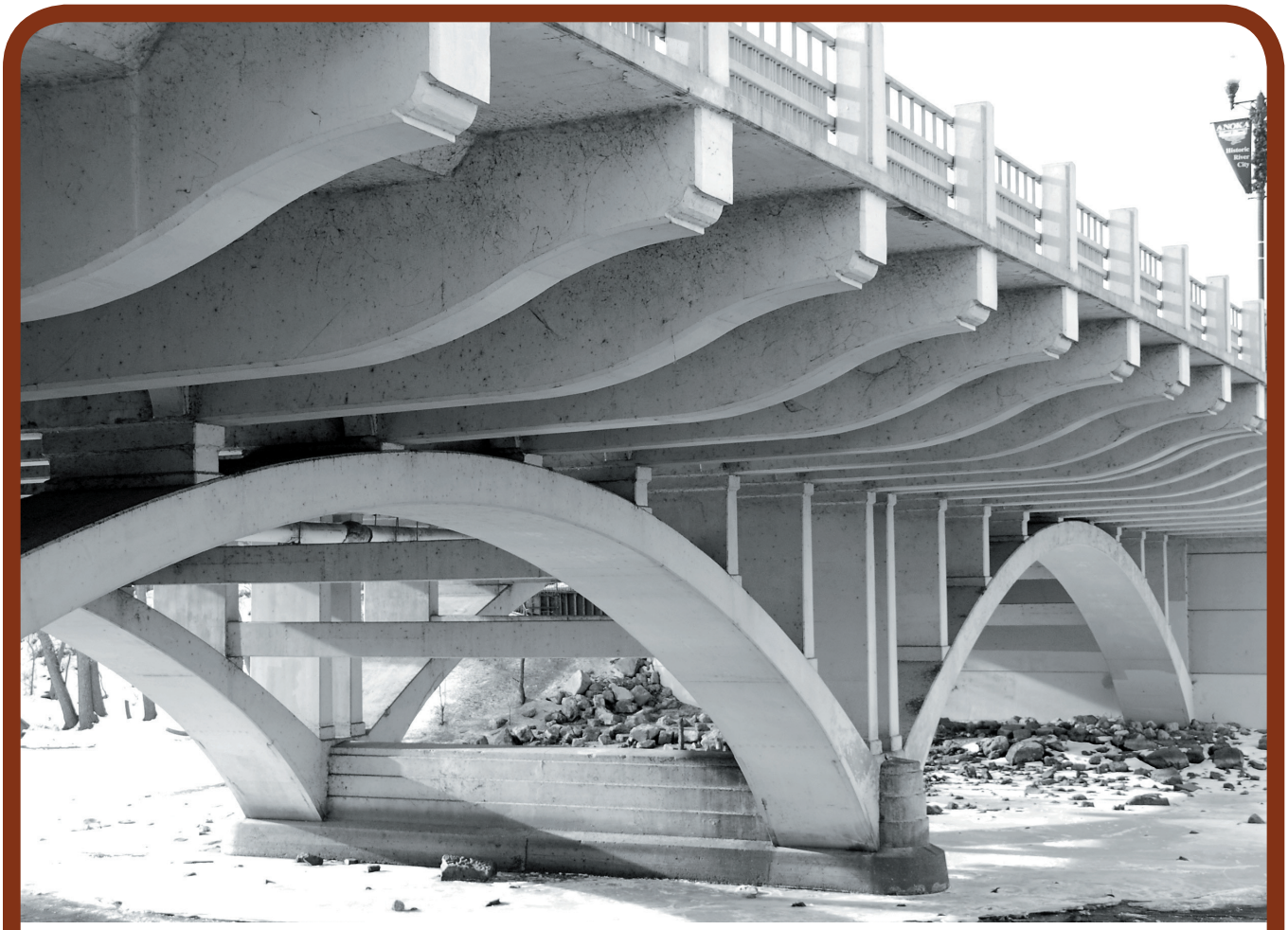

Anoka *2030* Comprehensive Plan

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City of Anoka

City Hall

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Section 1: Background
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Comprehensive Planning

Introduction

What is a Comprehensive Plan?

A Comprehensive Plan guides the overall growth and development of the city. The Plan is the umbrella document guiding future land use management decisions from redevelopment projects through development of new subdivisions. Local controls such as the City's zoning and subdivision ordinances, the capital improvement plan, special protection overlay districts and the like assist in implementing the Comprehensive Plan.

The Comprehensive Plan identifies the type, amount, and pattern of growth that has taken place within the City and utilizes this information for the planning of future growth. Accordingly, the Comprehensive Plan provides a knowledge base for instituting a hierarchy of policies that will assist the community in processing a variety of development issues on a defined policy level. This information and policy base will allow decision makers to evaluate and guide proposals benefiting the residents of Anoka.

The City of Anoka Comprehensive Plan includes goals and policies for the statutory required elements of a comprehensive plan, including land use, transportation, water supply, sanitary and stormwater systems, parks and open space, solar access protection, housing and wetlands protection. Goals and policies for the City's electric utility, economic development, historic preservation, recycling and additional community information are also contained in the Plan. The Plan is designed to allow stand-alone use of individual chapters or use of the entire plan. For example, the Economic Development section could be used by the Chamber of Commerce to provide statistical information about the City; the housing section will be used by the City's Housing and Redevelopment Authority (HRA). The Plan is a guide for elected and appointed officials, staff, developers, and the citizens of Anoka in making land use, transportation, development and redevelopment decisions, updating ordinances and regulations, and allocating funds.

Why Prepare a Comprehensive Plan?

Comprehensive planning is mandated in the Twin Cities Metropolitan Area in Minnesota. Prior to 1976, local comprehensive planning efforts were the result of local initiative. In 1976, the Minnesota State Legislature passed the Metropolitan Land Planning Act (MLPA), which required all municipalities in the Twin Cities area to prepare new comprehensive plans, or revise existing ones. The MLPA was an expression of concern by the legislature that problems of urbanization and development transcend local governmental boundaries. A comprehensive plan is a framework through which all community growth can be directed to reach the desired end. Since each community is required to review the plans of adjacent communities, responses should minimize conflicts and maximize mutual benefits.

Amendments to the 1976 Metropolitan Land Planning Act require local comprehensive plans to be updated by December of 2008. The plan must be reviewed at least once every ten years following that date to ensure conformance with a regional growth strategy for the entire Metropolitan Area.

Purpose of the Community Plan

The Comprehensive Plan provides a strategy for achieving community goals through land use and resource allocation. The plan documents the values, principles, and policies that make such decisions. The goals and policies identified throughout this plan resulted from an open dialogue among elected officials, citizens, and City staff about the future of the community.

Planning Process

The process for preparing the Comprehensive Plan involved key decision-makers, citizens, agency representatives and other interested individuals in the development of the plan. Citizen involvement is very important in the successful creation and implementation of the plan.

The planning process began with a staff advisory team consisting of staff from various departments of the city. This advisory team began holding meetings in July, 2007. The purpose of the advisory team was to review each section of the previously adopted Comprehensive Plan and update them to reflect Anoka's goals and policies for 2030. The other purpose of this team was to plan and facilitate public participation meetings to receive input from residents, land owners, and business owners in the City of Anoka about various sections of the Comprehensive Plan.

The first public meeting was held on November 15, 2007 at the Anoka Technical College. Over 700 notices were sent in the mail to various residents, property owners, and business owners. Attendance was estimated at about 130 people. An article and press release was also written in the Anoka County Union by Mandy Moran Froemming informing people about the meeting. The meeting started at 6:30 with an introduction of "What Is a Comprehensive Plan?" This was followed by a 30 minute video tour of the past, present, and future of Anoka narrated by WCCO News anchor, Don Shelby, produced by Quad Cities Television. Attendees were then asked to attend three of six separate stations that focused on the following topics: Land Use, Transportation, Public Facilities and Services, Community Identify and Marketing, Business and Economics, and Neighborhoods and Housing. Each station had a 20 minute interactive session that allowed for facilitators to obtain necessary information from participants.

The staff advisory team continued to hold meetings to discuss comments received during and after the November 15 meeting and also plan the next public meeting, held on January 17, 2008. Like the previous meeting, notices were sent out in the mail to various residents, property owners, and business owners. Attendance for this meeting was estimated at 80 people. The main feature of this meeting was the introduction to the City of Anoka Branding process. Consultants Ben Muldrow and Randy Wilson of Arnett Muldrow Associates introduced the Anoka branding

process to those in attendance. After the presentation, those in attendance were asked to visit two of four different stations that covered the following topics: Changing Landscapes: Planning for Development Opportunities; Getting Around: Citywide Transportation Planning; Making it Happen: Financing Development and Enhancing Neighborhoods: Setting Housing Goals.

The last public meeting was held on March 13, 2008. This meeting had two main features that bookended the meeting. The first main feature was a presentation on the Northstar Commuter Rail Line and the Anoka Station. A virtual video was shown that took people from the first station in Big Lake all the way to the new Twin's stadium. Attendees were then given an opportunity to view the results of the two previous Comprehensive Plan meetings and be introduced to new topics in an exhibit hall format. This also was an opportunity to ask questions and give comments on previous sessions. Lastly, Randy Wilson and Ben Muldrow presented the initial results of the Anoka Branding and Marketing Plan. This was the time to see and comment on the potential branding collateral for the City of Anoka.

The staff advisory team also created an online survey that allowed people to comment and answer questions on various topics about the City of Anoka. The 27 question survey was completed by over 300 people. For those who didn't have internet access, hard copies of the survey were made available at the public meetings and also for those who contacted the city requesting one. The results of the survey were presented to staff at a retreat style meeting at the Anoka Technical College. Additionally, staff was presented the results of the demographic study. The results of the survey provided staff good information in assisting them in writing various sections of the Comprehensive Plan.

Various boards and commissions also spent significant time reviewing and revising their respective sections of the plans based on public comment that was received. The Economic Development Commission, responsible for the Economic Development section, met seven times on the following dates to discuss the plan: November 8, 2007; December 13, 2007; February 12, 2008; March 13, 2008; April 10, 2008; April 17, 2008; and May 8, 2008. The Heritage Preservation Commission, responsible for the Heritage Preservation section, met three times on the following dates to discuss the plan: February 12, 2008; March 11, 2008; and April 8, 2008. The Park Board completed updates on the Park and Recreation section of the plan as recently as February, 2006. However, there have been minor changes to the plan since then. The Park Board met on March 18, 2008 and April 15, 2008 to discuss and approve those changes. The Anoka Housing and Redevelopment Authority (HRA), responsible for the Housing section, met five times on the following dates to discuss the plan: November 13, 2007; December 10, 2007; January 7, 2008; February 11, 2008; and March 16, 2008.

The Planning Commission has the duty of holding a public hearing on the complete version of the Comprehensive Plan and recommending the document to the City Council. The Planning Commission began discussing the Comprehensive Plan at their September 18, 2007 Worksession. A total of six Worksessions were held by the Planning Commission to discuss different sections

of the plan. Those meetings were held on November 20, 2007, February 19, 2008, April 15, 2008, May 15, 2008 and May 20, 2008. A public hearing was held by the Planning Commission on June 10, 2008 to allow for the public to comment on the complete version of the plan. That evening the Planning Commission recommended the document to the City Council.

The City Council adopted a resolution on June 16, 2008 approving the preliminary 2030 Comprehensive Plan Update. Shortly thereafter, the preliminary document was sent to adjacent communities, Anoka County, Hennepin County, Anoka-Hennepin School District and the Lower Rum River Watershed. Comments received from these agencies have mostly been incorporated into the final document.

The final document was presented to the Planning Commission on Tuesday, December 9 for recommendation to the City Council. The City Council adopted the final, 2030 Comprehensive Plan on December 15, 2008.

Comprehensive Plan Amendment

The 2008 Comprehensive Plan update may be amended should unforeseen events occur or should conditions on which the Plan is based change. An amendment should not be impulsive or erratic or to the benefit of a specific property owner. Amendments to the Comprehensive Plan may originate from the Planning Commission, the City Council or the fee owner of property affected by the Comprehensive Plan. If the amendment request is from a fee owner, the fee owner bears the burden of proof showing that the proposed amendment is not of sole benefit to the applicant. All amendment requests require a public hearing by the Planning Commission. Following the public hearing the Planning Commission will make a recommendation to the City Council to approve or deny the amendment request pursuant to findings of fact. The recommendation (in resolution form) and findings of fact will be forwarded to the City Council for action. The City Council takes final action on the request through a resolution. Approval of a comprehensive plan amendment requires a super-majority vote of the City Council (4 out of 5 members).

Relationship to Local Controls and Projects

Handbook Section 2.1
a) Policies and objectives

The Comprehensive Plan provides a legal basis for establishing local controls. Local controls include, but may not be limited to, the zoning ordinance, the subdivision ordinance, and flood plain or shoreland management ordinances. The capital improvement program, while not a “local control,” is also an invaluable tool for implementation of the Comprehensive Plan.

It is important to note that local controls should be revised following the update of the Comprehensive Plan so as to assure consistency between the measures. Other types of activities and/or projects may also require evaluation of the subject activity or project for consistency with the Comprehensive Plan. For example, prior to the City Council approving a tax increment finance plan, the Planning Commission must approve a resolution certifying the proposed project complies with the Comprehensive Plan. If a proposed project is not consistent with the Comprehensive Plan, it may be revised so as to attain consistency.

The Present

Handbook Section 2.1
*b) Regional Planning Area designation(s)**
c) Population, household and employment forecasts

According to the Twin Cities Metropolitan Council, Anoka is designated as a "Developed" community in contrast to many of its neighbors, such as Andover and Ramsey that are still developing.

Population and Household Forecasts

Each chapter of the Plan contains additional data about the City. At this point, however, it is important to highlight some major demographic trends occurring occurred in the City of Anoka. (Note: Information on employment is included in the Economic Development Section.)

Figure: Change in Population by Age – (Source: 2000 Census)

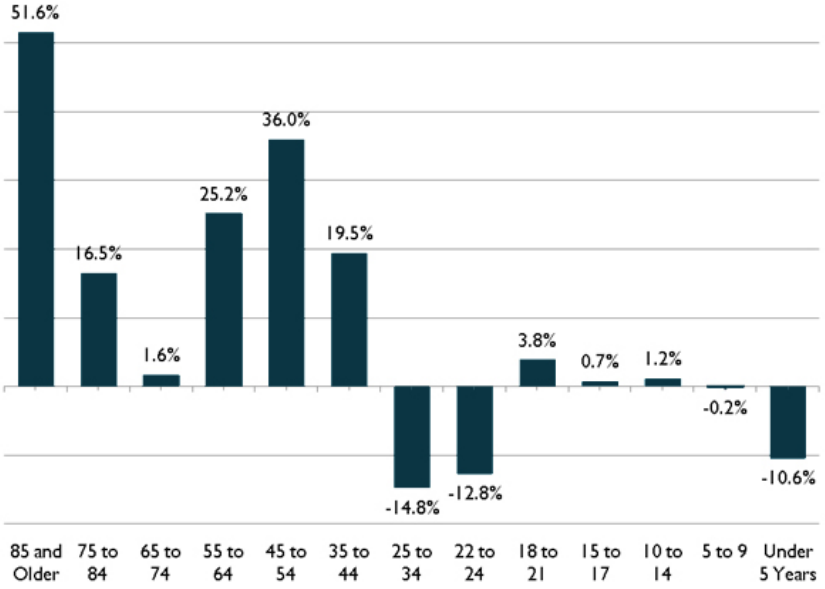
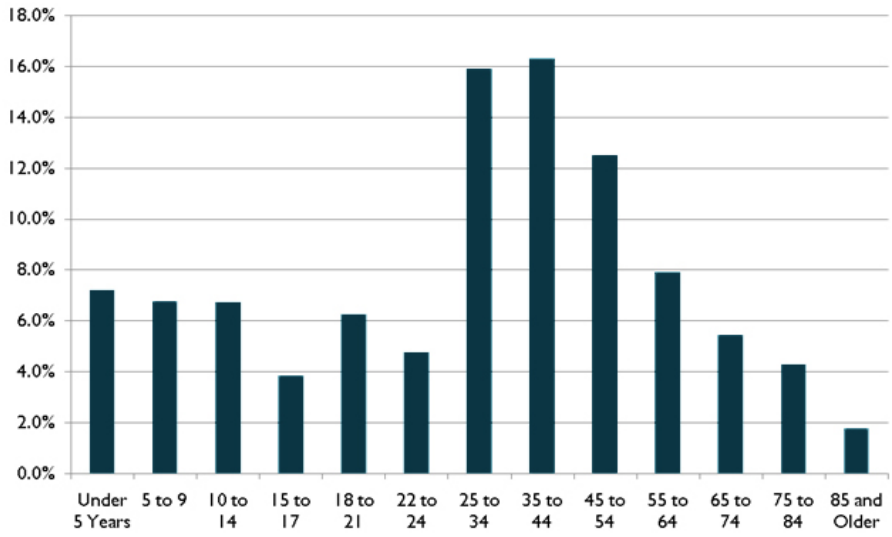
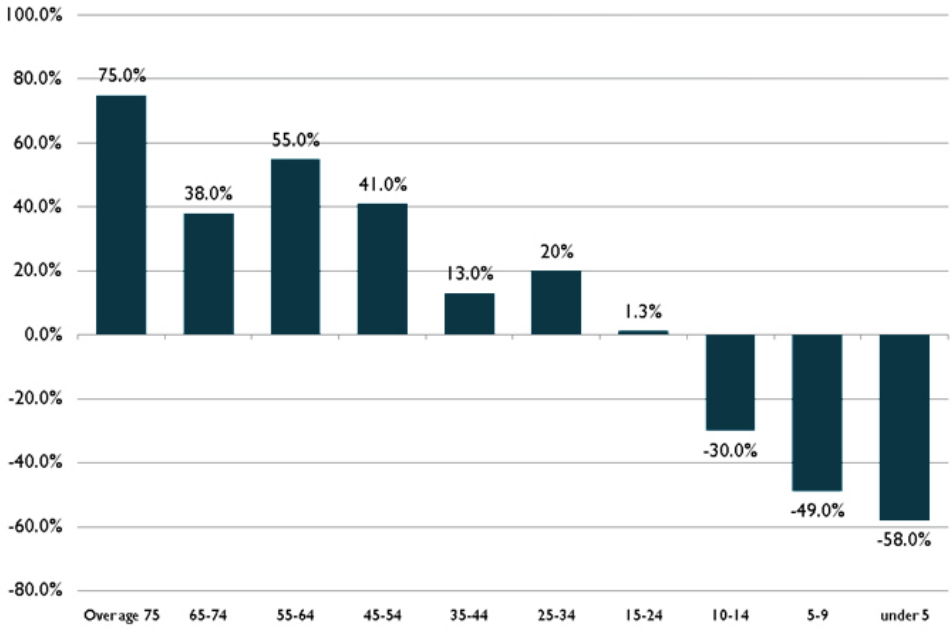


Figure: Distribution of Population by Age – (Source: 2000 Census)



Much of the demographic information included in this report comes from the 2000 Census data which is now eight years old. To augment that data and better understand recent changes, the City contracted with the firm Excensus to provide demographic information based on 2006 data.

Figure: Change in Population by Age 2000–2006 – (Source: Excensus)



Following is a summary of key findings from the Excensus report:

- Less families with children. In 2006, 19 percent of families had school age children, compared to 22 percent in the 2000 census.

- More older households.
- The share of older households (particularly ages 55 to 74) has increased significantly, doubling in number from 1990 to 2006.
- Compared to the state and nation, Anoka has a higher percentage of households with a household member greater than 75 years.
- Household size increases.
  - Average household size increased from a low of 2.49 in 2000 to 2.88 in 2006. This is likely related to the growing presence of immigrant families in the community and region.
- More households.
- For 2006, a total of 7,741 households were identified, up from 7,262 reported in the 2000 census. (The 2006 statistic assumes full occupancy of all units with 2.88 persons per unit whereas the census captures only those who were home when the census was conducted and is based on a lower per unit number.
- Existing housing.
  - In 2006, apartments made up 34 percent of all housing units. The apartment units were home to 76 percent of all households under the age of 25 and 54 percent of households ages 25 to 34.
  - 39 percent of all housing stock in Anoka in 2006 was highly affordable, single family housing (tax value under $180,000). Surprisingly, only 29 percent of households under age 35 were living in these lower priced units. By contrast, these units were home to 44 percent of all households ages 55 to 74.
- New housing in Anoka.
  - Of the 107 new housing units in Anoka since 2003, 28 percent were occupied by households under the age of 35. This compares to 13 percent in Anoka's existing housing base.
- Turnover of existing owner-occupied housing among older residents is very low.
  - Turnover among older residents in owner-occupied housing is very low – 1 to 3 percent. Residents grow older while remaining in their current homes – a pattern called "aging in place" – translating into few existing housing opportunities for new residents and young families.
- Anoka does reasonably well in providing housing opportunities for existing older residents.

– 20 to 25 percent of the Anoka households (ages 45 to 74) that moved between 2003 and 2006 found another home in the city.

- Single Family (Tax Value)

– Under $ 120,000	40.5 %
– $ 120,000 - $ 179,999	38.8 %
– $ 180,000 - $ 239,999	15.4 %
– $ 240,000 - $ 299,999	2.3 %
– $ 300,000 or more	2.9 %
–Unknown tax value	0.9 %

- Year home built

– Before 1980	67.9 %
– 1980 to 1984	0.3 %
– 1985 to 1989	17.0 %
– 1990 to 1994	4.0 %
– 1995 to 1999	4.4 %
– 2000 to 2005	2.3 %
– Unknown	1.4 %

The Future

The above information was used during the Comprehensive Plan public meetings to help understand the City's present situation and to develop goals and policies for the future (found in the implementation section). In addition, the Metropolitan Council has provided estimates for population, household, and employment for the years 2010, 2020 and 2030 (as shown below). This information was also used in preparing the Plan.

Handbook Section 2.1
c) Population, household and employment forecasts

	2000	2010	2020	2030
Population	18,076	19,000	19,800	20,800
Households	7,262	7,900	8,500	9,000
Employment	13,489	14,400	15,200	16,200

Table 1: Population, Household and Employment Projections – (Source: Metropolitan Council)

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Anoka Community Plan

Executive Summary

Located at the confluence of the Mississippi and rum Rivers, "Anoka" - a Dakotah and Ojibway word meaning "both sides of the river" and "working on the water" - is aptly named. From its early Township days of small immigrant homesteads to the logging days of the mid and late 1800's, Anoka has been well served by the rivers. Now, the river's use has changed to recreation uses and the rivers serve the City in a different, but no less important, manner.

Photo: Bum River Foot Bridge (no date)

Initially, the Rum and Mississippi "Rivers served as highways of transport for Native American hunting parties, explorers of the river tributaries, steamboats bearing settlers and immigrants and log drives guiding their harvest to market at the mills in Anoka and St. Anthony. Later, these rivers became barriers as overland travel became the predominant mode of transportation.

With the discovery of vast stands of white pine on the upper Rum River, Anoka became a logical place for investment by New England timber interests. Timber mills established in the 1850's and 1860's fueled Anoka's economic growth for nearly four decades. The surrounding sand plain area also provided appropriate soil for the production of potatoes, creating a major industry in Anoka after the turn of the century.

Anoka's development was also enhanced by its location along early transportation routes, including the Red River Trail and Military Road, which later became U.S. Highway 10. In addition, one of the first extension of railroad from St. Anthony reached Anoka in 1864 and was later extended westerly. Today, this route is a main line for the Burlington Northern Railroad.

Construction of a bridge over the Rum River in 11853 made it possible to develop commercial property on both sides of the Rum River. The first bridge and many others were washed away, but were always reconstructed. In 1884, a bridge was constructed over the Mississippi River to provide access to Anoka from Hennepin County. Replacement and expansion of these river crossings and related access roads have been key elements in the economic development of the City.

Like many other midwestern communities, immigrants migrating westward settled the town. New England lumber barons established the early basic industry of lumber milling, followed by Scandinavian immigrants who worked in the logging camps and lumber mills. From 1860 to 1885, the City grew dramatically, from 600 people to 4,600. Rapid industrial growth fueled residential construction and commercial development in the Central Business District. When the lumbering industry declined due to exhausted forest resources, the City population fell below 3,800 people and forty years passed before the population again exceeded 4,600.

Anoka's early neighborhoods portrayed the different ethnic and social identities of the City. The east side of the Rum River was known as Christian Hill and contained several churches and homes of the original New England settlers. North of Main Street, between Fourth and Seventh Avenue, was Swede Town - home of Scandinavian immigrants. The smaller neighborhoods of Wet Flats and Cutterville Flats were along the banks of the Rum River. On the north end of the City, near the railroad tracks, was Northtown (also known as Uppertown), which included both residential and commercial development near the railroad depot. On the west side of the City was Slab Town - Inhabited by workers in the lumber mills and Frog Town - a French settlement. Residents near Main and Ferry Streets considered themselves to live in Rum River, which was the original settlement area of the community. South of Rum River was Fireman's grove and the Point. West of Rum River was the area known as Whiskey Flats - adjacent to the ferry docks and known for early brewing of whiskey. These neighborhoods retained their identity through the 1940's.

As the county seat and the agricultural market center in the area, Anoka was a free standing full service community until the 1940's. As St. Anthony and the Twin Cities of Minneapolis and St. Paul became the economic center of the state in the 1950's and 1960's, Anoka became a distant suburb. Curing the 1970's and 1980's, anoka was considered a free standing growth center. In the 1990's Anoka was reclassified as a developing area based on the rapid growth of surrounding bedroom communities. Currently, Anoka is essentially fully developed and is entering an era of redevelopment.

Vision and Guiding Principles

In the early 1990's, the City, in conjunction with the Anoka County Extension Service, conducted a visioning process that identified principles that are important to Anoka citizens. These visions were further verified during a series of tent workshops conducted in the summer of 1998. The following guiding visions continue to reflect the values of Anokans.

1. Anokans recognize and appreciate the distinctive character of their community and take pride in their neighborhoods, families, and enduring friendships. In the future, Anoka...

    - has a unique downtown that preserves the "Main Street" image, blending merchants, professionals, residents, and visitors in an active trade and service center.
    - recognizes its heritage, and plans for a future that preserves and celebrates its history, culture and distinctive physical features.
    - is clean and takes pride in the appearance and condition of buildings, parks, streets, and natural features.

2. Anokans recognize the importance of their human resources, the character provided by each generation, and the power of human networks to provide for the needs of all citizens. Anoka will continue to be a community that:

    - encourages cooperation with and support for the cities that make up the "Community of Anoka," combining energy and resources when possible to create the best situation for all cities involved.
    - deters drugs, crime, and violence, with a Police Department working together with citizens to maintain a peaceful and secure environment.
    - values and encourages "volunteerism," enabling citizens to enjoy rewards and see the results of giving their energies to the improvement of their community
    - responds to the needs of youth with a variety of entertainment options
    - provides personal development opportunities, and social activities.
    - views persons of diverse ethnic and cultural backgrounds, physical and mental abilities, age, and economic conditions as valuable members of the community.
    - recognizes the importance of leisure time and fun for well-balanced living by promoting diverse and exciting entertainment and activities for all ages.

3. Anokans recognize the importance of an economy which provides opportunities for all residents. Anoka will continue to be a community that:

    - realizes the economic benefits of riverfront development.
    - is open minded and aggressive in exploring options for development that will not only benefit business but also address the long-range needs of the community.
    - encourages and promotes business enterprises which provide needed products and services not only to the people of the area but also to populations and businesses throughout the world.
    - provides a variety of rewarding employment opportunities for the people of the area.
    - promotes and supports the efforts of businesses to maintain viability to change, expand, or improve services and products; to improve efficiency and competitiveness; and to operate in an environmentally sensitive manner.

4. Anokans value the environment, recognize the unique resources represent by their rivers, and enjoy the many opportunities that such resources offer. Anoka will continue to be a community that:

    - appreciates the economic and recreational value of rivers, lakes, and wetlands while respecting and protecting native wildlife and valuable habitat areas.
    - strives to operate with a minimum of pollution and waste, encouraging residents and businesses to participate in waste management programs that are both effective and convenient.

5. Anokans recognize the importance of many services in maintaining their quality of life. These services will continue to be important to them; today and in the future Anoka will be a community that:

    - has transportation systems that are modern, well-maintained, low-polluting, and energy efficient.
    - has a road and bridges system which supports development opportunities.
    - recognizes the importance of parks and recreational facilities which are clean, safe, well-managed, and accessible, and develops properties with consideration for such facilities.
    - is committed to a high-quality educational system which makes the most of its physical, financial, and human resources to provide educational opportunities for all citizens.
    - promotes the physical and mental health of all its residents, and supports the industries, professionals, and agencies which provide such services.

Based on the results of the visioning meetings, several guiding principles have been identified to ensure continued recognition and appreciation of the distinctive, historic character of the City. These principles, listed below, continue to be used as the basis of future planning for the City.

Guiding Principle 1

Invoke a sense of place.

- Establish a physical setting for development that says, “This is Anoka.”

Guiding Principle 2

Invest in the public realm.

- Create a network of streets, trails, sidewalks and parks that are safe and vibrant.

Guiding Principle 3

Amplify the mix of uses.

- Create and restore a downtown that allows people to work, live, and play.

Guiding Principle 4

Ameliorate connectivity.

- Provide people with ways to move between their neighborhoods and downtown that are safe and convenient.

Guiding Principle 5

Insure that buildings support broader city building goals

- Design and restore Anoka's historic architecture.

Guiding Principle 6

Amplify existing strengths

- As the city rebuilds, cherish what we already treasure - our historic buildings, parks, and the Rum an Mississippi Rivers.

Guiding Principle 7

Sustain and strengthen heritage resources.

- Preserve historic buildings and public spaces

Guiding Principle 8

Promote the use of public spaces.

- Increase the number of people in our public spaces, downtown, along the riverfront, and in our neighborhoods.

ANOKA
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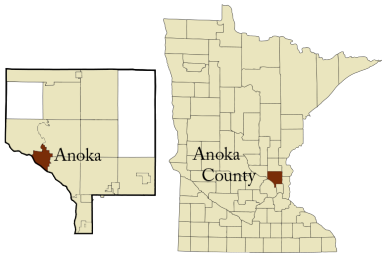
Community Background

Location



The City of Anoka is located at the confluence of the Rum and Mississippi Rivers, about 18 miles north of Minneapolis and 25 miles northwest of St. Paul. Anoka is seven square miles in size with a population of approximately 17,501 (2006 estimates). The City of Anoka serves as the county seat for Anoka County, which is one of the fastest growing counties in Minnesota.

Figure: City of Anoka and Anoka County

City Structure

The Anoka City Council is comprised of four council members and a Mayor, all of whom are elected at large. Two Council members and the Mayor are elected at each City election held every even numbered year. Council members' terms are four years; the Mayor's term is two years. The Mayor presides at City Council meetings and has equal voting rights with the Council members. The Mayor does not have veto power. The Mayor also serves as the City's representative for civic occasions.

The City Manager serves as the Chief Executive Officer of the City and is responsible for the day to day operations of the City and carrying out Council policies. The City Manager serves at the discretion of the City Council for an indefinite term.

A number of appointed citizen boards and commissions serve in an advisory capacity to the City Council. The boards and commissions include: Charter Commission, Economic Development Commission, Heritage Preservation Commission, Housing and Redevelopment Authority, Human Rights Commission, Park and Recreation Advisory Board, Parking Advisory Board, Planning Commission, Utility Advisory Board, and Waste Reduction and Recycling Board. As vacancies occur on the various boards and commissions, new members are sought through advertisement in the local newspaper. All members serve without compensation.

Cable TV

Anoka is served by Quad Cities Community Television system. A Quad Cities Cable Commission, comprised of two members, each, from Anoka, Champlin, Andover, and Ramsey administers the franchise ordinance that governs the system.

Photo: Television (Image courtesy of Flickr and Quad Cities Community Television, 2008)

City-Operated Facilities

Anoka operates its own golf course (Greenhaven), two municipal liquor stores, and two cemeteries. The largest enterprise run by the City is the electric utility. Anoka has been operating its own electric utility since 1909. The City purchases electricity from the "Minnesota Municipal Power Agency", of which it is a member. The electric utility supplies and serves about 11,500 customers in Anoka and surrounding areas. This system provides competitive electric rates for residents and also contributes to government capital and operating funds which reduces overall general property tax needs.

Water and Sewer

Anoka draws its water from six municipal wells and three storage tanks with a capacity of 2.4 million gallons. Anoka's sewage is treated by the Metropolitan Council Environmental Services at Pigs Eye Treatment Plant in St. Paul.

Fire Department

The Anoka Fire Department was first organized in 1854. In March of 1985, a combined fire department was formed with Champlin, known as the Anoka-Champlin Fire Department. The department is also a member of the North Suburban Mutual Aid Association and Anoka County Protection Mutual Aid. It is eligible to receive or provide mutual aid services per agreement with eighteen other area communities. The Anoka-Champlin Fire Department operates under a Joint Powers Agreement between the two communities. The Department has two fire stations. The headquarter station is located in Anoka and the satellite station is located in Champlin. Currently, there are 41 paid-on-call firefighters between the two stations. The Anoka station staffs a full-time Fire Chief and three Duty Inspectors on rotating 24-hour shifts. The Anoka station is staffed 24 hours a day.

Photo: Anoka Police and Fire Station (Image courtesy of Community Design Solutions and Arnett Muldrow & Associates)

Recreation

Anoka has a total of 802 acres of publicly owned recreational property, with over 300 acres yet undeveloped. There are 35 parks and playgrounds (including four major park complexes). The system includes 27 ballfields, 14 tennis courts, 11 municipal buildings, two swimming pools, an 18-hole golf course, a band shelter, a senior citizens activity center, and a bikeway connecting the central business district with historic sites and the Anoka County Fairgrounds. The Anoka Area Ice Arena and Greenhaven Country Club are also located in Anoka.

