

13. ENVIRONMENTAL PROTECTION/ RESOURCE MANAGEMENT

A. Existing Conditions

Ramsey is fortunate to have an ample amount of natural resources and open space areas and a community attitude that is increasingly concerned about the environment. The inventory of natural resources and open spaces include a variety of wetlands, woodlands, farmlands, parkland and two golf courses. Many native plants and trees are evident in the community. Early settlers cleared much of the land for farming in the early settlement days, but since then residential development has been the main force behind the loss of native vegetation allowing for the introduction of new species into the Ramsey community. The following is a limited description of the natural features and their characteristics that can be found in the Ramsey community and surrounding areas of the Anoka Sandplain. This inventory includes information that has been gathered at a regional level including sources such as U.S. Fish and Wildlife Services, Department of Natural Resources, U. S. Army Corp of Engineering, U.S. Department of Agriculture, the Metropolitan Council and other federal, state and regional resources. Information has also been obtained by local studies conducted by the City of Ramsey.

1. Wetlands

The City of Ramsey has an abundance of wetlands in a variety of wetland types. The following inventory includes two sources of data: the National Wetland Inventory (NWI) and the DNR's Protected Waters Map (see Figure 13-1). The National Wetland Inventory put together by the U.S. Army Corp of Engineers includes a more thorough inventory of land areas that have an impact on maintaining and enhancing the quality of the water. Table 13-1 represents the wetland types as designated by the U.S. Fish and Wildlife Services that can be found in the City of Ramsey.

Table 13-1 NWI Wetland types found in the City of Ramsey

Wetland Type	Wetland Description
Type 1	Floodplain Forest and Seasonally-Flooded Basin
Type 2	Wet Meadow or Prairie
Type 3	Shallow Marsh
Type 4	Deep Marsh
Type 5	Open Water (Pond)
Type 6	Scrub Shrub Swamp
Type 7	Wooded Swamp

The Minnesota Wetland Conservation Act (WCA) of 1991 outlined a program for the conservation of wetlands. The WCA is directed through the Minnesota Board of

Water and Soil Resources (MBWSR) with the DNR acting as the enforcement agency. The Act places implementation responsibilities in Local Units of Government. The Local Unit of Government that monitors wetland activities in the City of Ramsey is the Lower Rum River Watershed Management Organization. The DNR’s inventory includes those wetlands that are classified as Type 3, 4, or 5 of the NWI. Figure 13-1 illustrates the City of Ramsey’s wetlands.

2. Shorelands

The City has several lakes and marshes that are classified as part of the shoreland management program. The following table highlights the various shorelands in Ramsey:

Table 13-2 Shorelands of the Ramsey Shoreland Overlay District

Natural Environment Lakes	Recreational Development Lakes	General Development Lakes	General Development Streams
Shack Eddy	Jeglens Marsh	Ramsey Terrace	Trott Brook (part)
Itasca	Peltzer	Magnesium Street	Ford Brook (part)
Rogers	Grass (Sunfish)	Industry Avenue	

3. Soils

The predominant soil types in Ramsey consist of the Hubbard–Nymore Association. These soils are nearly level to gently sloping, excessively drained soils that are sandy throughout. This association is well suited to most urban uses and is moderately well suited to farming and to recreational uses. This soil type is mostly found in the central and southern portions of the City while in the northeast part of the City the Zimmerman-Isanti-Lino Association is prominent. This soil association is also dominated by sandy soil conditions, is well suited to urban uses and moderately well suited to farming. The dominant soils of these associations include Hubbard, Nymore, Zimmerman and Isanti. Some of the sub-soils include Markey, Rifle, Dickman, Anoka, Duelm and Becker. A complete inventory map of Anoka County including the City of Ramsey can be found in the Soil Survey of Anoka County found at City Hall or Anoka County Surveyors office.

4. Rivers, Urban Streams and Drainage Ditches

The Mississippi River forms the southern border of Ramsey and one of its tributaries, the Rum River, forms the eastern border. These two rivers are the drainage basins for the entire City. Much of southern Ramsey is part of the Mississippi River Watershed. The northern and central portions of the City are located in the Lower Rum River Watershed. Trott Brook and Ford Brook are two main ditches in a series of county ditches that provide drainage ways through the northern portion of the City and drain into the Rum River.

