

# Natural, Cultural and Agricultural Resources Plan

This chapter describes how the City will work to manage, protect and enhance its natural and cultural resources.

Being a good steward of our natural inheritance should be a consideration in all that the City does, from public works through site plan review. Surface and ground water are of particular importance because of the quality of the area’s many lakes, rivers and wetlands and the sensitivity of the aquifer to pollution from the surface. The Elk River corridor is a special gem, as it includes water, forest and wildlife habitat in largely undisturbed conditions.

Please refer to the Natural, Cultural and Agricultural Resources Assessment, chapter 3 of this plan, for a description of the current features and conditions.

Major Natural Resources Issues .....	13-1
Surface Water .....	13-2
The Elk River Corridor .....	13-3
Forests .....	13-3
Parks .....	13-4
Cultural Resources .....	13-4
Agricultural Resources .....	13-4
Plan Action Steps .....	13-5

## Major Natural Resources Issues

- 1. Wetland Protection:** Can or should degraded or destroyed wetlands be restored and used as amenities in future neighborhoods?

*Some wetlands in urban growth locations have been plowed and drained for farming.*

- 2. Floodplain Use:** Should some portion of the Elk River floodplain be acquired for linear public park and trail? If so, which unit of government should lead in that effort, the County or the City? What should be their respective roles?

*This idea was raised in the prior Park System Plan and 2009 Comprehensive Plan. It would be an ambitious undertaking, as many locations along the river are developed for housing. For such as trail to be most useful, it should connect the neighboring cities of Becker and Elk River.*

- 3. Protection during Development:** Can a sustainable balance be found between land development and natural resource protection?
- 4. Resource Stewardship:** How should we use what we have?

## Surface Water

### Protect the lakes, rivers and wetlands from pollution, soil erosion, invasive species and riparian vegetative loss.

The City has a high degree of control over the quality and flow of surface water as it owns the means of conveyance, enforces regulations pertaining to wetlands and floodplains, approves plans for land development, and enforces certain construction practices.

These and other methods are described in more detail in the Surface Water Management section of the Utilities Plan chapter of this document.

#### 1. Storm Water Pollution Prevention Plan

Continue to follow the Big Lake *Storm Water Pollution Prevention Plan*, a multi-faceted approach to protecting the quality of surface runoff from widespread sources. That plan addresses Public involvement, public education, illegal discharges, land development and “good housekeeping.” A few examples its tools are:

- Carefully engineered site plans
- Ponds to collect, detain and infiltrate water
- Soil erosion control blankets and fences
- Street sweeping during construction and several times each year thereafter
- Emphasis on conveying water through natural courses and infiltrating it on-site instead of draining it quickly through pipes to a natural wetlands or lake
- Protecting wetlands from excavation, filling, drainage, diking or soil erosion
- Requiring a building setback and vegetated buffer around each wetland
- Restoring degraded wetlands
- Controlling hazardous wastes
- Encouraging use of less lawn fertilizer and a movement toward low-nitrogen fertilizers
- Protecting City wells from surface contamination through land use controls

#### 2. City Controls

Continue to enforce these and other City ordinances, which are briefly described in the Utilities Plan chapter:

- Shorelands (City Code section 1065)
- Wetlands (City Code section 1066)
- Floodplain (City Code section 1064)
- Mississippi Recreational River District
- Subdivision Code
  - Storm Water Management
  - Erosion Control
- Zoning Code

#### 3. City Capital Improvements

Continue to apply the principles of the SWPPP and wise engineering practices when designing or reviewing public improvements, including streets, sewer or water pipes and parks.

#### 4. City Operations

Continue to collaborate with the Sherburne Soil and Water Conservation District, the Big Lake Community Lakes Association and Sherburne County in research, remediation and educational work.

Continue to sweep streets on a regular basis, clean storm drains and maintain ditches.

#### 5. Site Plan and Plat Review

Continue to apply the guidelines of the SWPPP and other sound design ideas when reviewing site plans and plats.

## The Elk River Corridor

The Elk River corridor is the part of the region that is most rich in unspoiled natural resources. Consequently, it should be given a high level of protection and care.

### 1. Floodplain, Shoreland and Wetland Protections

As properties along the Elk River are brought into the City through successful annexation petitions, apply zoning designations that are consistent with the Land Use Plan Map, Figure 11-1, and related guidance; this would primarily be the R-1 zoning district.

In addition, apply the overlay zoning districts required by the presence of the river. Those are:

- Floodplain Overlay – in locations mapped by the Federal Emergency Management Agency
- Shoreland Overlay – within 300 feet of the ordinary high water mark along the river
- Wetland Overlay – on land delineated through on-site inspection as having wetland characteristics as defined by the Minnesota Board of Water Resources.