Police Department

The Anoka Police Department provides a full range of law enforcement services. Communications for the service area are provided by a Anoka County Central Dispatch system that includes enhanced computer aided 911 dispatching. Police emergency response and criminal investigations are handled by the Anoka Police Department. Follow-up investigations regarding all death, sexual assault, and felony child abuse incidents and detentions are handled by the Anoka County Sheriff's Office.

The Anoka Police Department employs 34 full time employees, consisting of 27 sworn peace officers and 7 civilian support positions. The agency has a trained volunteer Police Reserve Unit and Police Explorer Unit. The agency provides contractual non-sworn civilian security services for the Anoka Metro Regional Treatment Center. The agency provides animal control services and maintains an animal pound facility. The agency has two trained police canine units as well as an actively trained S.W.A.T. Team.

The Department is organized into three components that report to the Captain, who in turn reports to the Chief of Police. The Patrol Section is the largest unit within the APD and is supervised by three Watch Commanders (Sergeants). The Criminal Investigations Section Sergeant supervises the investigators and school liaison officers. The Support Services Section Sergeant supervises all of the non-sworn (civilian) support staff that includes; Community Service Officers, Police Technicians and Security Officers. This Sergeant is also the Liaison with the Anoka Metro Regional Treatment Center.

Schools

Anoka is in Anoka-Hennepin School District 11, which is the largest school district in Minnesota. Within the City of Anoka there are five elementary schools, two middle schools, a parochial school, a senior high school, a PACT Charter school, the Anoka-Hennepin Technical College, and the Anoka-Hennepin Learning/District Complex.

Halloween Capital of the World

It is believed that Anoka is the first city in the United States to hold a Halloween celebration. In early 1923, Anoka merchants and other interested citizens joined together in a move to stop Halloween pranks. The group decided to hold a big Halloween party for all the children. The party included free candy and a variety of entertainment. The concept rapidly caught on and in October of 1923, Anoka had its first Halloween celebration.

Photo: Trick-or Treat in Anoka (Image courtesy of Flickr, 2008)

The celebration has been held every year since, with the exception of two years during World War II. Anoka considers itself to be the "Halloween Capital of the World." Anoka celebrates Halloween with such festivities as a Kiddie Parade, a Grande Day Parade, a Coronation, a Pumpkin Bowl Football Game, block parties, the Grey Ghost 5K run, and costume parties. Anoka merchants also participate in the celebration by putting colorful paintings of Halloween scenes on their store front windows.

Photo: Anoka Halloween Royalty (Image courtesy of Flickr, 2008)

Photo: Anoka Halloween Parade (Image courtesy of Flickr, 2008)

REAL. CLASSIC.™

Section 1: Background

Section 2: Land Use

Section 3: Public Facilities

Section 4: Implementation

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Land Use

Introduction

The Land Use chapter of the Comprehensive Plan provides direction, goals, and policies to assist in future land use decisions in the City of Anoka through 2030. Anoka is basically a fully developed city with only a few opportunities for development to occur on open land. As such, Anoka needs to address future land use through redevelopment opportunities. This Chapter will examine the following:

Existing Land Use

– This section describes the current land use map, land use designations, and distribution of land use.

Future Land Use

– This section describes guided land uses through 2030.

Planning Areas

– This section describes specially identified past, present, and future planning areas identified specially.

Goals, Policies, Implementation

– This section identifies specific goals and policies to assist in future land use decisions.

Existing Land Use

Handbook Section 3.1
b) Existing land use map and definition of categories

The first step in defining land use within the City is to examine existing land use. (See 2008 Existing Land Use Map.) This map depicts the existing land use of a property regardless of zoning, or guided land use. Land use in the City is divided into four categories: Residential, Commercial, Industrial, and Public/Open Space. The following table summarizes the distribution of existing land uses in the City.

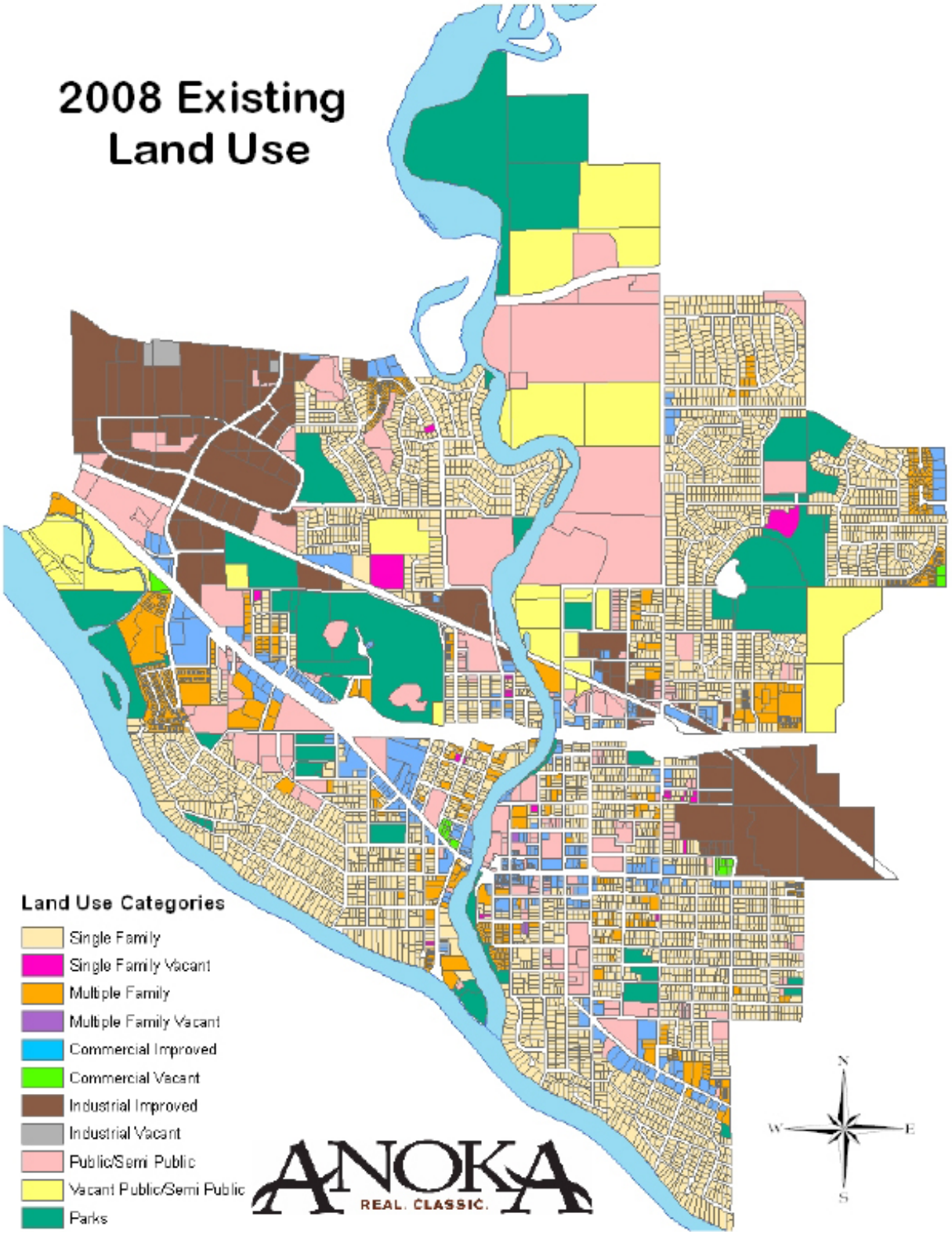

Figure: 2008 Existing Land Use – (Source: City of Anoka)

Land Use	Existing Acres	%
Single-Family Residential	1,201	29
Multiple-Family Residential	198	5
Subtotal - Residential	***1,399***	***34***
Commercial	156	4
Industrial	453	11
Public/Semi-Public	578	14
Parks and Recreation	483	12
Roadways	642	16
Total - Developed	***3,715***	***91***
Vacant Single-Family Residential	20	0
Vacant Multiple-Family Residential	1	0
Subtotal - Vacant Residential	***21***	***1***
Vacant Commercial	8	0
Vacant Industrial	8	0
Vacant Public/Semi-Pubic	343	8
Total - Vacant	***380***	***9***
Total Land	***4,095***	***100***
Open Water *(Mississippi & Rum Rivers, wetlands)*	426	
Total	***4,521***	

Table 1: Existing Land Use

Residential

Single family homes comprise 29% of the total acreage within the City. Multiple family use makes up an additional 5% for a total of 34% of the total acreage in the city occupied by residential structures. The following table shows the net residential density in the City of Anoka.

Land Use	# of Units	Acres in Land Use	Net Density (Units/Acre)
Single-Family Residential	4,131	1,201	3.43
Multiple-Family Residential	3,276	198	16.54
Total	***7,407***	***1,399***	***5.29***

** Anoka's manufactured home park will be closed by the end of 2008. As such, no calculations are provided for manufactured home park use.*

Table 2: Existing Residential Land Use

The Metropolitan Council requires three units per net developable acre and Anoka exceeds that minimum. Because Anoka is a fully developed community with little remaining vacant land available for development, it is anticipated that any development that will occur will be denser than three units per acre.

Commercial

Commercial uses comprise 4% of the total acreage in the City. Commercial uses are predominately along the major roadway corridors in the City. These areas are as follows:

1. Highway 10 between Main Street and the westerly border of the City.
2. East River Road from 5th Avenue to the easterly border of the City.
3. Main Street from Highway 10 to the easterly border of the City.
4. Intersection of Highway 47 and Bunker Lake Boulevard.
5. Southwest corner of the intersection of Round Lake Boulevard and Bunker Lake Boulevard.
6. Along 7th Avenue south of Highway 10.
7. Along 7th Avenue near 38th Avenue.

Industrial

Industrial uses comprise 11% of the total acreage in the City. The 2020 Land Use Plan identified two types of industrial use, Light and General. Light industrial use is generally found within the Anoka Enterprise Park (AEP). The Anoka Enterprise Park was created in 1995 and development of lots has occurred since then. The land in the AEP is now mostly developed, with only three remaining City owned parcels available for development or expansion. The site of the former Cornelius building just south of the AEP on the northeast corner of Highway and Thurston Avenue is now occupied by the Eniva Corporation. The 2020 Land Use Plan identified this property as general industrial; however it is anticipated that the use of this property will be more consistent with light industrial land use.

General industrial land use is located primarily along the BNSF rail line. Major companies located within the general industrial area are Federal Cartridge, Hoffman Enclosures and SCI Recycling.

Much of the land located within the Commuter Rail Transit Village (CRTV) is currently industrial use. As shown in the 2030 General Land Use Map, this area is being studied to determine appropriate zoning and land use as it relates to commuter rail. It is anticipated that the area will consist mainly of commercial and residential uses, with the potential of light industrial use as well. As such, this area will provide additional opportunities for commercial and residential development In turn, changing the zoning will also reduce the general industrial land use in the City.

Public/Open Space

Public/Open space comprises 34% of the acreage within the City. Public/Open space is all publicly or semi-publicly owned land which can include schools, governmentally owned property, churches, cemeteries, and parks. Eight percent of this land is considered vacant with the potential for being improved.

Roadways/Rivers

Anoka has approximately 642 acres of roadway and 426 acres of open water which includes the Mississippi and Rum Rivers.

Future Land Use

Handbook Section 3.1
c) Future land use map and definition of categories

This section identifies future, desired land use in the City of Anoka. In 2001 when this document was updated, the City decided to simply update the land use plan to be consistent with the current zoning. The Comprehensive Plan would then provide guidance when and if a request was made to change the land use. This plan takes a similar approach, however certain areas are not consistent with the current zoning map. The reasons for doing so are described specifically later in this section.

The 2030 Land Use Map is different from the approved 2020 Land Use Plan. In 2007, the City adopted a mixed use zoning district along Main Street. That has been incorporated into the 2030 map. Also, the 2020 plan showed all of the public uses in one category. The 2030 plan separates the various public uses.

One area is designated as a study area on the 2030 Land Use map. The area is the city owned land north of CSAH 116. This area is further described in the Planning Areas section later in this document.

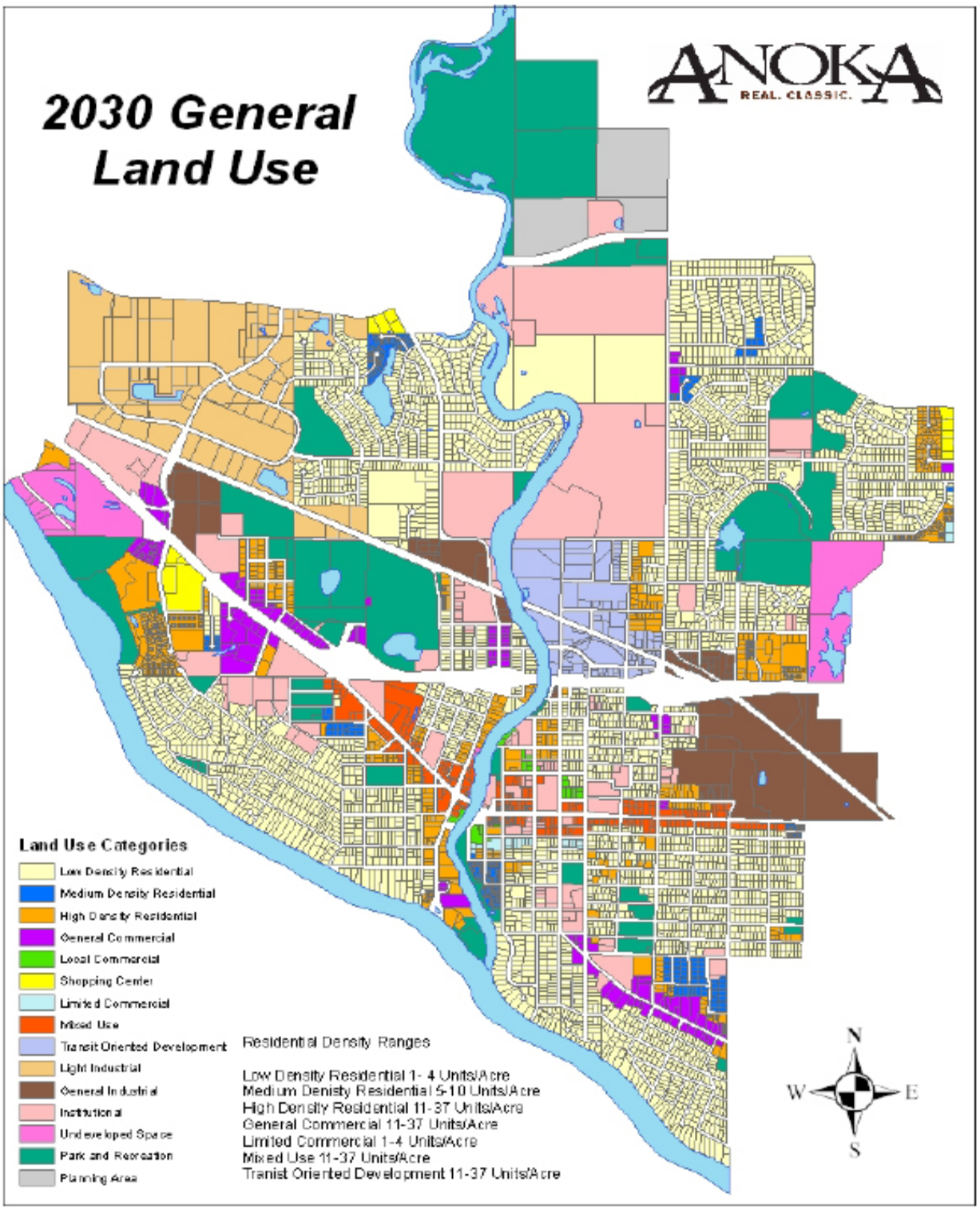

Figure: 2030 General Land Use – (Source: City of Anoka)

Land Use Designations

The various districts in the 2030 Land Use Map can be summarized as follows:

Residential

1. RL -- Low Density Residential

   The residential low density (RL) designation shown on the map identifies areas to be developed at the lowest residential densities in Anoka. The following are guidelines and criteria for development within RL areas:

RL - Low Density Residential	
Units per acre:	One to Four Units/acre.
Type of dwelling unit:	Single-family detached dwellings.
Minimum lot area per unit:	6,000 square feet if a planned unit development; 10,000 for single lot development or without a planned unit development.
Locational requirements:	Generally lower densities on the interior and higher densities on the periphery; not suggested for areas adjacent to principal and intermediate arterials.
Facilities:	Generally include a neighborhood park within one-half mile walking distance; includes a defined walkway that connects most homes; neighborhood shopping facilities are available within a five-minute drive.

2. RM -- Medium Density Residential

RM identifies areas that include development in the medium range of residential land use. Higher density single-family townhouses and medium-size apartment buildings are indicative of RM development. In large developments, a variety of housing types and densities will be encouraged rather than strict adherence to zoning district regulations. The following are guidelines and criteria for development within RM areas:

RM- Medium Density Residential	
Units per acre:	Five to ten units per gross acre (4,000 to 7,000 gross square feet per unit)
Type of dwelling unit:	Higher density single-family detached; attached housing in the form of two-family, townhouses, and other types of low density multi-family structures under a planned unit development.
Minimum lot area per unit:	7,500 square feet for single-family detached units without a planned unit development; 6,000 square feet for single family in a planned unit development; and 4,000 square feet for multi-family developments.
Locational requirements:	Must abut and have reasonably direct access to intermediate arterials, minor arterials and collectors; should be located near large areas of permanent public open space (community parks, schools, etc.); near neighborhood shopping and service facilities.
Facilities:	Should be located near neighborhood parks and playgrounds; local private recreational facilities, such as tennis courts, and swimming pools may be provided for the residents of larger developments designated RM.

2. RH -- High Density Residential

The RH residential category is the highest density range and is designed to provide areas for development that are compatible with the abutting traffic conditions and adjacent, existing land use. Due to the concentration of people in high density residential areas, innovative placement of garages and open space is encouraged. The following are the guidelines and criteria for development within high density residential areas:

RH- High Density Residential	
Units per acre:	Minimum of 11 Units/acre; Maximum of up to 37 Units/acre; up to 50 units with a PUD.
Type of dwelling unit:	Townhouses or apartment units; all types of housing units with a PUD.
Locational requirements:	Must abut and have reasonably direct access to minor, intermediate, and principal arterials; must be situated on the fringes of lower-density neighborhoods; should be located near large, public open space, neighborhood shopping facilities, or near the periphery of the Mixed Use and Local Commercial Districts so that people may walk to work.
Facilities:	May include private recreational facilities provided by the developer during the first stage of development; should be located near neighborhood parks and playgrounds.

Commercial

1. GC – General Commercial

This category is designed to accommodate a wide range of auto-oriented services such as sit-down restaurants, convenience restaurants, hotels, retail uses, combined warehouse/retail uses, office uses, automotive sales, service and gas, and specialized service businesses that are convenient to the motorist. High density residential uses are also encouraged where appropriate.

Characteristics:

Most of the uses in this land use category are of the "one-stop" variety; they are commonly not dependent on "shopping trips" or on "walk-in" trade. Rather, special trips are made for a specific trade or service. Uses in this category are often located near other business facilities. General Business land uses often produce undesirable effects on abutting uses, so care must be taken in the placement and buffering of these businesses. Examples include:

- **Through-highway Businesses**, such as hotels, restaurants, service stations, and convenience stores, that provide the basic requirements for the traveling public. These uses should be easily accessible by being located near junctions of major highways or should be located on major highways.
- **Arterial Businesses**, such as convenience stores, service stations, and grocery stores that generally require large lots with low building coverage and serve neighborhoods and communities. These uses should be placed in central locations, on major arterials, or adjacent to shopping centers.
- **Automotive Sales**, such as new and used car sales lots, farm implement sales, and trailer and heavy equipment sales that serve the region. These uses should be concentrated to allow for comparison shopping and should be located in an area that permits large display areas.
- **Automotive Services**, including automobile service and repair, body shops, service stations, and automobile parts that serve neighborhoods, communities and subregions. These uses should be located adjacent to each other because of their complementary functions

Type of Development:

The following uses are appropriate in the GC – General Commercial category:

- Auto-oriented uses, such as, auto sales and service and specialized automotive services, hotels, restaurants, and theaters.
- Businesses that are incompatible with downtown retail shopping facilities because of their size, traffic generation, building design or need for large display areas.
- Clusters of the above uses which serve other industrial or commercial warehouse uses which have considerable customer contact.]

Locational Criteria:

GC – General Commercial uses should be:

- Near principal access points of limited access highways or major thoroughfares.
- Developed in clusters rather than in a "strip" pattern.

- Adjoining other business or industrial areas.
- When possible, buffered by other commercial, industrial or medium/high density residential land uses and not adjacent to low density residential land uses

Site Development Standards:

The following standards apply to GC – General Commercial uses:

- If adjacent to residential areas, particular concern should be given to the orientation of access and service vehicles, buffering, and the location of adverse site features, such as trash enclosures, parking, lighted signs, and outside display.
- Access and interior traffic movement should be designed so that vehicles may enter and leave the site without interfering with the traffic movement on the abutting highway or arterial.
- Frontage roads, joint access points, joint parking and coordinated planning for adjacent sites will aid in alleviating problems normally associated with business development.

2. SC – Shopping Center

The SC -- Shopping Center category is designed to accommodate neighborhood shopping centers. These centers are characterized by ease of access, extensive parking areas, uniform building character, single or unified ownership, and separation of the automobile from the pedestrian.

In this district, retail stores and parking are clustered for the following reasons:

- Less land is required to provide an appropriate level of service.
- Relationships to abutting land are much improved due to less peripheral length and combining of similar activities (loading, storage, etc.).
- Most goods required are available without driving between stores or shopping areas.
- Shopping centers can be the focal point of major residential areas with other neighborhood service and public facilities supporting the center.

Neighborhood shopping centers provide convenient day-to-day shopping within easy walking distance or within a five-minute drive of all residents within its primary trade area.

Type of Development:

The following uses are appropriate in the SC – Shopping Center category:

- Planned, unified shopping center.
- Neighborhood shopping center
- Big-box retail -- one or more large supermarkets or franchise stores.
- Other tenants, including hardware stores, minor appliance stores, cleaning and repair services, barber and beauty shops, card and gift shops, bakeries, coffee shops, clothing shops, florists, small variety shops, and specialty shops.
- Complimentary uses include local business and professional offices.
- Typical adjacent uses are service stations and drive-in facilities.

Locational Criteria:

SC - Shopping Center uses should be:

- Located near intersections of thoroughfares and/or collectors roadways.
- Centrally located at a common point on the periphery of three or more neighborhoods.
- Adjacent to high-density residential areas.

3. LC - Local Commercial

The purpose of the Local Commercial designation is to provide for logical, easily accessible locations where service or convenience-type retail establishments can be made available. Typically, these designations are near existing and projected population concentrations, such as high density residential, commercial, or the downtown area.

Type of Development:

The following uses are appropriate in the LC – Local Commercial category:

- A retail area surrounded by parking, public uses, service businesses, and high density residential development.
- Service businesses and public service areas that surround the retail core and/or are oriented to the vehicular traffic entering or circulating in the fringes of the downtown area.

Development Policies:

The following policies apply to the LC – Local Commercial category:

- The retail core should be as compact and concentrated as possible while still providing the necessary variety.

- The retail core should be shopper oriented with emphasis on pedestrian traffic and only limited vehicular traffic.
- Parking should be located where it is convenient to the motorist entering the downtown area, to the pedestrian circulation system serving the retail core, and to the service businesses.
- Parking should be provided through a combination of street parking if available, private off-street parking, and public off-street parking lots or parking facilities.
- Uses that have similar functions and accessibility needs should be consolidated.
- Provisions should be made to separate pedestrians from vehicles.
- Separate traffic facilities should be provided to serve differing travel functions such as through traffic, local traffic, pedestrian traffic, and parking.
- The retail business area should be compact and efficient by replacing incompatible uses with appropriate retail uses.

4. LMC -- Limited Commercial

The Limited Commercial category is designed to provide areas for high quality, restricted commercial uses that are developed with the highest standards of architectural design, landscape treatment, parking, service and open space. Professional and administrative offices and limited research and service facilities will be permitted along with other business uses having limited contact with the public.

Type of Development:

The following uses are appropriate in the LMC category:

- High-quality office, administrative, professional and service facilities.
- Single family dwellings.

Locational Criteria:

LMC uses should:

- Have reasonably direct access to limited access highways and major thoroughfares for both access and exposure.
- Be near or be part of areas of high density residential development.
- Adjoin high quality industrial development.
- Be located in conjunction with major commercial centers.
- Provide a buffer between General Commercial, Local Commercial, industrial uses and residential uses.

Mixed Use

1. MU -- Mixed Use

The purpose of the MU - Mixed Use category is to allow for harmonious development and redevelopment with a variety of uses. Mixed use development should:

- Maintain the visual environment of the City, protect the general welfare, and ensure that the City's property values, buildings, designs, appearance, character, and economic well-being are preserved and respected through minimum design and appearance standards.
- Encourage creativity, imagination, innovation, and variety in architectural design and building composition through design principles that promote harmony in the physical relationships between structures in the City.
- Reinforce and support a healthy development pattern in which new buildings and building modifications maintain the City's unique character through complementary and appropriate use of building materials, massing and architectural details.
- Encourage a diversity of uses and activities that promote pedestrian activity.
- Promote the use of quality construction.

Type of Development:

The following uses are appropriate in the MU category:

- Primarily commercial, office, and institutional.
- Primarily high density residential dwellings and single family dwellings where local controls allow for.

Transit Oriented Development

The purpose of the Transit Oriented Development (TOD) land use category is to encourage a mixture of residential, commercial and civic uses in proximity to the commuter rail station at densities and intensities that support and increase transit use. Development in the TOD District should:

- Encourage a safe and pleasant pedestrian environment near the rail station and to limit conflicts between pedestrians and vehicles.
- Maximize access to transit.
- Encourage use of transit infrastructure.
- Provide parking in an unobtrusive manner.
- Reduce parking requirements by encouraging shared parking and alternative modes of transportation.
- Encourage a sense of activity and liveliness along the street level of building facades.

Type of Development

The following uses are appropriate in the Transit Oriented Development category:

- A mix of high density residential uses that may include apartments, condominiums, townhouses, row houses, and senior care facilities.
- Retail uses that create high activity in the center of the TOD.
- Office use and other moderate to high intensity forms of employment to maximize the number of people having access to their job via transit.
- Public buildings/uses that are an amenity. Such uses can include plazas, parks, clinics, libraries, and public service centers.
- Food oriented retail uses such as cafes and restaurants adjacent to public spaces to encourage gathering.
- Industrial uses that have high number of employees and no outside storage or other intense on-site activities.
- Personal service establishments (barber shops, dry cleaners, etc.)

Locational Criteria

Transit Oriented Development land uses should be located one-quarter to one-half mile from a major transit hub.

Development Policies

The following are general development policies for Transit Oriented Development:

- Residential densities shall have a minimum of 11 units/acre.
- Buildings are encouraged to be a minimum of two stories to maximize available land for development and encourage higher densities.
- Parking should be minimized when possible to encourage pedestrian use and use of transit.
- Parking is encouraged to be located behind buildings or underground. Shared parking and bicycle facilities are encouraged as part of any development.
- Buildings shall be oriented to the street to encourage pedestrian activity and foster ongoing activity.
- Use of high quality building materials is encouraged to allow for a lasting development and be aesthetically appealing.
- Public spaces should be located to provide a community focal point and also be harmonious to adjacent land uses.

Image: Anoka Northstar Commuter Rail Station Concept - (Image courtesy of Northstar Commuter Rail)

Industrial

The industrial category is further divided into LI – Light Industrial and GI – General Industrial.

1. LI – Light Industrial

Type of Development:

The following uses are appropriate in the LI category:

- Development that is compatible with the character and quality of development in other surrounding land use districts.
- Administrative, wholesaling, manufacturing and related uses that can be conducted in an acceptable manner.
- Planned industrial subdivisions with high standards for development and continuing performance.

Locational Criteria:

LI uses should:

- Have direct access from principal and intermediate arterials or related service drives.
- Be near other intensive land uses, such as highway service commercial or high density residential.
- Be located in areas served by rail and near existing or potential transit.
- Be located on land that is reasonably adaptable to industrial site development without severe damage to the natural site features.

2. GI -- General Industrial

Type of Development:

The following uses are appropriate in the GI category:

- Similar uses to the LI district; however, the general appearance and quality of development may be less than in LI areas.
- Uses which are generally compatible with other urban uses and which can be buffered by distance.
- Industries that require areas for outdoor storage, such as lumber yards and freight terminals.

Locational Criteria:

IG uses should:

- Not adjoin or be located across the street from any residentially-classified properties and be adjacent to LI areas, for rail access.

Public/Semi-Public

This category includes dedicated parks, open space, City utilities, recreational facilities, institutional facilities, and storm water detention and treatment areas. These areas may be designated differently on the zoning map because public uses are allowed in that particular zoning district. However, the land use map indicates the actual public use of these areas. Within the Public/Semi-Public designation are the following categories: Institutional, Park and Recreation, and Undeveloped Space.

1. Institutional – Primarily for governmental, educational, religious, social facilities or cemeteries.
2. Parks and Recreation – Primarily for public recreation activities, athletic facilities, playgrounds, golf courses, trails or similar facilities.
3. Undeveloped Space – Public land that is currently open, however, may or may not support development for any purpose in the future.

Land Use Changes

Land Use	Existing Acres	Planned Acres	Change
Single-Family Residential	1,201	1,234	33
Multiple-Family Residential	198	320	65
Commercial	156	253	52
Industrial	453	491	38
Public/Semi-Public	578	467	-111
Parks and Recreation	483	496	13
Roadways	642	642	0
Planning Areas	**0**	83	172
Vacant Single-Family Residential	20	0	-20
Vacant Multiple-Family Residential	1	0	-1
Vacant Commercial	8	0	-8
Vacant Industrial	8	0	-8
Vacant Public/Semi-Pubic	343	69	-221
Total Land	***4,095***	***4,095***	
Open Water *(Mississippi & Rum Rivers, wetlands)*	426	426	0
Total	***4,521***	***4,521***	

Table 3: Land Use Changes

Handbook Section 3.1
d) Existing and planned land use table

Zoning

Land use should not be confused with zoning. The Zoning Map divides the City into various zoning districts. Each district includes an area in which certain uses of land and buildings are permitted and others are prohibited. The Zoning Ordinance also sets forth the standards and criteria required for the use or development of land within these districts. Standards related to yards, opens space, lot area, building height limits, and building or hard surface lot coverage are typically included in the Zoning Ordinance and are identical for all properties within a particular district. The Zoning Ordinance, along with the Zoning Map, is used to implement the land use policies that are established in this Plan.

The Metropolitan Land Planning Act requires that cities' official controls must be consistent with the comprehensive plan. This most specifically effects zoning versus land use designation. The City of Anoka is currently reviewing the M-2 zoning district standards and boundaries; however it is anticipated that this review will not be complete prior to the completion of the comprehensive plan. The M-2 zoning district typically has the land use designation of General Industrial. The 2030 General Land Use Map shows two areas that are not consistent with current zoning as it is anticipated that the zoning will change from the current M-2 designation. The two areas in particular are the land northwest of the Thurston Avenue/Highway 10 intersection and the land northeast of the Thurston Avenue/Highway 10 intersection. The area to the northwest corner consists of a restaurant, bank, hotel, and daycare center. All of these uses are not consistent with General Industrial land use. As such, they are guided for General Commercial on the 2030 map. The northeast corner is the site of the Eniva Corporation. Eniva's use is more consistent with Light Industrial and is therefore guided on the 2030 map as such. It is anticipated that zoning changes to reflect the guided land use will occur prior to April 2009.

Handbook Section 7.1
b) Current zoning ordinances and map

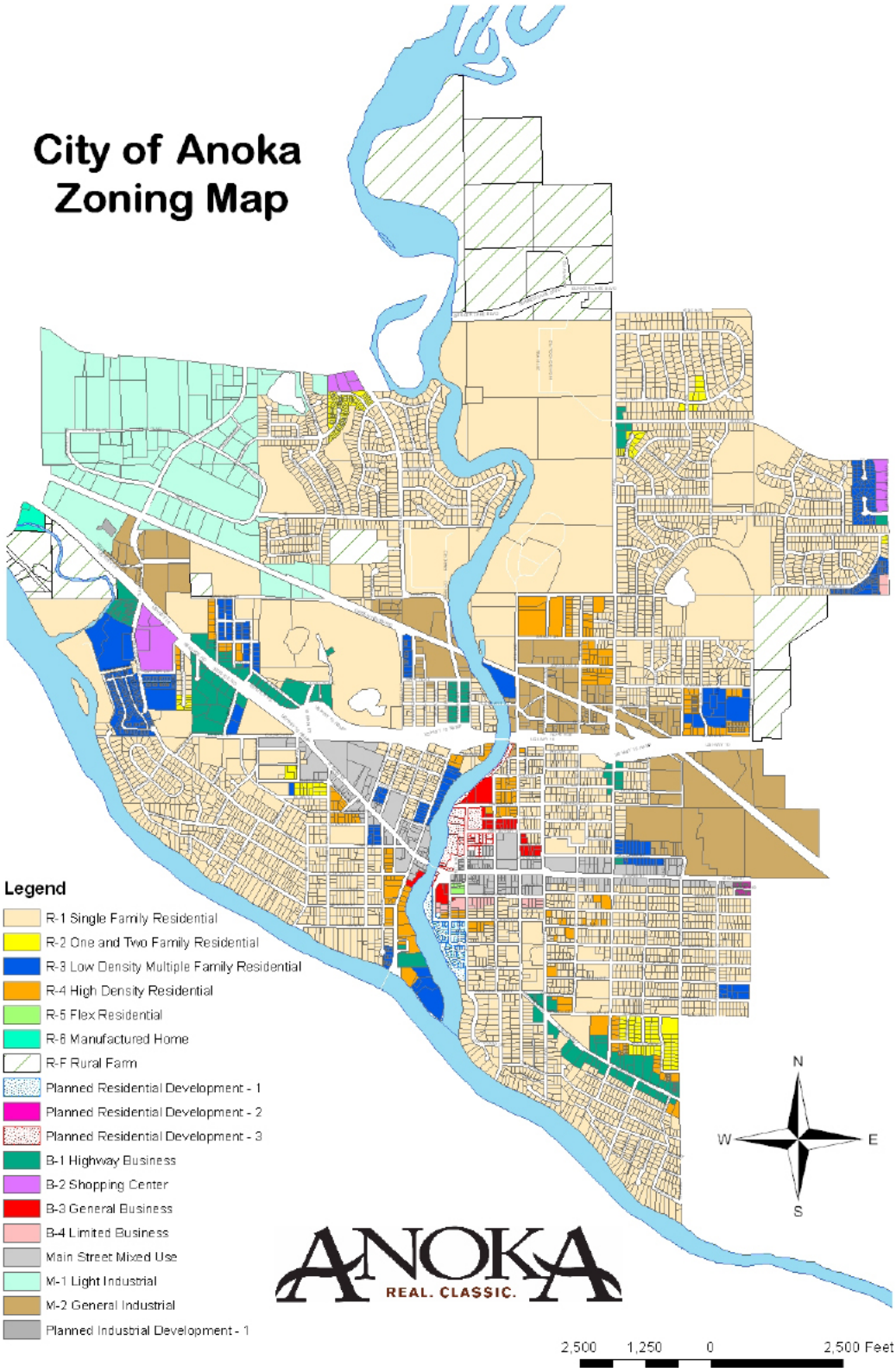

Figure: City of Anoka Zoning Map – (Source: City of Anoka)

Planning Areas

This section identifies recent publicly assisted redevelopment projects, current planning study areas, and future planning areas.