5. Floodplains

A good portion of the Cities natural resources are located within designated floodway

or floodplain areas. Floodplain areas can be found along Trott Brook, Ford Brook, many of the drainage ditches and wetlands within the community and the Mississippi and Rum Rivers. Characteristics of floodplains include mucky soils that are poorly drained and seasonally flooded and wetland vegetation. Often, floodplains are used for agriculture purposes because of the high nutrient and organic soils that are unsuitable to development.

6. Woodlands

The City of Ramsey conducted tree inventories in 1979 and again in 1992. These inventories indicate a predominance of bur oak, box elder and red oak. The area was originally higher in oak species; however, clear-cutting for agriculture greatly reduced tree cover. Also the oak population is suffering from oak wilt, which has been increasing in recent years. In addition to disease, residential development has reduced much of the wooded population. As the older tree population begins to die off or be removed, new species are introduced. These species are not very well documented. The City of Ramsey has been designated by the National Arbor Day Foundation as a member of Tree City USA since roughly 1986.

7. Natural Resources Inventory

In 2007, the City completed a Natural Resources Inventory to collect and evaluate information on the natural resources of Ramsey. This document also described potential strategies for the protection of these resources. Figure 13-3 shows the existing natural areas in Ramsey and their ranking.

8. Existing Management Efforts

The following programs are currently being implemented by the City of Ramsey to protect the natural resource base:

The Shoreland Management Program provides orderly development of the shoreland and protects lakes and rivers from pollution by individual sewage treatment systems and other non-point sources. The intent of the program is to encourage development of our shorelands in such a way that the water quality is enhanced and the scenic resources are preserved.

The Floodplain Management Program is intended to minimize the threat to life and property resulting from flooding. This program restricts development in floodplains by preventing structures from being built at too low an elevation in areas that have a high risk of flooding. It also controls encroachment so that the floodplain's capacity to hold floodwater will not be reduced, causing flooding to properly located structures.

The Wild and Scenic Rivers Program is a program to preserve and protect rivers with outstanding scenic, recreational, natural, historical and scientific values. The program is designed to prevent damage to these exceptional rivers caused by intensive development and recreational overuse. Both the Mississippi and Rum Rivers are protected under the Wild and Scenic River's Act. The Mississippi River is designated as a "recreational" river through the City of Ramsey while the Rum River is designated as "scenic."

The Critical Areas Act is a program to protect areas, which are of significant regional or statewide public value or interest. The program is designed to protect, preserve and enhance a unique and valuable resource; its biological and ecological functions; its natural, aesthetic, cultural and historical values; and its significance to the transportation, sewer and water and recreational systems for the benefit of the citizens of the state, region and nation. It is also to prevent and mitigate irreversible damage resulting from urbanization. The Mississippi River is designated as a State Critical Area through Ramsey.

The Mississippi National River and Recreation Area Program is a program that furthers the intent of the Critical Areas Act by emphasizing the preservation and enhancement of the historical, scenic, recreational and cultural values of the Mississippi River Corridor. The program is designed to assist and coordinate from a national, regional and local level, activities and projects that emphasize such things as historic/cultural interpretation, public access or native vegetation restoration.

The American Heritage Rivers Program is intended to improve access to federal expertise and resources for riverfront revitalization. The Mississippi River through the Twin Cities Metropolitan Area received designation as an American Heritage River in 1998.

The City Forester and Recycling Coordinator are staff persons hired by the City to provide assistance to residents and business with tree care and recycling needs. The recycling program is funded through Anoka County Integrated Waste Management, while the City Forester is funded through the City. Citizen volunteer groups also contribute to tree preservation and recycling efforts.

Monitoring of Public Wells. As a condition of the approval of Well #8, the latest municipal well to be constructed in the City of Ramsey, the Minnesota Department of Natural Resources and the City of Ramsey began an initiative to monitor the effects of city wells on nearby wetlands and surface water. The purpose of this initiative was the result of concerns by the DNR of using a single aquifer that may result in depleting the resource and possibly lowering the water table. In addition, the City is studying the possibility of using surface water from the Mississippi River as a source for municipal water.

B. A Plan for Environmental Protection and Natural Resources Management

A very important piece to the vitality of the Ramsey community is the protection, preservation and restoration of the native vegetation that covers the community. The following goals and implementation strategies are intended to act as a framework for environmental protection.

