



## Open Space Plan

Recommended to the  
Comprehensive Plan Advisory Panel  
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## LIST OF MAPS

### **CURRENT OPEN SPACE RESOURCES**

PARKS, TRAIL, PRESERVES  
SUITABLE SOILS  
STEEP SLOPES  
HIGH QUALITY NATURAL AREAS  
HYDROLOGIC FACTORS  
REGIONAL IDENTIFIED NATURAL AREA CORRIDORS

### **OPEN SPACE PRIORITIES**

ASSESSING OPEN SPACE PLAN PRIORITY AREAS: HYDROLOGICAL SYSTEMS  
ASSESSING OPEN SPACE PLAN PRIORITY AREAS: HIGH QUALITY NATURAL AREAS  
ASSESSING OPEN SPACE PLAN PRIORITY AREAS: COMPOSITE  
SCENIC ROADS

# Executive Summary

As a precursor to the comprehensive planning process, the City of Medina appointed an Open Space Task Force to identify priority open space resources within the city and recommend protection strategies for the priority resources. The Task Force spent time understanding existing open space and natural resources and assessing public opinion through a survey and public meetings. This understanding of resources and opinion led directly to the development of a vision and principles for open space protection. The vision and principles guided the creation of criteria for identifying and prioritizing open space areas and selecting implementation tools.

**Open Space Criteria** - Based on the vision and principles, the Task Force developed criteria for prioritizing open space areas within the city and made recommendations for implementation strategies to protect priority open space areas.

The criteria for identifying priority areas are:

- Protection of the ecological function of lakes, streams, and wetlands as determined by the wetland functions and values assessment
- Protection of ecologically significant natural areas including moderate to high quality areas as determined by the updated MLCCS natural resources inventory
- Protection of connections to parks and other protected lands
- Protection of important viewsheds including scenic road segments
- Creation of trails and/or other methods for citizens to view and enjoy open space resources

**Open Space Priority Maps** - Preliminary maps of areas meeting the open space criteria were created during the open space planning process. However, land cover and wetland data used to create the preliminary maps are currently being updated. Therefore, final maps of priority areas will not be generated until late summer 2007.

**Implementation Recommendations.** The Open Space Task Force reviewed a range of implementation tools, the likely effectiveness of different tools, and issues of fairness and cost burden associated with implementation tool options. The specific implementation recommendations chosen by the Task Force work together to provide a comprehensive framework for protecting open space resources in Medina.

- Viewshed protection addresses one of the most visual and recognized resources in Medina – the sense of open space and rural character.
- Natural resource performance standards provide a minimum level of protection for priority resources wherever they occur.
- Conservation development provides an incentive within the development process for protecting resources.

- A purchase of conservation easement program provides a protection option that is not dependent on development and could be targeted to the highest priority open space resources.
- A modification in the park and trail dedication standards offers flexibility to protect priority open space resources through an existing tool.

For each of the recommended implementation priorities, the Task Force identified additional specifics to guide the implementation process, including

- General description of the implementation priority;
- Relationship to Open Space Principles;
- Geographic scope; and
- Program or ordinance design elements.

## Next Steps

The process of protecting open space resources in Medina is not yet complete. Following is a list of next steps to be undertaken as part of the comprehensive plan update process and implementation of the comprehensive plan.

- The Comprehensive Plan Advisory Panel (CPAP) will review the Open Space Plan recommendations in June 2007 as part of updating the Medina Comprehensive Plan. The CPAP may incorporate Open Space Plan recommendations as part of the Comprehensive Plan update recommended to the City Council.
- The open space priorities map will be revised when the following updated information is available in late summer 2007:
  - The MLCCS natural resource inventory
  - The wetland functions and values assessment
- The Open Space Task Force members and the Comprehensive Plan Advisory Panel will review the updated open spaces priorities map. The CPAP will consider including the updated map in the Comprehensive Plan update.
- Open space implementation recommendations that are included as part of the Comprehensive Plan update will be fully developed through program development or regulatory changes after adoption of the Comprehensive Plan.



## **Introduction**

The City of Medina completed an open space planning process to:

- Implement its 2000 Comprehensive Plan;
- Prepare for the next comprehensive plan;
- Follow Metropolitan Council guidance on incorporating open space into its planning and development process;
- Obtain economic and natural resource benefits associated with open space; and
- Protect Medina's rural character.

This section describes the open space policies of the City of Medina 2000 Comprehensive Plan, regional open space considerations that affect Medina's open space planning process, and the economic rationale for protecting open space functions.

**General Development  
Policy # 1:**

The Comprehensive Plan will guide future development so that it will strengthen, enhance, and protect the City's rural character and natural environment.

Source: *City of Medina 2000 Comprehensive Plan*, p. 13

**General Development  
Policy # 7:**

The extensive areas of public land (e.g. Regional Parks), wetlands, and unbuildable soils will influence land use, transportation patterns, and the general development of the City. Such physical features and existing development patterns will be recognized as more appropriate land uses and density boundaries than political boundaries.

Source: *City of Medina 2000 Comprehensive Plan*, p. 13

**General Development  
Policy # 15:**

Critical natural areas will be protected using conservation easements.

Source: *City of Medina 2000 Comprehensive Plan*, p. 14

**The 2000 Comprehensive Plan**

The City of Medina's 2000 Comprehensive Plan recognizes the importance of protecting natural features and preserving open spaces within the City. The Plan describes how specific natural features affect development patterns and development decisions in Medina, specifically:

- Development on wetlands listed on the National Wetlands Inventory is prohibited, and the Minnesota Department of Natural Resources (DNR) reviews all development proposals for land containing DNR classified wetlands.
- Soil characteristics define on-site septic system capacity, which affects development density limits.
- The important functional and aesthetic benefits of woodlands should guide patterns of land use.
- Development on floodplains is restricted and must meet the City's Floodplain Ordinances.
- Watershed districts have their own land development and water management regulations that must be addressed by the City.

The Plan also recognizes that large public and semi-public land uses influence development within Medina. These significant features include: Morris T. Baker Regional Park; Wolsfeld Woods Natural and Scientific Area; and the closed BFI/Woodlake sanitary landfill site.

The 2000 Comprehensive Plan directs the City to establish ordinances that protect natural features and open spaces, such as set-backs from sensitive areas and creating a woodlands ordinance. Furthermore, the Plan states that the City will acquire, upgrade or develop neighborhood facilities to provide open spaces for active and passive recreational activities.

Examples of the 2000 Plan's general development policies are provided in the text boxes on the left. These policies continue to direct the creation of development regulation and review, as well as the formation of this open space plan.



**Protection of Natural Resources****Strategy #5:**

Revise current City ordinances that protect the City's significant natural features.

Source: *City of Medina 2000 Comprehensive Plan*, p. 64

**Storm Water Management Strategy # 11:**

Review existing ordinances and official controls (wetland shoreland, floodplain, zoning and performance standards) to ensure that wetlands, waterways and ponds are being protected and that the City's ordinances are consistent with the Comprehensive Plan.

Source: *City of Medina 2000 Comprehensive Plan*, p. 65

**Metropolitan Council Goal – Preserving vital natural areas and resources for future generations.**

This metropolitan area boasts a unique combination of assets: three majestic rivers, 950 lakes, rolling hills, extensive wetlands, native prairies and woodlands, aggregate and a multi-layered aquifer system – assets that are essential to our region's quality of life and continued economic well-being.

Source: *Metropolitan Council's 2030 Regional Development Framework*

The Comprehensive Plan states that to fund the protection of open space, the City will require dedication of land, or money in lieu of land, within the platting/subdivision approval process. Dedications may be used for creating parks or the preservation of woodlands, biologically significant natural resources or open space. The Plan states that the City will also create a means for property owners to voluntarily dedicate open spaces through the use of conservation easements.

Examples of the 2000 Plan's recommended implementation strategies are in the text boxes on the left. Strategy #5 is supported by Medina's wetland functions and values assessment, currently underway. The assessment will provide a wetlands rating system to guide policy for which wetlands can be filled and mitigated, and which must be protected and maintained.

**Metropolitan Council Regional Guidance**

The Metropolitan Council also provides guidance for creating local open space plans within the metropolitan area. The Metropolitan Council's *2030 Regional Development Framework and Policy Plans* include goals, policies and strategies for regional parks and open space. Medina must develop a parks and open space plan and land use plan that is consistent with the goals of the *Development Framework*. Goals outlined in the *Development Framework* include using natural resource inventories to create plans that are more sensitive to the environment and creating land use patterns that provide housing while protecting natural resources.

**Economic Benefits of Open Space**

Protecting open space can also provide fiscal benefits to the City and landowners. According to a report released in 2005 by the Wilder Research Center, five studies of the Twin Cities area found that houses within 1,000 feet of natural areas and open spaces have higher property values than





similar houses farther from natural areas.<sup>1</sup> The estimated property value increase calculated by these studies for a \$150,000 house within 500 yards of an open space feature ranged from \$142 to \$31,649.<sup>2</sup> The subsequent property tax revenue increase on homes in close vicinity to open spaces is large enough to have significant financial implications for local governments.<sup>3</sup>

Cities can avoid the costs of public infrastructure by not extending roads and utilities into open spaces. Open spaces can provide stormwater management functions, thereby allowing municipalities to avoid the cost of building and maintaining stormwater management facilities. Open spaces can also preserve water quality, which may confer even greater financial benefits to communities in the future through avoided remediation.<sup>4</sup>

The report states that Minnesotans have been supportive of raising government funds for parks and open spaces. Since 1988, 16 out of 21 referenda on open space acquisition in Minnesota have been approved.<sup>5</sup> Minnesota communities with approved referenda include; Shoreview, Eden Prairie, Woodbury, Plymouth, Maple Grove, Chanhassen, Blaine, Minnetonka, Dakota and Washington County, Andover, Wayzata, and St. Cloud.<sup>6</sup> The sixteen referenda generated over \$100 million for open space protection projects.<sup>7</sup> In addition, Hennepin County and the Minnehaha Creek Watershed District recently formed a Land Conservation Financing Partnership that provides a rotating fund of up to \$20 million for land conservation work within the Watershed District area, including portions of Medina.

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<sup>1</sup> West and Anderson, 2003; Krizek, Mogush and Levinson, 2004; Doss and Taff, 1996; Lake and Easter, 2002; Luchow, 2003. Cited in: Paul A. Anton, *The Economic Value of Open Space*, Saint Paul, MN: Wilder Research, Second Edition, 2005, p. 23-26.

<sup>2</sup> Ibid, p. 22-26

<sup>3</sup> Ibid, p. 29

<sup>4</sup> Ibid, p. 41

<sup>5</sup> Ibid, p. 26

<sup>6</sup> Ibid, p. 28

<sup>7</sup> Ibid, p. 26



## **Planning Process** Medina's open space

planning process was initiated in June of 2006 with the formation of the Open Space Task Force. A process was created that included ample opportunity for public engagement and would result in the creation of:

- Open Space Vision and Principles;
- An Open Spaces Priority Map;
- An Open Space Plan component for the Comprehensive Plan; and
- Land use regulation to support the Open Space Plan.

## Community Participation

Citizen involvement is highly valued in Medina, so an open and inclusive process was vital to the creation of the open space plan. In recognition of this goal, multiple opportunities for public engagement were included in the planning process. A stakeholder steering committee (the Open Space Task Force), public meetings, and a community survey provided tangible means through which citizens could guide the development of the plan.

### Open Space Task Force

The Open Space Task Force (OSTF) was created as a vehicle for engaging the people of Medina in the planning process. The OSTF consisted of nine individuals representing a wide variety of perspectives within Medina. Task Force members were appointed by the City Council and included members of the City Council, the Planning Commission, the Parks Commission, the development community and residents of Medina. Responsible for recommending a final open space plan to the City of Medina, the OSTF supervised the hiring of a consultant team and worked with the Planning Department staff and the consultant team to craft the plan. Throughout the planning process, the OSTF reviewed and commented on materials prepared by the consultant team, attended public meetings, and considered public comments in order to make informed recommendations on the draft open space priority areas and plan text.

### Public Input

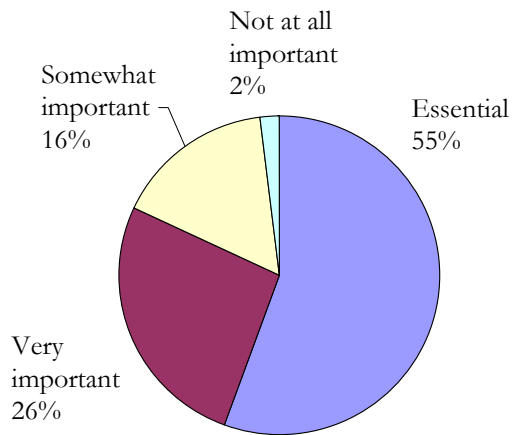
The public was engaged in the planning process through:

- A community survey;
- An open spaces tour; and
- Community educational open houses.

A brief description of each of these efforts is included below.