Recent Publicly Assisted Redevelopment Projects

Historic Rum River District

This 12-acre area along north Second Avenue was identified as a redevelopment site as early as 1975. A TIF district was established in 1990. Land assembly began in 1992. Planning for a mix of residential and commercial uses was done during 2002-2005. Planned uses include about 200 condominiums, 36,000 sq. ft. of commercial space, a four-acre riverfront city park and a 269-stall parking ramp.

The City has completed construction of the parking ramp and is beginning to develop the riverfront park. Under a development agreement with Rottlund Homes, the plan calls for construction of two senior condominiums (with 52 units each), a mixed use building with 63 urban lofts over 24,000 sq. ft of commercial space and a second mixed use building with 36 urban lofts over 12,000 sq. ft. of commercial space.

Public goals to be achieved by this development include removing blighted and vacant buildings, replacing all streets and infrastructure, treating storm water before it enters the Rum River and providing public access to the riverfront. Park development will include construction of the last segment of the historic Rum River Trail. The project is expected to be constructed during 2008 thru 2013.

Riverspointe Townhomes

This 12-acre area located between Second Avenue South and the Rum River was identified as a redevelopment site as early as 1965 following a major flood that affected about 40 homes in this area. The City purchased some flooded homes in the mid 1960's.

Planning for redevelopment began in earnest about 1980 when flood protection studies were completed. Several options were considered including construction of a flood wall, raising buildings above flood elevations and filling areas to remove them from flooding. The fill alternative was selected and by the mid 1980's a planned program of property acquisition began. Properties were purchased when property owners wished to sell. By the late 1990's most of the properties subject to flooding had been purchased.

Land use planning for redevelopment was carried out from 1998 to 2000. Several alternative plans were prepared but all focused upon residential and park uses. Development proposals were requested and Rottlund Homes was selected to develop town homes in tandem with the City development of a riverfront park. Ten properties were purchased in 2000 to complete assembly of the redevelopment site.

Under the development agreement, the City completed assembly of the land and sold it to Rottlund which constructed 58 craftsman style town homes in this area during 2001-2003. The City constructed a four-acre riverfront park, a boat launch with parking lot and a water treatment facility.

Public goals achieved by this development include removal of deteriorated homes subject to flooding, replacement of all streets and infrastructure, treatment of storm water before it enters the Rum River and provision of public access to the riverfront. No homes in this area are now subject to flooding. Park development included construction of one of the last segments of the historic Rum River Trail.

Current Planning Areas

Land North of Bunker Lake Boulevard and West of Seventh Avenue

In the early 1970's the City of Anoka acquired approximately 267 acres of land at the northern tip of the City just north of Bunker Lake Boulevard and west of Seventh Avenue. The land has remained publicly owned and undeveloped since. In 2007, a conservation easement was placed on approximately 198 acres of the land preventing development perpetually. Two areas of land remain for possible development. The first area is 46.3 acres and located directly along Seventh Avenue and Bunker Lake Boulevard. The second area is 22.5 acres and located just north of Bunker Lake Boulevard and east of the Rum River. This property was area of focus during the 2030 Comprehensive Plan public process. Suggested uses for this land varied. The land is identified as a Planning Area on the 2030 General Land Use map because it is unknown at this time how the City will proceed. When determining future uses for this property, the City will take into consideration park, housing, and economic development needs for the City.

Commuter Rail Transit Village

The CRTV (Commuter Rail Transit Village) planned development includes an area of about 95 acres of public and privately owned land. The CRTV is located ¾ mile from the City's central business district and is bounded by the Rum River on the west, the Anoka County Rum River Human Services Center (the former Anoka Metro Regional Treatment Center) on the north, 7th Avenue on the east, and Highway 10 on the south. Approximately 46% of the CRTV is vacant land, most of which is publicly owned. Existing buildings comprise about 650,000 square feet. The area was previously used as a commercial/industrial area and much of the land is underutilized. The CRTV contains approximately 1.5 miles of river front along the east bank of the Rum River. This area is protected by the Wild and Scenic River regulations, and, in part, by a scenic conservation easement. The CRTV also includes a segment of the trail that connects the south tip of Anoka to the north tip of Anoka. CRTV plans will further enhance pedestrian and bike connections to the trail system.

Future Planning Areas

Land along the Highway 10 Corridor

It is anticipated that reconstruction of Highway 10 will change the geography and layout of parcels along the Highway 10 corridor. This may result in the need for land use changes as current designations may not be appropriate if conditions change. Greenhaven Golf Course is located near Highway 10. Greenhaven is an amenity and should be considered when determining land use designation. Other factors should include access and visibility.

East River Road between 5th Avenue and Coon Rapids

The East River Road corridor is an original commercial corridor within the city as it is the original location of Highway 10. A study will be conducted by the City in 2008-2009 to determine design standards and possible changes in permitted uses.

Goals and Implementation

The purpose of this section is to provide a plan for guidance in assessing and analyzing changes in the City's land use. As such, the following land use goals provide the basis of the Land Use Plan:

Goal 1

Consider physical development within a community-wide framework which recognizes the unique aspects of the City's setting and ensures top quality design of new construction and development.

- Promote the application of urban design considerations which define and enhance the City's unique character. Urban design deals with the quality of the built environment -- how it looks, feels, functions, and how it embodies local culture and context. It is the City's intent to define and improve the City's desired physical characteristics and form, visual quality and order, and overall image and identity. Urban design concerns both the built environment and the effects of urban development on the natural environment and the quality of life.
- Support programs and activities that foster community spirit and identity.
- Improve the image and appearance of existing commercial and industrial areas, with particular emphasis on the appearance of buildings, signage, and landscaping.
- Ensure that commercial and industrial sites and buildings are adequately maintained, and that corrective maintenance is undertaken as required.

Goal 2

Encourage a land use balance within the City to promote the efficient provision of City services, the generation of revenues to cover the cost of those services, and a mix of employment and housing opportunities. Land use balance refers to an appropriate mix of various land uses that are interdependent and mutually supportive.

- Ensure that public properties are maintained in a timely manner.
- Improve and upgrade older public utility and infrastructure facilities through a program of scheduled improvements.
- Continue to expand and continue to diversify the economic base.
- Encourage the provision of life cycle housing.

Goal 3

Assure that the City's land development regulations provide for efficiency, compatibility, compliance, variety, flexibility, and innovations.

- Grant zoning changes only when it can be demonstrated that rezoning will result in a community or neighborhood benefit that outweighs any potential adverse impact upon surrounding properties. Conformance with policies of the Community Plan and other adopted City plans may be used to demonstrate community or neighborhood benefit.
- Incorporate performance standards, where appropriate, into land development regulations and criteria.
- Periodically review City ordinances and development regulations and amend, if necessary.

Goal 4

Protect and maintain the stability and diversity of the City's neighborhoods.

- Prepare Neighborhood Master Plans.

  Development of each Master Plan will include development of a generalized map which includes proposed uses, transportation systems, utility systems, drainage systems, and open space. Each plan should also establish minimum and maximum densities. The actual use of the land and existing zoning should be considered in preparation of master plans. Adoption of a Master Plan by the City Council may result in changes in the land use designations and zoning districts. In those instances, the Land Use Plan and Zoning Ordinance will be amended to reflect the change(s).

- Involve affected neighborhoods and property owners in proposed land use, development, and capital construction projects.

- Recognize and support the unique physical character and development patterns of neighborhoods.

- Ensure zoning changes in neighborhoods are compatible with the scale and physical character of the neighborhood.

- Encourage discussion between developers, the neighborhood, and the City, where appropriate, as part of the process of determining land use changes in neighborhoods.

Photo: Main Street Businesses – (Image courtesy of Community Design Solutions and Arnett Muldrow & Associates)

- When reviewing master plans and rezoning requests, consider the impact on nearby neighborhoods, including neighborhood integrity, change in traffic volumes and patterns, changes in surface drainage, the effect of lighting levels, and other changes that produce a clearly undesirable effect.

Goal 5

Promote, reinforce and maintain the Central Business District as the heart of the City and as a center for business, government, culture, arts, and special community events.

- Preserve, maintain, and enhance the historic character of the Central Business District as an important and irreplaceable community asset.

- Invite pedestrian activity, exhibit visual and physical quality in design to attract visitors and residents, and support economic vitality.

- Promote easy access to the Central Business District from all parts of the City.

- Strengthen the circulation and parking system in the Central Business District to provide safe and convenient vehicular travel that complements and enhances pedestrian movement.

- Encourage rehabilitation of buildings that are in disrepair.

- Further link and utilize the riverfront in and near the Central Business District.

- Conduct beautification efforts in the Central Business District.

- Continue landscaping public areas.

- Provide general maintenance in the Central Business District.

Goal 6

Develop the Commuter Rail Transit Village

- Consider economic development, housing needs, and other land use needs in the city when developing the plans and determining future land use of these areas.
- Provide a compatible mix of land uses that support and complement transit oriented development near the station area.
- Concentrate a mix of complementary, well integrated land uses within walking distance of the transit station.
- Provides uses of a density and configuration that will capitalize on the presence of commuter rail service.
- Encourage a mix of commercial/office/light industrial uses that will create new jobs, generate tax revenue, attract new residents, and provide new amenities.
- Encourage development of higher-density housing options.
- Incorporate standards for security (CPTED).
- Use urban design to enhance the community identity of the station area and make the area attractive, safe and convenient.

Goal 7

Development a master plan for the City owned land north of Bunker Lake Boulevard and west of Seventh Avenue.

- Complete market studies to determine appropriate uses.
- Consider economic development, housing needs, and other land use needs in the city when developing the plans and determining future land use of these areas.
- Consider uses that compliment the conservation area.
- Consider access and traffic impacts.
- Consider design standards to encourage quality buildings.

Goal 8

Evaluate future use of City owned lands.

- Periodically update the City Council on City owned land that is under utilized and could be used for future economic development where appropriate.
- Consider the citywide benefit of selling/developing City owned land.

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Solar Access Protection

AMITEE ROOM

Solar Access Protection

Metropolitan cities in Minnesota are required to include an element for protection and development of access to direct sunlight for solar energy systems in the Comprehensive Plan. A solar access protection element is included in the Comprehensive Plan to assure the availability of direct sunlight to solar energy systems. Solar energy is an alternative means to energy. It has less impact on natural resources. Currently, we need fossil fuels and nuclear power to heat or cool our homes and businesses. We also use this energy for fuel and automobiles. Increasing our usage of solar energy would decrease our reliance on fossil fuels and nuclear power. The purpose for including this section of the Comprehensive Plan, is to ensure that direct sunlight access to solar panels is not subjected to shading from nearby trees, building, or other structures.

Solar Access Protection Goal

The City of Anoka will encourage the use of solar energy systems, for the purposes of space heating and cooling and hot water heating, in new residential developments.

Solar Access Protection Policies

1. The City will review its Zoning Ordinance and consider appropriate amendments to exempt active solar energy systems from lot coverage and setback provisions.

2. The City will review its Code and consider appropriate amendments to require swimming pools be heated using solar or some other form of renewable energy resource, where possible.

3. Within Planned Unit Developments, the City will consider varying setback requirements in residential zoning districts, as a means of protecting solar access.

Handbook Section 3.1
h) Solar access protection

Photo: Anoka City Hall – (Image courtesy of Community Design Solutions and Arnett Muldrow & Associates)

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Economic Development

Introduction

Local economic development is an effort to modify the quantity, quality or types of local business activities in a community. Economic development also addresses the needs of a community and enhances the quality of life. Foremost, economic development integrates all land uses and economic forces within the local economy into one mutually supporting system. These elements include public uses, housing, commercial and industrial development. Some communities also focus upon tourism or recreational amenities as indirect economic strategies.

Economic development also involves the execution of a strategic business plan targeted on retaining, enhancing or creating jobs and tax base. The plan recognizes the synergistic relationships among land uses, economic sectors and human capital within the community. This type of economic development builds community wealth and enhances quality of life.

A local economic development plan includes physical, fiscal, infrastructure and human resource development. It may also include strategies to enhance quality of life through life cycle housing, recreational facilities, community services and environmental protection. The plan may be implemented in a variety of ways: by building networks and communications systems such as public-private partnerships; by matching people with jobs and services; and by marketing strategies and campaigns.

Human resource development focuses on job creation and retention, labor training, retention of existing residents and development of community leaders.

Quality of life initiatives focus on safety, jobs, housing, recreational facilities, environmental quality and cultural resources.

The City of Anoka is a historic community with a diverse mix of land uses and unique physical characteristics. The City is 95% developed but is undergoing continued market pressure to change, upgrade or redevelop to compete in the world economy. Decisions about development of scarce vacant land have significant economic and quality of life consequences. The choices between maintaining or changing the status quo or identity through development is a regular public agenda item often debated.

The City continues to age and is being repositioned in the regional economy. As a result, redevelopment opportunities emerge for renewal or revitalization of certain areas within the City. However, these can be costly ventures not supported by market forces and therefore require public action. In some situations, rehabilitation may be the most cost effective investment. In others, major public action may be needed to change the direction of the community and capture the most beneficial outcomes available in the marketplace.

Financing mechanisms available to the City include general taxation and bonding, enterprise funds, tax abatement, tax increment financing and investment of existing capital assets. Public capital assets include infrastructure, land, buildings and contracts creating income streams to finance public projects. The Economic Development Plan positions these assets and deploys these mechanisms to leverage private investment to achieve the goals of the plan.

Infrastructure includes public improvements, the electrical distribution system, transportation systems and communication networks. Specifically, City improvements include utilities (sewer and water systems), streets, parking lots and ramps many of which generate revenue to enterprise funds. In addition, the City of Anoka operates other business enterprises including the electric utility, liquor stores and a golf course.

The City of Anoka has demonstrated its economic viability and strength for over 150 years. Community leaders have taken public actions to reposition the City for success in an ever changing economy. This Economic Development Plan will extend a strategy into the future for 20-30 years to ensure community viability.

Historical Perspective

From its earliest settlement days in the 1850's, Anoka has been an industrial and commercial center. The City also has a long history of promoting economic development by way of public investments and public-private partnerships.

Anoka began as a major lumber and flour milling center. Great stands of white pine on the upper Rum River and the expanding agricultural areas of Anoka County lured the milling interests. This industrial boom was followed by a commercial boom as merchants opened shops to serve the needs of the growing population employed by the mills. The milling and merchant interests converged where the Rum River is bridged by Main Street. The Rum River was the industrial highway as logs where driven to the mills in Anoka. Main Street was the commercial highway linking Anoka with St. Anthony to the south and Pembina to the far north via the Red River Trail. By 1864, railroad service strengthened this commercial linkage. In short, Anoka was located at the intersection of river and rail manufacturing and distribution.

The link between the industrial and commercial sectors was tight and fortunes of each rose and fell together. Many shop owners held stock in the milling companies and the industrialists invested in community improvements.

The City experienced rapid growth from 1860-1880 and in the mid 1870's claimed to be the largest milling center in the world measure by total board feet milled. But by the mid 1880's the timber resources on the Rum River were exhausted and the mills moved to other cities further north to be closer to the receding pine forests. As a result, hundreds of Anoka residents were forced to seek employment elsewhere. For an isolated prairie town like Anoka, this massive exodus of residents also reduced the Main Street commercial trade. Anoka had lost its economy and its identity.

In an effort to attract new industries, Anoka citizens formed a Board of Trade in 1885. The purpose of this corporation was "to advance commercial, mercantile, agricultural and manufacturing interests of the City and County of Anoka." This Board made attractive offers and succeeded in bringing several major industries to Anoka including a shoe factory and a starch factory. However, the Board fell into disorganization prior to 1900.

In 1906 a sluggish economy and growing unemployment prompted a City Alderman to suggest that a permanent body be formed to "show up the advantages of our City to prospective home seekers, investors, and manufacturers." After several public meetings the "Commercial Club of Anoka" was formed. One of its functions was publication of promotional materials about the advantages for business and industry in Anoka and Anoka County. To spur private investment, the Club also entered into financial agreements with companies to raise local capital through the sale of stock shares. Companies as far away as Illinois and the east coast were enthusiastically courted. One such venture was the Veerac Motor Company which manufactured automobiles, tractors and railroad inspection cars in Anoka for a few years.

Anoka's fortunes turned upward in 1922 when a local manufacturing company came under the ownership and guidance of Charles L. Horn. He renamed the company Federal Cartridge Corporation and Federal has formed the backbone of Anoka's economy for over 85 years. Federal is still one of the City's largest employers with over 900 employees.

After World War II, Anoka experienced a housing boom and the City became a commuter suburb. During these years the role of the Commercial Club shifted from negotiating development to promoting development. In 1953, the Commercial Club was reorganized and renamed the Anoka Chamber of Commerce. One of their first actions was to produce a promotional film which was shown on Metro area television. As a result of marketing efforts, other local industries such as Cornelius Company and Thermo-Serv relocated to Anoka and grew for several decades.

From 1950 through 1970, the City of Anoka emerged as a growing suburban city. Housing development boomed and the City's major companies, Federal Cartridge, Hoffman Engineering, Cornelius and Thermo-Serv, expanded and provided additional jobs. The Central Business District offered a full array of goods and services. Major retailers included two auto dealerships, several grocery stores, furniture stores and clothing and shoe stores. Branches of Sears, Wards and Ben Franklin were located downtown.

However, change was on the horizon as international markets shifted and metropolitan growth changed the economic position of Anoka. As a result, during the 1980's Cornelius was sold to British interests, Federal-Hoffman Inc. was sold and Thermo-Serv moved to Texas. Almost all general retail stores downtown closed except Jensen's Department Store and Peterson Shoes. Building vacancies increased and these historic structures showed signs of deterioration due to deferred maintenance. At the same time the downtown began to shift from general to specialty retail.

In the face of these economic changes, the Anoka Area Chamber of Commerce asked the City of Anoka to establish an Economic Development Commission (EDC) to advise the City Council on economic matters. The City Council established this board on July 9, 1982. The board then led the City to qualify as a Minnesota Star City for Economic Development and undertook projects including development of the Anoka Enterprise Industrial Park.

The Economic Development Commission was the first of several steps taken to build the working relationship between the City and business community for purposes of economic development. In 1982 the City also established the Parking Advisory Board which focused upon parking needs downtown. To further downtown marketing and revitalization, the private Anoka Business and Landowners Association was formed in 1988.

During the 1980's and 1990's the City created several tax increment financing districts and loan programs to financing redevelopment and rehabilitation. Major projects included Walker on the River senior apartments, Walker Plaza senior apartments, the Anoka Enterprise Industrial Park, and downtown commercial rehabilitation. Plans were also laid for redevelopment of the floodplain south of downtown and North Central Business District on the north side.

Since the year 2000 the Anoka Enterprise Park has been nearly fully developed and the RiversPointe Town Home project was completed in the filled floodplain south of downtown. Residential projects on the east, north and west edges of the City have consumed the last of available private land. The North Central Business District, now known as the Historic Rum River District, is ready for development of 203 condominiums and 36,000 square feet of commercial space.

Current development issues include housing rehabilitation and development, transportation system improvements and revitalization or redevelopment of commercial areas along major traffic corridors. Commercial rehabilitation and economic restructuring in the downtown is still at the core of maintaining Anoka's unique historic identity.

Economic Data

In 2007 the Economic Development Commission prepared the City of Anoka Economic Report and in 2008 the Commission also completed an updated Business Survey. These reports provide a picture of Anoka's economy between 1930 and the present. They also place in the context of surrounding communities the relative economic position of the City. Data were obtained from many sources including the US Censuses (1850-2000), Minnesota Censuses (1855-1905), US Economic Censuses (1933-2002), Minnesota Department of Revenue Sales Tax Reports (1987-2007), and recent housing and market studies commissioned by the City or private interests.

Business & Employment

Anoka is home to over 700 employers and 13,400 jobs concentrated in three major sectors: government, services and manufacturing. Employment has gradually grown in recent decades except for a few short-term declines due to changing economic conditions.

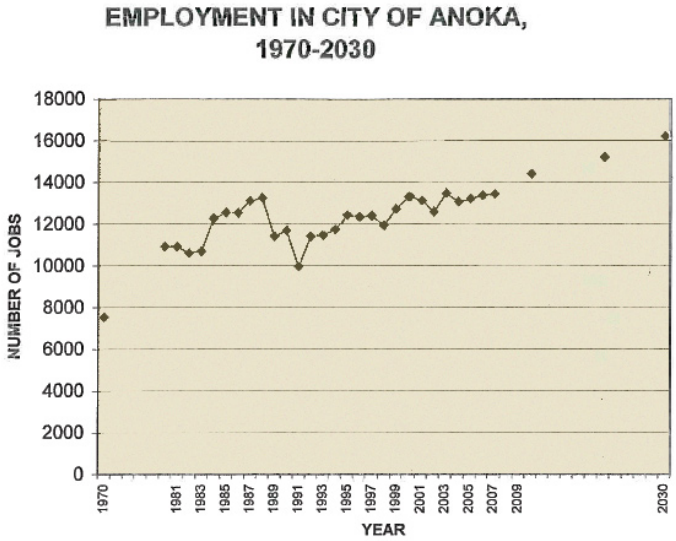


Figure: Employment in City of Anoka 1970-2030 - (Source: Metropolitan Council)

The following is a series of tables and charts which provide a current picture of Anoka's economy which is detailed in an update to the Economic Report. Using business and employment data, the charts show the economic sectors within the City and their relative strength.

City of Anoka: Companies, Employees & Average Weekly Wages - 2nd Quarter, 2007

Sector	# of Companies	# of Employees	Average Weekly Wages	% of Companies	% of Employees	Total Wages	% of Wages
Public	43	4,649	951	5.96	34.61	57,476,666	38
Private	679	8,784	823	94.04	65.39	93,934,882	62
Total	**722**	**13,433**	**867**	**100.00**	**100.00**	**151,411,548**	**100**
Sector							
Construction	99	469	802	13.71	3.49	4,889,644	3.23
Manufacturing	55	3436	1123	7.62	25.58	50,140,178	33.12
Wholesale	39	556	874	5.40	4.14	6,314,599	4.17
Retail	98	781	487	13.57	5.81	4,941,520	3.26
Services	388	3,542	781	53.74	26.37	27,648,941	18.26
Government	43	4649	951	5.96	34.61	57,476,666	37.96
Total	**722**	**13,433**	**867**	**100.00**	**100.00**	**151,411,548**	**100.00**

Table 1: City of Anoka: Companies, Employees & Average Weekly Wages - 2nd Quarter, 2007

Percentage of Companies by Sector 2007
2nd Quarter, City of Anoka

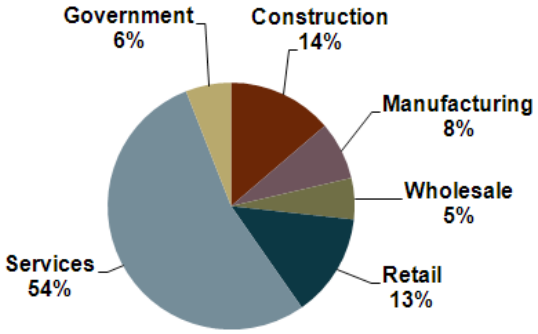


Figure: Percentage of Companies by Sector, 2nd Quarter, 2007: City f Anoka

Percentage of Employees By Sector 2007
2nd Quarter, City of Anoka

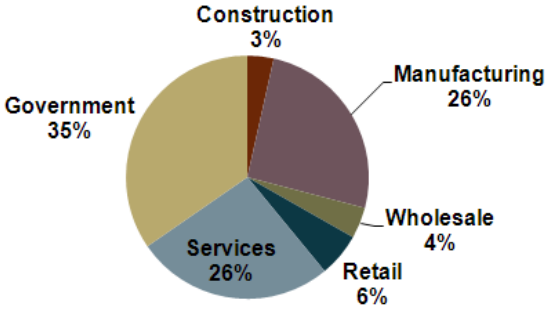


Figure: Percentage of Employees by Sector, 2nd Quarter, 2007: City f Anoka

Percentage of Wages By Sector 2007
2nd Quarter, City of Anoka

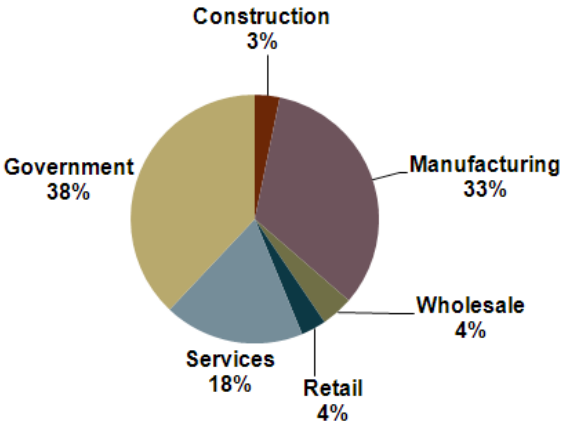


Figure: Percentage of Wages by Sector, 2nd Quarter, 2007: City of Anoka

Figure: Number of Companies by Sector, 2nd Quarter, 2007: City of Anoka

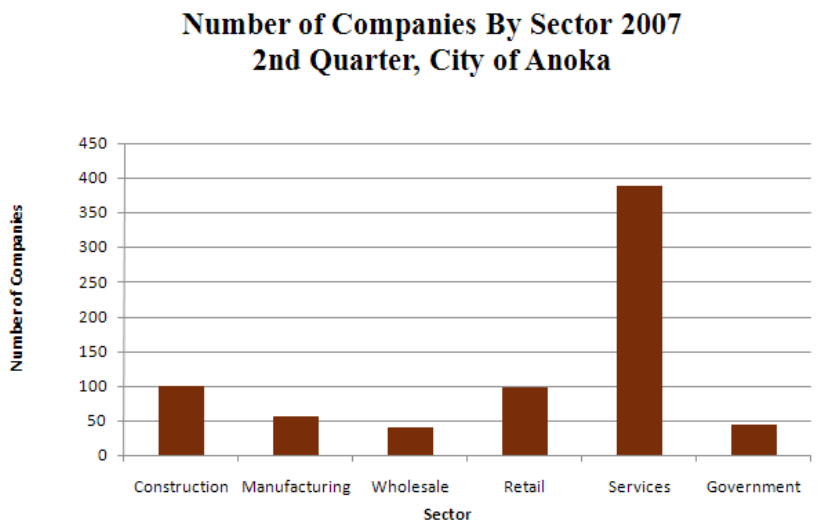
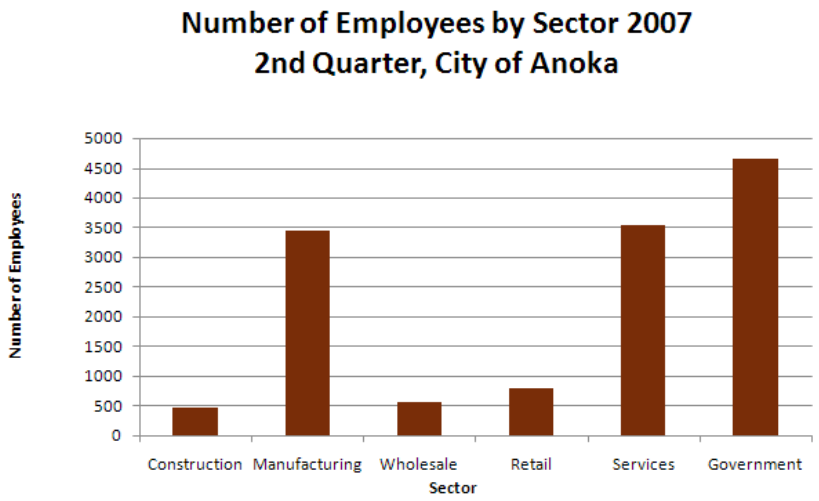


Figure: Number of Employees by Sector, 2nd Quarter, 2007: City of Anoka



This data shows that Anoka has a healthy balance among industrial, retail, service and government sectors. The industrial sector has been strengthened by a significant increase in the number of industrial companies in the City through development of the Anoka Enterprise Park. The services sector is expanding to meet the needs of a growing population served by the County Government Center. The government sector is also growing, particularly the School District and County Government. However, the retail sector is flat or in decline and has been forced into playing specialty or niche roles in the retail economy due to competition from new commercial development in surrounding communities. Finally, the non-profit sector is a significant element of Anoka's economy offering services which enhance the quality of life as well as employment

Major Employers

In 2006, the top four employers were the Anoka-Hennepin School District (1217), Anoka County (1191), Hoffman Enclosures (1170), and Federal Cartridge Company (903). They account for 33% of all jobs within the City.

Top 10 Employers in City of Anoka: 1998-2007

2007 Rank	Employer	1998	1999	2000	2001	2002	2003	2004	2005	2006	2007	%
1	Anoka-Hennepin SD #11	1038	1115	1134	1134	1039	1123	1144	1181	1217	1245	9.3%
2	Anoka County	1101	1108	1206	1100	1097	1112	1239	1198	1191	1218	9.1%
3	Hoffman Enclosures	1500	1502	1500	1350	1150	1160	1160	1170	1170	1170	8.7%
4	Federal Cartridge Company	451	522	587	593	650	667	686	770	903	1050	7.8%
	IMI Cornelius	900	900	800	500	380	x	0	0	0	0	0.0%
5	Anoka-Metro Treatment Center	500	500	500	520	520	540	540	550	550	614	4.6%
6	Mate Precision Tool	0	0	428	324	302	292	290	290	343	366	2.7%
7	Anoka Technical College	374	430	458	449	539	479	410	377	344	344	2.6%
	Lund Industries	225	275	300	x	x	x	x	x	x	0	0.0%
8	Rural Community Insurance	x	x	x	x	200	200	210	234	289	305	2.3%
9	DecoPac	0	0	0	0	0	0	0	0	200	224	1.7%
10	Copper Sales/Firestone Metals	193	202	x	232	239	204	239	223	235	214	1.6%
	Lakeland Tool	x	x	x	x	x	175	175	175	x	x	0.0%
	Rainbow Signs	190	230	250	271	x	0	0	0	0	0	0.0%
	Top 10 Total	6472	6784	7163	6473	6116	5952	6093	6168	6442	6750	50.4%
	Total City-wide Employment	13400	13400	13489	13393	13549	13433	13299	13165	13393	13393	
	% Employed by Top Ten	48.3%	50.6%	53.1%	48.3%	45.1%	44.3%	45.8%	46.9%	48.1%	50.4%	

0 = *Not located in the City at that time*
X = *Located within the City but not among top ten employers*

Table 2: Top 10 Employers in City of Anoka: 1998-2007

The Economic Report further reflects the importance of the top ten employers which account for 48% of total employment. These additional employers include Anoka-Metro Regional Treatment Center (550), Anoka Technical College (344), Mate Precision Tooling (343), Rural Community Insurance (289), Firestone Metals (235) and DecoPac Inc. (200). Two additional companies (Graco Inc., Eniva Corporation) have recently moved into the City, are growing at a rapid pace and may soon be among the top ten employers.

Major Job Center

Anoka is a major job destination from surrounding communities and other places in the Metro Area. Nearly 90% or 12,000 of the 13,400 jobs based in Anoka are filled by non-residents who commute to and from Anoka each work day. Over 85% of Anoka residents commute to work in other cities. This is a dramatic change from the days when virtually all Anokans worked in Anoka (1860-1940's) or most work near home (1950-1980's).

The Economic Report also shows that Anoka has a higher density of jobs per capita than just about any comparable city which is a legacy from its earliest days and continued vigilance over its industrial economy.

Retail Market Assessment

In 2008 the City retained Arnett Muldrow & Associates to complete a retail market assessment. The assessment found that there is retail leakage from Anoka and from the 15-minute drive time area around Anoka.

In 2007 Anoka retail stores sold $267 million but consumers spent $283 million showing an overall leakage of $15 million. Specifically, leakage by types of stores were as follows: full service restaurant--$5 million and grocery--$20 million.

Further, leak age from the 15-minute drive time show the following: full service restaurant--$10 million; used merchandise--$6 million; clothing--$76 million; and grocery--$59 million.