1. Natural resources are protected

STRATEGIES:

- a) Identify and prioritize natural areas in the City based on the Natural resource Inventory (NRI)
- b) Use cluster ordinances, density credits, and conservation development practices to minimize impact on identified natural resources
- c) Explore ways to put an economic value on habitat and other natural areas
- d) Provide incentives to homeowners for the permanent protection of high-value natural resource areas
- e) Establish a revenue stream dedicated to the permanent protection of natural resource areas such as a dedicated City tax enacted through referendum
- f) Manage invasive species and promote the use and protection of native species for private and public development
- g) Develop educational materials, such as kiosks, Ramsey Resident article, and maps to inform public about the value of natural resources

2. Recreation opportunities are integrated into protected natural areas

STRATEGIES:

- a) Coordinate protection and enhancement of natural corridors with neighboring communities
- b) Develop a suitability analysis method for reviewing new development that measures both environmental suitability and efficiency of infrastructure use
- c) Prioritize the preservation of large, contiguous natural areas (greenways) that provide the greatest opportunities for animal and plant habitat, as well as a contiguous trail system

3. Clean water and clean air for the current and future generations of Ramsey citizens and businesses

STRATEGIES:

- a) Preserve existing tree canopy and promote additional tree planting in new development, both public and private
- b) Explore options other than ground water for municipal water supply
- c) Manage stormwater on site by using alternative stormwater treatment systems, as described in the Storm Water Management Plan
- d) Monitor the quality and quantity of groundwater in aquifers and adopt measures to ensure long-term sustainability
- e) Seek out alliances and partnerships with non-profit and governmental agencies to assist in securing funding and other resources to assist in achieving this goal
- f) Continue to participate in the North Metro Water Supply Group organized by the Metropolitan Council

4. Reduce waste that goes to the landfill from both private and public sources

STRATEGIES:

- a) Continue to improve upon the City's award-winning recycling program
- b) Seek out alliances and partnerships with non-profit and governmental agencies to assist in securing funding and other resources to assist in implementing this goal
- c) Develop educational materials, kiosks, Ramsey Resident articles and maps to inform public about the value of natural resources

C. Implementation Strategies

The following strategies are a suggested means to achieving the goals set forth in the Environmental Protection and Natural Resources Management element of the Comprehensive Plan.

1. Data and Information inventory

A critical step in being able to implement an Environmental Protection and Natural Resources Management plan is to have information that can be analyzed. Such information might include native species, rare habitat, wetlands, soils, diseased areas, septic system problems or other significant natural resource information. Much of this data is already available from federal, state, county or local agencies: however, this data is often outdated, in a variety of different formats (which makes analysis difficult) or too general to provide analysis information. With advances in modern technology, federal, regional and local governments have been able to provide information in Geographic Information Systems (GIS) making data management and information analysis much more feasible and cost effective. The financial ability to establish such a comprehensive inventory could be made possible through supportive funding by the City in partnership with such agencies as the DNR, Office of Environmental Assistance, Department of Agriculture, private foundations and local businesses. Significant research and grant writing would be involved in securing funding for such an analysis and inventory. A critical element of building an inventory of data is having a database that can manage it and allow easy cost effective retrieval and analysis.

2. The Greenway

Greenway corridors mainly include natural resources such as wetlands, hydric soils, tree canopy, natural vegetation, and unique wildlife habitat. It also includes some lands that may not be environmentally unique but instead simply create a link between other open space areas such as parks or wetlands. Some of the elements within greenways are protected through ordinance or other legal means, while others are not. These corridors may be environmentally sensitive areas, which allow for protection of water quality, wildlife movement, scenic views, and a continuous trail system. The intent of the Greenway is not to prohibit development within this corridor but rather to preserve the existing resource base and return areas to their natural state where possible.

The corridor boundary reflecting the Greenway is not a fixed boundary line. This boundary is intended to reflect general (broad) areas that may fall within the Greenway designation, and should send a message to the developers of lands near or obviously within the greenway to develop in the highest environmentally sensitive way possible.

Implementation of the greenway could be handled in a couple of ways. It could be implemented by creating an overlay-zoning ordinance that simply places a layer of regulation over existing zoning districts. This overlay would not replace existing environmental overlay ordinances nor would it be intended to further restrict areas already regulated by existing ordinances rather it would guide development in areas that are not covered by existing environmental ordinances. If the overlay ordinance is the preferred choice of implementation, a more defined boundary should be

established through more site-specific analysis including field study. The other, and less controlling approach, is to refer to the greenway as voluntary means to preserve the environment and create high quality places to live. This could be done through park dedication, conservation easements or clustering housing techniques that can provide incentives to developers to preserve areas that are not otherwise protected by ordinance. This would be handled through the subdivision and site planning process.