## Community Survey

A community survey was distributed in August of 2006 to the residents of Medina in order to assess, among other items, perceptions and concerns about open spaces within the City. The OSTF reviewed the community survey and viewed the results as a strong indication that the people of Medina support open space protection measures.



**Figure 1.** Residents rated the importance of rural character.

Source: *Medina, Citizen Survey Report of Results, 2006*

Survey respondents rated Medina’s rural character and natural environment among the top four reasons they choose to live in Medina.<sup>8</sup> The survey included questions that asked about the importance of maintaining Medina’s rural character. As illustrated in Figure 1, 55% of respondents felt that it was “essential” to maintain Medina’s rural character, and 26% felt that rural character was “very important” for Medina.<sup>9</sup> Only 2% of residents indicated that maintaining Medina’s rural character was “not at all important.”

Residents were asked to rate how important 14 different features were to maintaining Medina’s rural character. Respondents chose between essential, very important, somewhat important, and not at all important for each feature. These ratings were then converted to a 100 point scale in which 0 equaled not at all important and 100 equaled essential. The following open space features received high ratings:<sup>10</sup>

- Natural features 86
- Open spaces 83
- Trails and paths 72
- Passive and active parks 72
- Farm/agricultural land 67

<sup>8</sup> Medina, Minnesota Citizen Survey Report of Results, National Research Center Inc., September 2006, p. 7.

<sup>9</sup> Ibid, p. 10

<sup>10</sup> Ibid, p. 12

Survey respondents were also asked to rate the importance of various uses and purposes of parks and open spaces using the same 100 point rating system described above. The three uses with the highest average ratings were:<sup>11</sup>

- Visual "green spaces" 74
- Wildlife habitat and natural land 72
- Trails for walking, jogging, and bicycling 72

In a set of questions in which residents were asked to rate their level of support for activities related to protecting open space, 94% of respondents indicated that they “strongly supported” or “somewhat supported” incentives to promote voluntary natural resource conservation.<sup>5</sup> Respondents also indicated support for regulatory measures. The results showed that:

- 87% support the use of dedicated land or fees from developers to acquire park land.<sup>5</sup>
- 85% support ordinances limiting tree and vegetation removal around sensitive natural areas.<sup>5</sup>
- 83% support ordinances for increased building setbacks or buffers from sensitive areas such as wetlands and steep slopes.<sup>5</sup>
- 83% support lower development density throughout the city or in key natural resource areas.<sup>5</sup>
- 67% support incentives to cluster new development in smaller, more compact portions of a property to allow part of the property to remain undeveloped.<sup>12</sup>
- 55% support increasing development density in some areas in exchange for permanent protection of open space resources in other areas.<sup>5</sup>



<sup>11</sup> Ibid, p. 28

<sup>12</sup> Ibid, p. 31

Residents were asked to rate the importance of various growth management activities in Medina. Respondents indicated that regulation of the location, amount and pace of growth was more important than allowing market forces to determine the location, type and intensity of growth (76 versus 27 average rating). Furthermore, 90% of respondents indicated that focusing future growth in Medina’s already developed areas, rather than new, undeveloped areas was either “essential,” “very important,” or “somewhat important.”<sup>13</sup>



### **Open Spaces Tour**

Residents of Medina and the OSTF were invited to attend an open spaces tour guided by Planning Department staff and the consultant team. The purpose of the tour was to familiarize the OSTF and the general public with current open spaces in Medina and with development strategies that preserve open spaces such as conservation development. The tour helped the OSTF understand Medina’s open space.

### **Open Houses**

Two educational open houses were held in October of 2006. They included a presentation of background material, a presentation of the results of the community survey, and small group discussion. The goal of the open house was to collect information on residents’ priorities for open space protection and to increase awareness of the work of the OSTF. Members of the OSTF attended the open houses and facilitated the small group discussion. At the open houses, residents of Medina were asked to identify which open spaces they see as high priorities for protection. This information was then used to create the Open Space Vision and Principles.

An additional open house was held in April 2007 on the draft Open Space Plan

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<sup>13</sup> Ibid, p. 32





## Current Open Space Resources

The term ‘open space’ means different things to different people. Some view it simply as what it is not – open space as undeveloped land. Other people define open space inclusively by describing it as wildlife areas, open agricultural fields, large recreation areas, wetlands and shorelands, etc.

Almost any definition of open space includes three specific functions: recreational opportunities, natural systems, and visual or community character value, also known as “rural character” or “viewsheds.”

In planning for Medina’s open spaces, one of the first steps was to consider areas that serve these functions. This section describes Medina’s current recreational, natural systems and rural character. This section also summarizes current Medina natural resource policies and ordinances.



## Parks, Trails, and Open Spaces Inventory

The map on page 23, *Parks, Trails, Preserves*, shows existing public and protected lands in the City of Medina, as well as existing and planned regional, county, and city trails. Protected areas are protected by conservation easements, some of which allow public access and others of which are focused only on natural resource or agricultural protection.

### Park, Trail and Open Space Plan Goal 6:

Guide development within the City to ensure that additional parks and trails are appropriately located as the City grows.

Source: *City of Medina 2000 Comprehensive Plan*, p. 51

### Parks

City of Medina residents enjoy access to abundant parks with many amenities. This section provides a brief inventory of existing parks based on the 2000 Comprehensive Plan, and the *Parks, Trails, Preserves* map on page 23 shows the location of existing parks.

**Regional parks.** Medina's park system includes Morris T. Baker Regional Park and Wolsfeld Woods, a state Natural and Scientific Area. These facilities provide both active and passive recreational opportunities and fulfill some local need for community parks and conservancy lands. Baker National Golf Course within Baker Park is a premier metro-area public golf course.

**Local community parks.** Local parks provide services to surrounding neighborhoods within walking, biking or short driving distances. Selected community parks are highlighted here:

- Hamel Legion Park - Almost 40 acres in size, Hamel Legion Park is the largest park in the City's system. It is located south of Uptown Hamel in the northwestern area of Medina. The park serves the portion of the City with the highest current and proposed population density and has become a civic center for Medina through the use of the community center.
- Medina/Morningside Park - is 2.4 acres in size and serves the Medina Morningside area. This park includes a small area of open space for informal games and activities, a small picnic shelter, and two small baseball diamonds.

### Park, Trail and Open Space Plan Policy 1:

The City will provide a variety of recreational opportunities, through park, trails and open-space acquisition and development, to serve its residents.

Source: *City of Medina 2000 Comprehensive Plan*, p. 51

- Hunter Lions Park - is 6.8 acres in size and serves the area south of Uptown Hamel. This park functions as a neighborhood park, and provides a number of facilities normally associated with neighborhood parks. In 1998, a prairie restoration area was included on the west side of the park.
- Other local community parks include: Independence Beach Park – Lakeshore Ave.; Independence Beach Park – Walnut St.; Maple Park; Holy Name Lake Park; and the City Hall Site.

**Nature areas.** The City of Medina owns two undeveloped nature areas. Lake Ardmore Nature Area is an undeveloped nature area that consists of several parcels of land surrounding Lake Ardmore. Cherry Hill Nature Area is a 1.5 acre area, primarily wetlands, used for drainage of storm water from the Cherry Hill development. Additional privately-owned areas are protected by conservation easements. These areas are shown on the *Parks, Trails, Preserves* map and are not open for public access.

### Trails

In 2003 the Medina Parks Commission completed a Trail Study which set forth the order of priority for the construction of proposed trails within the next 15+ years. A description of each priority trail includes a summary of the needs the trail will satisfy, the recommended surface materials, a contingency plan, and the trail's estimated cost.

The Parks Commission used the 2000 Comprehensive Plan goals and policies for trails to develop trail recommendations. The Parks Commission also considered a number of specific factors in prioritizing the planned trails. The map on page 23, *Parks, Trails, Preserves*, shows existing and planned regional, county, and city trails.

#### **Park, Trail and Open Space Plan Goal 5:**

Provide a multi-use trail system, coordinated with the Metropolitan Council's Trail Corridor System, emphasizing trail uses most desired by City residents.

Source: *City of Medina 2000 Comprehensive Plan*, p. 51

## Natural Resource Inventory

Medina has a number of inter-related natural systems, including habitat (plants and animals), hydrologic (water systems), and geologic (soil systems and topography). These systems overlap and provide a starting point from which to evaluate the natural function component of Medina's open space system.

In 2000 Medina became the first city in Hennepin County to have a natural resources/land cover inventory (NRI) prepared using the Minnesota Land Cover Classification System (MLCCS). The Hennepin Conservation District conducted the inventory and Hennepin Environmental Services is in the process of updating the 2000 NRI. This section gives a brief description of the soils of Medina and each of the natural ecological communities and the hydrological systems classified in the NRI.

### Soils and Steep Slopes

According to the NRI, the soils of Medina are largely fine textured silt loams and clay loams. These soils are well suited for row crops and pasture lands. A number of poorly drained landscape depressions also occur throughout the city.

Soil types, along with topography, serve a critical natural function in Medina that supports development - wastewater treatment. Most of Medina is not served by a centralized wastewater system, but relies instead on individual sewage treatment systems (ISTS). In unsewered areas, soils suitable for development must be able to support the characteristics (permeability) that allow ISTS to function, and for buildings and roads to be safely constructed (non-hydric and non-erosive).

The *Suitable Soils* map on page 24 shows the location of soils that meet the definition of suitability in Medina's ordinances. Generally, these areas have good to moderate permeability and slopes that are less than 12%. The following map, *Steep Slopes* (page 25) shows areas where slopes make building structures difficult.

## Natural vegetative communities

Medina is covered by many high-quality natural areas; upland and lowland forests, marshes, meadows, shrublands, and woodlands. The NRI locates and describes natural vegetative communities throughout Medina. These natural vegetative communities are described very briefly in this section. Included in each description is the total number of acres of the vegetative community and its general location within the City of Medina. The *High Quality Natural Areas* map found on page 26 also shows the location of each of these high quality areas of each community type. The information presented here is summarized from the *City of Medina Natural Resources Inventory Final Report*.



### Forests

As shown on the *High Quality Natural Areas* map on page 26, forests are an important land cover type within the City of Medina, covering 2,119 acres or 12% of Medina.<sup>14</sup> Four major forest subtypes exist within Medina; maple-basswood forest, aspen forest, oak forest, and lowland forests. Within lowland forests, four additional subtypes were identified, including tamarack swamp, lowland hardwood forest, mixed hardwood swamp and black ash swamp.

### Upland forests

*Maple-basswood forests* cover 1,083 acres and are present throughout Medina.<sup>15</sup> The dense canopy of this forest type is dominated by basswood, sugar maples, and American elm trees. Undisturbed stands of maple-basswood forest are rare because they have been cleared for cropland and used for grazing.

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<sup>14</sup> City of Medina Land Cover Classification and Natural Resources Inventory, Final Report. September 2000. p. 17

<sup>15</sup> Ibid, p. 23

**Aspen forests.** Only two patches of aspen forest, totaling seven acres, are present in Medina,<sup>16</sup> located in the cities southwest corner. Aspen forests are dominated by quaking aspen, but other hardwood may be present.

**Oak forests.** A total of 81 acres of oak forest (10 patches) are present in Medina, generally located in the eastern and southern areas of the city.<sup>17</sup> Northern red oaks, white oaks, or bur oaks are common tree species in this forest type. Oak forests are rare in Minnesota and seem to be succeeding to maple-basswood forests.



### Lowland forest

**Tamarack swamps** cover 92 acres of Medina, split between four distinct patches.<sup>18</sup> These are located in south-central and west-central Medina. Tamarack is the dominant tree species, but black spruce, birches, white pine, black ash, American elm and red maple may be present. Tamarack swamps within Medina tend to be fragmented, disturbed by excavation and ditches, and occupied by invasive species. However, Medina is at the far southwestern range of tamarack swamps, and so they are rare and unique in this region.

**Lowland hardwood forests** cover 207.6 acres and are located in southern and western Medina.<sup>19</sup> They are present throughout Minnesota on sites that have seasonally high water tables but do not flood regularly. American elm and black ash are the dominant tree species.

**Black ash swamp.** There is only one 2.8 acre black ash swamp in Medina.<sup>20</sup> This community is characterized by black ash in almost pure stands.

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<sup>16</sup> Ibid, p. 25

<sup>17</sup> Ibid, p. 21

<sup>18</sup> Ibid, p. 27

<sup>19</sup> Ibid, p. 28

<sup>20</sup> Ibid, p. 29

***Mixed hardwood swamps.*** Two patches, 15.5 acres total, of mixed hardwood swamp are present in Medina.<sup>21</sup> Both are located in Medina's northwestern corner. Hardwood trees common to this community include paper birch, yellow birch, American elm, black maple, quaking aspen and green ash. Mixed hardwood swamps harbor a wide variety of herbaceous plants and shrubs, and are possibly the most species-rich community in east-central Minnesota.

### **Herbaceous Vegetation**

Herbaceous vegetation is the most common land cover type within Medina, accounting for almost 5,000 acres, or 28% of total land cover.<sup>22</sup> This cover type includes natural communities as well as non-native cover types. Natural herbaceous communities include wet meadows, cattail marshes, mixed emergent marshes, and prairies.