The study concluded that Anoka has opportunities to grow in several areas including full service restaurants, used merchandise, clothing and grocery. It further concluded that there are opportunities in special retail such as books, jewelry, shoes, music and gifts.

Economic Development Trends

There are several major economic trends which define Anoka's position in the larger economy including the following:

1. Major commercial developments in surrounding communities such as Riverdale Center in Coon Rapids, Ramsey Town Center in Ramsey and Highway 169 Corridor development in Champlin absorb retail and service demand that once was supplied by businesses in the City of Anoka.

2. Population growth in Anoka County drives government services expansion in downtown Anoka.

3. Population growth to the north and west of Anoka in Andover and Ramsey creates demand for goods and services in the area and offers labor needed by Anoka based employers.

4. Rapid residential growth along the Northstar Corridor (Minneapolis to Big Lake) places Anoka in the middle of a major transportation corridor via US Highway 10 and the Northstar Commuter Rail line.

5. Location of a Northstar Commuter Rail Station at the 4th Avenue crossing in Anoka creates a major destination and development center.

Economic Development Strategy

Effective economic development is based upon a knowledge of the existing situation, an overall strategy for action, a framework within which to take action, specific goals and an implementation plan. Anoka's strategy recognizes its historic corridors of commerce and culture, land use concepts, fiscal impacts and the resulting quality of life.

Corridors of Commerce and Culture

Anoka is located along the Mississippi River, on both sides of the Rum River and at the intersection of several major highways. These highways form commercial corridors and the rivers form cultural corridors. Our history demonstrates the wisdom of focusing investments at economic intersections and along corridors of commerce and culture.

Highway Commercial Corridors

As the historic hub of activity in this region, Anoka is where several major highways converge to cross rivers. US Highways 10 and 169 and MN Trunk Highway 47 form major commercial corridors through the City. County Road 1 and 7 corridors also include commercial areas. These highways provide customer access to local businesses. These commercial corridors also offer opportunities for future investments.

River Cultural Corridors

The Rum and Mississippi Rivers are historical and present day corridors—once for commerce and transportation and now for culture and quality of life.

Although the Rum River divides the City geographically, it is a unifying force. The river is Anoka's reason to be. Industry and commerce were concentrated along the river. For generations most Anokans worked next to or close to the river. The river was Anoka's economic engine. Today the Rum River can still be an economic engine by attracting new investors and new residents. Today the trend is for people to live by the river. Fortunately, Anoka has

significant underused or vacant land near the river which can be developed. This is a new economic development frontier. A carefully planned process can control the location, quality and pace of redevelopment. This plan can produce investment opportunities, restructure the tax base and enhance the quality of life in the City.

The Rum River Cultural Corridor is a defined area along both sides of the Rum River which includes a concentration of existing cultural amenities, untapped historical resources and new development or redevelopment sites primarily for residential land uses. The Corridor extends from "The Point" at the Rum and Mississippi confluence on the south end to "The Mound" at the north end of the City limits. Within this Corridor is a wealth of history, culture and natural environments to market. Also within this Corridor are numerous new development and redevelopment sites of significant market value. Our strategy is to marry these amenities with these sites to produce investment opportunities and enhanced quality of life for existing and new residents. A significant product of this marriage will be a substantial restructuring of the tax base to benefit both new and existing taxpayers.

A Strategic Approach

A strategic approach to economic development in Anoka should include the following steps:

1. Prepare Redevelopment Scenarios

   Redevelopment Scenarios will be prepared for the intersections and corridors to identify redevelopment opportunities, public/private mix and growth potential. Several plan overlays may include an inventory of cultural amenities, private development and public element enhancement opportunities.

2. Measure Fiscal Impacts

   The impacts of redeveloping underused or vacant public land for mostly residential uses will be measured. Specifically, the impacts on the tax base and future revenue generation will be defined. It will be determined if new on-going revenues can substitute for dependence upon local government aid. Options for use of sale proceeds from land sales will be evaluated. Options for community reinvestment will be determined. Public improvements needed to enhance the redevelopment projects will be identified.

3. Enhance Quality of Life

   Places will be created. Quality of life will be protected and enhanced by attention to housing mix, safety, recreation, convenience, education, parks, trails, public facilities, natural environment, cultural uniqueness and historic sites and structures.

Summary of Strategy

The strategic approach includes preparing potential development scenarios for each intersection and corridor development, analyzing fiscal and quality of life impact and implementing redevelopment projects along these corridors over a 10-20 year period. Goals include managing the location, quality and pace of redevelopment within the City. Some revenues from land sales may be used to create a Community Reinvestment Fund. Some revenues from land sales may be used to complete public improvements and enhance the cultural elements of the corridor.

Economic Development Framework

Economic development framework includes both ***software*** (branding, marketing, planning, financing) and ***hardware*** (investments in public and private developments).

Economic development software includes the following:

- Identity-Branding
- Marketing-Advertising, Tourism, Event promotion
- Collaboration-networking, partnering
- Strategic Business Plan (Financial Management Plan)

Economic development hardware includes the following:

- Investment in infrastructure investments—streets, utilities, etc.
- Preparation of sites and buildings to market
- Formation of partnerships or joint ventures to develop projects

Software

The Plan includes the software of branding, marketing, tourism and events. Branding defines Anoka's identity. Marketing establishes Anoka's presence in the marketplace. Tourism attracts visitors to the City. Events offer focal points of attraction.

Hardware

The Plan includes the hardware of private and public investments in site development, redevelopment, and rehabilitation. The physical framework of the Economic Development Plan consists of points, lines and areas. Points include gateways, destinations and intersections. Lines include corridors of transportation (road and rail), utilities, communications and physical amenities such as rivers. Areas include sites and neighborhoods.

The plan identifies gateways, corridors, intersections, sites and neighborhoods as the framework for public and private investments. Gateways are entrances into the City which announce the City, define its identity and stake a claim for economic activity. Corridors, both commercial and cultural, are linear routes through the City which focus vehicle traffic or amenities and provide opportunities for investment. Commercial corridors offer commercial and industrial investment opportunities. Cultural corridors offer commercial and residential investment opportunities. Intersections of corridors are focal points for high population density, commercial activity and investments. Sites are locations where specific investments can be made by one or more investors for planned land use and economic outcomes. Neighborhoods are areas where common activities occur that should be protected from heavily used corridors. They can be residential, commercial or industrial neighborhoods.

Development Potential

The City of Anoka encompasses seven square miles and is over 95% developed. In fact, less than 1% of the area of the City is vacant, privately owned and potentially available for development. Another 4% is vacant and publicly owned and potentially available for development.

These facts place a premium on strategic and targeted development and redevelopment with a significant public leadership role.

Economic Development Goals

Overall Economic Development Goal

To promote balanced community growth among a variety of economic sectors, to strengthen the tax base, expand employment opportunities, build community wealth and enhance the quality of life in the City of Anoka.

Goal 1

Create Marketplace Identity: To create a positive community identity in the marketplace via branding and advertising.

- Create a specific graphic image and related statement of value.
- Produce a brand/logo and tagline.
- Advertise this identity via various media.

Goal 2

Improve Business Climate: To Promote a strong business climate within the City.

- Maintain strong cooperative relationships among the City, Anoka Chamber, Anoka Business & Landowners and private businesses.
- Promote a healthy balance among various economic sectors including industry, retail, services and government.
- Promote small business development through provision of business assistance and financial services.
- Promote the retention and expansion of existing business.
- Promote the unique business niche that Anoka offers within the region and the State.
- Promote Anoka as a tourist destination.

Goal 3

Expand the Retail Sector: To build the retail sector by attracting specific and targeted retail businesses.

- Attract specific desired retailers including a grocery store and fine dining restaurant.
- Attract retailers that fill gaps in the local mix.
- Attract businesses that offer certain quality of life experiences.
- Maximize occupancy of retail space.
- Increase the number of retail businesses and retail employment.

Goal 4

Create and Implement a Strategic Business Plan: To create a financial roadmap to guide investments in future developments.

- Develop a list of priority projects.
- Create a list of uses of funds for these projects.
- Create a list of sources of funds for these projects.
- Match sources and uses of funds over a 10 to 20 year period.
- Establish a decision-making process to implement the plan.

Goal 5

Construct Supportive Infrastructure: To provide infrastructure necessary to carry out economic development activities.

- Provide necessary public improvements. (See Capital Improvement Program)
- Provide a multi-modal transportation system. (See Transportation Section)
- Promote development of communication networks.
- Promote provision of life-cycle housing. (See Housing Section)
- Provide public facilities that support economic development.
- Provide recreational facilities that support economic development.

Goal 6

Diversify and Expand the Tax Base: To strengthen the tax base through balanced land use and business diversification.

- Promote development of vacant land with uses that achieve city goals and complement existing uses.
- Redevelop vacant or blighted properties for uses that meet city goals and complement existing uses.
- Rehabilitate deteriorated properties to enhance value and use.
- Use redevelopment to create land use balance within the city.

Goal 7

Expand Employment Opportunities: To expand employment opportunities within the City.

- Promote a diversified and balanced economic base which supports a variety of jobs.
- Retain existing companies and support their growth and expansion.
- Foster a mix of jobs that result in laddered wages among jobs within the City.
- Promote or encourage programs that match people and jobs.
- Promote programs that provide labor training to enhance upward mobility.

Goal 8

Foster and Support Development of Community Leaders: To involve citizens in community decision-making in order to develop future community leaders.

- Create ways for citizens to participate in public decision-making.
- Recruit citizens to serve on advisory boards.

- Hold appreciation and recognition events for advisory board members.
- Recognize value of leadership from non-resident stakeholders.
- Promote citizen-initiated projects.

Implementation

1. Complete Branding and implement marketing program

    - Complete branding process

    Upon recommendation by the Anoka Economic Development Commission's marketing subcommittee, Community Design Solutions and Arnett Muldrow & Associates were hired and a steering committee was formed to guide the process of creating new marketing tools for the City of Anoka. The consultants designed a new logo and tagline, provided the city with a market analysis, a large portfolio of photographs, additional design tools, a style guide, an implementation plan, and a final report.

    Logo

    The logo and tagline emerged over the process of public input and observation of Anoka's unique assets. The word type features "Anoka" in all-caps and a balanced, symmetrical treatment with the beginning and ending "A's". An offset baseline creates a space for a modifier such as the tagline, the state indication, etc. Moreover, the offset "A's" are treated with a horizontal swoop to allude to the flow of water from the two rivers in Anoka. Additionally, the "NOK" in-between is intended to relate to the bridges that span over Anoka's rivers.

    Tagline

    The tagline "Real. Classic." captures many of Anoka's assets and leaves room for interpretation and expansion. For example, many participants who provided input during the process commented on one of the indelible impressions made on them when they moved to Anoka was the people here were "real." Additionally, Anoka's "real" historic downtown is a unique contrast to the emerging trend of suburban developments attempting to re-create a historic downtown environment.

    "Classic" is a word ripe with meaning that is appropriate for Anoka. First, in its purest sense, one of the definitions of classic is "historically memorable." This captures a great deal of the essence of Anoka as it's layout, natural resources, architecture, and cultural history are truly historically memorable.

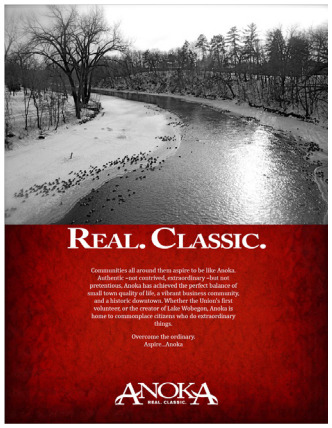
- Initiate advertising and marketing program

  On June 16, 2008, the Anoka City Council adopted a new city logo and tag line recommended by the Anoka Economic Development Commission (EDC). With a new logo and tag line approved, the City of Anoka and its Economic Development Commission will work with local businesses and organizations to introduce the design tools and capture a return on investment by attracting more businesses and boosting tourism.

  On August 18, 2008 the Anoka City Council adopted a policy for non-city use of the city logo by non-profit and for-profit organizations. The adopted policies provide a framework for community-wide implementation of the new city brand among local businesses and organizations.

  Updated versions of the city website, letterhead, newsletter, and other communication materials will incorporate the new city brand. Use of the newly adopted branding and marketing tools will allow the city to improve communication with the public and maintain a strong identity.

Images: Advertising Anoka – (Images courtesy of Community Design Solutions and Arnett Muldrow & Associates)



2. Support and collaborate within networks and organizations

   - Participate as a member of the Anoka Area Chamber of Commerce.
   - Collaborate with the Anoka Business & Landowners Association.
   - Cooperate with Rediscover Anoka.
   - Maintain liaison with the Anoka Technical College.

3. Implement a Strategic Business Plan

- Create a Financial Management Plan including the roles of:
  - General Fund
  - Enterprise Funds
  - Tax increment districts
  - Tax abatement
  - Grants and other sources
  - Prepare project source and use of funds statements
- Use existing Tax Increment Districts
  - 1987 HRA---NCBD/ RiversPointe
  - 1988 CC---Thurston/US Hwy 10 Corridors
  - 2005 CC—Historic Rum River District
  - 2006 HRA---Central Business District
- Identify appropriate new tax increment district(s)
  - Commuter Rail Transit Village
  - South Ferry Street
  - West Main Street
  - East Main Street
- Use the Tax Abatement financing according to policy where appropriate
- Issue HRA Commercial Rehabilitation Loans
- Issue HRA Commercial Rehabilitation Grants (Fire Suppression)
- Issue HRA Housing Rehabilitation Loans
- Establish a Capital Asset Reinvestment Plan
- Seek grants for other agencies

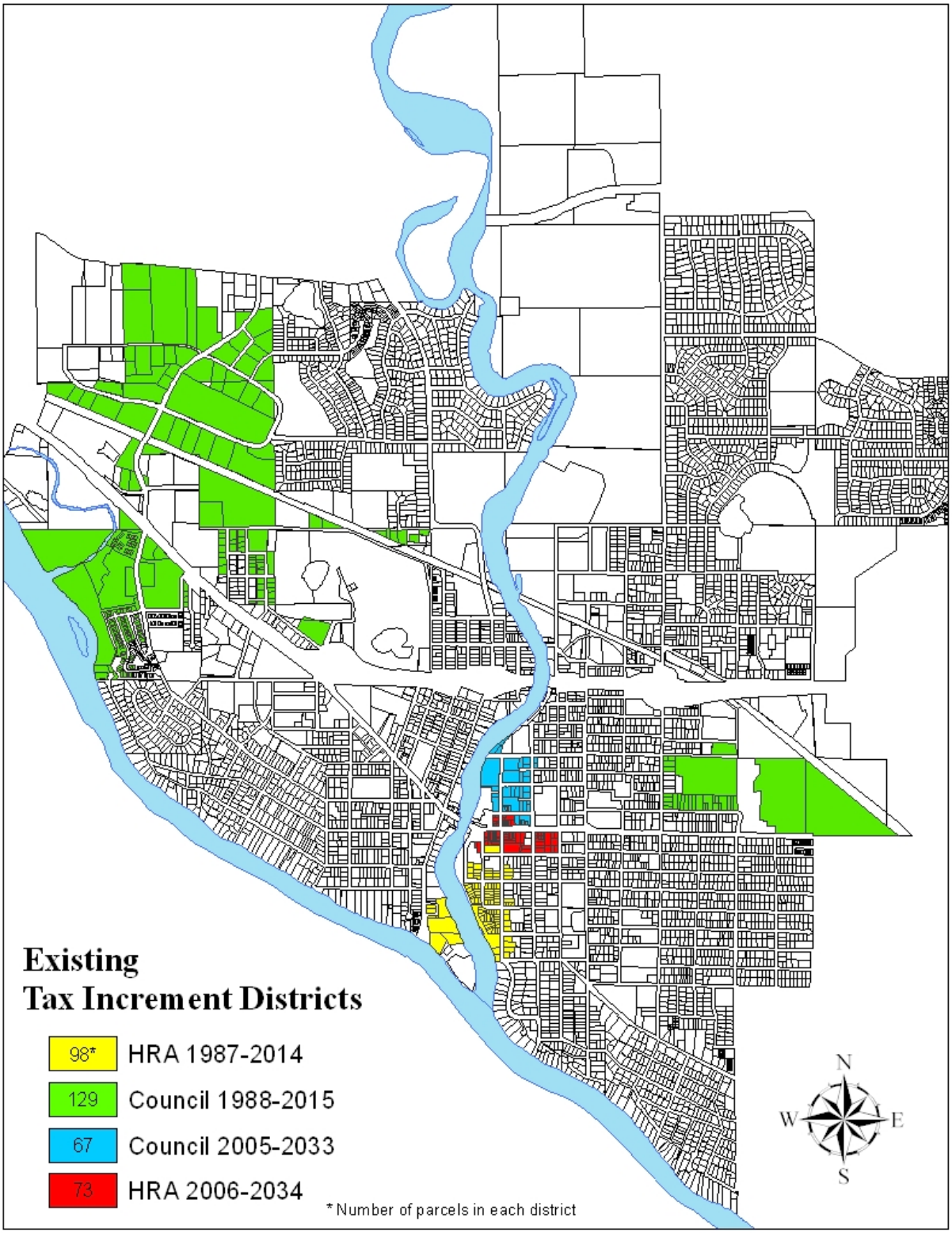


Figure: Existing Tax Increment Districts - (Source: City of Anoka)

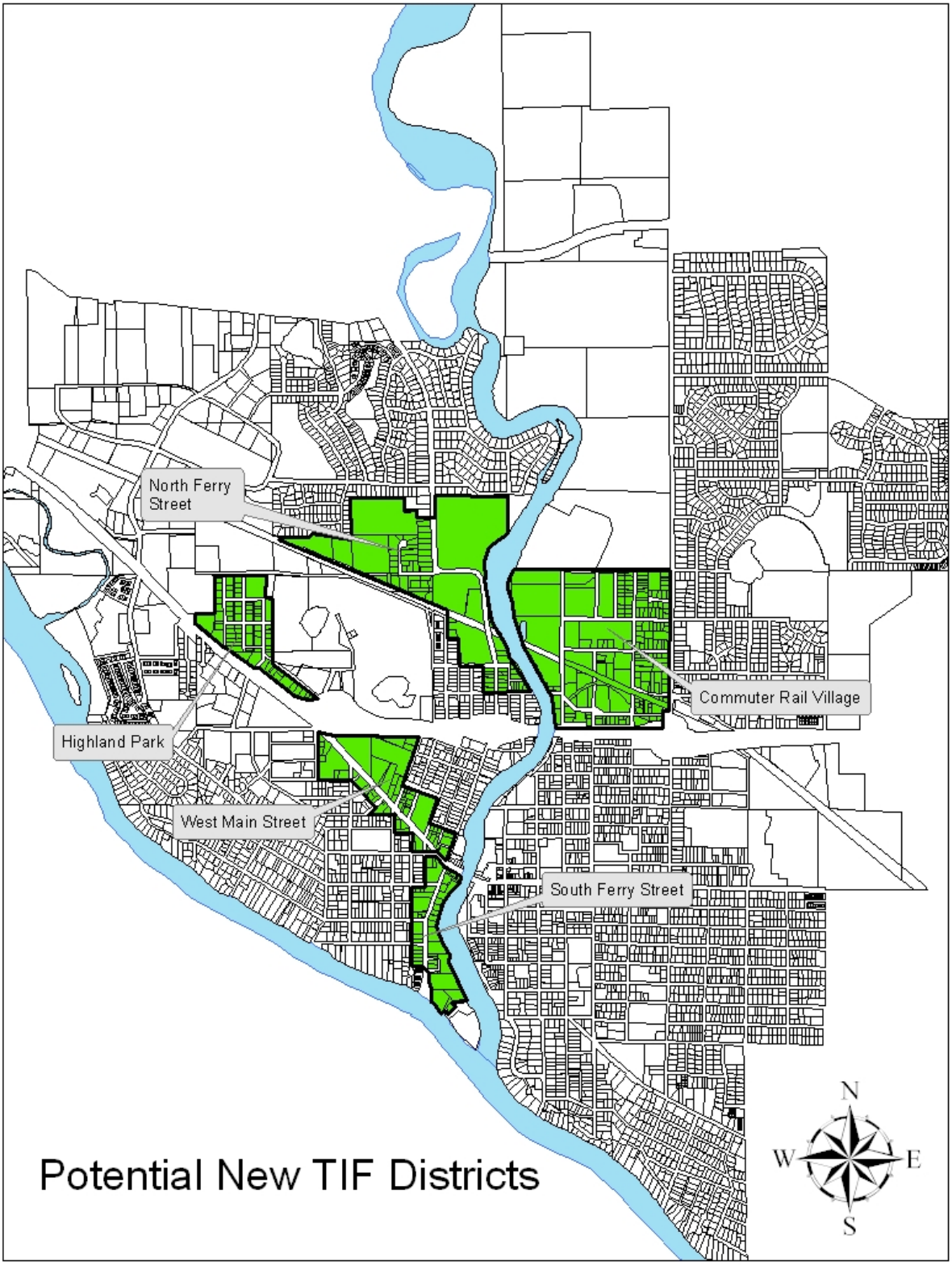


Figure: Potential New Tax Increment Districts – (Source: City of Anoka)

4. Invest in public infrastructure and facilities that support private investments

- Construct public infrastructure systems to support private development including:

  - Communications systems
  - Electric Utility
  - Street Renewal Program

- Construct and maintain public facilities including:

  - Charles Horn Swimming Pool
  - City Hall
  - Greenhaven Golf Course
  - Parks Building
  - Park system including Kings Island
  - Public Safety Center
  - Public Service Center

5. Focus resources on points of identity, destination, and economic intersections

- Create identification signage and promote investments at the following gateways with priority given to those identified in **bold**.

  - Bunker Lake @ Thurston
  - Bunker Lake @ Highway 47
  - Bunker Lake @ 7th Avenue
  - Bunker Lake @ Round Lake Blvd
  - East River Road
  - **Ferry Street @ Mississippi Bridge**
  - **Main Street-East @ 11th Avenue**
  - **Main Street-West @ Rum River Bridge**
  - North Street @ 11th Avenue
  - U S Highway 10-East
  - **U S Highway 10-West**
  - U S Highway 10 @ Main Street

- Recognize the economic importance of the following major destinations with priority given to those identified in **bold**.

  - Anoka Enterprise Park
  - Anoka High School
  - Anoka Technical College
  - **Central Business District**
  - **Commuter Rail Village**
  - Federal/Hoffman

Images: Anoka Signage Concepts – (Images courtesy of Community Design Solutions and Arnett Muldrow & Associates)

- Capitalize upon investment/development opportunities at the following intersections with priority given to those identified in **bold**.

  - **Bunker Lake Blvd/7th Avenue**
  - Bunker Lake Blvd/Hwy 47
  - Bunker Lake Blvd/Round Lake Blvd
  - **Bunker Lake Blvd/Thurston Avenue**
  - Ferry/Pleasant
  - **Main/Ferry**
  - Main/2nd Avenue
  - Main/7th Avenue
  - 7th Avenue/East River Rd
  - 7th Avenue/38th Avenue
  - **US 10/Thurston**
  - **US 10/Main Street**
  - US 10/Ferry Street
  - US 10/7th Avenue

Photo: Intersection at Main Street and 2nd Avenue N - (Image courtesy of Community Design Solutions and Arnett Muldrow & Associates, 2008)

6. Invest in projects along corridors of commerce and culture

   - Guide and promote development along the following commercial corridors with priority given to those identified in **bold**.

     - 7th Avenue
     - BNSF Railroad
     - Bunker Lake Blvd
     - East River Road
     - Ferry Street-North
     - **Ferry Street-South**
     - **Main Street-East**
     - **Main Street-West**
     - MN Highway 47
     - Thurston Avenue
     - **US Highway 10**

   - Guide and promote developments along cultural corridors including:

     - Mississippi River—MNRRA trail, accesses, Kings Island
     - Rum River—trail, dam, navigation, accesses, public uses

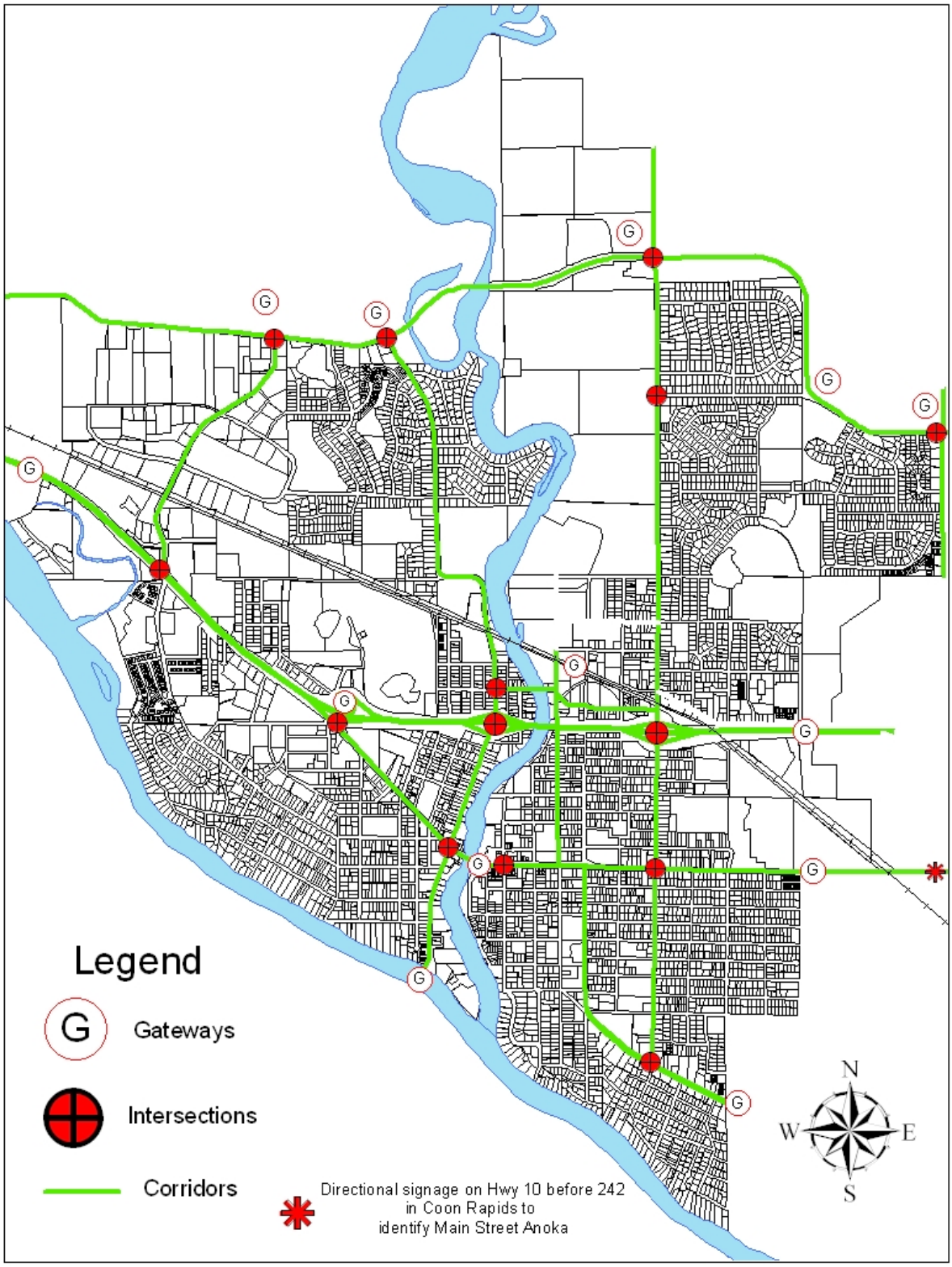


Figure: Potential Intersections for Development – (Source: City of Anoka)

7. Invest in sites and neighborhoods ready for growth based upon market conditions

- Promote development and investment at the following sites with priority given to those identified in **bold**.

  - **11th Avenue**
  - 3rd/Jackson
  - Castle Field
  - **Eniva Corporation**
  - Graco Inc.
  - Hunts Bus
  - K-Mart
  - Mobile Home Park
  - **Rivertown Lofts**

- Promote development and investment in the following neighborhoods with priority given to those identified in **bold**.

  - Anoka Enterprise Park
  - Central Business District-intersection of Main Street and Rum River
  - **Commuter Rail Village-intersection of rail line and Rum River**
  - Coopers Landing
  - Federal/Hoffman
  - Franklin School
  - Highland Park
  - **Historic Rum River District project**
  - Rottlund Master Plan
  - City Hall re-use
  - Third Avenue, Van Buren to Harrison
  - County leased lot redevelopment
  - Jackson Street
  - **Land North of Bunker**
  - Pinewski/Smith properties
  - Schwartzmans/Fairgrounds
  - Thurston/Bunker
  - **West Main Shopping Center**

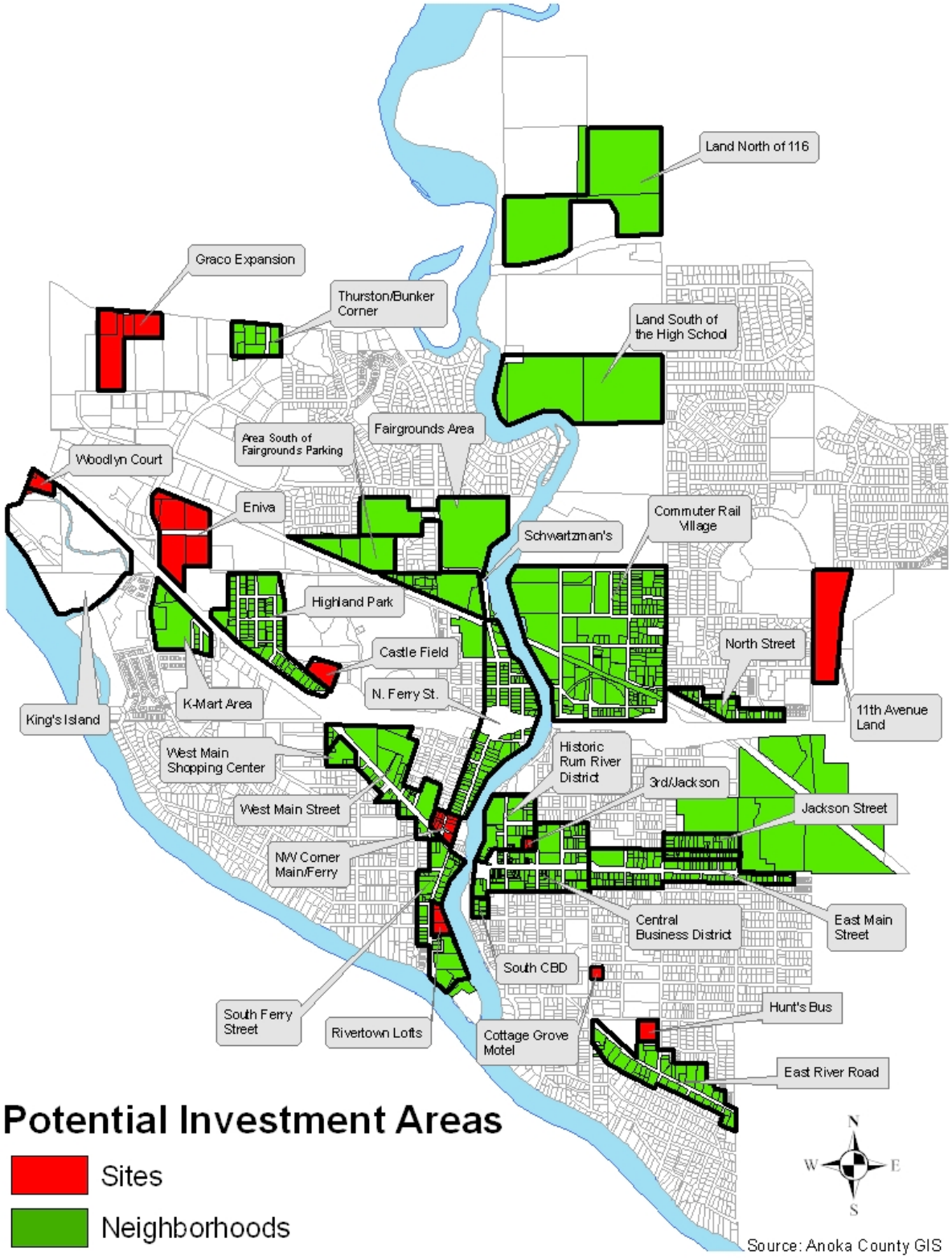


Figure: Potential Investment Areas – (Source: City of Anoka)

REAL. CLASSIC.™

Housing

Introduction

Housing development in the City of Anoka has evolved over time. There is a long history of housing dating back to the mid 1800's beginning with the first residences of cabins, logging camps and wayside inns into the 1940-1960's when the majority of the single family homes were constructed and Anoka became a commuter suburb of the Twin Cities Metropolitan area. After 1960, housing construction in Anoka shifted more toward multi-family rental development due to market demands of a growing population in the north metro region. Much of the higher density market demand in the area between 1960-1980 was absorbed by Anoka due to the existence of established infrastructure that many of the other Anoka County communities lacked.

Photo: Anoka House – (Image courtesy of Community Design Solutions and Arnett Muldrow & Associates)

The City's housing plan considers Anoka's rich history, growth patterns and current trends in providing a solid foundation for local policies that guide residential development and redevelopment issues over the next 20-25 years. These policies are developed with the understanding that maintaining and demanding a quality housing supply is the most critical and essential component to the positive quality of life in the community. In addition, the availability of a variety of housing types, styles, and price ranges allows residents to move through their life cycle within the City. This is a key factor in maintaining the City's sustainability and continuing the trend of a community rich in history. Attracting new residents who can both live and work in the community with a full range of housing choices is just as important as retaining Anoka's current residents.