3. Scenic Roadways

Some stretches of roadway in Ramsey provide opportunities for scenic vistas that preserve the rural character of the community. An overlay district that designates roadways as having significant scenic values would apply design and planning principles to preserve the rural character of the community. Such principles might include setback criteria, landscaping guidelines, roadway improvement standards or sign regulations.

4. Land Protection Tools

Many tools are available for efforts to protect areas of significant natural resources. These efforts are summarized in many publications one of which is a publication by the Minnesota DNR Natural Heritage and Nongame Research Program “*Natural Areas: Protecting a Vital Community Asset.*” For extensive information about open space preservation tools and techniques, the City should consult organizations such as the Department of Natural Resources, The Nature Conservancy, The Trust for Public Land, The Minnesota Land Trust, The Urban Land Institute and many others. The following is a brief explanation of some of the tools and strategies available:

a) Open-space zoning or cluster zoning

The purpose for establishing an open-space or cluster zoning district is to direct development in an effort to preserve large amounts of contiguous open space and protect natural resources that otherwise may be destroyed. These zoning techniques do not reduce overall density rather they simply transfer density from desired preservation areas to development areas. This way, private property owners are granted the reasonable economic use of their property without negatively impacting the remaining natural or open space areas that the community strongly desires. Residential developments would be clustered together in effort to minimize street and utility construction needs and to systematically provide contiguous open space areas.

Primary components of open-space or cluster zoning

- Smaller lot sizes, street widths, or setbacks in effort to maintain an overall density on a portion of the site that otherwise would be spread over an entire site.
- The developer would be required to preserve a percentage of the land within the development as *permanent open space* by placing the land in a permanent conservation easement or other land preservation tool such as dedication to the City.
- Identification of preservation areas on a community-wide basis, such as the greenway corridor, Wild and Scenic Rivers Area or Mississippi River Critical Area.

b) Conservation Easements

Conservation easements are the voluntary transfer of specified development and land use rights from a landowner to a qualifying organization such as a public body or non-profit agency. Conservation easements can be in the form of permanent easements (lasting forever) or “term” easements (lasting for a period of time at which the land use may be changed). Conservation easements in Ramsey should be used to protect natural resources or to permanently preserve areas of the greenway corridor.

c) Transfer of Development Rights

Transfer of development rights allows landowners who may wish to preserve their lands to still receive a profit from the sale of development rights. The purchaser of the development rights would then be able to develop at greater densities. This technique requires the community to establish (on a community wide basis) sending zones, which are areas the community wishes to preserve and receiving zones, which are areas that are most easily served by utilities and are the most logical growth expansion areas. Examples of sending zones may include lands within the greenway corridor, lands identified as containing significant natural resources or lands within the Mississippi River Critical Area corridor. Receiving zones may be located where utilities are readily available or could be easily extended or possibly within the existing MUSA area.

d) Purchase of Development Rights

Purchase of development rights (PDR) operates basically the same way as in the TDR program except instead of transferring development rights the development rights are basically retired or lost. Development rights are typically purchased by the government or non-profit organizations and the land is put into a permanent conservation easement. This program is more of a tool to reduce total growth and can potentially lead to sprawl or leap frog development when areas adjacent to urban services lose their development rights. This program should be used carefully. Residential lands within the Mississippi River Critical Area may be good candidates for the PDR program.

e) Preferential Taxation

Preferential taxation can be used to protect wetlands, agricultural lands or open space. Several of these programs currently exist such as the Agricultural Preserves and Green Acres program, which provide tax breaks for agricultural uses and the Wetland Tax Exemption program which exempts wetland areas from property tax assessments. The purpose for preferential taxation programs is to level the playing field by acknowledging the land’s actual use rather than a market value based approach on uses to which the landowner has no intention of putting the land.

f) Property Acquisition

Property acquisition is probably the simplest form of open space preservation to understand in that it simply means the public buys the land. This technique gives the public control over the use of the property; however, this technique can be very expensive and may not always enjoy strong public support.