***Cattail marshes.*** Cattail marsh comprises 1,547 acres of Medina.<sup>23</sup> These emergent marshes are present throughout the city, often occurring along lake margins, in shallow basins and in river backwaters. It should be noted that some cattails (*Typhus* spp.) are not native to Minnesota and are considered invasive.

***Mixed emergent marshes.*** Mixed emergent marshes account for 137 acres and are located in southern and western Medina.<sup>24</sup> Mixed emergent marshes include all marshes not dominated by cattails. Bulrushes (*Scripus* spp.) are the most common dominant species. If disturbed or subjected to run-off, mixed emergent marshes will convert to cattail marsh or become dominated by reed canary grass (*Phalaris arundinacea*), a common invasive species.

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<sup>21</sup> Ibid, p. 30

<sup>22</sup> Ibid, p. 15

<sup>23</sup> Ibid, p. 35

<sup>24</sup> Ibid, p. 37





**Wet meadows.** Three wet meadows, totaling 39.9 acres, are present in Medina.<sup>25</sup> The largest is located in north-central Medina. Wet meadows are dominated by sedges and grasses, but wildflowers such as spotted joe-pye weed, common mint, turtlehead, swamp milkweed are also common. Standing water is only present in spring or after heavy rain. Wet meadows tend to succeed to shrub swamp communities in the absence of fire.

**Prairies.** No remnant prairies are present in Medina, but there is restored prairie totaling 45 acres.<sup>26</sup> Once common in southern and western Minnesota, the prairie has largely been transformed into agricultural cropland. Given the rarity of remnant prairie, restored prairies are a valuable natural community.

**Shrublands** account for 316 acres, or 2% of Medina land cover.<sup>27</sup> Shrublands are generally associated with wetlands, and often have significant populations of non-native wetland species such as reed canary grass. Two types of shrublands are present in Medina: wet meadow and willow swamp.

**Wet meadows - shrub subtype.** There are 65 acres of shrub subtype wet meadow within Medina.<sup>28</sup> The largest of five patches is located in northwestern Medina just east of Lake Winterhalter. Standing water is present in spring, but not in summer. Shrubs cover at least 25 percent of the meadow, but sedges, wetland grasses and wildflowers are also common.

**Willow swamps.** Willow swamp covers 247 acres and is found throughout of Medina in patches ranging from 1 to 35 acres.<sup>29</sup> Pussy willow, slender willow, Bebb's willow and red-osier dogwood are the dominant species. Plants, grasses and sedges characteristic of wet meadows are also present.

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<sup>25</sup> Ibid, p. 36

<sup>26</sup> Ibid, p. 37

<sup>27</sup> Ibid, p. 16

<sup>28</sup> Ibid, p. 34

<sup>29</sup> Ibid, p. 34



### Woodlands

Woodland covers 1% of Medina, 131 acres.<sup>30</sup> Most woodland within the city are ecologically degraded and dominated by elm, box elder, ash and cottonwood. However, 12 acres of oak woodlands, consisting of three patches, are present.<sup>31</sup> These patches are located in eastern and north-central Medina. Oak woodlands tend to have a patchy canopy and a dense understory composed of saplings and shrubs such as blackberry, gooseberry, dogwood, cherry, hazelnut and prickly ash. Canopy trees include bur oak, pin oak, white oak, northern red oak and aspen. Oak woodland is a fire maintained community. Without fire, it succeeds to oak forest.

### Hydrology – Water and Drainage

Approximately one-third of Medina is wetlands. Another 7% of the land cover is open water, including nine larger lakes and seven smaller lakes. The largest lake is Lake Independence. The *Hydrologic Factors* map on page 27 shows the various water and drainage systems in Medina, including floodplains, all types of wetlands, and open water bodies (lakes, streams, and ditches). Marshes and swamp types are described above.

The map also shows those water bodies that have been labeled as impaired as of the 2004 assessment by the Minnesota Pollution Control Agency (MPCA). Only one lake is currently classified as impaired, but it is the largest - Lake Independence. The identified pollutants include both excess nutrients and mercury. One stream, Elm Creek, is also listed as impaired, due to low levels of dissolved oxygen. Classification as impaired requires the establishment of a total maximum daily load (TMDL) and an accompanying plan for not exceeding the TMDL. Most lakes, rivers and streams in Minnesota have not yet been evaluated for potential impairment. Evaluation is underway and will likely result in the listing of additional impaired waters.

#### Impaired waterbody:

A waterbody that does not meet water quality standards and designated uses because of pollutant(s), pollution, or unknown causes of impairment.

Source: MPCA website  
[www.pca.state.mn.us/water/tmdl/tmdl-glossary.html](http://www.pca.state.mn.us/water/tmdl/tmdl-glossary.html)

<sup>30</sup> Ibid, p. 16

<sup>31</sup> Ibid, p. 31

## Regional Natural Area Corridors

Medina's open space resources are not constrained by the City's boundaries. How Medina treats its natural infrastructure, its recreational assets, its viewshed corridors and landscapes endowed with community character affects surrounding communities. Similarly, the choices made by adjacent communities, Maple Grove, Plymouth, Corcoran, Orono, Independence, and others, will affect the vitality of Medina's open spaces.

### Hennepin County

Hennepin County provided, as part of its Natural Resource Inventory, recommendations for greenway corridors within Medina. The County provided similar recommendations for most of Medina's near neighbors. Furthermore, two nearby cities, Plymouth and Minnetrista, have adopted open space or greenway corridors as part of their comprehensive plans or as formal open space plans.

The *Regional Natural Area Corridors* map on page 28 shows the general scope and location of these open space resources. The map shows the connections envisioned by the Hennepin County Environmental Services across the region.

### Minnehaha Creek Watershed District

Other entities are also working to protect and sustain open space resources in and around Medina. In its recent plan the Minnehaha Creek Watershed District identified water quality and natural resource priorities that link resources in Medina to resources in the rest of the watershed outside Medina. The District has also created a Purchase of Conservation Easements program to achieve some of its goals. Medina is obligated under state law to address the District's priorities in the Medina water plan, a part of the Comprehensive Plan.

**viewshed** *n.* the landscape or topography visible from a geographic point, especially that having aesthetic value.

[www.doubletongued.org/index.php/dictionary](http://www.doubletongued.org/index.php/dictionary)

### Viewshed Ordinance Example

These regulations were adopted to . . . protect the scenic quality of the County both for visitors to the County as well as for its residents by ensuring that future improvements are compatible with existing land forms, particularly County ridgelines and that views of the County's many unique geologic features and the existing landscape fabric of the County's hillside areas are protected and preserved. . .

*Source: Napa County Viewshed Ordinance, Section 18.105.010*

## Viewsheds and Community Character

Medina has an established community character that is rooted in its open space areas and the viewsheds defined by how development lies on the landscape. Community character, unlike natural function or recreational resources, is a qualitative function of open space. The effect of open space on the community character is generally in the eye of the beholder, the community.

The survey data (described in the Planning Process section) and the discussion of character in the Comprehensive Plan both clearly demonstrate the community's perception about Medina's character. Nearly two-thirds of residents surveyed characterized maintaining rural character as "essential" or "very important." Medina's rural character, with agricultural and equine-oriented land uses interspersed with very low density development and undeveloped natural areas, is mentioned repeatedly as a high priority for the City's residents and businesses.

The views that residents and visitors have as they drive Medina's roads, walk or ride trails, or look out across the landscape from Medina's parks serve a critical open space function. The public and the Open Space Task Force identified general land uses consistent with maintaining viewsheds, including:

- Undisturbed natural areas;
- Agricultural land uses, including pasture and cropping;
- Low density development set back from viewshed points and screened or designed to fit into the landscape; and
- Historic structures, including some agricultural structures.

Identifying high priority viewsheds from a specific point or route is, however, a process that is only beginning. The Task Force identified roads with scenic qualities, as shown on the *Scenic Roads* map on page 44. Additional prioritization will be required, however, before meaningful implementation can begin.

## Existing Protection Policies and Ordinances

Medina's 2000 Comprehensive Plan identifies the importance of open space, natural areas, and recreational areas as a part of resident's quality of life and Medina's character. As noted in the Introduction section of this plan, the Comprehensive Plan sets policies for protecting open space functions and recommends strategies for achieving those ends.

The City has taken action on a number of the Comprehensive Plan's policies and action recommendations, including the following.

- In cooperation with Hennepin County, Medina completed the first natural resource inventory based on the Minnesota Land Cover Classification System (MLCCS) in the metropolitan area (summarized above). The MLCCS is currently being updated by Hennepin Environmental Services.
- The City has incorporated development suitability data into its development ordinances, setting performance standards for development that meet the City's policies for maintaining rural character.
- A functions and values assessment is currently underway for the City's many wetlands, which will inform wetland regulations as to the appropriate level of protection and mitigation for specific sites and wetland systems.

Open space protections in Medina's development regulations include the following standards:

### Soil suitability requirement

Medina requires, in the unsewered areas of the community, a minimum of 5 acres of contiguous suitable soils for each new housing lot. This performance standard replaces minimum lot size requirements in the Rural Residential zoning district, recognizing Medina's large number of wetlands and associated range of soil types and slopes. The five acre requirement results in a large lot, low-density

development pattern that provides, consistent with Comprehensive Plan policies, some protection for Medina's rural character.

**Wetlands and buffers**

Medina regulates wetlands in the wetland protection and mitigation standards in its General Performance Standards. Medina also requires a wetland buffer between 25 and 50 feet (depending on wetland size) to be maintained in native vegetation.

**Tree preservation and replacement standards**

Medina enacted a performance standard for preserving the appearance and function of existing wooded areas and setting standards for tree replacement.

**Park dedication ordinance**

Medina enacted a park dedication ordinance that requires a dedication of land or cash for each new lot in a subdivision. The ordinance was recently updated to reflect recent Minnesota legislation modifying the state's park dedication enabling law.

**Other regulatory protections**

Medina has also enacted ordinances that comply with state and federal environmental regulations, including the following:

- Shoreland Ordinance, complying with State shoreland area requirements;
- Floodplain Ordinance, complying with Federal requirements for qualifying for Federal Flood Insurance; and
- Stormwater Ordinance, complying with the National Pollutant Discharge Elimination System (NPDES) requirement.

# Medina Open Space Plan

## PARKS, TRAILS, PRESERVES

- City Parks
- Regional Parks
- Wolsfeld Woods SNA
- Conservation Easements (RIM, USFWS, Other)
- Agricultural Preserve
- Regional Trails (DNR)
- Regional Trails (3 Rivers Park District)
- Regional Trails - Proposed (3 Rivers Park Dist.)
- County Trails - Proposed
- City Trails - Proposed

## Roads

- U.S. Highway
- State Highway
- County or Local Road
- Railroad

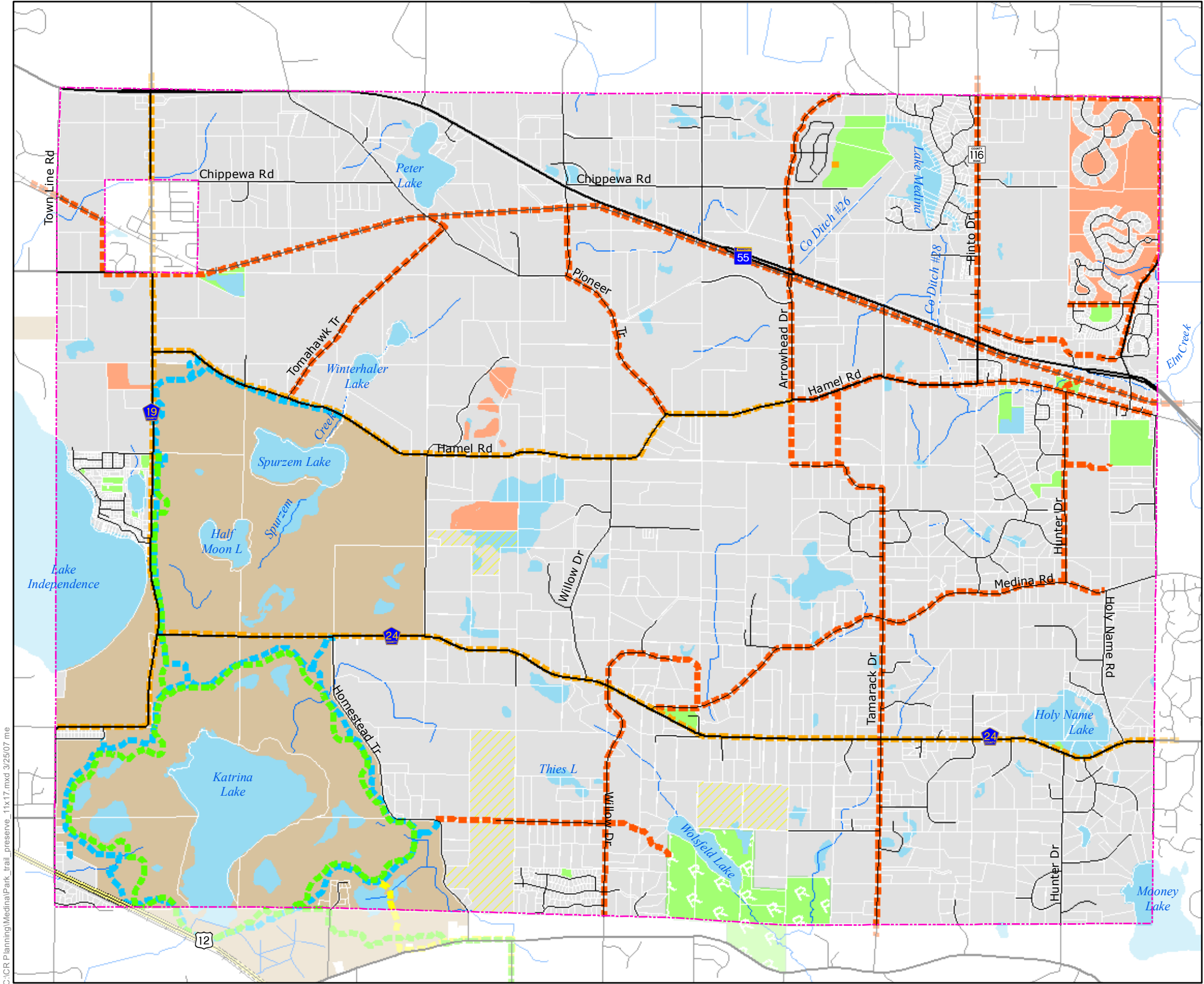
- Medina Boundary
- Streams and Ditches
- Lakes