### 2. Habitat Protection

During the review of preliminary plats and site plans, strive to reduce the loss of riparian forest and related habitat through private open space set-asides, public park land acquisition, careful road location and custom grading of lots. Try to preserve the nearby windrows of trees for the beauty, intrinsic value and remembrance of past conservation practices.

### 3. Public Access to the Riverfront

Provide some level of public access to the riverfront through the acquisition of land for public parks and trails. The locations of public open space will be determined during the platting process, although two park locations are suggested on Figure 11-1, Land Use Plan Map, and Figure 14-1, Current and Future Parks.

### 4. Annexation Petitions

Look favorably upon annexation petitions along the river as a means of protecting these resources and because these are prime housing development locations.

## Forests

### 1. Tree Protection

Continue to protect groves and forests across the city by enforcing the protective regulations in the zoning ordinance, Section 1027.06, and the subdivision ordinance, Section 1108.22 of the City Code. This will be particularly important in locations of mature forest, such as along the Elk River corridor and nearby.



The riverfront forest and historic windrows of trees in the Elk River corridor are valuable natural resources.

## Parks

### 1. Natural Preservation and Stewardship

Identify, preserve, restore or enhance existing valuable natural areas, such as wetlands, major wooded areas and native prairies (if any) and provide for appropriate private or public use. Try to identify such lands prior to the neighborhood development process.

The community park planned in the southeastern quadrant of the city is an opportunity to ensure the protection of a major wetland while providing public recreation and access to open space.

Include quiet spaces in parks and playgrounds for strolling or sitting wherever the landscape allows. Some locations in the park system should be managed to retain their wooded or otherwise natural characteristics to invite exploration and discovery. Such places offer a small refuge from the bustle of the city and offer opportunities to connect with nature on a daily basis.



Parks and other public open spaces are a good way to protect key natural resources and provide public enjoyment, especially when adjacent to lakes or wetlands. This is an example from Kellerwood Park.

## Cultural Resources

### 1. Protection Process

There are two properties in Big Lake that are eligible to be listed on the National Register of Historic Places but for which nominations have not been formally submitted yet:

- **Big Lake Public School**  
Northwest corner of US Highway 10 and Powell Street
- **Hanson House**  
Northwest corner of Pleasant Avenue East and Eagle Lake Road

Consult with experts and decide whether to submit nominations for a higher level of protection for these properties.

Continue to try to interest a private developer in re-using the historic school. This might be done a part of the large process of evolving a “town center” in this vicinity.

## Agricultural Resources

### 1. Compact City Growth

Protect farm lands by properly managing the perimeter growth of the city.

The Land Use Plan chapter calls for future residential neighborhoods to be adjacent to existing neighborhoods and to have moderate densities. Additional recommendations include encouraging the County to zone nearby locations for a minimum non-farm lot size of at least 5 but preferably 10 acres to discourage semi-rural development and to enable future subdivision into city-sized lots with municipal sewer and water lines.

## Plan Action Steps

The City will take the following steps to implement the recommendations of the Natural Resources Plan.

**Table 13-1**  
**Major Natural Resources Plan Actions**

Action	Timing
Continue to follow the Big Lake <b>Storm Water Pollution Prevention Plan</b>	Continuous
Continue to enforce these and other City <b>ordinances</b> to protect surface water: Shorelands, Wetlands, Floodplain, Mississippi Recreational River District, Subdivision Code (Storm Water Management and Erosion Control) and Zoning Code.	Continuous
Continue to apply the guidelines of the SWPPP and other sound design ideas when reviewing <b>site plans</b> and plats.	Continuous
Provide some level of <b>public access to the riverfront</b> through the acquisition of land for public parks and trails.	Continuous
Look favorably upon <b>annexation petitions</b> along the river as a means of protecting these resources and because these are prime housing development locations.	Continuous
Continue to protect groves and <b>forests</b> across the city by enforcing the protective regulations in the zoning ordinance, Section 1027.06, and the subdivision ordinance, Section 1108.22 of the City Code.	Continuous
Identify, preserve, restore or enhance existing <b>valuable natural areas</b> , such as wetlands, major wooded areas and native prairies (if any) and provide for appropriate private or public use. Try to identify such lands prior to the neighborhood development process.	Continuous

Action	Timing
Consult with experts and decide whether to submit <b>historic designation nominations</b> for a higher level of protection for Big Lake Public School and Hanson House.	By 2020
Protect <b>farm lands</b> by properly managing the perimeter growth of the city.	Continuous