To identify the housing issues and need, the housing section of the comprehensive plan assesses the current housing supply and evaluates the changes in the City's households and resident population. In addition, the plan provides a review of the current and future land available for housing and its relationship to the economic base of the city. Finally, this plan contains goals and strategies to address the "life cycle" housing needs in the City as reviewed by the community through the comprehensive planning process and supported by the City's Housing & Redevelopment Authority.

Handbook Section 3.1
g) Housing plan

Housing Supply

It is important to assess the current housing stock in order to determine how Anoka residents' housing needs are being met currently and into the future. Analyzing the existing housing supply informs decision-makers about what exists, the condition of housing, and what segments of the housing stock are already well-represented and which are under-represented. This section describes the structure, tenure, quality, and affordability of the housing stock in Anoka. These attributes compared with resident household characteristics provide a view of the existing conditions to assist decision-makers in creating solid housing policies and programs.

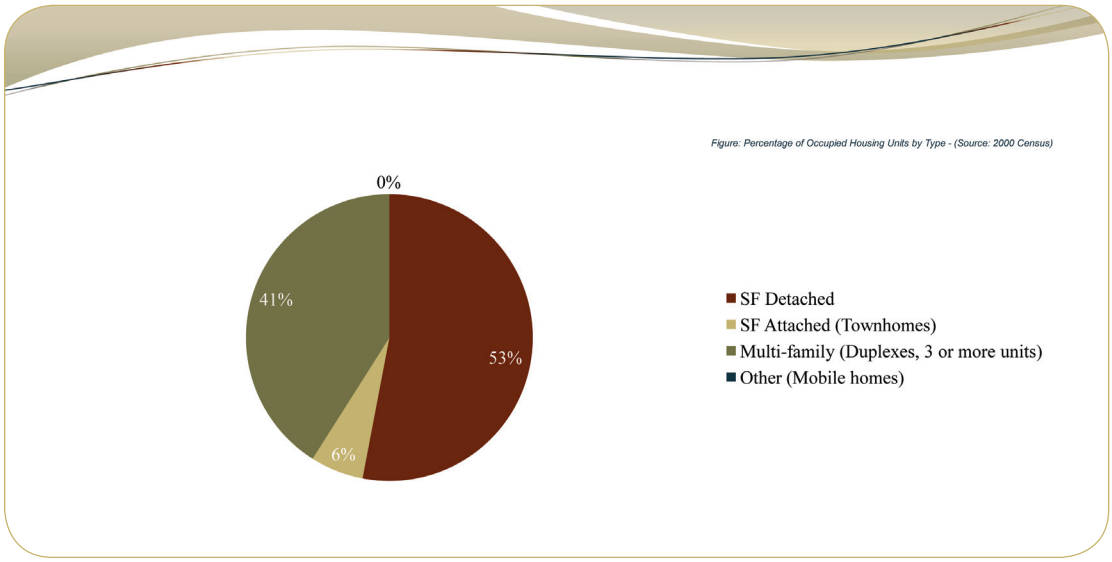


Figure: Percentage of Occupied Housing Units by Type – (Source: 2000 Census)

Housing Structure

The City of Anoka has a balanced and diverse housing supply. Although the majority of the housing stock is single-family detached homes, there is a fairly large supply of multifamily homes to accommodate a wide variety of residential preferences and lifestyles. According to the 2000 Census, there are a total of 7,262 housing units in the City, a growth of 463 units from 1990. The composition of the housing units is relatively unchanged over the past 10 years. Of those units, 53 percent (3,840 units) are single family, 41 percent (3,001 units) are multifamily and 5.5 percent (394 units) are townhomes. The 35-40 mobile homes of the Woodlyn Court mobile home park represent less than 1 percent of the City's housing stock. However, the Minnesota Department of Health revoked the mobile home park's license due to a failing septic system. The park owner was required to hook up to city sewer or close the park. The owner elected to close the park in November of 2008.

Past Growth in Housing Type: 1990-2000 Census

	Anoka 1990:		*Anoka 2000:*	
Number of Units	**Number**	**%**	**Number**	**%**
Single Family Detached	3572	53	3840	53
Single Family Attached (Townhomes)	247	3	394	5.5
Multi Family (duplex, 3 or more units)	2908	43	3001	41
Mobile Homes & Other	72	1	40	0.5
Total	***6799***	***100***	***7275***	***100***

Table 1: Past Growth in Housing Type – (Source: 2000 Census)

Approximately 176 additional residential units have been constructed since 2000.

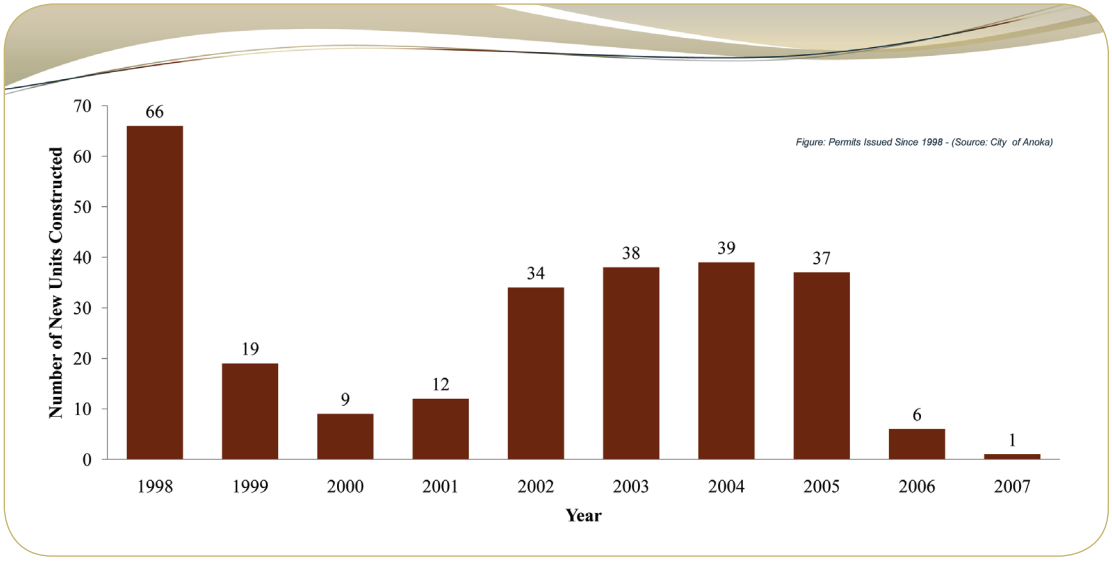


Figure: Permits Issued Since 1998 – (Source: City of Anoka)

In addition to new units recently constructed, several new housing units have been approved and are expected to be built in the next 5 years:

Historic Rum River District

Historic Rum River District proposal includes 99 units of loft-style living and 104 units of distinctive 55+ condos in the historic Downtown Anoka.

Rivertown Lofts

Rivertown Lofts proposal includes 55-units in a five story condominium with two levels of underground parking, at grade surface parking, and one condominium unit located within the existing historic home on the site for a total of 56 units. The site is located at 1632 South Ferry Street. The historic home on the site, better known as the "Woodbury House," was built in 1853 and is listed on the National Historic Register.

In addition to approved new housing projects, the City anticipates that new housing will located at the following future development/redevelopment locations:

Commuter Rail Transit Village

The city of Anoka will have a rail station for the Northstar Commuter Rail line. It is anticipated that medium density housing will be developed in this area.

South of Anoka High School

Land South of the High School: There is 83.63 acres of land located just south of the high school that is guided to be zoned for single-family use.

Housing Tenure

In addition to the type of housing units, Anoka has an equally diverse and stable distribution of ownership and rental housing with little change over the last 10 years. In 2000, 56 percent of the housing units were owner occupied and 44 percent renter occupied. In 2006, apartments accounted for 34 percent of the all the housing units and senior complexes accounted for 5 percent. This leaves approximately 5 percent of the single family detached, townhomes and condominiums in the city that are renter occupied rather than owner occupied.

Compared to other metro area cities, Anoka is most closely aligned with the Cities of New Hope and West St. Paul. Anoka is more closely compared to the national average of ownership housing at 67 percent than the statewide average of 75 percent.

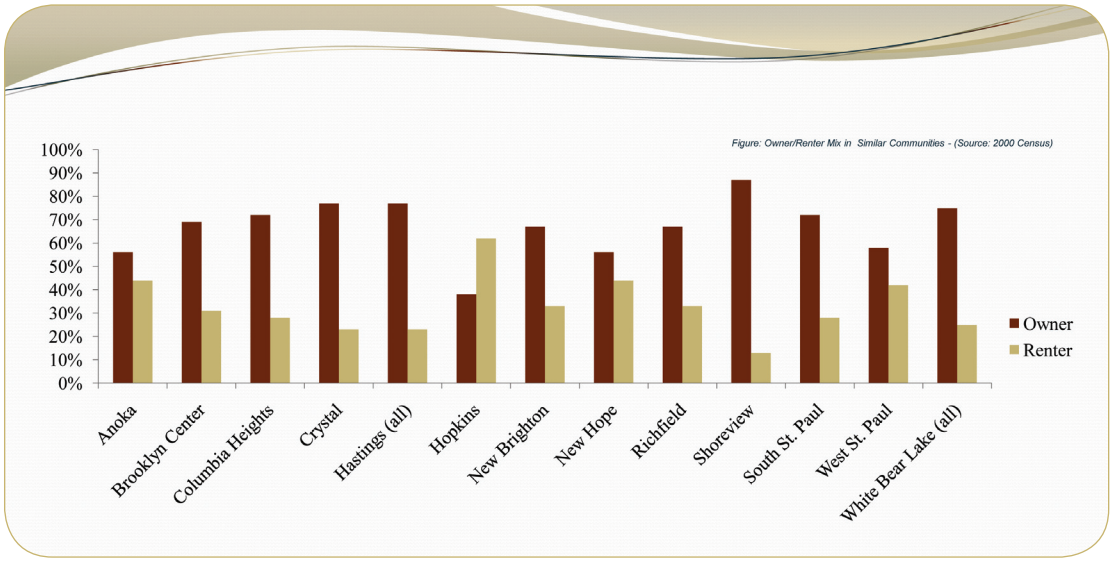


Figure: Owner/Renter Mix in Similar Communities – (Source: 2000 Census)

Adequate opportunities for safe, decent and affordable rental housing are a key component of a balanced housing supply. There are many reasons why an individual and/or family choose to rent rather than own. Those choices may be short term due to financial issues (unable to afford a mortgage, need to save for a down payment, clear up credit issues), family issues (divorce, separation, job relocation) or social issues (disability, in-between home ownership, not secure in job, unsure on location preference). Also, many people choose a life of renting rather than owning due to income, transitional careers, traveling and aging. According to the 2000 Census, 49 percent of residents over the age of 65 live in rental housing in Anoka. Of the 2,900 Anoka residents older than 65, almost half live in some type of rental housing in the City. This figure has increased to over 3,600 by 2006. In addition, there are many single person households that likely live in rental housing in Anoka. For all these reasons, the community should embrace the benefits of providing a wide range of living choices including quality rental housing.

Housing Quality

The quality of the housing stock is equally if not more important than the diversity of the housing. Nearly 70 percent of Anoka's housing stock is over 30 years old with 15 percent of the ownership and 8 percent of the rental housing built before 1939.

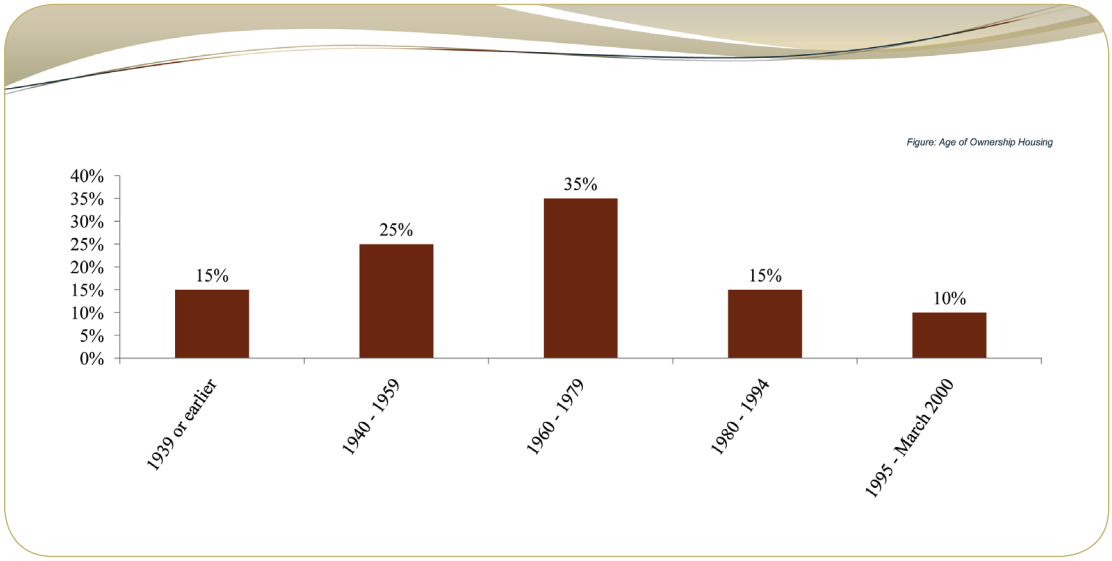


Figure: Age of Ownership Housing

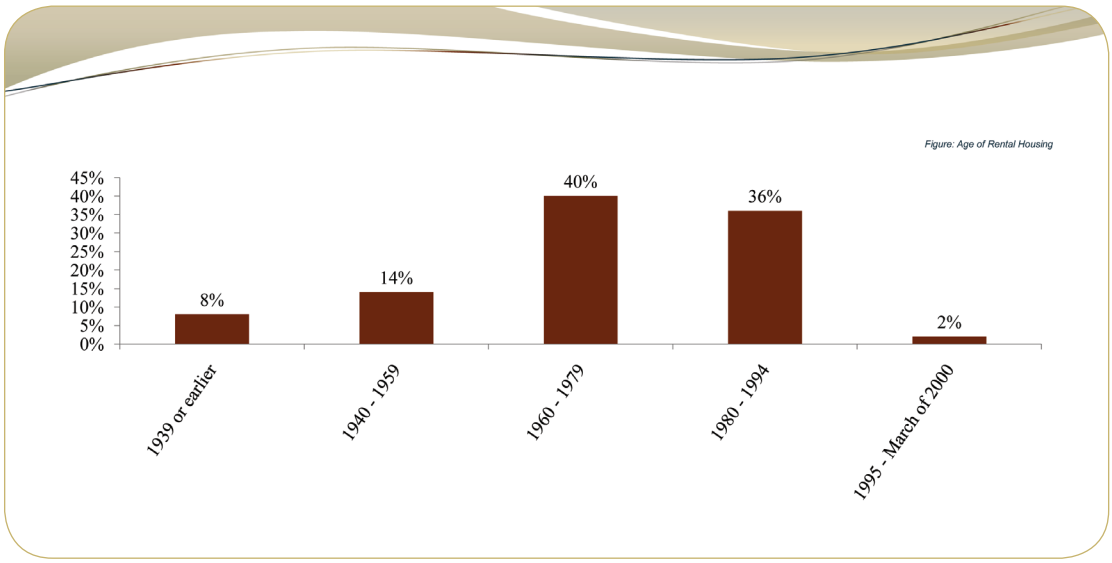


Figure: Age of Rental Housing

Overall, an average of 53 percent of the housing stock in Anoka County is older than 30 years. Anoka's housing is some of the oldest in the county. Anoka has a higher percentage (69%) of housing older than 30 years than virtually every other city in the county. Only the cities of Columbia Heights (86%), Fridley (85%), Hilltop (76%), Lexington (79%) and Spring Lake Park (71%) have an older housing stock on average. However, the City of Anoka is older than all of these cities.

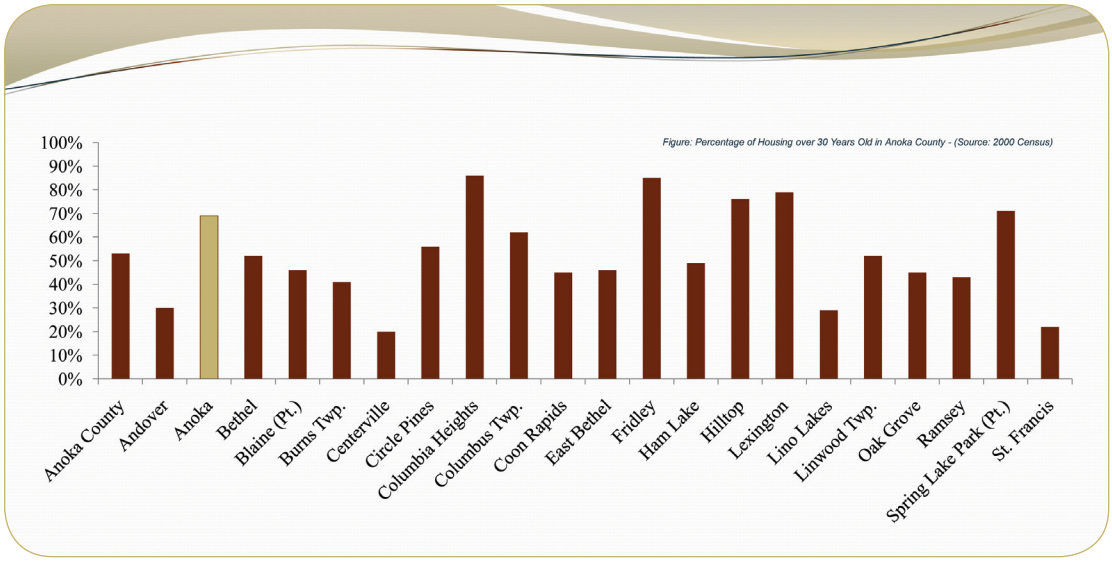


Figure: Percentage of Housing over 30 Years Old in Anoka County – (Source: 2000 Census)

Ensuring that the older housing stock is adequately maintained is critical to the stabilization of the value and marketability of housing. In general, homes over 30 years of age require some level of maintenance and repair as well as modernization to remain positively valued. One of the most significant issues associated with neighborhood decline is the deferred maintenance of homes or lack of modernization of older housing stock.

In Anoka, the housing maintenance and general housing condition issues are determined and monitored through the housing maintenance code and rental inspection process. In addition to identifying houses in need of maintenance, structures beyond repair have been identified and addressed over the years. The Anoka Housing and Redevelopment Authority (HRA) plays an active role in both promoting and creating housing programs which assist with the general maintenance and upgrade of housing in the City. The HRA's goal is to assist in providing solutions related to housing maintenance to help prevent blight and deterioration.

In April of 1994, the City of Anoka adopted Ordinance No. 1994-933, "Housing Maintenance Standards," which is now located in Chapter 48 of the City Code. These standards were created to help preserve the housing stock within the City of Anoka. In 2005, the City hired their first full time Property Maintenance Coordinator. Since that time, numerous properties in violation of this ordinance have been identified through resident complaints and more proactive City staff inspections. As a result, the housing stock in the City of Anoka is being upgraded through general maintenance or demolition of dilapidated or nuisance properties.

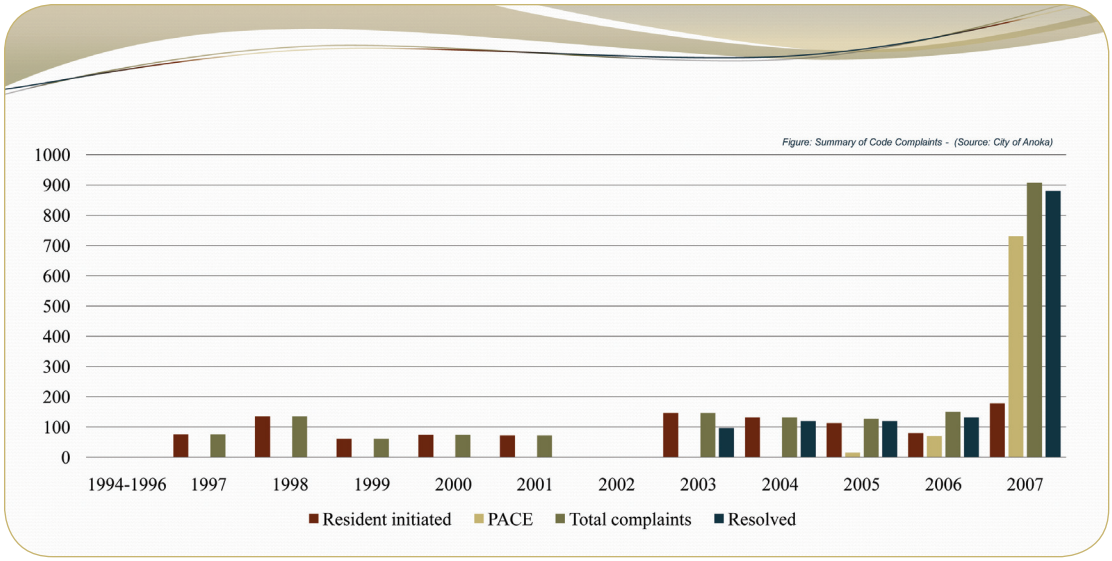


Figure: Summary of Code Complaints – (Source: City of Anoka)

As shown in the chart, the activity level of addressing housing code violations has increased over the years due to a more proactive approach and through the Pro Active Community Enhancement Program (PACE). In 2007, 2,944 properties were inspected, 565 notifications on code violations were mailed and 7 citations were issued. In addition, for the 400 violations reported by residents, 364 notifications were mailed and 40 citations were issued.

In an effort to provide a safe living environment for our rental population the City of Anoka passed Chapter 48 Article II, a rental licensing ordinance, at its August 15, 2005 council meeting. Rental licensing requires all rental properties within the City of Anoka to obtain a rental license and be inspected. The license is valid for a period of three years. It is the purpose of this Article to assure that rental housing in the City of Anoka is decent, safe, and sanitary and is so operated and maintained as not to become a nuisance to the neighborhood or to become an influence that fosters blight and deterioration or creates a disincentive to reinvestment in the community. The operation of rental residential properties is a business enterprise that entails certain responsibilities. Operators are responsible to take such reasonable steps as are necessary to assure that the citizens of the city who occupy such units may pursue the quiet enjoyment of the normal activities of life in surroundings that are: safe, secure and sanitary; free from crimes and criminal activity, noise, nuisances or annoyances; free from reasonable fears about safety of persons and security of property; and suitable for raising children.

Housing Demand

Age of population

The age structure of the population of Anoka and surrounding areas will have an important impact on the housing types, styles, and price points that current and future residents will demand. It is important to examine the age distribution of current Anoka residents because they will also affect demand for certain types of housing as their age and family composition changes.

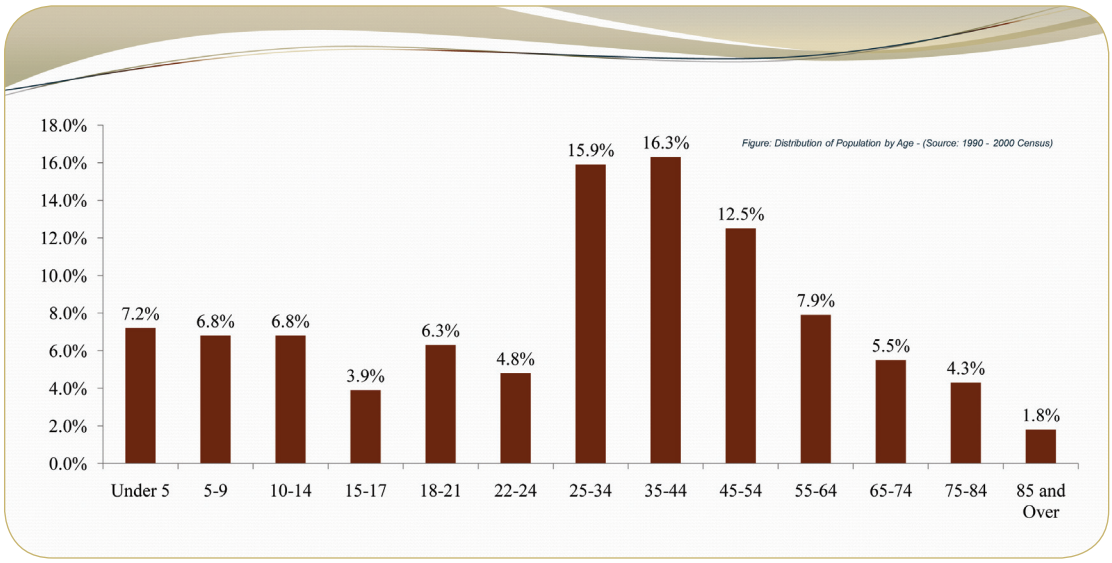


Figure: Distribution of Population by Age – (Source: 1990–2000 Census)

Not unlike many other communities, households in Anoka are aging. During the 1990's there was a shift from an emphasis on younger households (under age 35) to middle aged households between the ages of 35 to 54. From 1990 to 2000, the younger households decreased by 15 percent. This trend is relatively consistent with that of the region; younger households have decreased 11 percent in Anoka County and 12 percent in the twin cities metropolitan area. In contrast, both Anoka County and the twin cities metropolitan area saw an increase in families with children by 10 percent. In addition, there were gains in children under the age of 5 with Anoka County seeing a 5 percent increase and the metro area a 2 percent increase. However, during a period when much of the region showed gains rather than losses, families with children in Anoka dropped 8 percent and the number of children under the age of 5 dropped 11 percent.

Twin Cities Demographic Trends: Adults, Families and Children - 1990 to 2000

Percent Change:	*Anoka*	*Anoka County*	*Hennepin County*	*7-County Metro*
Residents Ages 25 - 34	-15%	-11%	-14%	-12%
Families with Children	-8%	10%	3%	10%
Children Under Age 5	-11%	5%	-5%	2%

Table 2: Twin Cities Demographic Trends – 1990 to 2000 – (Source: 1990–2000 Census)

At the same time, all households over the age of 35 increased in Anoka with the most significant increase (52%) seen in households over 85 as shown below.

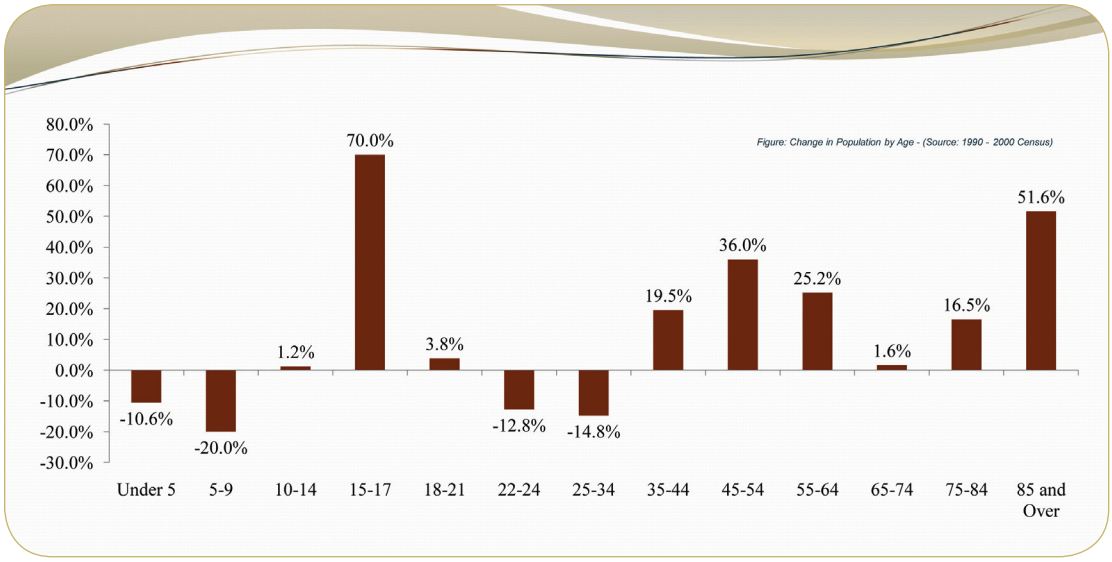


Figure: Change in Population by Age – (Source: 1990–2000 Census)

Looking at more current household data provided by Excensus, as the share of the households under age 35 continued to decrease the share of the older households continued to increase. Growth in the older household segments (particularly age 55 to 74) is significant, doubling in number from 1990 to 2006. This age group now accounts for a third of the households in Anoka, an increase from 21 percent in 2000.

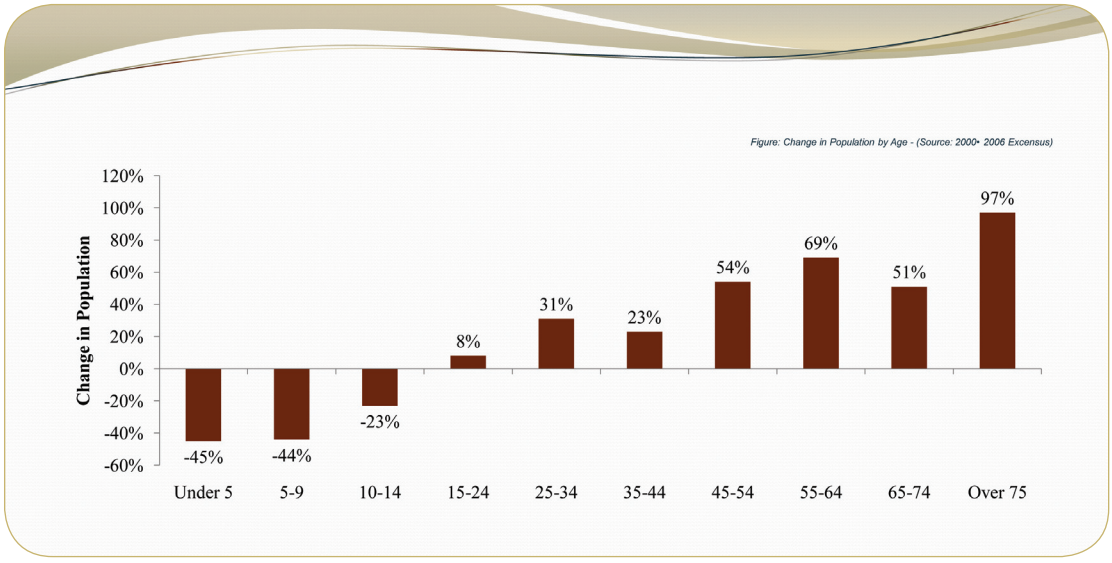


Figure: Change in Population by Age – (Source: 2000–2006 Excensus)

Family Composition

In addition to age, family composition provides valuable information regarding the type of housing that will be needed by current and future residents of Anoka.

Family Composition	1990	2000	Change
Married with children	27%	21%	22% reduction
Married without children	25%	24%	4% reduction
Single parent	11%	11%-	
Living alone	30%	37%	23% increase
Living with unrelated people	6%	7%	17% increase

Table 3: Family Composition – (Source: 2000 Census)

While households that include married adults with children decreased, those living alone have increased. The average percentage of households with only one person is 22 percent in surrounding communities compared to 37 percent in Anoka. It can be assumed that many of these single-person households are older adults that either live in rental housing or are remaining in single family homes where they are "aging in place".

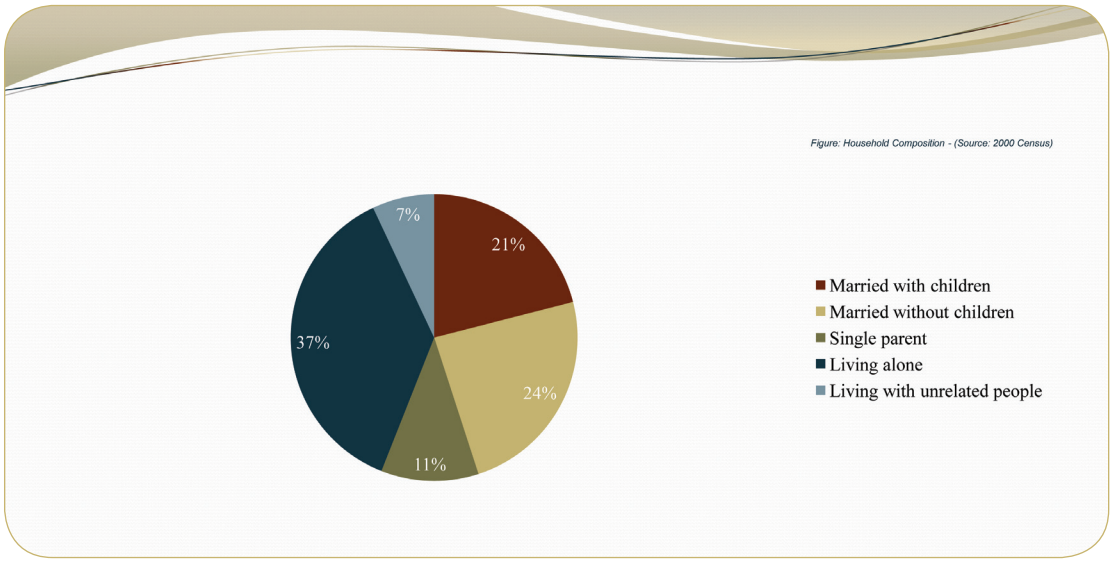


Figure: Household Composition – (Source: 2000 Census)

Ethnicity (Diversity of Residents)

The ethnic diversity of a community can shape not only housing needs but also community service delivery. Even though Anoka is mostly white (95%), the percentage of minority householders (5.6%) is larger than that in other surrounding communities. Using Excensus data, the percentage of households with children has decreased while the average household size has increased from 2.49 in 2000 to 2.88 in 2006. This can be attributed to the growing presence of immigrant families (i.e. minority households) in the community and region.