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C:\CR Planning\Medina\Park trail preserve\_11x17.mxd 3/25/07 me

Data Sources: City of Medina, Hennepin County, MN DNR, MN PCA, MN DOT, Minnehaha Creek Watershed District, Metropolitan Council







# Medina Open Space Plan




## SUITABLE SOILS

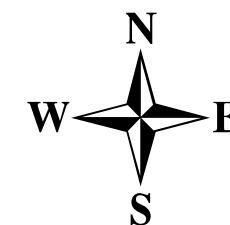
 Soils Suitable for Septics

Suitable soils are soils with good to moderate permeability and slope less than 12%.

## Roads

-  U.S. Highway
-  State Highway
-  County or Local Road
-  Railroad

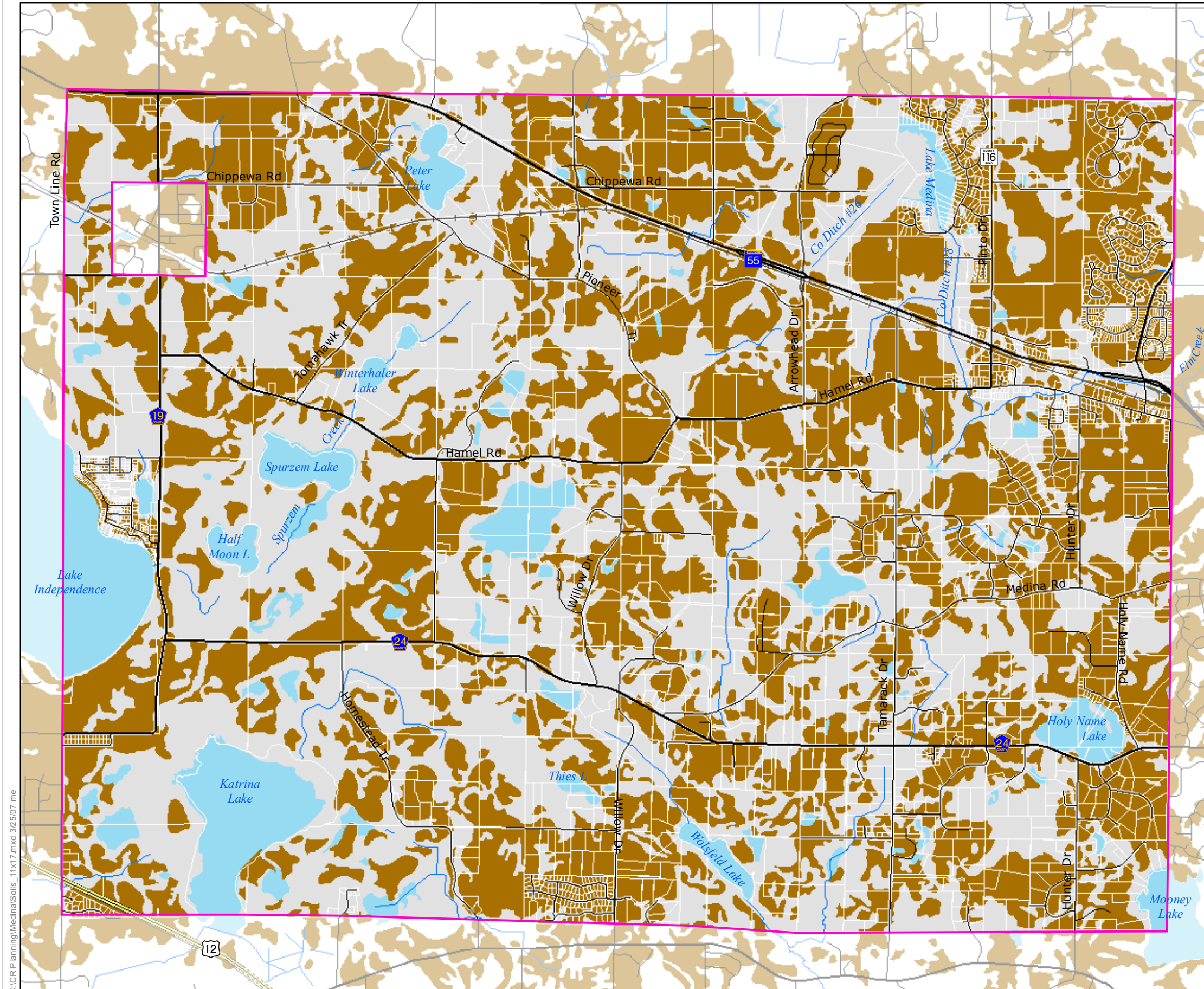
-  Medina Boundary
-  Streams and Ditches
-  Lakes



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Data Sources: City of Medina, Hennepin County, MN DNR, MN PCA, MN DOT, Minnehaha Creek Watershed District, Metropolitan Council










# Medina Open Space Plan

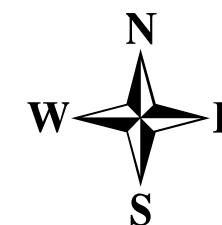
## STEEP SLOPES

- 24 to 35% Grade
- 18 to 35% Grade
- 18 to 24% Grade
- 12 to 18% Grade

## Roads

-  U.S. Highway
-  State Highway
-  County or Local Road
-  Railroad

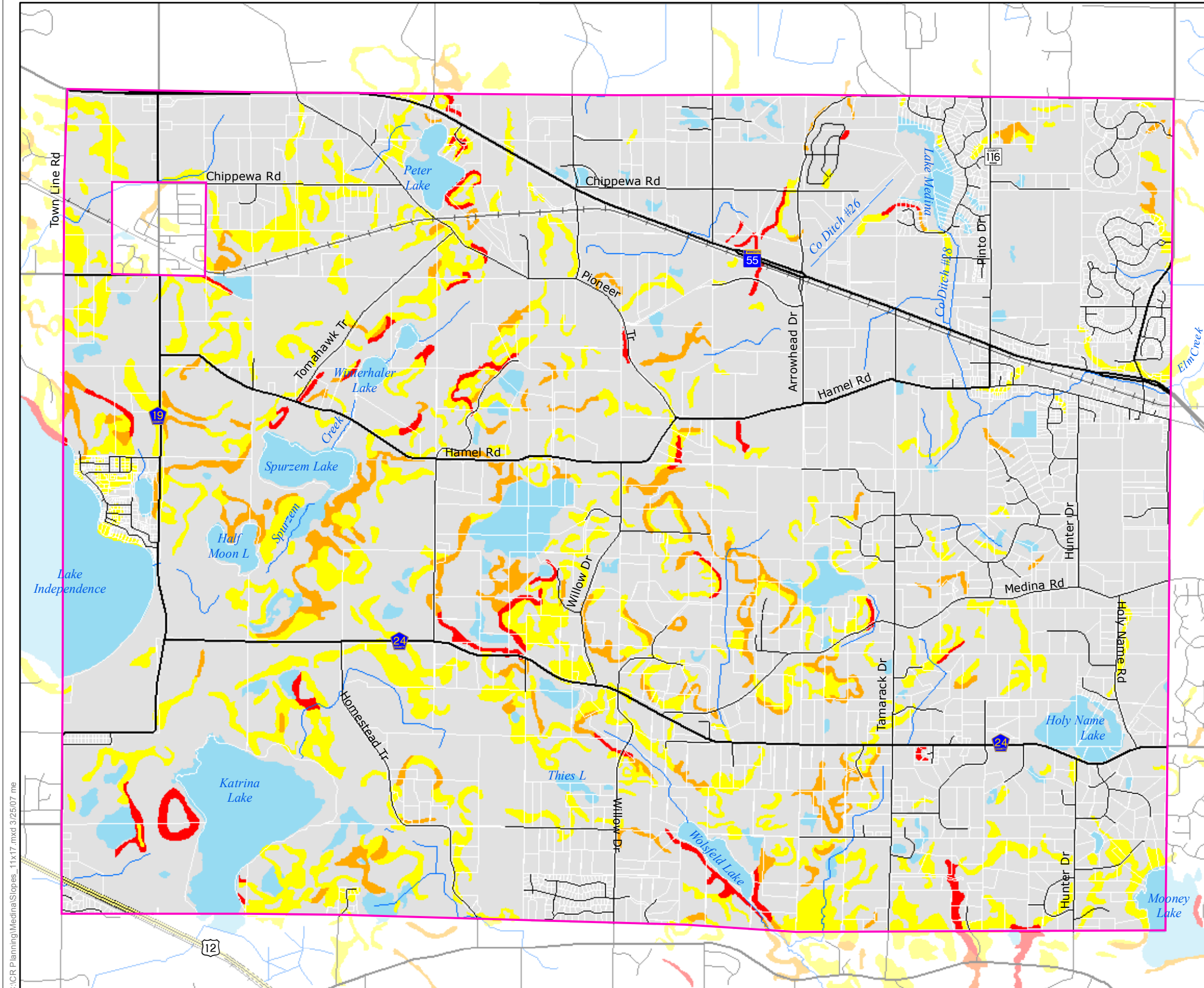
-  Medina Boundary
-  Streams and Ditches
-  Lakes



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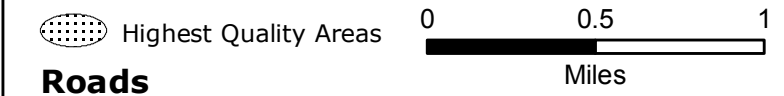
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Data Sources: City of Medina, Hennepin County, MN DNR, MN PCA, MN DOT, Minnehaha Creek Watershed District, Metropolitan Council