g) Land Banking

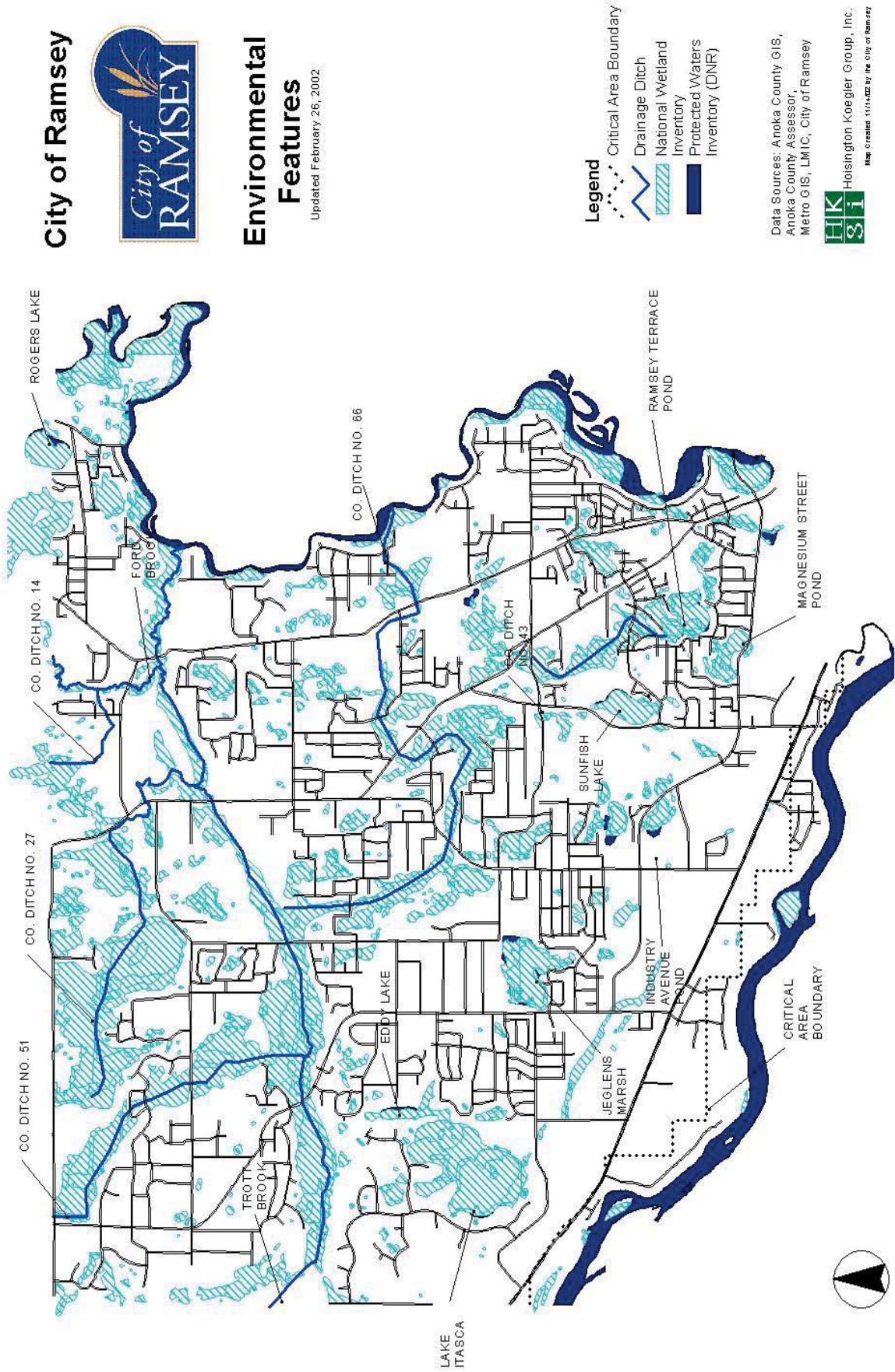
This is a tool similar to property acquisition where the public (City of Ramsey) purchases the land before it is ready to develop. When the area is ready to develop, the City can sell the land with restrictions that preserve open space or limit development. This technique may also be referred to as advanced acquisition.

D. Funding Sources

One of the key obstacles to utilizing some of the tools described above is adequate funding. The following is a list of potential funding sources for implementation of the above-mentioned programs.