Photo: Multicultural Crayons – (Image courtesy of Flickr, 2008)

Anoka Ethnicity		
	Number	***%***
White	16,837	95%
Black or African American	446	3%
American Indian	190	1.1%
Asian & Pacific Islander	173	1.0%
Other Race	93	0.5%
	17,739	100%

Table 4: Anoka Ethnicity – (Source: 2000 Census)

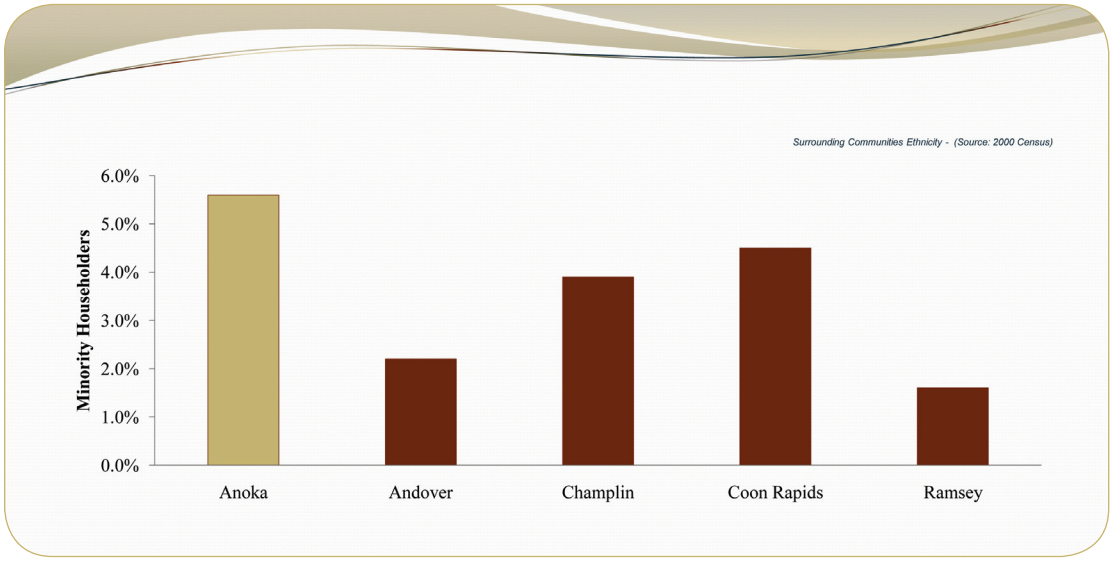


Figure: Surrounding Communities Ethnicity – (Source: 2000 Census)

Income

In addition to the age of the home and the age of the households, evaluating income determines the ability of residents to reinvest in the community with their disposable income and the level of homes or rent they can afford.

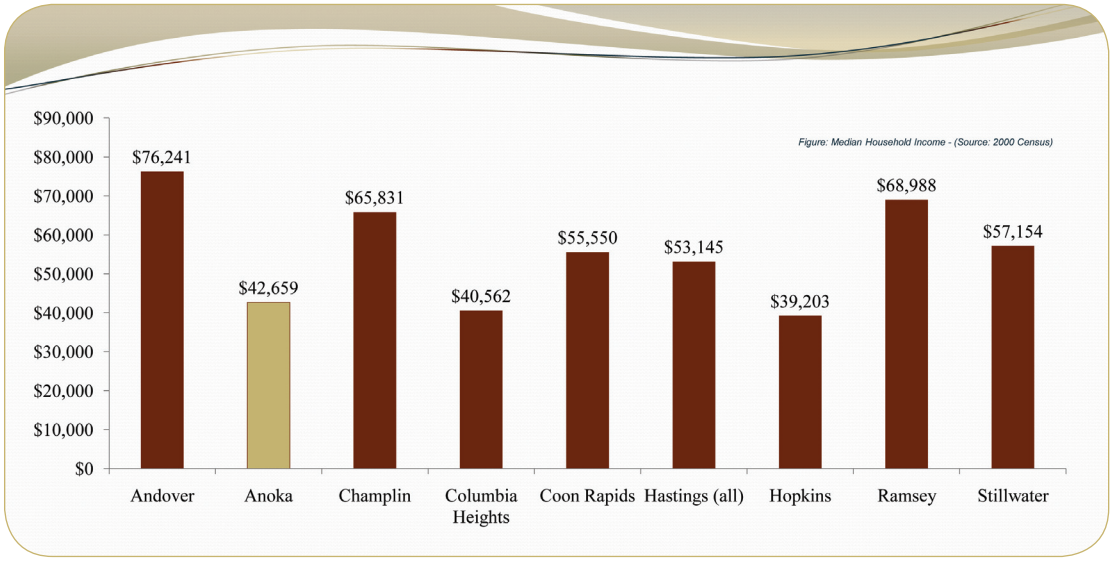


Figure: Median Household Income – (Source: 2000 Census)

The median household income in Anoka in 2000 was approximately $43,000. In comparison to similar communities, Anoka's median household income is the third lowest. Anoka has a higher median income than only Columbia Heights ($40,562) and Hastings ($36,203). In addition, Anoka's incomes are significantly lower than the County's median income of over $70,000.

There are several indicators that can be considered to assess the levels of lower incomes in the City. First, households earning less than 50 percent of the Area Median Income (AMI) are considered households with very low incomes. Households earning less than 30 percent of the AMI are considered living at poverty level. Finally, there are households living at poverty level earning less than 30 percent of the AMI and receiving some level of public assistance. However, not all those living in poverty receive public assistance and some households who receive public assistance may be physically or mentally handicapped and unable to work.

According to Census data, Anoka is ranked the 26th highest community in Minnesota for households with incomes 30 to 50 percent of area median. Anoka has a higher percentage (6.8%) of people living in poverty than surrounding communities. This is higher than the 4.1 percent of Anoka County and slightly higher the 6.4 percent of the metropolitan region. However, when evaluating the specific family compositions living in poverty, the overwhelming majority are single female parent households. In Anoka, 28 percent of those living in poverty are from this family composition.

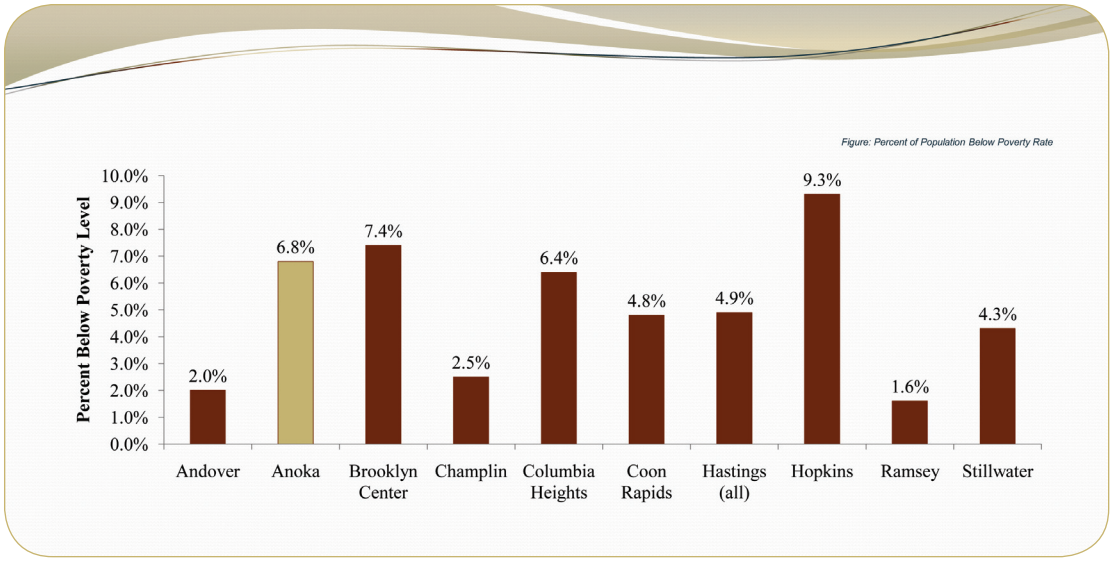


Figure: Percent of Population Below Poverty Rate

According to Federal Housing & Urban Development public assistance data for 2004, Anoka has 198 multifamily units receiving public assistance, is ranked the 10th highest city in the state with multifamily assisted units having contracts expiring in 2007 and is ranked 8th highest city in the state having contracts expiring in 2014 or later. Following the expiration of these contracts, owners of rental units receiving public assistance may elect to increase rental rates to be compatible with current market rates, thus eliminating a portion of Anoka's affordable housing.

The lower household income of Anoka is a factor of the age of the City's residents and the higher than average single parent households. The lower household income and higher housing cost burden of a community may affect a resident's ability to reinvest and maintain their home and is justification to provide resources for home improvement. Support for providing home improvement resources is also justified by the percentage of households that pay over 30 percent of their income on housing. According to 2000 Census data, 39 percent or 1,888 households (11 percent owner-occupied and 28 percent renter-occupied) pay more than 30 percent of their income on housing. This is considered to be an unacceptable housing cost burden. Further, 16.5 percent or 588 Anoka households have a severe cost burden and are paying more than 50 percent of their income on housing.

Housing Affordability

One of the most important factors in analyzing the housing stock is its affordability and marketability. Anoka has a very affordable housing stock. This is due to the age of the housing as well as the size of the homes. These same factors also contribute to the City's marketability and housing value. With older and smaller homes, the average market value of the homes is much less than that of other surrounding communities.

Definition of Affordability

There are several different definitions of affordable housing. The definition of affordable housing most frequently cited and measured in this report is when households do not pay more than 30 percent of their income on housing costs. (Defined by the Federal Housing and Urban Development or "HUD"). When households have incomes at or below 80 percent of the area median income (AMI) home ownership becomes a challenge. This household group tends to pay more than 30 percent of their income on housing and has less disposable income to pay for other goods and services such as clothing, food, child care, transportation and medical expenses. In addition, those residents with lower incomes have significantly fewer housing choices to meet their family needs. In addition to income, the age distribution of households has an effect on the availability of homes that are affordable.

Ownership Housing Affordability

According to 2000 Census, Anoka had the 27th lowest homeownership rate among other Minnesota cities. In 2007, according to Metropolitan Council, a home with a value of $206,800 or less is considered affordable to persons with incomes at or below 80 percent of the AMI. According to the Minnesota Housing Finance Agency (Minnesota Housing), qualifying households can access low interest, first time homebuyer mortgage funds for housing with a maximum purchase price of $298,125. However, looking to the future (2011-2020), housing advocates and funding agencies will be adjusting the levels of affordability with more emphasis on meeting the needs of those with incomes at or below 60 percent of the AMI rather than 80 percent AMI.

In Anoka, 55 percent of ownership housing had an assessed value under $206,800 and 7 percent of ownership homes are affordable to those below 60 percent of the AMI.

Affordability of Ownership Housing in Anoka

Affordability Level	*Approximate Affordable Market Value**	*Number of Houses at this Estimated Market Value***	*% of Homes at this Level*
Affordable at 60% of AMI	=> $152,000	301	7%
Affordable at 80% of AMI	$152,001 to $206,800	2323	55%
Affordable at 100% of AMI	$206,801 to $250,000	1167	27%
Affordable at Over 100% of AMI	< $250,000	468	11%

** These affordable home prices are approximate, based on a household spending 30% of their income on mortgage and obtaining a mortgage interest rate of 6.5%, with no down payment.*

***AMI is "area median income" and represents the median household income in the seven county metropolitan area. This is approximately $78,500 in 2007.*

Table 5: Affordability of Ownership Housing in Anoka – (Source: Anoka County Property Tax Data, October 2007)

Comparing Anoka's housing value with surrounding communities, Anoka has a much more affordable housing stock and lower overall market value. According to Census 2000 data, Anoka had the second lowest median housing value ($119,000) which is closest to Columbia Heights ($103,000) and Coon Rapids ($126,000).

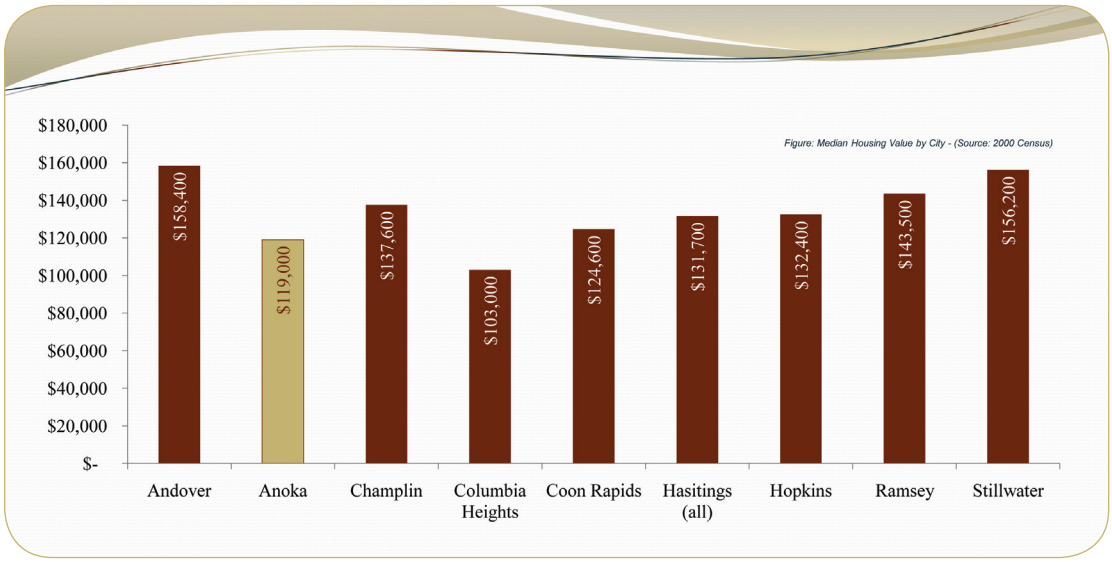


Figure: Median Housing Value by City – (Source: 2000 Census)

According to the Citizens League comparison of average market values, Anoka remains the 2nd lowest when comparing the same cities with a 2007 average market value of $204,518.

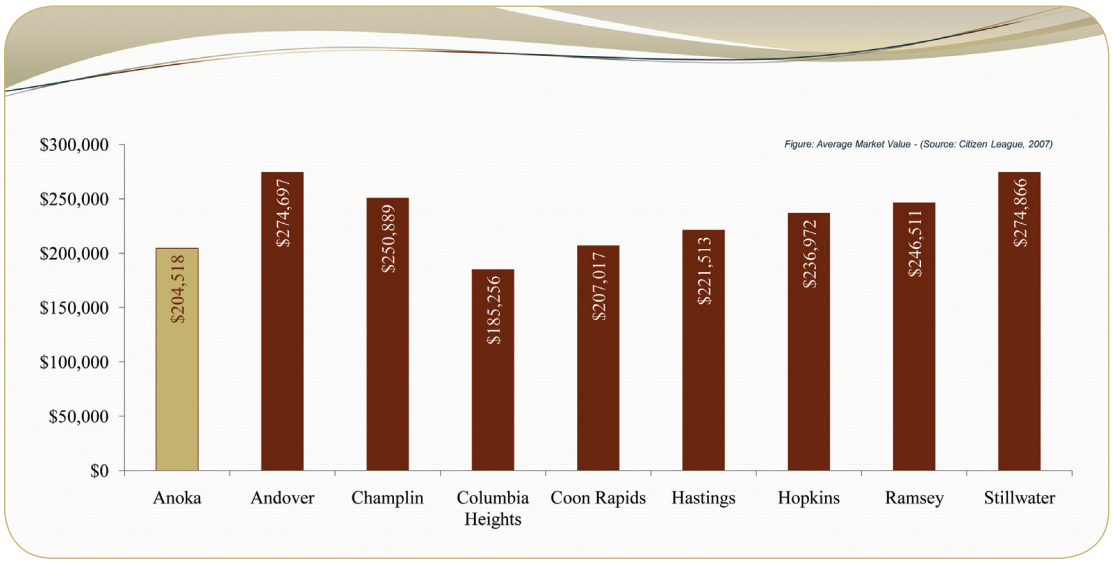


Figure: Average Market Value – (Source: Citizen League, 2007)

The lower value of the City's home is due primarily to its overall housing age and generally smaller square footage of homes. The value of the housing stock may affect the City's ability to attract new households with enough income to reinvest in their home.

Based on data from the Minneapolis Realtors Association, Anoka had the third lowest median sales prices ($191,250) just above Columbia Heights ($182,866) and Coon Rapids ($190,900). Adding new housing units to the community helps to increase the overall value and sales as well as diversify the housing options.

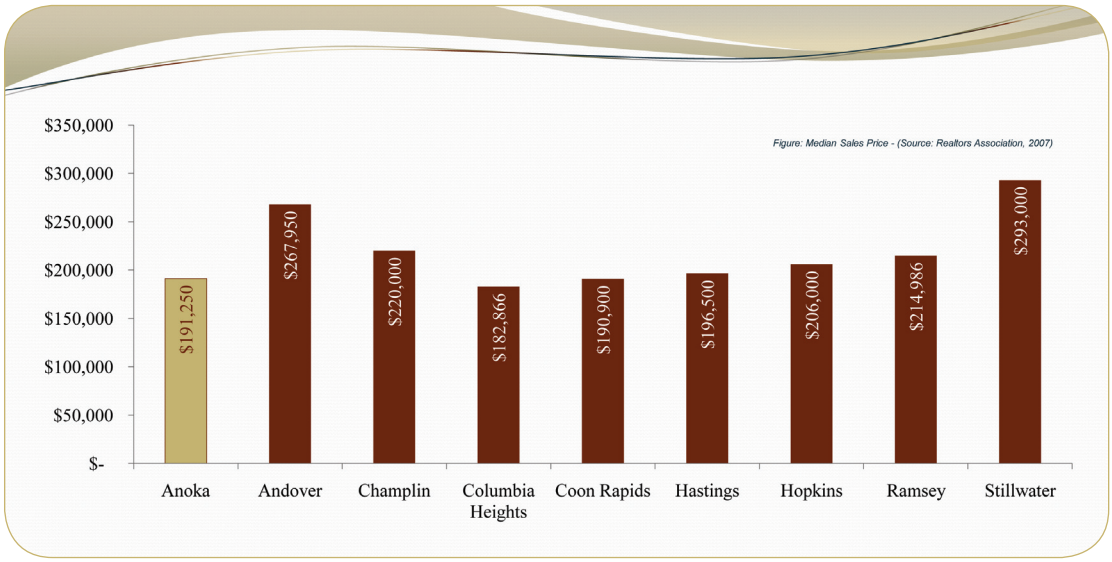


Figure: Median Sales Price - (Source: Realtors Association, 2007)

Rental Housing Affordability

There are approximately 3,195 rental units in the City of Anoka including apartments, senior complexes and single-family homes. The demand for apartment rental remains strong in the City probably due to the overall affordability and range of choices. Vacancy rates are generally below 5 percent and have remained at that level for many years.

According to 2000 Census, rental rates in the City of Anoka were 20 percent lower than Anoka County and neighboring communities with an average rent of $562 and a median rent of $602. In fact, Anoka had the second lowest median rent above only Columbia Heights. In looking at similar cities such as Hastings, Hopkins, Brooklyn Center and Stillwater, Anoka had a higher median rent above only one community - Hastings at $590.

Lower rents increase the affordability of Anoka units for lower income residents. Anoka's lower rents are a factor of the overall age of the rental housing stock. With 63 percent of the rental housing over 30 years old, it is essential that these units remain in good quality condition to effectively serve the residents and maintain the city's neighborhoods.

With a total of 264 subsidized housing units, 212 are rental senior apartments located in three buildings in the City of Anoka. There is currently a one to two year waiting list for subsidized senior housing in Anoka with a longer waiting list for subsidized family housing.

Subsidized Housing			
	Type of Housing	*# of units*	*Waiting List*
Bridge Square	Senior apartment	101	2 years
Walker on the River	Senior	45	1-2 years
Franklin Lane	Senior high rise	66	1-2 years
Sunny Acres	Family apartment	28	2 + years
Sunny Acres	Family town homes	24	2 + years

Table 6: Subsidized Housing in Anoka

Who is living in Anoka's affordable housing?

According to Excensus, apartments accounted for 34 percent of all housing units in the city, yet were home to 76 percent of all households under the age of 25 and 54 percent of all households age 25 to 34. Thirty-nine percent of the Anoka housing stock in 2006 was highly affordable single-family homes with a tax value under $180,000. However, only 29 percent of the households under age 35 were found in these lower priced homes. These homes were mostly (44%) occupied by households ages 55 to 74.

The turnover of these affordable homes, particularly those occupied by older residents, is very low. However, when older residents move into rental housing, the homes that do become available are attracting younger households. In addition, newly constructed homes tend to attract households under age 35 providing more opportunities for new families to move into the City. Of the 107 new housing units built in Anoka since 2003, 28 percent were occupied by households under the age of 35; a large portion of these new homes were valued over $300,000.

Evaluating the turnover and distribution of household ages in new and existing homes indicates that there is a market for current affordable homes as well as new move up housing. This creates a good balance in the community and provides housing choices for young and middle income families as well as older residents who wish to remain in the City. Retention, as well as the attraction of new residents, is an important community strategy.

Housing Foreclosures

Home foreclosures can have an impact on a neighborhood and community due to deferred maintenance and the potential issues associated with vacant homes. In 2007, Anoka County recorded 1,680 properties in foreclosure. In Anoka, there were 62 foreclosures in 2006 and 90 in 2007. Of the 738 foreclosures in Anoka County between January and April of 2008, 37 of the foreclosures occurred in the City of Anoka. The rate of foreclosures is estimated to almost double in 2008 over the rate of 2007.

The foreclosure crisis will have an impact on the City's housing stock. The City should be prepared by implementing a housing foreclosure plan. Some homes may go unoccupied and not be maintained properly for a period of time, potentially putting additional burden on code enforcement staff and increasing the potential for a declining appearance of neighborhood housing and home values. These potential newly vacant homes may be an opportunity for affordable housing purchases. Conversely, the vacant homes may also attract investment buyers who in turn rent the homes for a short period until the market resurges. In a slow market, investment buyers tend to purchase homes of lower value ($200,000 or less) and rent without additional investment in maintenance and/or cosmetic improvements. Ensuring that these homes are brought up to code prior to resale could be an important strategy to discourage the short-term purchase, renting and reselling by investors who do not have a vested interest in the City and specific neighborhoods.

Anoka recently updated their vacant building registration ordinance to better identify, inventory and monitor vacant buildings. The program addresses buildings with code compliance issues by requiring the owner to submit a plan of action to address code violations even though the property is vacant. This ordinance coupled with a strong housing foreclosure plan will help the city to overcome many of the negative effects of increasing foreclosed properties.

Metropolitan Council Livable Communities Act: Affordability Goals

In January of 2006, the Metropolitan Council released goals for the production of new affordable housing in the metropolitan region for the years 2011-2020. The goals focus on households earning at or below 60 percent of the AMI to more effectively target lower income households with limited financial resources. In 2007 dollars, a household of four with an income at or below 60 percent AMI earns up to $47,100 and can afford to purchase a home at or less than $152,000.

The Metropolitan Council has established a need for 96 new affordable housing units to be developed in Anoka between 2011-2020. New affordable units are defined as ownership or rental housing affordable to households earning at or below 60 percent AMI. The Metropolitan Council projects that Anoka's population will grow by 600 people between 2010-2020. Assuming an average of 2 people per household, there would be a need for 300 new housing units in the City to accommodate this projected growth (32 percent of them affordable to meet the Metropolitan Council goals).

Considering that ownership housing would require a purchase price at or less than $152,000 or pay no more than $1,177 for a family of four in 2007, Anoka will need to consider a wide variety of housing options to achieve the Metropolitan Council's forecasted need. Those options will likely be additional rental housing and/or ownership multifamily or small lot housing that is developed in partnership with non-profit housing groups such as Habitat for Humanity or community land trusts.

Land Use	Existing Acres	2030 Acres	Change	Res. Density Range
LDR	1,201	1,234	+ 33	1-4 Units/Acre 33-132 new units
HDR	198	263	+ 65	11-37 Units/Acre 715-2,405 new units

Job Growth and Economic Base

Based upon Census numbers, the City of Anoka's employment increased 12.7 percent, from 11,755 jobs in 1990 to 13,250 jobs in 2000. The employment change in Anoka over the last 10 years is less than the overall change in the county job growth at 31.7 percent and the twin cities metro area at 22.8 percent. Comparing Anoka's change in employment to surrounding and similar communities, Brooklyn Center and Hopkins have lower employment growth. As older areas in the City are redeveloped, there will be additional opportunities to add jobs in Anoka.

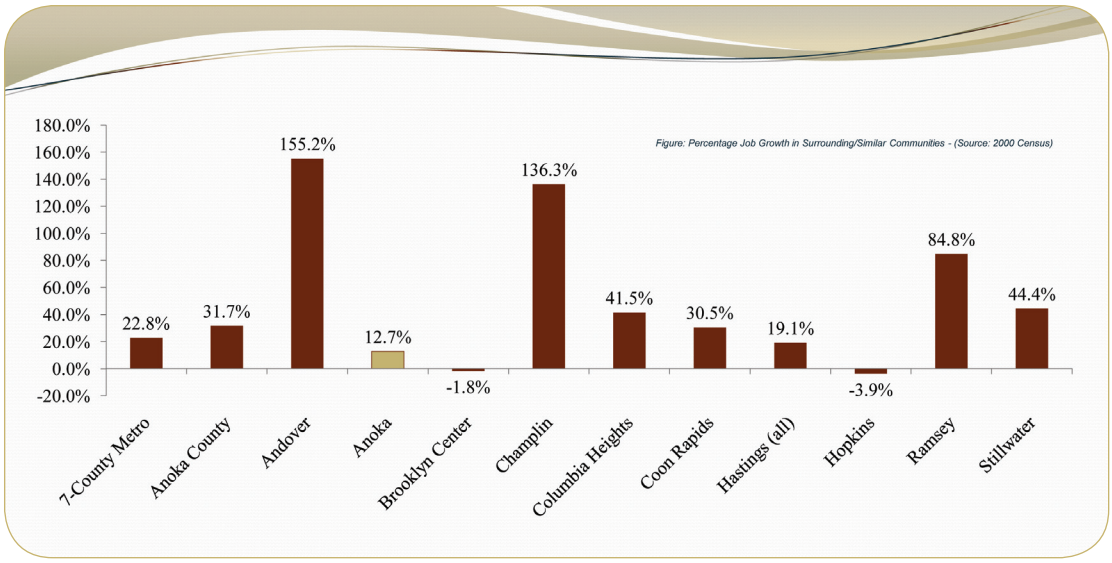


Figure: Percentage Job Growth in Surrounding/Similar Communities – (Source: 2000 Census)

According to data prepared by Excensus, in 2004 there were 8,630 residents employed in Anoka. Of those residents, 13 percent (1,178) worked within the City. Conversely, 87 percent of Anoka residents commute outside the City for work. In addition, of the 10,534 jobs (not including federal, non-profits and self-employed jobs) in Anoka in 2004, 89 percent were held by people living outside of the city. Based upon this information, there is an opportunity to encourage Anoka residents to work in the city as well as attract those working in the City to move to the area.

According to Metropolitan Council Forecasts, Anoka's employment base will grow to 15,200 by 2020 and 16,200 by 2030. Using these projections, Anoka employment growth will be 5,666 jobs from 2004 - 2030. If 13 percent of those jobs are held by Anoka residents there will be approximately 737 new jobs held by people who live in the community. These new jobs will attract residents who will look for a variety of housing choices in the City.

Housing Goals & Policies

Handbook Section 7.1
e) Housing implementation program

As part of the comprehensive planning process, the City and the HRA requested input from residents through a variety of methods to understand the important housing issues in the City. The City conducted community meetings and provided an online survey to gather input from residents. The HRA conducted strategic planning sessions and evaluated the community feedback to prepare goals that would help use the HRA's resources effectively to address housing in the City. Through this process, several new goals were prepared to ensure that the housing stock in the City remains in quality condition and that the development of new housing meets the future needs of the City. The main focus of the goals is to provide a diversity of quality housing now and in the next 20 years so that the community continues to provide an excellent quality of life for its residents.

Each goal is supported by existing data. A set of implementation strategies are identified to help policy makers reach the goals over the next 20 years.

Photo: Anoka House - (Image courtesy of Flickr, 2008)

Goal 1

Increase the quality and value of the existing single family and multifamily housing units in the City of Anoka.

Supportive Findings:

1. Housing units in the City are aging

    - Homes over 30 years of age require maintenance; 70 percent of the Anoka's housing units are nearly 30 years old or more.

2. There's a lower overall value of housing units in Anoka compared to surrounding communities

    - 61 percent of the single family detached homes and 68 percent of multifamily homes have an assessed value under $206,800 (Assessor, January 2007).
    - Anoka's residential market value per capita (2005) was $51,073; homestead residential value was $39,706, much lower than surrounding communities.
    - Median Sale Price of homes at year end in 2006 was $200,873 and $195,293 at the year end of 2007 (realtor association based on mls data for all homes sold). These values are the third lowest median value compared to surrounding communities.
    - In 2000, Anoka had a lower than average housing values at $119,000, 16 percent lower than surrounding communities.

Implementation Strategies:

1. Continue to provide home renovation programs.

    - Encourage participation in the CHORE program, paint-up/fix-up programs such as the Metro Paint-A-Thon Program and the Community Fix-up Fund.
    - Continue holding clean up/pick up days for appliances and furniture and the annual home improvement show.
    - Continue to offer HRA home renovation loans and rebates.
    - Continue to provide access to Construction Management Advice and educate residents on the benefit of this service for renovation projects.

2. Support the removal of housing blight in residential areas to increase home and neighborhood value.

    - Continue a Scattered Site Replacement Program.

- Promote volunteer programs and partnerships to facilitate exterior renovations.
- Continue enforcing the zoning ordinance provision which limits the number of vehicles that may be parked on a residential property.

3. Encourage energy efficiency and sustainability in home renovation and new construction.
    - Educate residents on energy rebates.
    - Provide access to resources for improvements to homes that use green building techniques.
    - Evaluate the potential for providing specific rebate or loan programs for home renovations utilizing green building methods.

Goal 2

Ensure quality living conditions for all residents through the enforcement of ownership and rental housing maintenance codes and housing programs.

Supportive Findings:

1. Based on Code Enforcement Reports from 2003-2006, there were **1,005** property maintenance complaints of which approximately **12 percent were due to deferred maintenance issues**. In 2007, 2,944 properties were inspected, 565 notifications for code violations were mailed and 7 citations were issued. In addition, 364 notifications were mailed and 40 citations were issued as a result of the 400 violations reported by residents.
2. The lower than average incomes in Anoka ($42,639), in comparison to the average incomes of surrounding communities, limit residents' ability to improve homes.

Implementation Strategies:

1. Encourage continued and timely enforcement of all maintenance codes.
    - Assist in providing education to residents regarding maintenance expectations.
    - Continue the City "PACE" program for proactive identification of code violations.
2. Encourage code compliance of homes prior to resale.
    - Explore the costs and benefits of establishing a truth-in-housing or point-of-sale program in the City.
3. Continue to monitor and inspect rental properties.

- Increase communication with landlords on current codes and good rental practices.

4. Promote rehabilitation of rental properties.

    - Create a rental rehabilitation program with a focus on older rental properties throughout the city.

5. Monitor properties in foreclosure.

    - Create a foreclosure plan with a focus on housing maintenance and a process to encourage resale of homes.

Goal 3

Promote the expansion, redevelopment and renovation of older, smaller homes.

Supportive Findings:

1. Anoka has smaller than average lot sizes compared with other Anoka County communities.

2. Anoka's single family homes are smaller than average.

    - 10 percent of homes have an average of 820 square feet.

    - The average existing home sizes in Anoka ranges from 676 – 978 square feet (note, there are home in Anoka greater than 978 square feet). In contrast, the average new home is 1,400 square feet and a typical one-bedroom apartment is 950 square feet.

    - 22 percent of Anoka single family homes are two bedroom.

3. In 2000, Anoka had lower than average housing values at $119,000, 16 percent lower than surrounding communities.

Implementation Strategies:

1. Promote design ideas associated with smaller home renovation

    - Explore options to provide architectural assistance and ideas to residents and builders

    - Provide design and renovation information to assist in historic home renovation.

2. Promote use of city, county and state renovation loan programs such as the fix-up funds for home renovation.

3. Evaluate lot combinations where small, non-conforming homes exist for replacement with move-up and higher value housing.

Goal 4

To diversify the housing stock, promote home ownership among all housing types and provide housing options to attract young buyers and families.

Supportive Findings:

1. The population of the City of Anoka is aging and there is a decrease in the younger age categories.

2. Of the 13,400 jobs in the City, Anoka residents hold only 10 percent; 90 percent of the City's workers commute out of Anoka for their job.

3. There is a limited availability of newer, move up housing to attract growing families.

    - There are only 147 single-family homes (only 3 percent of the total ownership housing stock) that have a market value of $350,000 and above.

    - There are only 3 townhomes, condominiums or quadhomes that have a market value $350,000 and above.

Implementation Strategies:

1. Provide workforce housing options in the City specifically for first time homebuyers and new young families.

    - Promote the value of quality affordable homes near established city services and schools.

    - Promote community benefits including parks, trails, recreational opportunities, small community downtown and good schools.

2. Link new jobs to existing and new housing in the City.

3. Evaluate new higher valued housing opportunities to provide move-up housing for existing and new employees in the City.

Goal 5

To provide opportunities for older residents to remain living in the City.

Supportive Findings:

1. There is an increasing growth of older residents and an increasing percentage of older adults living alone.

    - 32 percent of all households include one adult (22 percent is average in other communities).
    - 34 percent of single person households are over the age of 65.
    - 19 percent of all households includes individuals 65 or older.
    - 49 percent of over age 65 households live in rental housing.

Implementation Strategies:

1. Evaluate methods for older adults to age in place and/or transition to alternate housing

    - Support the transition of seniors leaving existing homes and selling to new young buyers.
    - Evaluate resources and access to services for home maintenance and renovation for older adults who prefer to age in place.
    - Evaluate the development of cooperative homes for older adults with shared centralized services.