# Medina Open Space Plan

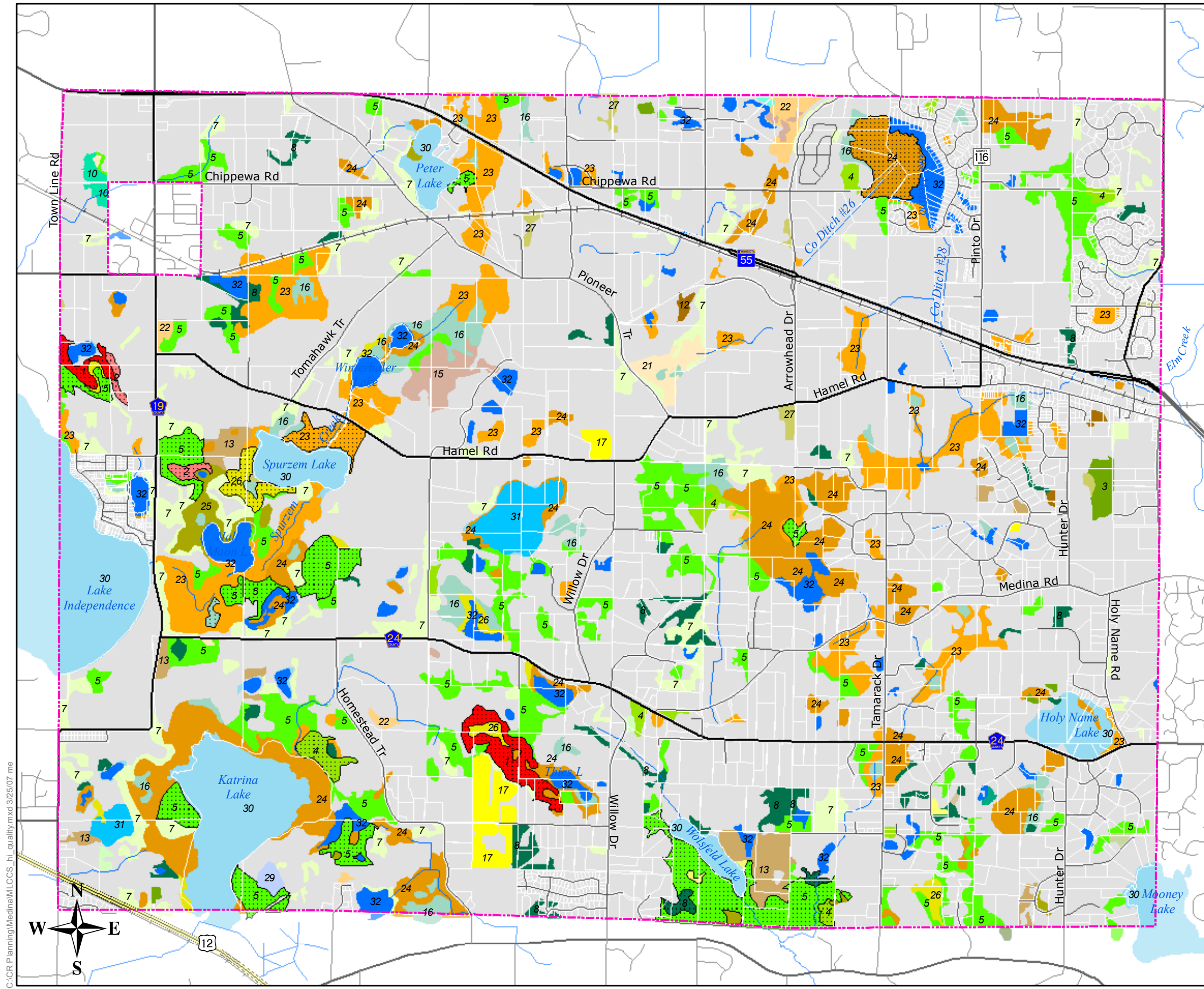
## HIGH QUALITY NATURAL AREAS (MLCCS LEVELS 3, 4)

- 1. Tamarack Swamp, Minerotrophic subtype
- 2. Tamarack Swamp, Sphagnum subtype
- 3. Upland Deciduous Forest
- 4. Oak Forest, Mesic subtype
- 5. Maple-Basswood Forest
- 6. Aspen Forest
- 7. Boxelder-Green Ash Disturbed Native Forest
- 8. Lowland Hardwood Forest
- 9. Black Ash Swamp, Seepage subtype
- 10. Mixed Hardwood Swamp
- 11. Mixed Hardwood Swamp, Seasonally Flooded
- 12. Oak Woodland - Brushland
- 13. Disturbed Deciduous Woodland
- 14. Seasonally Flooded Deciduous Shrubland
- 15. Wet Meadow, Shrub subtype
- 16. Willow Swamp
- 17. Mesic Prairie
- 18. Grassland with Sparse Conifer or Mixed Dec./Con. Trees
- 19. Upland Forb Vegetation
- 20. Saturated Graminoid Vegetation
- 21. Wet Meadow
- 22. Cattail Marsh, Saturated soils
- 23. Cattail Marsh, Seasonally Flooded
- 24. Cattail Marsh, Semipermanently Flooded
- 25. Mixed Emergent Marsh
- 26. Mixed Emergent Marsh, Seasonally Flooded
- 27. Seasonally Flooded Emergent Vegetation
- 28. Semipermanently Flooded Emergent Vegetation
- 29. Semipermanently Flooded Littoral Aquatic Bed
- 30. Limnetic Open Water
- 31. Littoral Open Water
- 32. Palustrine Open Water



- Roads**
- U.S. Highway
  - State Highway
  - County or Local Road
  - Railroad

- Medina Boundary
- Streams and Ditches



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Data Sources: City of Medina, Hennepin County, MN DNR, MN PCA, MN DOT, Minnehaha Creek Watershed District, Metropolitan Council







# Medina Open Space Plan

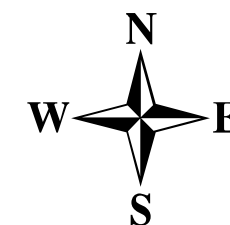
## HYDROLOGIC FACTORS

-  100 Year Floodplain
-  Wetlands
-  Lakes
-  Streams and Ditches
-  Impaired Waters - Lakes
-  Impaired Waters - Streams

 Medina Boundary

### Roads

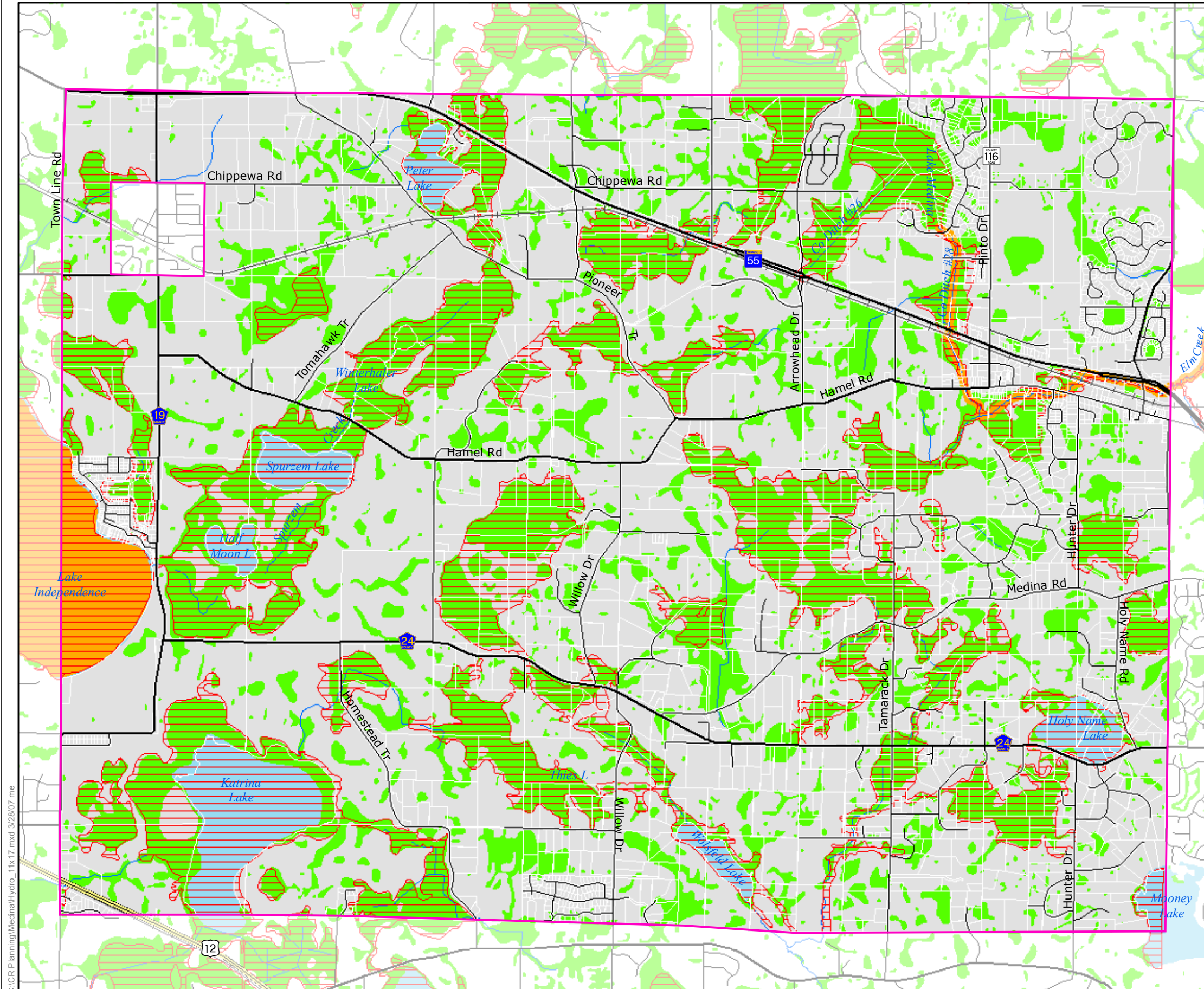
-  U.S. Highway
-  State Highway
-  County or Local Road
-  Railroad



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Data Sources: City of Medina, Hennepin County, MN DNR, MN PCA, MN DOT, Minnehaha Creek Watershed District, Metropolitan Council

# Medina Open Space Plan




## REGIONAL IDENTIFIED NATURAL AREA CORRIDORS

 Potential Conservation Corridors




This map shows potential conservation corridors based on the location of high value natural resources. Natural resource inventories used to identify potential corridors were created by Hennepin Environmental Services and some local cities. The following criteria were used to identify potential conservation corridors:

1. Areas with moderate- to high-quality vegetative communities
2. Areas with other unique or ecologically significant areas
3. Natural resource corridors based on lakes, streams, wetland complexes, drainageways, floodplains and steep slopes
4. Connections to trail systems and greenways identified by local communities
5. Protected open spaces and parks
6. Apparent connections between areas in 1-5 above, particularly those connections with potential for restoration to native vegetation

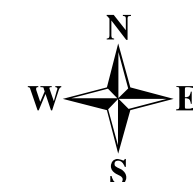
The potential conservation corridors have been adopted by the cities of Minnetrista and Plymouth. Other communities are in the process of considering the corridors.

 Municipalities  
 Streams and Ditches  
 Lakes

### MnDOT Roads

 US or State Highways  
 County Roads  
 Regional Trails

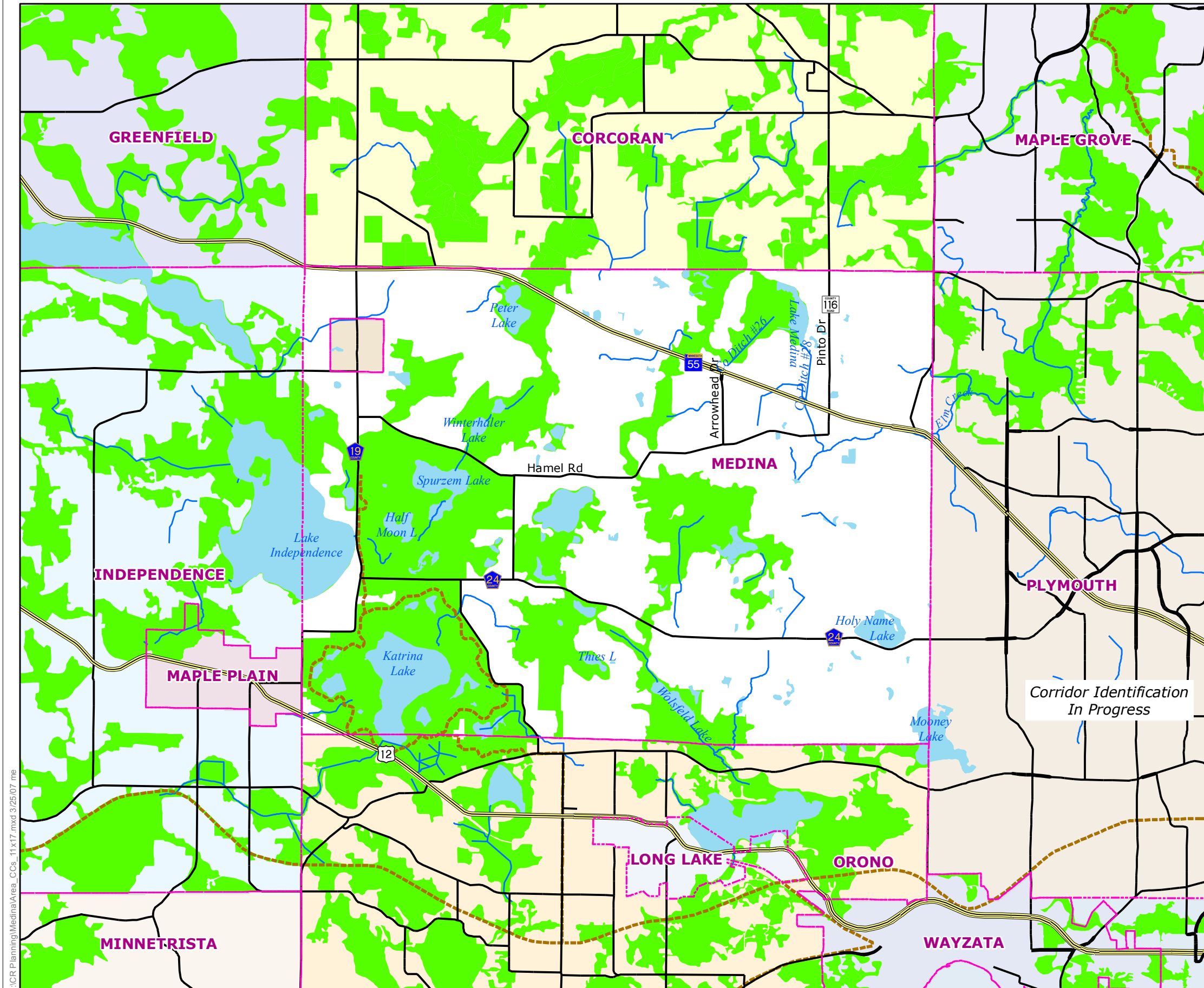
0 0.5 1 2  
Miles



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Data Sources: City of Medina, Hennepin County, MN DNR, MN PCA, MN DOT, Minnehaha Creek Watershed District, Metropolitan Council





**Vision Statement** In order to identify the desired future condition, the chosen end point of a successful planning process, the Open Space Task Force created a vision statement and set of principles. The vision sets the destination, the desired long-term end product of Medina’s open space protection actions.