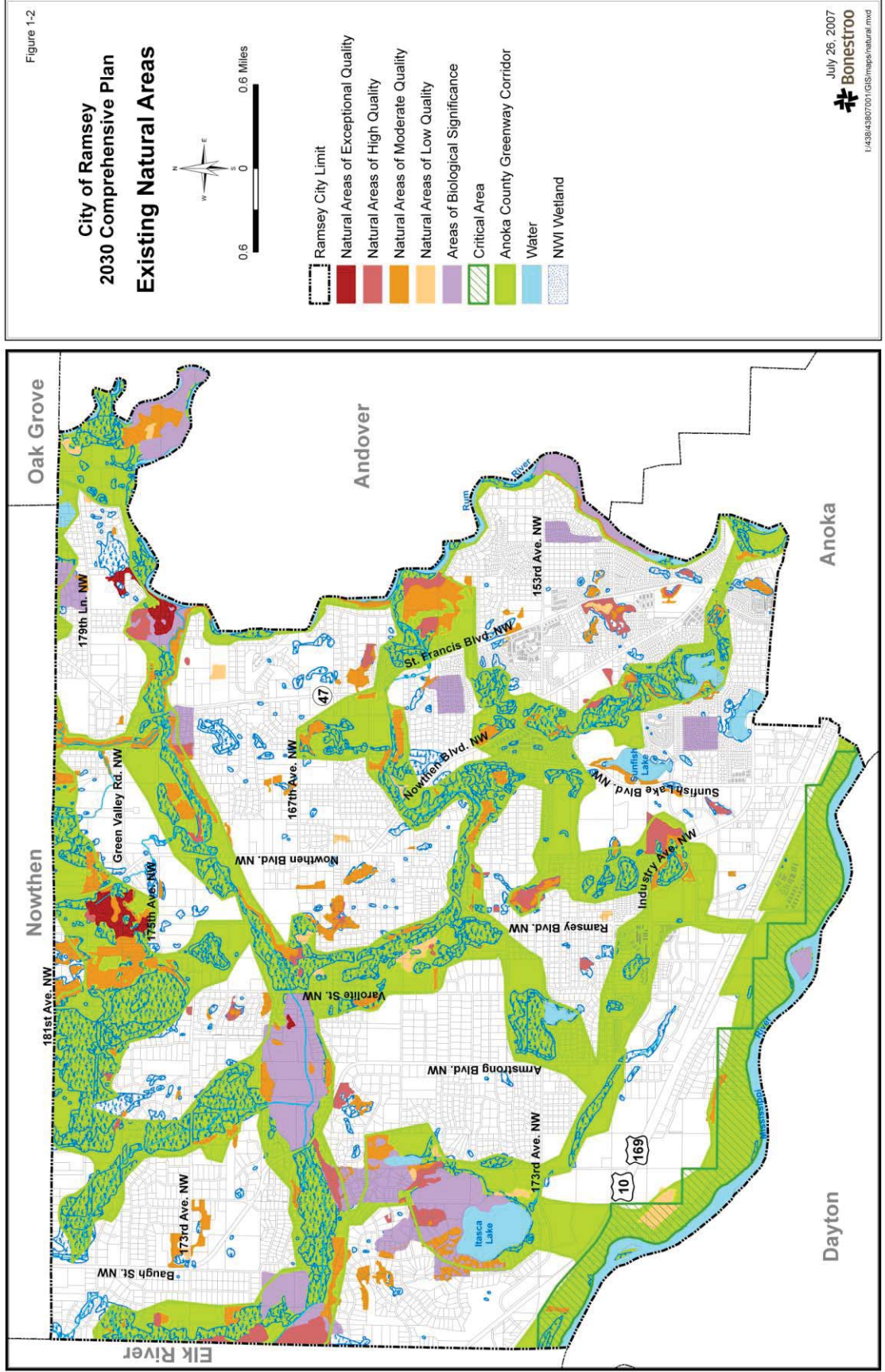
- Minnesota Department of Natural Resources
- National Park Service
- Metropolitan Council
- Minnesota Land Trust
- Trust for Public Lands
- 1,000 Friends of Minnesota
- City referendum
- Park dedication from development

Figure 13-1 Wetlands (NWI and DNR Protected Waters) and Natural Drainage



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Figure 13-3 Natural Resources Inventory



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