Photo: Anoka senior housing – (Image courtesy of Community Design Solutions and Arnett Muldrow & Associates, 2008)

Goal 6

To consider new affordable housing opportunities to achieve the Metropolitan Council Livable Communities goals through 2020.

Supportive Findings:

1. Metropolitan Council predicts that there will need to be 51,000 new affordable housing units constructed in the Twin Cities between 2011-2020 to meet projected low-income household growth.

2. Based upon a formula which considers the projected growth of new households, level of existing affordable housing units, existing and projected job opportunities and access to transit, the Metropolitan Council estimates that Anoka will need to accommodate 96 additional affordable ownership or rental housing units between 2011-2020.

3. Of the 3,686 rental units in the City less than 7 percent of these units are assisted with Section 8 rental assistance.

Implementation Strategies:

1. Evaluate options to provide housing affordable to those with incomes at or below 60 percent of the current area median income in redevelopment areas of the City.

2. Evaluate new home ownership opportunities for those with incomes at or below 60 percent of the area median incomes such as Habitat for Humanity and land trust housing.

Photo: Front Door - (Image courtesy of Flickr, 2008)

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Historic Preservation

Executive Summary

The City of Anoka has a long, rich heritage based upon its natural features, structures and buildings, civic and social organizations, and over 150 years of recorded local history punctuated by interesting and significant historical events. However, this rich heritage is being eroded by change occurring in the community. These changes have resulted in loss of use of natural features, alteration and demolition of buildings, changing social structures, and loss of awareness and recognition of local history.

Anoka values its heritage. Anokans recognize and appreciate the distinctive character of their community. The community also recognizes its heritage and the need to plan for a future that preserves and celebrates its history, culture, and distinctive physical features. Specifically, Anoka has a unique downtown that should be preserved with its "Main Street" image as part of its community identity.

Therefore, Anoka should prepare and implement a heritage preservation plan including establishment of plans and programs to preserve cultural resources. Programs should also include an educational element to interpret local history which may be tied to community recreation programs and heritage tourism.

Handbook Section 3.1
i) Historic preservation

Introduction

The area known as the City of Anoka was first mentioned in recorded history in 1680 when Father Louis Hennepin traveled up and down the Rum River exploring the area for France. He was followed by many other explorers who noted the natural features and natural resources of the area. The discovery of major stands of timber along the upper Rum River soon made Anoka a logical place for investment in the lumber milling industry. Westward migration and European immigration populated this settlement and it became a City. As the county seat and the agricultural market center in the area, Anoka was a free standing full service community from settlement until the 1940's. As St. Anthony and the Twin Cities of Minneapolis and St. Paul became the economic center of the state, Anoka took on the role of a suburban town. During the suburbanization of the 1950's and 1960's, Anoka became a distant suburb of Minneapolis and St. Paul. During the 1970's and 1980's, Anoka was considered a free standing growth center in the Metropolitan area. However, by 1990 Anoka was reclassified as a developing area because it was surrounded by rapidly growing bedroom suburbs that would soon have populations greater than the City of Anoka. These changing economic forces have resulted in changing land use and development patterns since settlement in the 1850's.

Factors Affecting Development

The major historical factors shaping the development of Anoka include: natural features and location, early transportation routes, natural resources available for development, migration and immigration trends, economic cycles, and significant historical events. All of these factors have influenced the development of the community.

Natural Resources

The primary natural features effecting development of the City are the Rum and Mississippi Rivers. At first, these rivers served as highways of transport for Native American hunting parties, explorers of the rivers' tributaries, steamboats bearing settlers and immigrants, and log drivers guiding their harvest to market at the mills in Anoka and St. Anthony. Later these rivers became barriers as overland travel became the predominant mode of transportation.

Nearby natural resources have also played an important role in the economic growth of Anoka. With the discovery of vast stands of white pine on the upper Rum River, Anoka became a logical place for investment by New England lumber interests. The numerous lumber mills established in Anoka in the 1850's and 1860's fueled economic growth for nearly four decades. The surrounding sand plain area also provided appropriate soil for production of potatoes. The potato became a major agricultural industry in Anoka after the turn of the century.

Transportation Routes

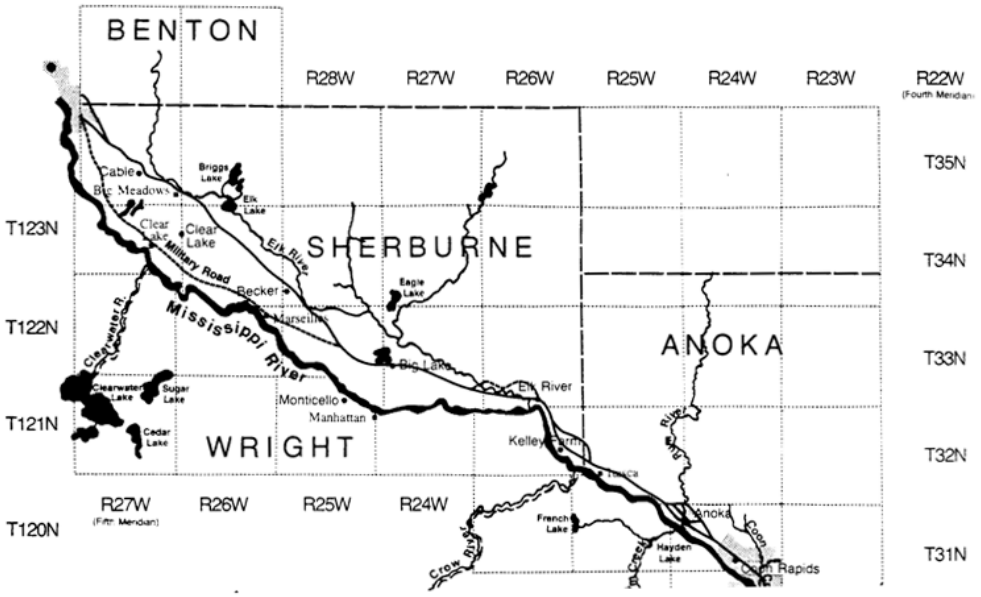

Figure: Historic Transportation Routes

The development of Anoka was enhanced by its location along early transportation routes including the Red River Trail (see map of historic transportation routes) and Military Road, which later became U.S. Highway 10. In addition, one of the first extensions of railroad out of St. Anthony reached Anoka in 1864 and was later extended westerly. Today this route is a main line for the Burlington Northern Railroad. Construction of a bridge over the Rum River in 1853

made it possible to develop commercial property on both sides of the Rum River. After this bridge and later bridges were washed away, new bridges were always constructed to replace them. In 1884 a bridge was constructed over the Mississippi River to provide access to Anoka from Hennepin County. Replacement and expansion of these river crossings and related access roads have always been key elements in fostering economic growth in Anoka.

Migration and Immigration

Like many Midwestern communities, Anoka benefitted from westward migration and European immigration. New England lumber barons settled the town and established the basic industry of lumber milling. They were followed by Scandinavian immigrants who came to work in the logging camps and lumber mills. During the period of 1860 through 1885, the City grew dramatically from 600 to over 4,600 people as the logging and milling industry and related wood products companies grew rapidly. This rapid industrial growth fueled residential construction and commercial development in the Central Business District. However, when the forest resources were exhausted the lumbering industry declined and the City population fell below 3,800 people. In was not until 40 years later in 1925, that the population again exceeded 4,600. At about that time, Federal Cartridge Corporation was formed. Following the company's acquisition of Hoffman Engineering Company and the resulting employment of nearly 2,500 people, Federal Cartridge continues to be a significant force in the economic growth of the City.

Economic Factors

The major economic factors affecting the City during the last 40 years have included several major industrial companies, including Hoffman Engineering Company, Federal Cartridge Company, and Cornelius Company. These companies employed over 3,500 people. During the mid-1990's the development of the Anoka Enterprise Park added 35 additional companies. These additional companies now employ over 1,500 people. Meanwhile, the Central Business District has been going through substantial change as it evolves from a general retail district to a service and specialty shop district. An anchor of the Central Business District is the Anoka County Courthouse which employs over 1,100 people. The County Government Center anchors other businesses in the Central Business District, such as law firms, real estate agencies, and other service businesses. Large area retailers such as grocery stores and auto dealers, have moved out of the downtown seeking larger sites in response to competition from regional malls and retail power centers.

Historic Neighborhoods

The City of Anoka has a historic community identity. Furthermore, prior to the impact of post-war suburbanization, Anoka featured neighborhoods of different ethnic and social identity. For example, the east side of the Rum River was known as Christian Hill. This area was southeast of downtown and on both sides of Third Avenue. The area contained several churches and homes of many New Englanders who originally founded the City. North of Main Street between Fourth and Seventh Avenue, was Swede Town. This area was settled by Scandinavian immigrants. In addition, the smaller neighborhoods of Wet Flats and Cutterville Flats were

along the banks of the Rum River. On the north end of the City near the railroad tracks was Northtown or Uppertown, which included both residential and commercial development near the railroad depot. On the west side of the Rum River were several neighborhoods including Slab Town, which was located north of Main Street along the Rum River. Slab Town was primarily inhabited by workers from the neighborhood lumber mills. Just north of Slab Town was a small French settlement known as Frog Town. Residents near Main and Ferry Street considered themselves to live in Rum River, which was the original settlement area of the community. South of Rum River was Firemen's Grove and the Point. West of Rum River was an area known as Whiskey Flats. This area was known for its early brewing of whiskey and its location adjacent to the ferry dock. These neighborhoods maintained their separate identity through the 1940's and over the years fielded athletic teams that competed with each other in the community.

Historical Events

The major historical event that shaped the direction of the City, particularly the Central Business District, was the major fire in August of 1884. This fire destroyed most of the downtown area. Brick structures, which now create the characteristic 1890's identity of the Central Business District, later replaced the wood framed structures destroyed by the fire. The brick used to construct these buildings is soft and subject to deterioration due to changing weather conditions.

As a result of historical trends, buildings have been constructed in Anoka in every decade since the 1850's. These buildings reflect the New England lumber boom period, the Scandinavian immigration, the agricultural town period, the suburban growth period, and the decades in which the City was engulfed in the metropolitan area by surrounding growth and development. Many buildings have been demolished or altered as a result of the City's evolution. Consequently, the community identity of Anoka has been threatened, or at least changed. Storefronts in the Central Business District have had many different faces applied and removed by succeeding owners and tenants. Residential properties have been remodeled or demolished for new commercial or apartment development. Therefore, a heritage preservation plan is necessary to preserve the historic character of the community for future generations.

Photo: Downtown Anoka – (Image courtesy of Community Design Solutions and Arnett Muldrow & Associates, 2008)

National Register of Historical Places

The following 9 properties have been listed on the National Register of Historic Places:

Property	Street Address	Date Listed	Construction Date
Anoka Post Office	300 E. Main Street	12/31/79	1916
Anoka-Champlin Mississippi River Bridge	U.S. Hwy. 169 over Mississippi River	12/31/79	1929
Colonial Hall and Masonic Lodge No. 30	1900 3rd Avenue S.	12/31/79	1904, 1922
Jackson Hotel	241 Jackson Street	12/08/78	1884, 1888, 1905
Kline Sanitarium	1500 S. Ferry Street	12/26/79	1902
Shaw-Hammons House	302 Fremont Street	12/26/79	Ca. 1852, 1870
Ticknor, Herman L., House	1652 3rd Avenue S.	12/27/79	1867, 1901, 1930
Windego Park Auditorium/Open-air Theater	Between S. Ferry Street and Rum River	01/08/80	1914
Woodbury House	1632 S. Ferry Street	12/26/79	1857

Table 1: National Register of Historic Places Properties

Anoka County Historic Sites

The Anoka County Historical Society has identified the following register of historic properties:

1. Anoka Post Office. (Private) 1916. Georgian Revival Building. 300 E. Main Street, Anoka.
2. Colonial Hall 1904. 1900 3rd Avenue, Anoka.
3. Donnelly Residence (Private) 1865. 1845 Green Street, Anoka.

4. Jackson Hotel (Private) 1884. 214 Jackson Street, Anoka.
5. Kline Sanitarium 1902. 1500 S. Ferry Street, Anoka.
6. Red River Trail 1840's - 1860's. Three routes through Anoka - Upper ford, Main Street, Lower ford at Point Park.
7. Ticknor Building/Goodrich Emporium 1884. 118 East Main Street, Anoka.
8. Ticknor Residence (Private) 1867. 1625 Third Avenue S., Anoka.
9. Windego Park Auditorium/Open-air Theatre 1914. S. Ferry Street, Anoka
10. Woodbury House (Private) 1857. 1632 S. Ferry Street, Anoka.

Officially Designated Heritage Preservation Districts

The City of Anoka Heritage Preservation Commission and City Council have officially designated several Heritage Preservation Districts in the City of Anoka as allowed by Chapter 20 of the Anoka City Code. The purpose of a Heritage Preservation District is to provide for the preservation of buildings, lands and areas that possess historical and architectural significance and promote educational, cultural, and general welfare of residents of the City of Anoka. The districts are as follows:

Christian Hill District

The Christian Hill Neighborhood is one of the oldest and most historic in Anoka. The neighborhood is located along the east side of the Rum River. This area extends along the river southeast of downtown on both sides of Third Avenue. The neighborhood featured several churches and the homes of many New Englanders who originally founded the City. Christian Hill is located at a higher elevation than the rest of the original settlements of Anoka and was also the most fashionable neighborhood with its grand residences of professional people and community leaders. The properties included in this district are:

Christian Hill District Properties		
1802 3rd Avenue	1816 3rd Avenue	1815 4th Avenue
1803 3rd Avenue	1821 3rd Avenue	1821 4th Avenue
1808 3rd Avenue	1828 3rd Avenue	321 Madison Street
1809 3rd Avenue	1832 3rd Avenue	230 Monroe Street
1815 3rd Avenue	1801 4th Avenue	334 Monroe Street

Table 2: Christian Hill District Properties

Van Buren Street District

The Van Buren Street District is generally located on Van Buren Street between 4th and 5th Avenues and includes the following properties:

Van Buren Street District Properties		
403 Van Buren Street	410 Van Buren Street	427 Van Buren Street
408 Van Buren Street	421 Van Buren Street	432 Van Buren Street
409 Van Buren Street	426 Van Buren Street	

Table 3: Van Buren Street District Properties

Heritage Preservation Plan

As the earliest settlement, county seat, and major agricultural and commercial center in Anoka County, the City of Anoka contains the majority of historic properties identified in the County survey. However, these properties are being threatened by deterioration and redevelopment. The heritage preservation plan is necessary to preserve community identity and specific cultural resources that reflect the heritage of our community.

Preservation Goals

1. Preserve the distinctive historic character and identity of Anoka as a small town.
2. Preserve the identity of the historic neighborhoods in the City.
3. Recognize the unique character of the downtown area and preserve the historic "Main Street" image of the Central Business District and residential neighborhoods.
4. Preserve and protect the historic aspects of the community.
5. Encourage and promote preservation of local history relating to businesses, civic, social and religious organizations and resident individuals and families.
6. Research and interpret local history to residents, visitors, and tourists.

Preservation Policies

1. Consider heritage preservation goals as part of land use planning, rezoning, and redevelopment.
2. Monitor zoning of areas to protect historically significant structures.
3. Promote historically sensitive rehabilitation and infill redevelopment of compatible architectural styles in the Central Business District and residential neighborhoods.

4. Promote and encourage the collection of local history by local businesses, social civic religious organizations, families and individuals.

5. Identify and honor Anokans who have made significant contributions to the community.

Implementation - Action Steps

1. Remain a certified local government for heritage preservation.

    - Review and strengthen the Historic Preservation ordinance.
    - Review proposed Heritage Preservation districts and sites.
    - Review and update design guidelines for existing and proposed Heritage Preservation districts and sites.
    - Update the inventory of historical aspects of the community.

2. Support programs to preserve the historic aspects of the community.

    - Encourage expansion of the Commercial Rehab Revolving Loan Fund.
    - Encourage the use of the Revolving Loan Fund for housing rehabilitation.
    - Promote architectural guidelines for funded projects which emphasize historically significant rehabilitation.

3. Continue projects and programs to interpret local history to residents, visitors, and tourists.

    - Continue the development of the Rum River Heritage Trail on the east bank of the Rum River.
    - Research and create heritage walks in the Central Business District and other appropriate locations.
    - Continue to promote the location and maintenance of historical markers or plaques on appropriate historic resources, along trails, and in City parks to interpret local history.
    - Encourage tours or events which interpret local history.

4. Work in partnership with the Anoka County Historical Society.

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Environmental Resources

Overall Goal

To preserve and enhance the environmental quality of the community.

Natural Watercourses

A natural watercourse is a channel for water movement, such as a creek, stream, or river. Anoka is unique because it's only watercourses are the Mississippi and Rum Rivers. Because of the flat, sandy soil, there are no creeks, streams or intermittent streams in the community. A high percentage of the water in the undeveloped portions of Anoka simply drains to low areas where it percolates into the ground, evaporates or creates a wetland area.

Photo: Rum River Dam – (Image courtesy of Community Design Solutions and Arnett Muldrow & Associates)

Rum River

The Rum River is part of Minnesota's Wild, Scenic, and Recreational River System. The City of Anoka has been classified as "recreational," however, along with upstream Rum River cities, all of the City of Anoka has been given a special "urban" designation which allows for reduced setbacks in urban areas. In addition to regulating building setbacks, building width, and minimum lot size, the standards also regulate the amount of impervious surface permitted. Regulations relating to development along the Rum River are found in the City Code under Chapter 74, Article VI.

Mississippi River

The areas along the banks of the Mississippi River are included in the Critical Area Corridor and are subject to dimensional standards and regulations, including lot size, setbacks, and building height. In 1979, the City of Anoka adopted a Critical Area Plan that includes goals, policies, and standards for development in the Corridor. This plan was updated in 2005 and is included as a separate chapter of the Comprehensive Plan. The MNRRA chapter sets similar goals as this chapter which are specific to the MNRRA corridor. The goals of this chapter shall apply to the entire City.

Environmental Protection Policy

1. The City will review and update the Environmental Protection section of the City Code for consistency with Statute requirements and other agency environmental protection policies.

Natural watercourse policy

1. The City will strive to protect natural watercourses to minimize public investment in storm sewers and improve the quality of stormwater runoff.

Stormwater Management

The City completed a Stormwater Management plan in 2000. This plan is consistent with the Metropolitan Council's Interim Strategy to Reduce Nonpoint Source Pollution. The National Urban Runoff Program (NURP) standards for the design of new stormwater ponds and the Minnesota Pollution Control Agency's (MPCA) urban best management practices, titled Protecting Water Quality in Urban Areas, were incorporated into the stormwater management plan.

Stormwater Management Ordinance

A stormwater management ordinance was adopted in 2000. This ordinance establishes design standards for new storm water ponds that will reduce the contaminant loadings from surface water runoff. The ordinance also includes best management practices to protect water quality in urban areas.

Stormwater and Surface Water Management Goals

The following are City goals related to surface water management:

1. The City will take steps to control flooding while minimizing public capital expenditures.
2. The City will strive to achieve water quality standards in lakes, streams, rivers and wetlands consistent with their intended use and classification.
3. The City will take steps to protect and enhance water recreational facilities, fish and wildlife habitat.
4. The City will take steps to increase public participation and knowledge in management of the water resources in the community.
5. The City will maintain the public ditch and drainageway system to convey water to maintain defined flood levels.

Shoreland Regulations

Most of the shoreland area in the City of Anoka is regulated under the Minnesota Scenic and Recreational Rivers standards or under the Environmental Protection Section of the City Code. As a result, the Minnesota Department of Natural Resources (DNR) ranks the City as a low priority for development of shoreland regulations. Shoreland regulations will be reviewed and implemented, if necessary, during review of the Environmental Protection Section of the City Code.

Wetlands

Wetlands are low-lying areas which are normally covered with shallow or intermittent waters. Swamps, marshes, and other areas are all wetlands and may occur as part of a river, stream, drainageway, or as a free-standing low area. Wetlands provide desirable open space, are recognized as havens for a multitude of wildlife and also provide a natural filtering system and storage basin to absorb and hold storm water runoff. They also reduce the potential for erosion and flooding.

The DNR uses the Corps of Engineers' classification system for wetlands and currently requires a permit for alteration of wetland types 3-5 which are 2.5 acres or larger.

Wetland Type	Wetland Description
Type 1	Floodplain forest and seasonally-flooded basin
Type 2	Wet meadow or prairie
Type 3	Shallow mash
Type 4	Deep marsh

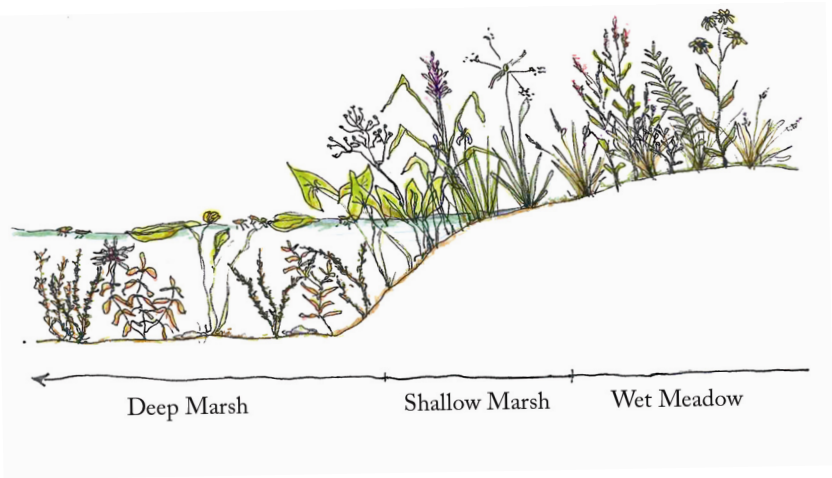

Figure: Wetland Section

Type 5	Open water (pond)
Type 6	Scrub shrub swamp
Type 7	Wooded swamp
Type 8	Bog

Table 1: Wetland Types - (Source: Minnesota Department of Natural Resources)

Wetland types 2 and 6, and wetlands as small as one acre, are recognized as having importance as storm water ponding basins. However, the DNR does not presently require permits for alteration of these areas.

The importance of wetlands can be summarized as follows:

1. Wetlands affect the quality of water by acting as a filter and storing organic materials in the leaves of aquatic plants.
2. Wetlands are important as a natural ponding basin. These areas help recharge the water table and reduce peak storm water runoff flows, thereby reducing flood levels.
3. Wetlands provide an essential breeding, nesting, and feeding ground for wildlife.
4. Marshes occurring in upland depressional areas can reduce soil erosion by slowing the velocity of runoff.
5. Wetlands reduce the impact of pollutants.
6. Wetlands provide shoreland protection for adjacent lakes, rivers, or streams.
7. Wetlands provide recreation, aesthetic, and educational experiences.

The size and location of wetlands is important in determining their value for maintaining water quality, minimizing flood damage, and preserving wildlife habitat. Most of the wetlands in Anoka are found along the edges of the Mississippi and Rum Rivers. In addition, a small number of wetlands that collect local storm water runoff are found in the north central and eastern portions of the City.

The Minnesota Wetland Conservation Act (WCA), enacted in 1991 and subsequently amended, outlines the standards for wetland conservation. The WCA is administered through the Minnesota Board of Water and Soil Resources (BWSR) with the DNR acting as the enforcement agency. The WCA places implementation at the local level. The Lower Rum River Watershed Management Organization (LRRWMO) monitors wetland activities in the City of Anoka. The DNR's inventory includes those wetlands that are classified as Type 3, 4 or 5.

Wetland policy

1. The City will identify and protect wetlands of one acre or more in size.

Flood Plain

The State of Minnesota adopted the Flood Plain Management Act in 1969. The Act requires all local units of government to adopt, enforce, and administer a flood plain ordinance.

In the City of Anoka, there are flood plain areas along the Mississippi and Rum Rivers. The flood plain regulations for the City of Anoka were approved by the DNR and are included as a separate chapter in the City's Zoning Ordinance.

Flood Plain Policy

1. The City will periodically review the flood plain regulations to assure protection from flooding.

Slopes

Hillsides are a geological feature whose equilibrium depends on a balance between slopes, soil, vegetation, underlying geology, and the amount of precipitation. Removal of vegetation on steep slopes for development purposes reduces soil stability, which increases erosion and may affect water quality from filtration. Removal of vegetation from slopes also decreases percolation, which reduces groundwater recharge and increases downstream runoff.

The Anoka County Soil Survey has not identified upland erosion as a serious problem in Anoka. In fact, the only areas with steep slopes are escarpments along portions of the Rum and Mississippi Rivers. It may be possible, however, to find lots or parcels of land in Anoka which have slopes over 18%.

Slopes are categorized as follows:

Slope Category	Slope %
Gentle	0 - 6%
Slight	6 - 12%
Moderate	12 - 18%
Steep	over 18%

Figure: Slope Section

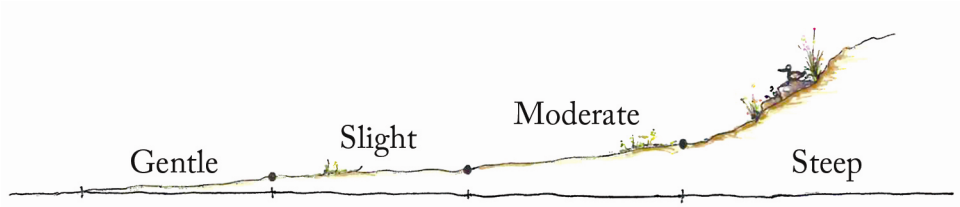

Table 2: Slope Categories

Because of the sandy soil in Anoka, slopes of 18% or more are susceptible to erosion.

Slope policies

1. The City will include standards in the zoning ordinance that require a permit prior to construction, filling or grading for development of sloped areas of 12% or greater.

2. Since shoreline erosion is a very small contributor to river pollution and stabilization projects are very expensive, municipal funds should be used only for serious problems on public lands.

Soils

The Soil Conservation Service in Anoka County conducted soil surveys and developed a functional classification of soils within the County. These soil classifications have been categorized according to suitability for urban development to provide the following information:

1. The suitability of soils for intensive residential, commercial, recreational, or agricultural land uses; and

2. The suitability of soils for septic tank absorption fields and building foundations.

The combination of soils and slopes together determine the general suitability of the land to support various types of urban development. Anoka is generally located on soils of the Hubbard - Nymore association consisting of soils of outwash plains that are on a nearly level elevation with occasional drainageways and depressions. In this area, the soil association is generally located on the northeast side of the Mississippi River ranging in width from one to three miles. The most prevalent soil is the Hubbard class which is a loamy coarse sand. The water table is commonly eight to twelve feet below the ground surface but ranges from four feet to twenty feet or more. Slopes range from nearly level to steep but commonly are in the range of 1 - 6%.

City of Anoka soils have moderate development limitations, including low water holding capacity, which makes establishment of vegetation difficult without extensive replacement of top soil. The soils are also highly erodible by wind and water until a vegetative cover is established. Excavation for construction may require particular attention to avoid caving in and erosion. The rapid percolation rate also increases the danger of contamination to underground water supplies, lakes, and streams.

However, the characteristics of these soils make them easily adaptable to building sites due to the ease of handling and grading with earthmoving equipment. In addition, quick drainage is a positive factor when considering the relatively short construction season.

The northwest area of the City contains a combination of the previously discussed Hubbard classification with areas of Dickman soils. Dickman soils, generally described as a sandy loam, are very similar to Hubbard soils for building capacities.

Immediately joining the Mississippi and Rum Rivers are small areas of fine sandy loam and mixed alluvial soils. Many of these areas are low and subject to occasional flooding. These areas are protected by the City's Flood Plain Ordinance.

There are several small areas throughout Anoka with severe soil limitations that are generally located around the periphery of wetland areas. Development in these areas is limited due to the high water table.

Soils Policies

1. Development shall not be allowed in areas identified as having severe soil limitations unless corrective measures are taken.

2. Private sewer systems shall not be allowed in areas identified as having severe soil limitations.

Woodlands

A woodland differs from a forest because of its smaller land area. It includes farm woodlots, shelterbelts, and windbreaks. A general tree cover includes the scattered trees in urban areas.

In Anoka, woodland areas currently exist along the rivers adjacent to some of the wetlands, on some of the City's public property, and on boulevards. In addition, there are other scattered, small concentrations of trees in Anoka.

Woodlands are impacted by urban development as well as by disease, natural disasters, and an aging tree population. The importance of protecting woodlands extends beyond their recreational and aesthetic benefits. Woodlands can act as a moderator of climatic phenomenon, high winds and flooding. In addition, the ground within a woodland area can act as a filter to recharge groundwater reservoirs, and the trees themselves act as natural air filters, absorbing some air pollutants. Finally, woodlands can act as a temperature moderator by helping reduce the greater daily fluctuation of temperature.

Total preservation of woodlands may not be desired or in the best public interest. Replacement of trees in an urban setting such as Anoka requires a managed effort, including development controls, disease controls, plans concerned with tree loss from natural disasters or aging populations, planting programs for public lands and boulevards, and education and assistance to private property owners who have lost trees.

The City of Anoka adopted a Tree Preservation Ordinance in 2008. This ordinance requires replacement for trees removed as part of a commercial, residential, or industrial development project requiring site plan or plat approval. More restrictive tree preservation techniques in the MNRRA and Rum River Wild, Scenic and Recreational District are regulated by the Environmental Section of the ordinance.

Woodland policies

1. No clear cutting will be permitted within one hundred feet of the normal high water mark in the areas covered by the Rum River Wild, Scenic and Recreational District regulations and the Mississippi River Critical Area.

2. Selective cutting of trees in excess of four inches in diameter (measured at four feet above the ground) will be permitted provided that cutting is spaced in several cutting operations and a continuous tree cover is maintained.

3. The policies regarding woodlands listed above are not intended to prevent the removal of disease or insect infested trees; rotten or damaged trees that present safety hazards; the pruning of understory vegetation, shrubs, plants, bushes, grasses; harvesting of crops; or the cutting of trees that are less than four inches in diameter at four feet in height.

4. Where clear cutting occurs, the following standards should apply:

    - Clear cutting shall not be used as a cutting method where soil, slope, or other watershed conditions are fragile and subject to injury.
    - Clear cutting shall be conducted only where clear cut blocks, patches or strips are, in all cases, shaped and blended with the natural terrain.
    - The size of clear cut blocks, patches or strips shall be kept at a minimum.

Individual Septic Treatment Systems

Most areas of the City are served by municipal sewer. However, there are 24 individual septic treatment systems (ISTS) in the City, which are located on lots that are not readily accessible by the municipal system. This number has been reduced from 38 in 2001. In 1999, the City adopted standards for individual septic treatment systems and MPCA Rules 7080-83 have been adopted.

Additional Policies

In addition to the goals and policies listed throughout this section, the following policies have been identified:

1. To recognize and avoid, where possible, significant natural features in the placement of infrastructure, in areas of development or redevelopment.
2. Continue to support efforts for community education and awareness of air quality issues.
3. Consider the effect of soil disturbance and grading on air quality and soil erosion in review of development plans.
4. Enhance community awareness about the importance of the urban forest and the positive impact trees and shrubs have on the environment. Urban forest includes all trees and shrubbery on public or private property within the City.
5. Promote public and private tree planting, replacement and preservation programs to sustain the urban forest.
6. Make conservation and efficient utilization of all energy sources a high priority in the City's operation and development of facilities.

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Critical Area/MNRRA

Introduction

In 2001 the City of Anoka began a process to update the Mississippi River Critical Area Plan, last completed in 1979 as a joint effort between the cities of Ramsey, Champlin and Anoka. This process built off of the City's community planning fairs that were held in the summer of 1998 in preparation for updating the City of Anoka's Comprehensive Plan. The Mississippi River Corridor Plan is intended to satisfy statutory requirements for the development and updating of the Critical Area Plan as outlined in Executive Order 79-19 and the Metropolitan Land Planning Act.

Handbook Section 3.1
k) Critical Area Plan

Critical Area Designation

In 1973, the Minnesota Legislature passed the Critical Area Act, establishing a process for planning and managing areas of regional or statewide significance. Before an area can be designated as a Critical Area, the following criteria must be met[1]:

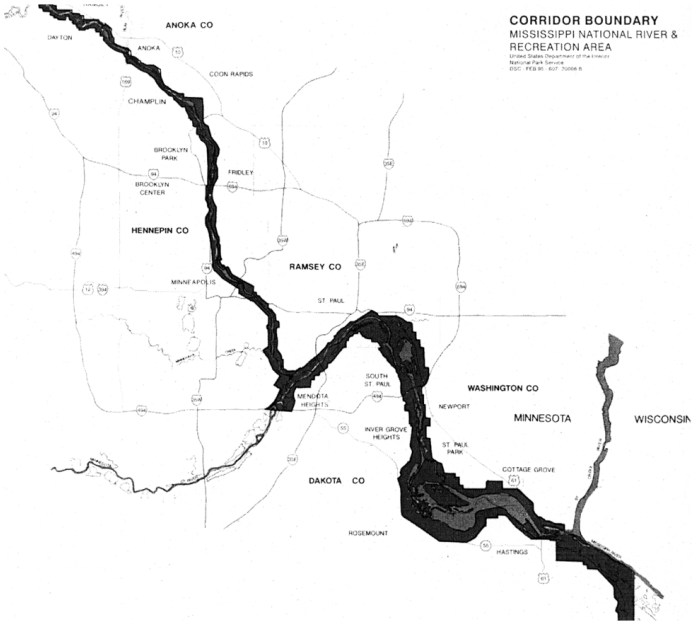


Figure: Critical Area Corridor/MNRRA Boundary – (Source: Comprehensive Management Plan)

1. The area must be of significant regional or statewide public interest
2. Other powers are unavailable, inapplicable, or are not being used effectively to ensure adequate and coordinated local, regional, or state planning and regulation to protect the public interest in the area.
3. The area is one of a limited number in the state or region.
4. The area must be described specifically enough to permit delineation by legal description.