By itself, the vision statement has little meaning. But as a reference point in the planning and implementation process for the open space plan, the vision and the accompanying principles can provide powerful guidance. Decisions about how to implement the open space plan must refer back to, and be consistent with the vision and principles. The vision and principles define the context in which planning and implementation decisions must be made.



**A vision statement** should express the desired long-term end product of a chosen set of actions. The following is Medina’s vision for open space:

***Medina*** will preserve sufficient lands in natural, open uses to assure protection of the underlying and sustaining natural resource base, to protect the rural character, and to enhance the social and economic well-being of Medina’s neighborhoods and other developed areas.



**Principles** set the foundation for the details of the Open Space Plan. Principles identify the fundamental concepts by which decisions should be made. Thus, principles serve as a reference point for keeping decision-making discussions on target and providing guidance when unforeseen issues arise that are not addressed in the content of the plan. The following are Medina’s open space principles:





**Principle # 1** *Open space protects and enhances the environmental functions of high-quality natural areas.* Open space is nature’s infrastructure that provides both function and value to support the community’s growth and character, and connects the community to adjoining communities. Wetlands and floodplains are natural infrastructure that provide; water purification, enhance soil conservation, biological diversity, and air purification.



**Principle # 2** *Open space is an essential element of Medina’s rural character. Protecting open space preserves Medina’s heritage and character – the farmland, forests, prairies, wetlands, lakes, community commons, and rural views experienced from public spaces and from moving through the community on scenic roads, that have uniquely shaped Medina’s character.*



**Principle #3** *Open space reflects the community's sense of stewardship.* The responsibility of good stewardship is expressed by individual choice of management practices that result in improvement of natural functions. Stewardship recognizes that we should not borrow from future generations in order to meet today's desires and sets value on non-economic benefits.



**Principle # 4** *Open space adds value to both individuals' property and community spaces.*

Open space makes economic sense. Communities with protected open space and recreational corridors enjoy greater economic vitality than communities without such amenities. Property values next to protected open space are higher than those without open space. Over time, open space sustains the value of the community's private residential and commercial investment and enhances opportunities for growth. Medina's open space programs and open space system is designed to have positive economic impacts on landowners. Community efforts to create open space should build on stewardship actions by Medina residents and land owners.



**Principle # 5** *Open space provides recreation and health benefits.* Integrating open space and development maximizes access to healthy recreational activities. Connecting neighborhoods to natural infrastructure provides door-step recreational benefits and encourages active lifestyles.



## **Open Space Priorities**

The Open Space Task Force created criteria for identifying priority areas for the open space plan. The vision and principles are reflected in the criteria. Criteria for identifying priority areas are:

- Protection of the ecological function of lakes, streams, and wetlands as determined by the wetland functions and values assessment
- Protection of ecologically significant natural areas including moderate to high quality areas as determined by the updated MLCCS natural resources inventory
- Protection of connections to parks and other protected lands
- Protection of important viewsheds including scenic road segments
- Creation of trails and/or other methods for citizens to view and enjoy open space resources



The following table illustrates the direct connection of the priority area criteria to the open space vision and principles:

***How do the criteria for choosing priority areas reflect Medina's Open Space Vision and Principles?***

Protection of lakes, streams, and wetlands; Protection of ecologically significant natural areas; Protection of connections to parks and other protected lands; Protection of important viewsheds	➔	Vision - Medina will preserve sufficient lands in natural, open uses to assure protection of the underlying and sustaining natural resource base, to protect the rural character, and to enhance the social and economic well-being of Medina's neighborhoods and other developed areas.
Protection of lakes, streams, and wetlands	➔	Principle #1 - Open space protects and enhances the environmental functions of high-quality natural areas. Principle #5 - Open space provides recreation and health benefits.
Protection of ecologically significant natural areas	➔	Principle #1 - Open space protects and enhances the environmental functions of high quality natural areas.
Protection of connections to parks and other protected lands	➔	Principle #2 - Open space is an essential element of Medina's rural character. Principle #4 - Open space makes economic sense by adding value to property and community spaces. Principle #5 - Open space provides recreation and health benefits.
Protection of important viewsheds	➔	Principle #2 - Open space is an essential element of Medina's rural character.

## Open Space Plan Priority Areas Maps

The Open Space Task Force faced some difficulty in mapping open space priority areas because the scientific information underlying the mapping is in the process of being updated and refined. The Minnesota Land Cover Classification (MLCCS) natural resource inventory is being updated with natural community quality information. This information will better define areas with high quality natural land cover. A functions and values assessment of Medina's wetlands is now underway. This assessment will classify wetlands and recommend techniques for protection of wetland quality. When the updated information is available in late summer 2007, the criteria for identifying open space areas listed on the previous two pages should be applied to generate open space priority area maps.

Scenic roadways were identified by the Open Space Task Force, however, information necessary to generate priority viewshed road segments was not available. A first step in implementing the recommendations of this plan is to undertake a process for modeling and prioritizing scenic road segments.

The four maps on the following pages illustrate the application of the criteria for choosing open space plan priority areas using data available to the Task Force. As stated, these maps will be updated when better data becomes available.

### Hydrological systems map

The *Hydrological Systems* map on page 41, applies the criteria of protection of lakes, streams, and wetland systems within the City of Medina. As shown on the map, hydrological systems are comprised of three complex systems:

- Wetland complexes – Wetlands lying within fifty feet of another wetland
- Wetland/lake complexes – Wetlands lying within fifty feet of a lake

- Drainage complexes – Wetlands lying within a drainage network

Isolated wetlands are not included in the hydrological systems map. Isolated wetlands are wetlands not within drainage networks and not within fifty feet of a land or another wetland.

### **High quality natural areas map**

The *High Quality Natural Areas* map on page 42, applies the criteria of protection of high quality natural areas. High quality natural areas shown on this map are areas selected from the Medina MLCCS Natural Resources Inventory. Areas are classified as high quality if the vegetation is primarily native species and the area is undeveloped. Many of these areas are also classified as significant in the Hennepin County Biological Survey completed by the Minnesota Department of Natural Resources.

### **Composite areas map**

The *Composite* map on page 43, illustrates the combined criteria of the two previous maps with the criteria of protection of connections to parks and other protected lands. The map overlays hydrological systems, high quality natural areas, and areas already protected as parks and other protected lands. Potential connections between the three important resource layers become more apparent on this composite map. The map also shows areas where hydrological systems and high quality natural areas overlap. Overlapping areas could be considered the most important areas for protection since they meet multiple criteria, protect multiple resources, and implement multiple principles.

### **Scenic roads map**

The *Scenic Roads* map on page 44, illustrates roadways with potential for protection of important viewsheds. Additional analysis would need to be undertaken to prioritize scenic road segments along the roads shown on the map.

# Medina Open Space Plan

## ASSESSING OPEN SPACE PLAN PRIORITY AREAS: HYDROLOGICAL SYSTEMS

- Areas Already Protected
- Lakes
- Wetland Systems
- Streams and Ditches

Hydrological complexes include:

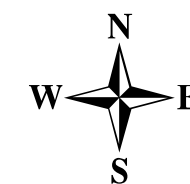
1. Wetland Complexes: Wetlands lying within 50 feet of another wetland
2. Wetland-Lake Complexes: Wetlands lying within 50 feet of a lake
3. Drainage Complexes: Wetlands lying within a drainage network

Note: Medina wetland information is currently being updated. Updated information should be used when available.

Medina Boundary

### Roads

- U.S. Highway
- State Highway
- County or Local Road
- Railroad



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# Medina Open Space Plan

## ASSESSING OPEN SPACE PLAN PRIORITY AREAS: HIGH QUALITY NATURAL AREAS

- Areas Already Protected
- High Quality Natural Areas

High quality natural areas on this map were selected from the MLCCS data for the City of Medina. Areas are classified as high quality if the vegetation is primarily native species and the area is undeveloped. Many of these areas are also identified as significant in the County Biological Survey.

Note: MLCCS data is currently being updated. Updated data should be used when available.

### Roads

- U.S. Highway
- State Highway
- County or Local Road
- Railroad

- Medina Boundary
- Streams and Ditches
- Lakes





# Medina Open Space Plan

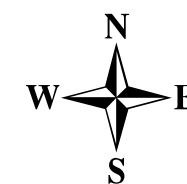
## ASSESSING OPEN SPACE PLAN PRIORITY AREAS: COMPOSITE

- Areas Already Protected
- Lakes
- Streams and Ditches
- Wetland Systems
- High Quality Natural Areas
- Intersection of Wetlands and High Quality Natural Areas

Medina Boundary

### Roads

- U.S. Highway
- State Highway
- County or Local Road
- Railroad

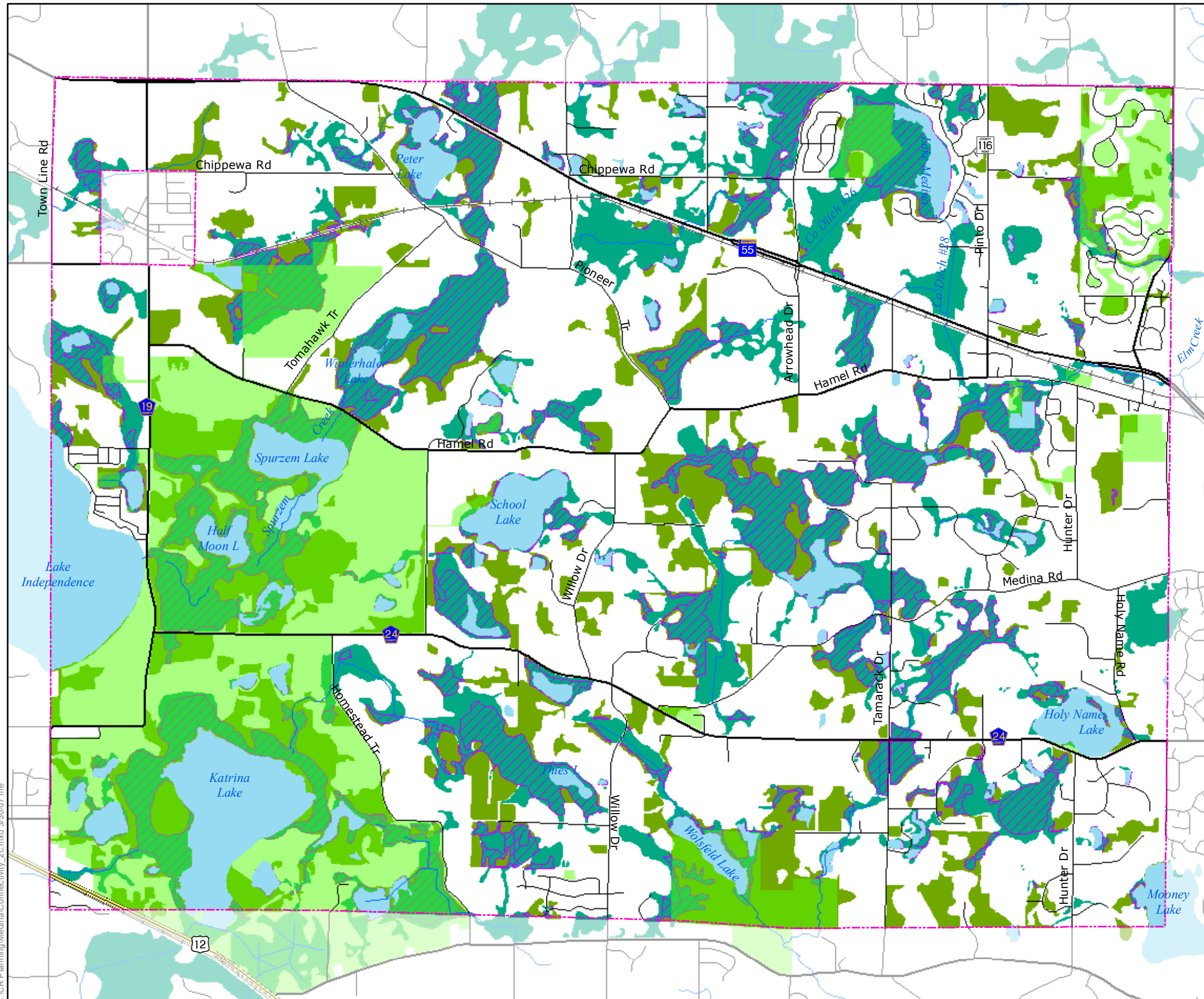


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Data Sources: City of Medina, Hennepin County, MN DNR, MN PCA, MN DOT, Minnehaha Creek Watershed District, Metropolitan Council










# Medina Open Space Plan

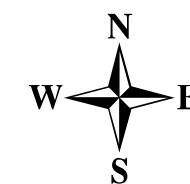
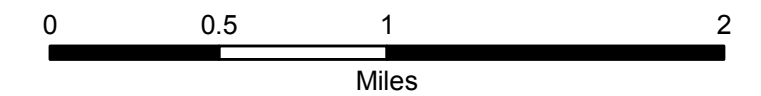
## SCENIC ROADS

-  Scenic Roads
-  Conservation Easements (RIM, USFWS, Other)
-  City Parks
-  Regional Parks
-  Wolsfeld Woods SNA
-  Agricultural Preserve
-  Regional Trails (DNR)
-  Regional Trails (3 Rivers Park District)
-  Regional Trails - Proposed (3 Rivers Park Dist.)
-  County Trails - Proposed
-  City Trails - Proposed

## Roads

-  U.S. Highway
-  State Highway
-  County or Local Road
-  Railroad

-  Medina Boundary
-  Streams and Ditches
-  Lakes



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## **Implementation** The open space vision

identifies where Medina wants to be in the future in regard to its open space resources. The open space principles provide direction on why and how the City should act to protect its open space. This section recommends preferred implementation strategies that the Open Space Task Force recommends for day-to-day efforts to protect open space. The implementation recommendations direct action by the City and its related entities, residents, land owners, and others to achieve the open space vision. Implementation recommendations reflect consideration of Medina's open space resources and are applied to the open space priorities.

