit them monetarily. Nevertheless, many landowners find that there are tax advantages related to land protection options. Some landowners are able to charitable contribution deductions on their income tax. Also, by protecting the land, many landowners find that their property tax is reduced. Tax laws, however, are always changing. Therefore, it is important for landowners to consult with attorneys and accountants to determine the financial consequences of land protection options.

Protection and Enhancement of Existing Open Space

The following describes a few of the many things private landowners and the City can do to protect and enhance open space.

1. Remove Exotic and Invasive Plant Species. With the help of volunteers, the City expends considerable effort to control the spread of buckthorn, sumac, and other invasive species on City property. In addition, by providing tools and facilitating disposal, the City has helped many private property owners control exotic and invasive plant species on their own properties. But controlling exotic and invasive plant species is an enormous task that will always require considerable private and public efforts. The City should continue to explore options, including restoration cost-share programs, to address this problem.
2. Remove or Treat Diseased Vegetation. Oak wilt and dutch elm disease are the two primary diseases facing Mahtomedi's trees. The City Forester identifies diseased trees and guides the City and residents on how and when to remove or treat them. The City annually applies for and receives grants to address diseased trees. But, like exotic and invasive plants, controlling the spread of disease is a big task that will continue to require public and private efforts and funds. Private landowners and developers need to be more aware of when and how to prune certain species of trees to reduce the possibility of spreading diseases.
3. Restore Wetland and Lakeshore Buffers. Mahtomedi's Shoreland and Wetland Ordinances require a vegetative buffer around all lakes and wetlands. These vegetative buffers help preserve the shorelines and filter runoff before it reaches our lakes and wetlands. Unfortunately, much of the development around the City's lakes and wetlands occurred before the City adopted these ordinances. Consequently, many lakes and wetlands in Mahtomedi have very little vegetative buffer. Armed with an understanding of how important vegetative buffers are, private landowners can and should begin to restore buffers on their property. The City can help facilitate these efforts by organizing workshops, providing links to technical information, and perhaps even participating in a restoration cost-share program.
4. Involve Associations and Neighborhood Groups in Maintenance and Restoration Efforts. Associations and neighborhood groups can do much to protect and enhance association open space as well private open space. For example, they can distribute maintenance and

restoration information in association newsletters and they can organize neighborhood events to remove exotic and invasive plants. They can also organize events to help protect and enhance public open space and parkland in their neighborhoods.

5. Promote Sustainable Development Practices. The City, developers, and residents should employ sustainable development practices wherever possible. These practices include using predominantly native plants, energy-efficient site design, environmentally friendly storm water management techniques, and the like. The City should amend its Ordinances to promote sustainable development practices.

Intergovernmental Cooperation and Volunteerism

The City, by itself, cannot protect and enhance all of Mahtomedi's open spaces. The City simply does not have all the necessary resources, nor does it have full control over what happens on private land or in neighboring communities. Storm water runoff, for example, flows over multiple properties in multiple jurisdictions. So, if we are going to improve water quality and better manage storm water runoff, neighboring and overlapping jurisdictions, as well as private property owners, need to work together. The same cooperation is needed to successfully address diseased trees and invasive plants. Mahtomedi should continue to take a proactive, leadership role in cooperating with other governments and organizations including White Bear Lake Conservation District, the Watershed Districts, the Minnesota Department of Natural Resources, the School District, and adjacent communities.

Mahtomedi should also continue to enlist and facilitate volunteers who can help protect and enhance open spaces throughout the city. The City is very fortunate to have dedicated citizens and organizations that donate their time, expertise, equipment, and materials for open space protection and enhancement. The City should continue to expand the volunteer program and formally recognize and thank the volunteers on a regular basis for their efforts.

Awareness and Education

Awareness and education are critical components in Mahtomedi's efforts to protect and enhance open spaces. We need to understand that Mahtomedi's quality of life is not only tied to social and economic issues, but also to environmental issues. If Mahtomedi's open spaces are adversely affected, the social and economic components of the City will also be adversely affected. The following describes a few of many things the City can do to strengthen awareness and education of open spaces in Mahtomedi:

1. Use a Variety of Mass Media Communication Techniques. Use print, broadcast, and website medias to promote an understanding of the value of open spaces.
2. Promote and Facilitate Seminars, Classes, and Presentations. Work with the other government jurisdictions, environmental organizations, and the School District to promote and facilitate community presentations dealing with open spaces in Mahtomedi. Several education programs can benefit Mahtomedi. For example, the MinnAqua Program offers residents an opportunity to learn about fishing and caring for our water resources. The Minnesota School Forest Program provides communities with resources for developing an outdoor classroom. The Mahtomedi School District and Community Education can offer

classes and programs dealing with open space issues, such as native landscaping and lakescaping techniques.

3. Use Interpretive Displays and Demonstration Areas. Install interpretive signs that help people understand the natural systems in the area. Develop demonstration areas to help communicate open space protection and enhancement techniques. For example, develop a lakescaping demonstration area at Wildwood Park.

Many residents choose to live in Mahtomedi because of its open spaces. However, residents, developers, and others are not always aware of things they can and should do to protect and enhance open spaces in the City. Aware residents that are equipped with pertinent information are perhaps the most important resource the City has in protecting and enhancing its open spaces.