**Implementation**

To put into effect according to or by means of a definite plan or procedure; to fulfill; perform; carry out . . .

Source: Random House College Dictionary, 1980

## Implementation Tool Categories and Selection Criteria

The Open Space Plan vision and principles are incorporated into the day-to-day actions of City staff and officials via the City's selected implementation recommendations. The City has a wide variety of implementation strategies at its disposal, and must decide how to choose the most effective portfolio of strategies in order to achieve its open space vision and principles.

In discussing implementation options, the Open Space Task Force first considered the four implementation categories below as a framework for choosing implementation recommendations.

- ***Encouragement*** – Educating or encouraging individuals or land owners to act consistently with Medina's principles.
- ***Incentives*** – Providing an inducement for individuals or land owners to act consistently with Medina's principles.
- ***Regulation*** – Requiring individuals or land owners to act in ways that are consistent with the Medina's principles.
- ***Public ownership or management*** – Buying or keeping land or resources in public ownership to ensure management and use that is consistent with Medina's principles.

As described in these four implementation categories, implementation can include the establishment of programs and educational efforts, the creation of incentive programs, changes to regulations and ordinances, and setting public acquisition or management priorities.

In choosing among the variety of options to implement principles, and in evaluating the sustainability of a particular strategy, the Open Space Task Force considered a variety of criteria, including the criteria listed below.

- **Cost** - The initial implementation and any ongoing maintenance or administration costs.
- **Political will** – The willingness of the community to use a particular tool or strategy.
- **Market characteristics** – The compatibility of the tool with current market conditions and market forces.
- **Permanency** – The length of time for which the tool is effective.
- **Timeframe for goal** – How soon the goal needs to be achieved, or the staging priority relative to other goals.



## Implementation Partners

The implementation priorities need to not only look inward, to what the City should do to protect open space; but also outward, to coordinate with other communities, organizations, and individuals. Hennepin County, the Minnehaha Creek Watershed District, neighboring communities, and private sector organizations and businesses are partners in meeting open space goals. The City's implementation partners are described below:

- **Medina City Council.** The City Council sets the policy direction for open space protection through adoption of the Comprehensive Plan and ordinance changes, and through funding open space programs.
- **Medina Planning Commission.** The incentives and regulation that Medina uses to shape the development process is a primary vehicle for implementing Medina's open space goals, particularly in the development review process.
- **Medina Park Commission.** The Park Commission has both a policy and an implementation role to play in meeting Medina's open space goals. Medina's park and trail systems have significant overlap with the open space priorities identified in this plan.





- ***Minnehaha Creek Watershed District (MCWD).*** MCWD covers approximately one-third of Medina, and recently completed a planning process and identification of goals and priorities. MCWD has a conservation easement purchase program to assist the district in meeting its goals, which substantially overlap with Medina's open space priority areas. Medina could partner with MCWD on a conservation easement purchase program.
- ***Other watershed districts.*** The Pioneer/Sarah and Elm Creek watershed districts, which cover approximately two-thirds of Medina, do not currently have easement acquisition programs in place. Both districts, however, could be notable partners in the future, and present opportunities for a variety of collaborative efforts.
- ***Hennepin County Environmental Services.*** Hennepin County has already been a partner in the open space planning process, through the MLCCS Natural Resource Inventory, and has both technical and financial resources that could be leveraged to meet Medina's open space goals.
- ***Three Rivers Park District.*** Baker Park is the largest single open space area in Medina. The Park District also engages in regional trail planning and in working with local governments to connect park areas to neighborhoods and local trail systems.
- ***Non-governmental organizations.*** A number of formal and ad hoc organizations play a role in open space and related initiatives in Medina and the western metropolitan area. Collaboration with such organizations will greatly enhance programmatic efforts and provide opportunities to use City resources to leverage other resources. The Embrace Open Space initiative, a collaboration of a number of conservation, recreation, and natural resource organizations, provides one example of a potential non-governmental partner in realizing open space

goals. The Friends of Elm Creek is another organization with which the City could cooperate on water quality issues and trail opportunities along the creek. Other organizations that may offer partnership opportunities include the Trust for Public Land and the Minnesota Land Trust.

- ***Landowners.*** A significant emphasis within the Medina open space principles is the concept of stewardship. Landowners in Medina are essential partners in realizing Medina's open space goals. They have a special responsibility for stewardship through their choices on their own land. Through individual stewardship actions in protecting open space, restoring natural functions and habitat, offering easement donations or bargain sales, or adopting conservation design practices in development, the private sector will be a primary implementation partner.

## Range of Implementation Options

The Open Space Task Force examined a variety of implementation strategies, including tools in each of the four categories. Within each of the categories the Task Force further discussed the merits of different configurations of specific tools, such as mandatory design and performance standards or incentive-based approaches. The range of options considered by Task Force is presented below. The Task Force recommended implementation strategies start on page 53.



### Education and Encouragement

#### ***Programs for Ecological Protection and***

***Restoration:*** Ecological protection and restoration is a voluntary process where a landowner receives resource and management education and technical assistance from an appropriate agency. The result is private protection of resources. In Medina some of the possible configurations of this option include:



**Conservation Easement:**

A conservation easement is a voluntary, negotiated agreement between a landowner and a non-profit or agency to limit the use of land in perpetuity because of its resource value. A landowner may donate a conservation easement or, in some cases, may be compensated for its value (via payment or via regulatory flexibility or other regulatory incentives). Conservation easements are a tool that is used as part of a variety of incentive programs, regulation, and public management/ownership efforts.

- Promoting stewardship concepts from Medina's open space plan and the assistance programs for protection and restoration offered by watershed districts, the Minnesota Department of Natural Resources, private conservation organizations, and other incentive and stewardship programs.
- Creating a Medina-specific stewardship recognition program to publicly recognize those individuals who have adopted stewardship principles in their protection and restoration actions.
- Educating the public about the economic value of open space in order to encourage both stewardship and self-interested open space actions in the development process.

**Incentives*****Transfer of Development Rights (TDR) Program:***

The City can create a program in which landowners or developers have the ability to transfer the right to develop from one site (the "sending" site) to another site (the "receiving" site). The program can be used to move the "development right" within a single proposed development, or from one site to another completely different site. The program can be entirely voluntary, it can include incentives, or it can include regulatory elements. The "sending" site is permanently protected with a conservation easement.

***Purchase of Development Rights (PDR) Program:***

A PDR program sets up a funding source for public purchase of conservation easements and criteria for determining which areas will be targeted for purchasing development rights. PDR programs are typically public ownership programs (although private entities can also create PDR programs) and work through voluntary participation. PDR programs are sometimes called Purchase of Conservation Easement (PCE) programs.

**Conservation Development:**

A development pattern whose primary goal is to conserve some set of natural resources, whether that be agricultural soils, sensitive natural habitat, community open space, or some other important resource designated by the community. Conservation development frequently results in clustering the development in a portion of the larger site, and preserving the remainder of the site through common ownership via a homeowner's association, property covenants, or conservation easements.

**Conservation Development:** The City of Medina can create incentives for developers to use conservation design in subdivision and development to meet specific open space goals associated with priority resources – high quality natural areas, scenic viewsheds and rural character, lake and stream water protection, habitat areas, and recreation areas.

## Regulation

**Site Suitability Requirements:** Site suitability is a process codified in a subdivision and/or zoning ordinance. Medina uses a site suitability analysis for soils as part of its existing subdivision ordinance, which has had a substantial impact on the City's development pattern. Additional suitability standards can be used in the subdivision process for other resources, such as the high quality land cover sites identified in the MLCCS or wetlands identified in the ongoing wetland function and values assessment.

**Shoreland Overlay Ordinances:** Shoreland ordinances are required by state law. The authorizing legislation establishes minimum requirements that must be adopted by the local jurisdiction. Medina has adopted a shoreland ordinance meeting state requirements. The City can update this ordinance to specifically refer to open space principles and targeted resources. The City can also increase the level of protection for priority resources in shoreland areas above the minimums in State rules.



**Natural Resource Overlay:** Overlay districts are regulatory districts that lie on top of base zoning districts. A natural resources overlay would specify standards or incentive regulation that would add to the base zoning requirements, and could address protection of viewsheds, performance standards for sensitive natural areas, trails and recreation priorities, or other elements of open space.

**Conservation Development:** The City of Medina can create a Planned Unit Development (PUD) ordinance that requires conservation development

for all development proposed for sites containing open space priorities. The PUD process also offers the advantage of flexibility on other issues, such as density, stormwater management, and design issues related to community character.

### **Public Management/Ownership**

#### ***Acquisition for Public Ownership/Management:***

Public ownership offers control by an agency over the use and maintenance or restoration of a parcel. Medina can identify those parcels within the corridor that may be appropriate for public acquisition because of high public values for education, recreation, or because of a particularly high threat to a high quality resource. Acquisition could be fee-title purchase or buying conservation easements, whichever was most appropriate for the planned use of the resource. The range of funding options for acquiring land or easements includes:

- Using park dedication to acquire land;
- Expenditure of park dedication fees from nearby developments;
- Bonding for land or easement acquisition;
- Other allocation of city funds;
- Obtaining grants from or partnering with local, state or federal agencies (examples – Hennepin County, DNR, MCWD); or
- Landowner funding through bargain sales and/or donations making use of tax incentives.



***Trails and Recreational Corridors:*** Just as communities require dedication of rights-of-way for public roads, communities can acquire public trail corridors during the development process. Trails are the primary public management tool for creating connection between neighborhoods and open space, and connecting open space areas across roads or developed parcels. The open space plan will only be a portion of the City's trail system. Thus this particular tool is a supplemental tool rather than a primary tool for meeting open space goals.

## **Open Space Task Force Implementation Recommendations**

The Open Space Task Force reviewed the range of implementation tools, the likely effectiveness of different tools, issues of fairness and cost burden associated with implementation tool options, and some of the potential options for program details. After careful consideration the Task Force recommends the following implementation priorities.

- Viewshed Prioritization and Protection
- Conservation Development
- Natural Resource Performance Standards
- Purchase of Conservation Easements Program
- Park and Trail Dedication Standards

For each of the recommended implementation priorities, the Task Force identified additional specifics to guide the implementation process. The specific program or ordinance design elements for the implementation priorities are described on the following pages. The descriptions provide a consistent set of details for each implementation priority:

- General description of the implementation priority;
- Relationship to Open Space Principles;
- Geographic scope; and
- Program or ordinance design elements.

While some detail is included in the following descriptions of the recommended implementation priorities, the descriptions are not fully formed programs or ordinances. Specific ordinance and program development will occur after the adoption of the Open Space Plan. All the priorities will, furthermore, need to be carefully coordinated with other actions directed by the Comprehensive Plan.

## Viewshed Prioritization and Protection

**General Description:** The City of Medina should undertake a process to survey, document, and prioritize scenic viewsheds. The City will then adopt a program or set of strategies to protect priority viewsheds.

**Geographic Scope:** The Open Space Task Force identified scenic roadways throughout the City as shown on the *Scenic Roads* map on page 44. Scenic viewsheds along these routes will be assessed and prioritized.

### **Program Design:**

**Criteria** – The first step in assessing scenic viewsheds will be to establish criteria for distinguishing among potential scenic viewsheds. Criteria could include: length of view; natural features within the view; historic features within the view; and views from cultural features such as City entryways.

**Methodology** – The City will develop and apply a methodology to map scenic viewsheds that meet the criteria. The methodology is likely to be based on geographic information systems (GIS) mapping of all the criteria. Areas that meet multiple criteria should be priority viewsheds.

**Protection strategies** – After priority viewsheds are identified, the City will develop and adopt strategies for protecting the viewsheds. The strategies could include: designation of a scenic views overlay district that manages the location and design of development within priority viewsheds; protecting viewsheds through the use of conservation easements; management of the location of signs and other potential viewshed obstructions; placing utilities underground; and vegetative removal standards.



## Conservation Development

**General Description:** Conservation development is a form of subdivision and design that is intended to conserve specific resources. The general goals of conservation development are listed below.

- Cluster buildings and infrastructure on areas suitable for development and away from sensitive natural resources.
- Retain landowner development value.
- Create contiguous open space areas to maximize both open space function and visual appeal.
- Protect open space areas from future subdivision or development.
- Incorporate building and infrastructure design elements that enhance community character.
- Remain generally consistent with the base zoning district in terms of suitability requirements, set backs, density standards, allowed and conditional land uses, and other basic zoning standards, except where incentives explicitly modify the standards.

### *How does Conservation Design reflect Medina's Open Space Principles?*

Principle #1 - Open space protects and enhances the environmental functions of high-quality natural areas.		Conservation development preserves the integrity of ecological and biological systems on the development site.
Principle #2 - Open space is an essential element of Medina's rural character.		Conservation development aggregates open space and clusters housing to emphasize the rural character of the landscape.
Principle #3 - Open space reflects the community's sense of stewardship.		Conservation development can meet conservation objectives through standards that allow each development to have flexibility in meeting stewardship goals.
Principle #4 - Open space makes economic sense by adding value to property and community spaces.		Conservation development typically holds its value better and appreciates faster than traditional development.
Principle #5 - Open space provides recreation and health benefits.		Conservation development can provide open space and trail access for all residents.



**Geographic Scope:** The conservation development program should be an option city-wide.

**Program Design:** The specific elements for conservation development in the City of Medina should include:

- *Incentive-based* – The program would be incentive-based to encourage conservation design but not require it. Possible incentives include:
  - Varying the minimum or maximum standards for density (density bonuses or density exemptions).
  - Regulatory flexibility or accelerated review in the development approval process.
  - Trade-offs with park dedications.
  - Purchase of conservation easements if high priority resources are present.
- *Open space threshold* - A minimum of 50% of the subdivision must remain in open space, and 50% of that area must be upland. Required park dedication land and natural resource buffers required under a natural resource performance standard may be used to meet the open space requirement in a conservation development.
- *Open space definition* - Open space areas must include the priority natural resources identified in the Open Space Plan. To prioritize open space goals where a number of open space priorities could exist, each conservation development would have a defined theme. Examples of themes include:
  - Natural landscapes and habitat, such as high quality prairie or tamarack bogs.
  - Shoreland areas, where water quality, viewshed, and habitat considerations apply.
  - Rural character or scenic views, where the open space is defined by rural land uses such as working agriculture or pasture.

- *Permanent protection* - Open space areas must be permanently protected from further subdivision or development by using a conservation easement. The program will identify one or more easement holders who will be responsible for monitoring and enforcing the terms of the easement. Easement holders could be the City of Medina, Hennepin County, Minnehaha Creek Watershed District, or a non-profit organization qualified to hold conservation easements. Easements holders should be involved in the conservation development approval process.
- *Design standards* – Design standards would be developed to protect the functioning of natural systems. For example, low-impact development techniques would protect water quality and hydrologic systems, dark sky standards for outdoor lighting, and buffer areas for habitat.
- *Subdivision process* – The process for a conservation development would start with a mandatory meeting between the developer and city staff. Staff would share the goals of the conservation development process and assist the developer in thinking creatively about open space protection within the development.
- *Long-term management of open spaces* – The long-term management of open spaces within a conservation development shall be ensured through program elements such as: requiring a vegetative management and stewardship plan; and establishment of a management fund endowed through the development process.
- *Resource links* – Links to information and resources for land development, particularly conservation development, will be added to the City of Medina website. This land development resource page will connect people to education sites and non-profit advocacy sites, not private consultants.

## Natural Resource Performance Standards

**General Description:** Natural resource performance standards are a form of regulation that shapes development by incorporating protection for specific types of natural features or functions into general zoning performance standards or subdivision standards. The standards would require that development protect the feature or function through avoidance (not developing critical areas or incorporating buffer areas) or some form of mitigation.

Natural resource performance standards treat natural or open space functions as “green infrastructure.” Treating natural systems as infrastructure gives the same weight to, for instance, viewsheds as the community would to other infrastructure, such as a planned road. A proposed development must either preserve the existing road right-of-way, or mitigate for blocking or rerouting the road. Natural or open space infrastructure must similarly be protected or mitigated when development occurs.

The performance standards would define the functions that must be protected or preserved, and could include stormwater infiltration; lake, stream, or wetland buffer areas; woodland canopies; high quality natural areas such as Medina’s maple/basswood forest remnants and tamarack bogs; and areas defining Medina’s rural scenic character.

**Geographic Scope:** The natural resource performance standards should apply throughout the City wherever priority open space resources exist as will be shown on the updated priority open spaces map.

***How do Natural Resource Standards Support Medina's Open Space Principles?***

Principle #1 - Open space protects and enhances the environmental functions of high-quality natural areas.	➡	Natural resource standards ensure natural resource function is protected as critical infrastructure that supports development and growth in the community.
Principle #2 - Open space is an essential element of Medina's rural character.	➡	Natural resource standards can protect scenic and rural character landscapes.
Principle #3 - Open space reflects the community's sense of stewardship.	➡	Natural resource performance standards promote stewardship by emphasizing the necessary role of natural systems to the community's prosperity.
Principle #4 - Open space makes economic sense by adding value to property and community spaces.	➡	Developments where natural functions are protected will hold their value over time.
Principle #5 - Open space provides recreation and health benefits.	➡	Natural resource standards ensure that open space areas are available for recreational opportunities.

***Program Design:*** The natural resource standards would be treated as general development standards within Medina's development codes. The primary characteristics of the regulation are noted below:

- *Listing natural features* – Define a list of natural features to be addressed in the standards. The natural features should reflect the criteria for priority open space areas identified on page 37 of this plan, including lakes, streams, and wetlands, ecologically significant natural areas, connections, and viewsheds.
- *Identify performance or design standards* – For each type of natural feature the ordinance will identify a set of design or performance standards to be incorporated in every development. Examples include:



- Requiring stormwater infiltration areas between impervious surface and lakes or streams.
- Preserving, in a contiguous block, a minimum acreage or percentage of land that is high quality natural areas.
- Limiting use of land to pasture in defined viewshed corridors.
- Creating buffer and mitigation standards for ecologically significant natural areas, wetlands that relate to the wetland functions and values assessment. (Note: Mitigation of wetland loss is limited by the Wetland Conservation Act.)
- Limiting development or requiring restoration in areas that serve critical connections in the open space network.
- *Maintain development potential* – The development potential for any parcel under base zoning district standards (including the 5-acre soil suitability standard) is not affected by the natural resource performance standards. Density would be ‘transferred’ away from the natural feature to another portion of the site.
- *Review process* – The process of approving development on parcels where natural resource performance standards apply will be a collaborative process. Recognizing that a variety of tools could be used to meet a performance standard, the applicant and city staff will meet in a working session to discuss the tool that best meets natural resource protection goal and maintains development potential.
- *Define corridor areas* – The ordinance addresses the connectivity of open space by identifying critical connections between priority open space areas.

## Purchase of Conservation Easements Program

**General Description:** Modeled after the Minnehaha Creek Watershed District Purchase of Conservation Easements (PCE) program, Medina's program would create a funding source for public purchase of conservation easements to meet open space goals. The purchasing program would include specific criteria for determining which areas will be targeted for purchasing easements, and what characteristics of specific proposals will be granted priority. The PCE would work through voluntary means (working with landowners who choose to participate in the program).

### *How does a Purchase of Conservation Easements program reflect Medina's Open Space Principles?*

Principle #1 - Open space protects and enhances the environmental functions of high-quality natural areas.	➔	Conservation easements ensure permanent protection, unlike covenants or common ownership through a homeowner association, of natural functions within the easement.
Principle #2 - Open space is an essential element of Medina's rural character.	➔	Conservation easements can protect those elements of the landscape or development site that are endowed with Medina's character and leave the remainder in private ownership.
Principle #3 - Open space reflects the community's sense of stewardship.	➔	Conservation easements can, through a purchase of conservation easements program, allow individual landowners to practice stewardship while retaining some control and value of the land.
Principle #4 - Open space makes economic sense by adding value to property and community spaces.	➔	Permanent protection offered by conservation easements creates value similar to property being adjacent to parkland, while retaining the value of private ownership and tax base.
Principle #5 - Open space provides recreation and health benefits	➔	Conservation easements and PCE programs can be used to implement trail and passive recreation goals as well as natural systems or watershed protection.

***Geographic Scope:*** The Purchase of Conservation Easements Program would apply city-wide. The program design would include criteria defining whether a particular area is a high enough priority to qualify for the program.

***Program Design:*** The PCE program would include the following program elements:

- *Development of the Program* – The City of Medina will establish a task force to develop specific program elements. The task force will recommend a program design to the City Council.
- *Funding* - A source of funds for making purchases would be developed. Typically a city would bond for funds and have a specific additional levy to pay off the bonds. Alternatively, Medina could attempt to structure a program in collaboration with another entity that has a similar open space set of interests (watershed districts, Hennepin County).
- *Listing of Priorities* – The priority areas discussed in the plan define the conservation purchase goals. Priority areas include:
  - High quality natural areas, both wetland and upland. High quality would be defined by MLCCS evaluation and the results of Medina's wetland functions and values assessment;
  - Hydrologic systems, including streams, lakes, and wetland areas in sensitive watersheds or critical drainage routes;
  - Scenic views and community character, particularly along roads, may remain in agriculture rather than natural areas; and
  - Trail routes that create connectivity through Medina's open space system.
- *Ranking Criteria* - Create a ranking scheme for making purchases based on an evaluation of the priority areas on any given site.

- *Administration* – The PCE program would require administrative capacity in order to evaluate purchase proposals, consider applications for purchase from the private sector, and promote the program to targeted areas. The City may consider partnering with another organization that already manages such a program. The program will identify an easement holder responsible for monitoring and enforcing the terms of the easement.

## Park and Trail Dedication Standards

**General Description:** Medina's park dedication standards allow the City to set aside, during the subdivision process, up to 10% of the land being subdivided for public park purposes. Medina can identify high quality parcels to connect open space areas through a new development, protect sensitive resources, or maintain habitat and water recharge areas. Acquisition could be fee-title, as allowed in the existing ordinance, or the ordinance could be modified to allow for a combination of conservation easement and fee-title dedications.

Similar to the park dedication ordinance is the allowance within the current subdivision ordinance for trail dedications. Such connections need to fulfill specific trail plan needs. Medina would need to update its existing trail plan to address how developing areas are to be connected to destinations, including open space.

### *How park and trail dedication standards meet Medina's Open Space Principles*

Principle #1 - Open space protects and enhances the environmental functions of high-quality natural areas.



Park dedication can be used to protect environmental functions.

Principle #2 - Open space is an essential element of Medina's rural character.



Parks serve an open space function similar to Medina's rural areas.

Principle #3 - Open space reflects the community's sense of stewardship.



Conservation easements dedications can allow more of the land in a specific subdivision to remain in private control retaining some public control over sensitive features.

Principle #4 - Open space makes economic sense by adding value to property and community spaces.



Park land is demonstrated to add value to adjacent private lands and encourage reinvestment over time in adjacent private lands.

Principle #5 - Open space provides recreation and health benefits



Parks and trails offer primary recreational and health benefits to the community



***Geographic Scope:*** The park and trail dedication provisions apply to all subdivisions within the City. The conservation easement component could also apply city-wide, or be limited to those areas meeting Medina's open space priorities.

***Program Design:*** The park dedication ordinance and easement section of the subdivision ordinance could be amended to provide the following additional options:

- *Park dedication as an open space tool* – Clarify that the park dedication ordinance can, consistent with state statute, be used to meet open space goals. Specifically reference the Open Space Plan or the open space component of the comprehensive plan.
- *Define open space criteria* – Define criteria for using park dedication for open space goals, including the natural features that contribute to Medina's open space system.
- *Alternative to land or cash* - Create an alternative option for dedicating conservation easements rather than land or cash. The alternative should identify the specific limits, in dollar value or percentage of the land area of the subdivision site, that can be required to be dedicated. The value of a conservation easements taken as an alternative to land should be equivalent to the value of the land that would have been dedicated.
- *Subdivision easements* - Modify the easement section of the subdivision ordinance to add a reference to the Open Space Plan goals, or the comprehensive plan open space section.
- *Create a trails plan* – Provide the basis for trail easement dedications by updating the trails plan to identify trail connectivity goals and near-term trail search corridors.