The 1973 Act specifies that a local unit of government, a Regional Development Commission, or the Environmental Quality Board (EQB) may recommend an area for designation as a Critical Area. Recommendations for Critical Areas are submitted to and reviewed by the EQB, a public hearing is held and if the proposal is viewed favorably, it is forwarded to the Governor who may designate all or part of the recommendation as a critical area. The duties of the EQB for the Mississippi River Critical Area Corridor transferred to the Minnesota Department of Natural Resources (DNR) in 1995.

The Metropolitan Council proposed designating the Mississippi River as a Critical Area, from Ramsey, Minnesota to Ravanna Township (see map of Critical Area Corridor/MNRRA Boundary). After a series of public hearings, the Governor designated the Mississippi River Corridor, through the Twin Cities, a Critical Area on October 18, 1976.

The Anoka stretch of the Mississippi River Corridor is designated as a critical area in part because it has seen its riverbank developed over the years into primarily residential development and has seen its pristine views from the river threatened by urban development. This stretch of the river also serves as a transitional point from an urban development pattern to a rural development pattern, which is more noticeable in Dayton than it is in Ramsey.

Planning Requirements

The boundaries of the Critical Area have been defined, and it is the responsibility of communities to adopt or amend plans and regulations that minimally follow the standards and guidelines in Executive Order 79-19. Protection of that portion of the community within the Critical Area will require a plan for the River Corridor followed with an implementation component in the form of zoning ordinances minimally consistent with the standards and guidelines and any more restrictive policies in the approved plan. Planning for the Mississippi River Corridor and establishing appropriate and required policies requires a greater understanding of environmental concerns, land use concerns, and public facilities concerns (including transportation plans, infrastructure plans, park and recreation plans, and surface water management plans), Executive Order requirements, and voluntary MNRRA policies. These issues will be the format for the Critical Area planning process.

The standards and guidelines for preparing plans and regulations for the Mississippi River Critical Area Corridor are outlined in Executive Order 79-19.

Urban Developed District Guidelines

Executive Order 79-19 establishes a series of districts for the Critical Area Corridor. Each district was developed based on the character of the corridor when the program was developed. The corridor through Anoka is designated as an Urban Developed District. The guidelines established for this district are as follows:

> "*The lands and waters within the district shall be maintained largely as residential areas. The expansion of existing and development of new industrial, commercial, and other non-residential or non-recreational use shall be limited to preserve and enhance the residential character of this district.*"

The majority of the City of Champlin's riverfront and a small part of Ramsey also fall within the Urban Developed District. The northernmost tip of Champlin and the City of Dayton and the remainder of the City of Ramsey contain the Rural Open Space district designation: however, the character of the these communities are changing as urban development continues to expand outward from Minneapolis and St. Paul.

The specific purposes of the critical area designation and its standards and guidelines as outlined in Executive Order 79-19 include:

a. To protect and preserve a unique and valuable state and regional resource for the benefit of the health, safety and welfare of the citizens for the state, region, and nation;

b. To prevent and mitigate irreversible damage to this state, regional, and national resource;

c. To preserve and enhance its natural, aesthetic, cultural, and historical value for the public use;

d. To protect and preserve the river as an essential element in the national, state and regional transportation, sewer and water and recreational systems; and

e. To protect and preserve the biological and ecological functions of the corridor.

Mississippi National River Recreation Area (MNRRA)

MNRRA was established in November of 1988 as a unit of the national park system administered by the National Park Service (NPS), an agency of the US Department of the Interior. The federal government established this program because the Mississippi River is a national resource that impacts the lives of people from the Midwest to the Gulf States. Congress established MNRRA to[2]:

1. protect, preserve and enhance the significant values of the Mississippi River corridor through the Twin Cities metropolitan area,

2. encourage coordination of federal, state, and local programs, and

3. provide a management framework to assist the state of Minnesota and units of local government in the development and implementation of integrated resource management programs and to ensure orderly public and private development in the area.

More specifically, the intent of MNRRA is to encourage communities to adopt policies for:

1. the preservation and enhancement of the environmental values for the area,

2. enhanced public outdoor recreation opportunities in the area,

3. the conservation and protection of the scenic, historical, cultural, natural and scientific values of the area, and

4. sustainable development that protects the natural, cultural, recreational, and economic resources of the corridor.

Planning Process and Public Involvement

The Mississippi River Corridor Plan update was conducted under the guidance of the City of Anoka Planning Commission. The planning process included gaining community input through a workshop with the Planning Commission and City Council in December of 2001 and a public open house held in February of 2002. The open house enabled residents to view maps of the corridor that depicted existing conditions, land use patterns, trail plans and opportunity areas identified by Consulting Planners and City Staff. Staff representatives from the Metropolitan Council and the National Park Service also were present to answer questions and discuss regional objectives under the Critical Area Planning Process. The open house also encouraged residents to voice their opinions, concerns and ideas for enhancement and preservation of the river corridor.

Key Issues and Opportunities

Some of the key issues and opportunities that were voiced by the public, the Planning Commission and City Council include:

- Non-conforming or substandard lots
- A pedestrian crossing of the Rum River at Peninsula Point Two Rivers Historic Park
- Kings Island--should be kept natural as a wildlife, recreational, and educational opportunity that was historically mined for gravel. Needs better access and natural or unmanaged areas need to be cleaned up
- Mobile Home Park and pollution issues--private sewer systems
- Map private septic systems and wells
- Impact of Urban Rivers Project/Act--this act is intended to guide development of downtowns located along the Mississippi Riverfront
- Connections to downtown Anoka
- Protection of the 'urban forest'
- Trails--location, design, appearance, connections
- Reconstruction of Ferry Street -- Impacts
- Community activism/volunteerism--youth participation--athletic groups--sporting groups
- Stability of Coon Rapids Dam
- Man made amenities can present a better image…an image that might be expected in an urban environment such as Anoka

- Stability of riverbanks--how well do people understand shoreland improvements? Definitions and education about process and accessibility is needed.
- Streets that dead-end into the river…what does the City do with them-- Harrison overlooking the Rum as a good example. No additional hard surface coverage.
- Take advantage of river traffic--river businesses (boating, retail, restaurant)

Figure: Aerial Photograph of Mississippi River Corridor - (Source: Metropolitan Council)

Comprehensive Plan Directions

Vision

As part of the recent process to update the Comprehensive Plan, the citizens of Anoka undertook a community visioning process to help define the core values that will shape the future growth and development of Anoka. The following is a vision statement extracted from the Comprehensive Plan.

> "*Anokans value the environment, recognize the unique resources represented by their rivers, and enjoy the many opportunities that such resources offer. In 2010, Anoka will be a community that appreciates the economic and recreational value of rivers, lakes, and wetlands while respecting and protecting native wildlife and valuable habitat areas…*"

Guiding Principles

Guiding principles serve as a measuring stick when evaluating development proposals or programs within the community. The following guiding principles identified in the comprehensive plan are important measures for the Mississippi River Corridor.

- ***Invoke a sense of place:*** Establish a physical setting for development that says, "This is Anoka."
- ***Invest in the public realm:*** Create a network of streets, trails, sidewalks, and parks that are safe and vibrant.
- ***Improve connectivity:*** Provide people with ways to move between their neighborhoods and downtown that are safe and convenient.
- ***Insure that buildings support broader City building goals:*** Design and restore Anoka's historic architecture.
- ***Amplify existing strengths:*** As the City rebuilds, cherish what we already treasure - our historic buildings, parks, and the Rum and Mississippi Rivers.
- ***Sustain and strengthen heritage resources:*** Preserve historic buildings and public spaces.
- ***Promote the use of public spaces:*** Increase the number of people in our public spaces, downtown, along the riverfront, and in our neighborhoods.

These guiding principles provide key directions for policy statements that appear later in this chapter.

Corridor Inventory

This section of the plan is intended to provide a brief inventory of the current conditions within the corridor. The inventory consists of electronic mapping data made available through the Department of Natural Resources (DNR), Land Management Information Center (LMIC), Metro GIS and the City of Anoka Planning and Engineering Departments. This mapping information is supplemented by descriptions from the 1979 draft of the Critical Area Plan and limited windshield surveys of the corridor conducted as part of the plan update. The City is continually building its inventory of mapping data for the community and is currently in the process of obtaining topographic map data and updated flood plain boundary mapping for portions of the corridor. Recent aerial photos and site photos reveal a variety of urban vegetation patterns.

Environmental

The Mississippi River Corridor through Anoka is an urban corridor, or in other words, the natural environment that exists today has been impacted by human development. The only stretch of the corridor that has had little development intervention is Kings Island. Within this urban environment, parks, urban forests, wetlands, floodplains and riverbanks all provide remnants of the natural environment and limited habitat for 'urban' wildlife. These remaining natural features function as stormwater management controls and as quality of life features to the community. The role of the natural environment is highly valued by the City of Anoka.

Natural Watercourses

A natural watercourse is a channel for water movement, such as creeks, streams or rivers. The only natural watercourses in the Critical Area Corridor are the Mississippi River and the Rum River. These natural watercourses are an amenity in the community and provide desirable development opportunities as evidenced by the residential development along the Mississippi River and the location of City Hall along the Rum River banks. Through preservation of natural watercourses, and with proper management, it is possible to protect the quality and supply of water and ensure the continued enjoyment of Anoka's natural watercourses.

Preservation of natural watercourses is an essential part of any program that hopes to minimize public investment in storm sewers and improve the quality of stormwater runoff; however, the conservation efforts must extend beyond the rivers themselves, and consideration must be given to the entire watershed, including wetlands, lakes and groundwater resources. A comprehensive stormwater runoff plan is the most reasonable means for a community to achieve the best use of their existing water resources. The City of Anoka completed its comprehensive stormwater management plan in August of 2000.

Kings Island

Kings Island is located on the northern border of Anoka and Ramsey. Much of Kings Island is considered unsuitable for development because of its location in the flood plain. The City of Anoka recently acquired the last portion of Kings Island through tax forfeiture. Kings Island presents the City with an opportunity to preserve a significant area of riverfront in its natural state and take advantage of the passive recreational opportunities it presents.

Woodlands and urban forest

A not-so-apparent environmental feature throughout the Corridor (as well as the majority of the older areas of the City) is an 'urban' forest. The City of Anoka is an older community with a stock of mature trees that are denser in the river corridor, thus presenting a high quality urban forest canopy. Many of the older trees within the corridor offer tremendous historic value to the community and should be preserved where possible.

Photo: Trail Corridor near Kings Island

Slopes

Riverbank erosion is a serious problem in a few areas. Along most of the shoreline, the erosion problem is more of a nuisance to property owners than a serious environmental problem. Because of the more serious nature of upland erosion, it is there that Anoka must consider appropriate regulations to minimize the problem.

Photo: Historic Tree at Levee Avenue and Rice Street

Steep slopes in excess of 18% are generally limited within the corridor to the first 50 to 100 feet from the ordinary high water mark.

The Mississippi River is experiencing some shoreline erosion. This problem is aggravated during periods of high water and from wakes produced by motorboats. The riverbank erosion problem receives a lot of attention because of the concern property owners have for their changing shoreline. The City of Anoka can make information available to residents about the preservation of shoreline and control of shoreline erosion. The DNR and

Photo: Erosion at end of Kings Lane

Anoka County Conservation District are good resources for this type of information. Since shoreline erosion is such a small contributor to the pollution of the river, and since stabilization projects are very expensive, municipal funds should be used only for those serious problems on public lands.

Unlike riverbank erosion, which often results from natural causes, hillside erosion invariably results from man's interference with an existing balance. Hillsides are a geological feature, whose equilibrium depends on a balance between the slopes, soil, vegetation, underlying geology, and the amount of precipitation. For example, the removal of vegetation from a slope reduces the soil stability, which increases erosion and thus, affects the water quality as a result of siltation. Removal of vegetation on steep slopes decreases percolation, thereby reducing the groundwater recharge and increasing downstream runoff.

Many individual property owners have yards that front on the Mississippi River. Some of these yards taper off dramatically as they approach the water line. In some cases residents have built retaining walls and used shoreline stabilization techniques to make the river more accessible. Slopes greater than 18% are generally considered susceptible to severe erosion when not properly vegetated, while slopes from 12 to 18% are more moderately susceptible.

Preservation of erodible slopes is important, not only from environmental and economical standpoints, but also for aesthetic reasons. The protection of steep slopes may provide an ideal location for linear recreation, vistas, or an attractive setting for homes.

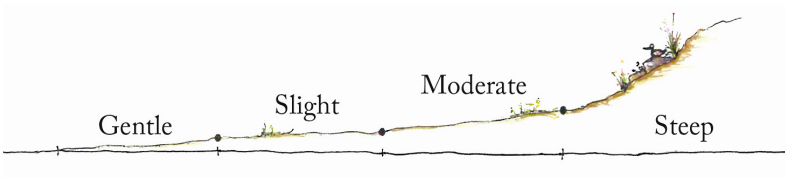
Soils

Soil limitations for urban development have been classified as slight, moderate, and severe. Slight means that the limitations, which exist, are minor and can be easily overcome. Moderate indicates that the soil conditions are not favorable for development but can be corrected with proper engineering and design. Severe indicates that soil properties are not suitable for development and corrective measures would be physically and financially difficult or impractical. Given that most of the corridor in Anoka is developed, soil information should be analyzed for any redevelopment construction in the corridor.

Typically, soils with severe limitations are those that are seasonally flooded, located in wetlands or have steep slopes.

Steep slopes or unstable soils can be protected from development through the site planning process. The site planning process requires commercial, industrial and larger residential development projects to obtain site plan approval from the City Council prior to performing any grading or soil work. The City does not require any form of site plan approval for single family or two family developments. Educational outreach to smaller developers and homeowners could assist in preventing development on poor soils.

Figure: Slope Section



Flood Plain

The State of Minnesota adopted the Flood Plain Management Act in 1969. The Act requires all local units of government to adopt, enforce, and administer a Flood Plain Ordinance. The Flood Plain Act was in response to growing concern over the financial and personal losses resulting from floods.

Flood plains of rivers were originally formed by nature resulting from flood flows during excessive snowmelt or rainfall. There have always been floods, but prior to human settlement there were no flood problems. Over time, as more and more development occurred in or along the flood plain, flood heights and velocities increased and resulted in a tremendous increase in economic losses.

All people are affected by the problems associated with floods because clean up costs, flood control costs, and reconstruction of streets and public utilities are all paid with public funds. In order to stop the continued escalation of public costs related to flooding, the emphasis in flood plain management shifted from flood controls to regulatory controls. The regulatory approach establishes guidelines requiring that part of the flood plain, which is most susceptible to flooding, prohibit development entirely, and in the less susceptible parts a broader range of land use activities can be permitted. Anoka has an adopted Floodplain Ordinance that was approved by the Department of Natural Resources. The boundary demarking the floodplain can be seen in both the Trail Plan and Utility Locations maps included in this chapter (Source: City of Anoka and FEMA). The city is collecting data and seeking assistance to prepare updates to the 1976 FEMA maps.

Wetlands

Wetlands are low-lying areas that are normally covered with shallow or intermittent waters. Swamps, marshes, bogs, and other low lying areas are all wetlands and may occur as part of a river or as a free standing low area. Wetlands play an important role in our environment. Wetlands protect water quality by acting as a filter, providing storage for surface water runoff during rain events, recharging the water table, providing habitat for wildlife, and reducing soil erosion by dissipating the velocity of surface runoff. Kings Island offers the most significant wetland area in Anoka. This site should be protected from development. Two other wetlands of the shrub swamp and wooded swamp types located adjacent to the Mississippi River Community Park appear on the National Wetlands Inventory map included in this chapter. These wetlands are located adjacent to townhomes that were developed in the early to mid-1990's.

Land Use and Development

The City of Anoka is essentially a fully developed community. Future development will occur either as infill development on skipped over parcels or through scattered site or area-wide redevelopment. Existing and future land use patterns are analyzed in greater detail within the Land Use Element of the Comprehensive Plan (see Land Use chapter).

The predominant land use pattern within the Mississippi River Corridor is low density residential consisting mostly of single-family detached homes with some duplexes integrated into the corridor. A few nodes of medium and high density residential consisting of apartments and townhomes can be found on the northern edges of the corridor and along the Rum River. A mobile home park, which will close in November of 2008 due to a failing septic system, located in the northern most portion of the corridor also provided some medium density residential housing within the corridor.

Two nodes of commercial uses are also located within the corridor. These nodes include the Pierce Motel on TH 169, and a former motel use and vacant commercial land at the southwest corner of TH 10 and Cutters Grove Avenue. There are a series of parks located within the corridor including Mississippi River Community Park (a Community and Nature Park), Bob Ehlen Park (a Mini Park), Akin Riverside Park (a Community and Nature Park), Rice and Levee Beach (an Historic Park) and Peninsula Point Park (an Historic Park). These parks are described in detail in the Parks, Trails and Open Space chapter of the Comprehensive Plan. Also of note is Kings Island, which is identified in the Comprehensive Plan as a "Special Use Public Open Space."

Land Use Conflicts

The Mississippi River Corridor Urban Developed District is required to be predominantly residential in character; therefore, commercial uses in the corridor must be limited to preserve its residential character. Existing commercial properties that were established prior to the creation of the Critical Area plan and standards are allowed to continue. The City may approve expansions of existing commercial uses that comply with district standards and procedures. Also, the City could expand the geographic boundaries of an existing commercial node, but only if such an expansion was consistent with the goals and policies of this plan. There are two existing commercial nodes within the Corridor designated as Retail Business Districts in the Comprehensive Plan and zoned for Highway Business uses. One node is located on the southwest corner of the Highway 10 and Cutters Grove Avenue intersection. The City does not support expanding the geographic boundary of this commercial node due to the existing development patterns of adjacent property, and to be sensitive to Kings Island. The second node is generally located east of TH 169, West of the Rum River, North of the Mississippi River, and south of the intersection of TH 169 and South Ferry Frontage Road (a signalized intersection created in 2002). The City is willing to study the potential for riverfront development that could include a future expansion of the commercial district boundary at this node. Developments within the Critical Area Corridor that include commercial uses proposed under the City's Planned Unit Development ordinance should be limited to these two nodes.

Potential land use related conflicts might be a result of past development patterns and the subsequent adoption of development regulations that imposed new standards for lot sizes, lot dimensions, setback lines and other dimensional standards. Many homes built prior to the adoption of these standards may exist on nonconforming lots because their lot dimensions do not meet the current zoning standards, or the structures may be considered dimensionally substandard because they do not meet current setback or lot coverage requirements. It is the

general policy of the City of Anoka to allow uses or structures that came into existence legally to continue to exist and be put to productive use, but to bring as many aspects of such situations into compliance with existing regulations as is reasonably possible. The policies in this plan are intended to:

1. recognize the interests of property owners in continuing to use their property;
2. promote reuse and rehabilitation of existing structures;
3. allow for reconstruction of existing residential uses that are involuntarily destroyed in residential zoning districts; and
4. place reasonable limits on the expansion of nonconformities that have the potential to adversely affect surrounding properties, the City as a whole, and the character of the Urban Developed District.

Public Utilities

Utilities within the corridor are generally located in street rights-of-way. A regional trunk sewer line crosses the Rum River at Peninsula Point Park. This trunk is illustrated on the Utility Locations map. Storm sewer outlets are typically located at dead-end streets (as well as other locations) and are indicated on Utility Locations map.

Photo: Storm Sewer Outlet at Third Avenue

Transportation Systems and Trail Corridors

TH 169 is the major arterial that crosses the Mississippi River in Anoka. This roadway is a key component of the regional transportation system and provides the only river crossing between Coon Rapids and Elk River. The Minnesota Department of Transportation improved this roadway in 2002.

Photo: Pedestrian Bridge crossing the Rum River North of the Mississippi River Corridor and Peninsula Point Park.

Other key roadways in the corridor function as neighborhood collector streets and residential streets. Key residential streets that parallel the Mississippi River include Benton Street and Oakwood Drive. Other key streets connect the river corridor to Anoka's Downtown. These streets include 3rd and 5th Avenues primarily.

The City of Anoka's street reconstruction plan describes the reconstruction of the City's older streets. This reconstruction plan is in addition to normal maintenance. The City of Anoka Capital Improvements Program identifies projects scheduled for the next five years. The following projects are within the Critical Area Corridor (note that only portions of the reconstruction projects are within the Critical Area Corridor):

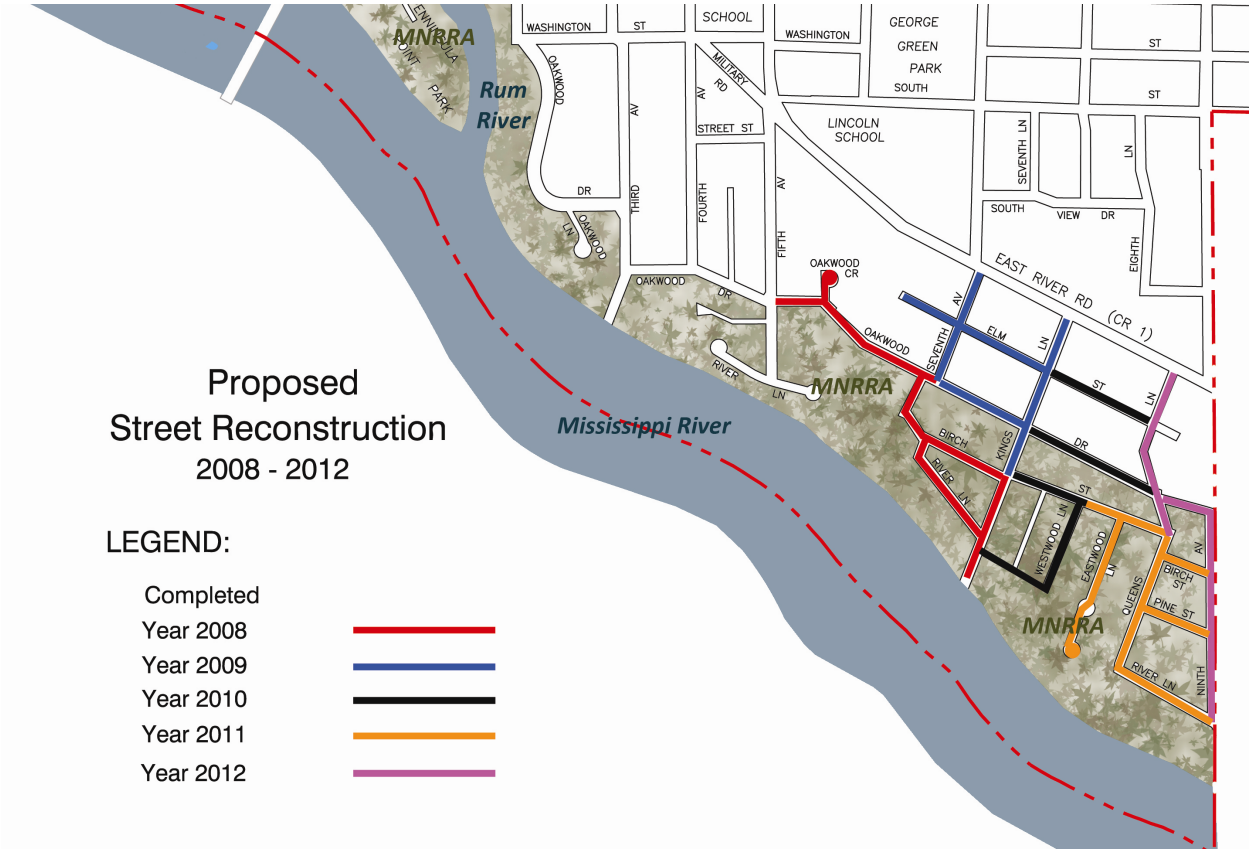


Figure: Proposed Street Reconstruction – (Source: City of Anoka)

The City's trail plan is identified in the Trail Plan map. This trail plan includes existing and proposed trails throughout the community. Within the Mississippi River Critical Area Corridor, there are few sidewalks or off-street trails, except for some trails located within City parks. Trails are indicated in the plan, many of which are identified as on-street trails. No trails are planned to cross private property between the river's edge and private homes.

Mississippi River Regional Trail Corridor

Mississippi River Regional Trail Corridor is a regional trail corridor that is intended to provide a continuous trail for biking, walking and other non-motorized travel modes linking the communities along the Mississippi River. Through the City of Anoka, this trail is planned to be on-street except where it traverses through City Parks and crosses the Rum River. A pedestrian bridge is proposed to cross the Rum River to Peninsula Point Park. Connections to the City of Ramsey and the City of Coon Rapids are planned for this trail corridor.

Rum River Trail

The Rum River Trail is proposed to begin in the Mississippi River Corridor at Peninsula Point Park and extend along the Rum River to the northern boundary of the City of Anoka. Connections to this corridor also provide greater connections to other key corridors in the community.

Ferry Street Trail Corridor

The Ferry Street Trail Corridor begins at the Mississippi River along Ferry Street and extends all the way to Ramsey via a combination of sidewalks and bituminous trail surface.

Seventh Avenue Trail Corridor

The Seventh Avenue Trail Corridor connects to the Mississippi River Regional Trail Corridor and extends all the way to Andover using sidewalks within City and County rights-of-way.

Brisbin Trail Corridor

The Brisbin Trail Corridor also connects to the Mississippi River Regional Trail Corridor and provides an additional connection to the City of Coon Rapids.

Figure: Trail Plan – (Source: City of Anoka)

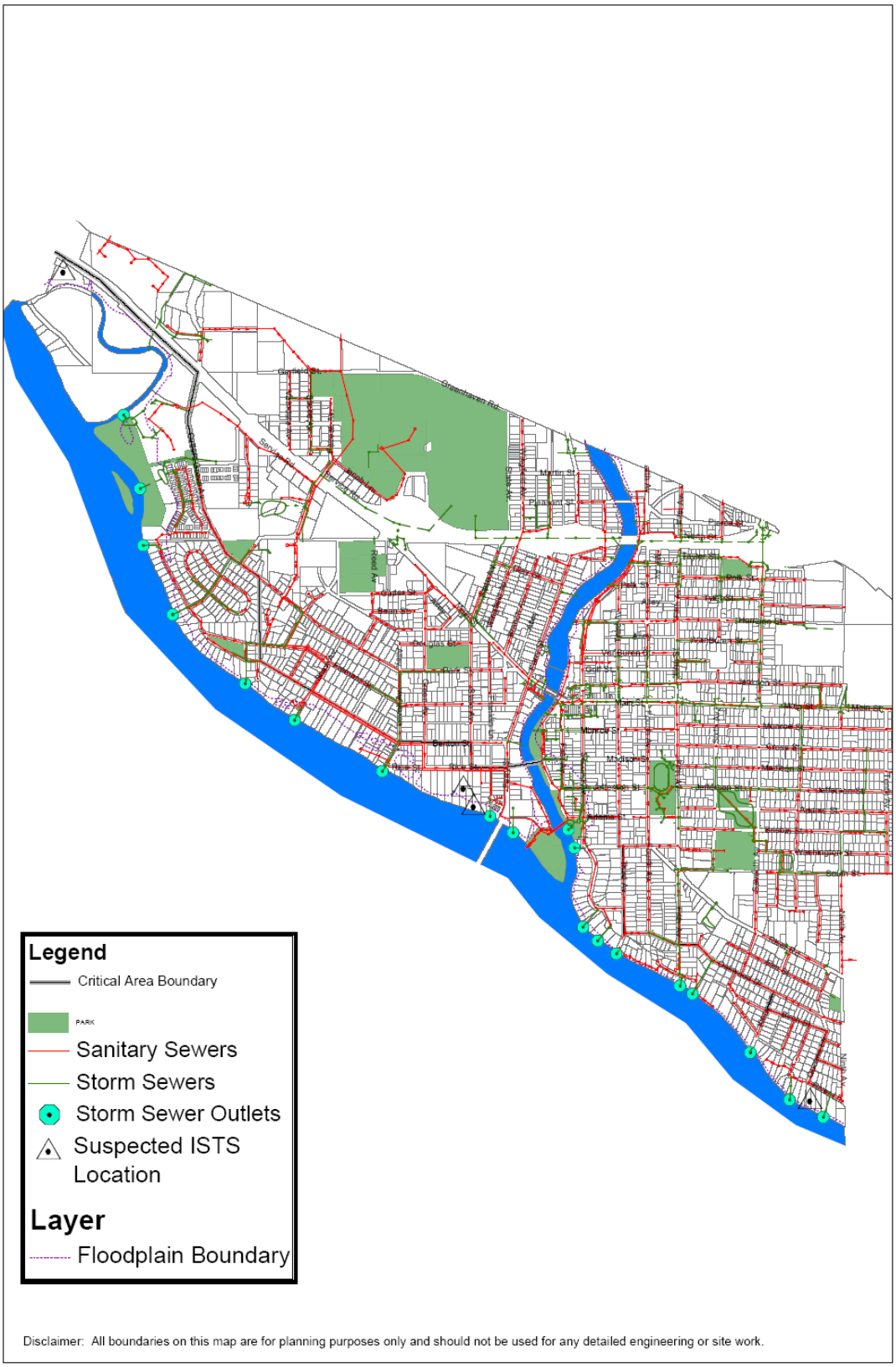


Figure: Utility Locations: Sanitary Sewer, Storm Sewer, Private Septic Systems – (Source: City of Anoka)

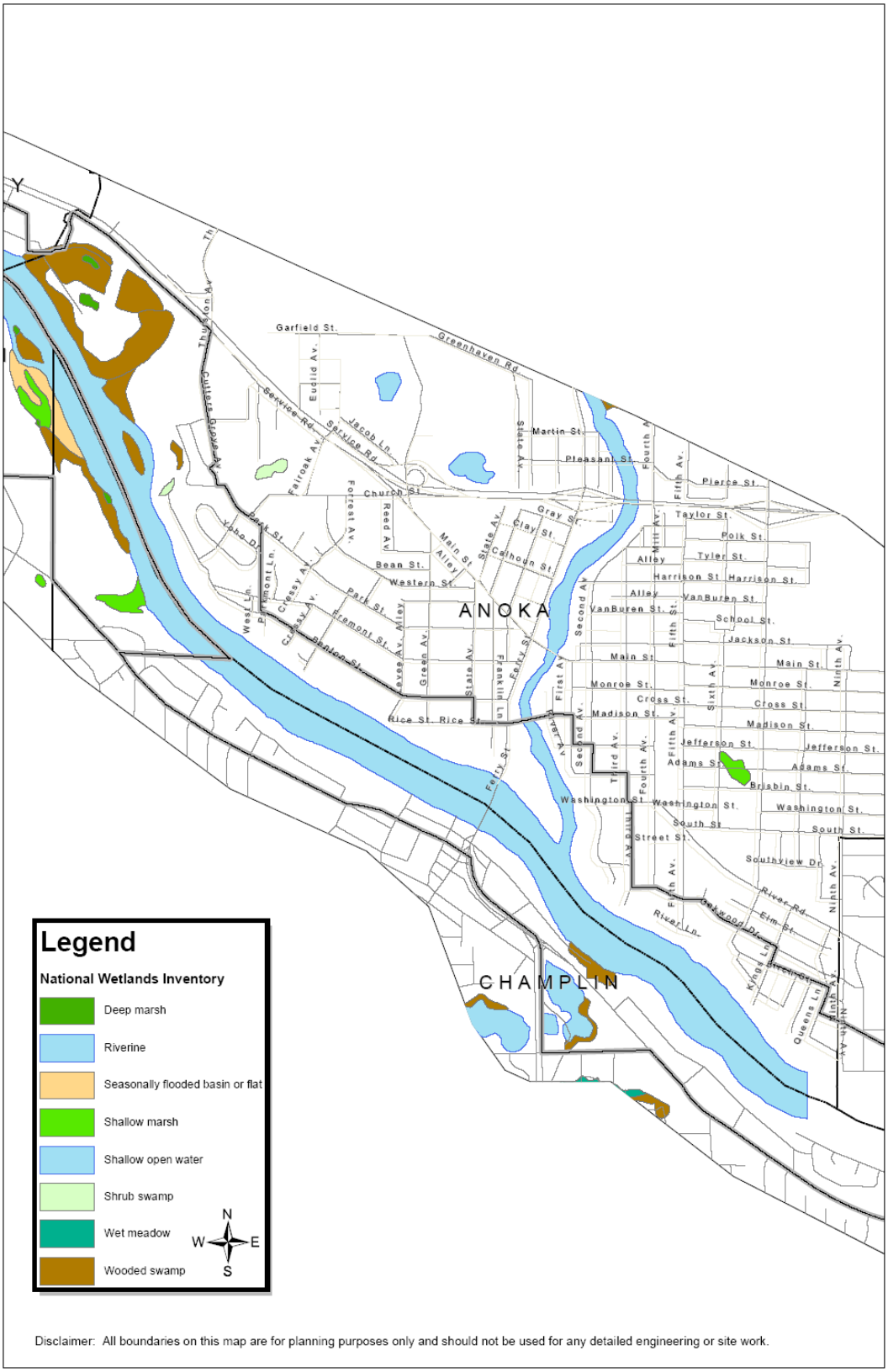


Figure: National Wetland Inventory – (Source: Land Management Information Center (LMIC))

Critical Area and MNRRA Plan Elements

The Plan elements identified within the Mississippi River Corridor Plan are intended to supplement the Plan elements of the Comprehensive Plan. The directions established in this chapter are consistent with the respective guiding principles and policies within the Comprehensive Plan.

Future Land Use Patterns in the Mississippi River Corridor

The future land use patterns are not expected to change much from present conditions along the corridor. The primary pattern will remain as low-density residential with some areas of park and open space and higher density housing. Commercial development will remain in its current general location and is described in more detail below (see Future Land Use map).

Riverfront Commercial

The idea of river related commercial uses near Peninsula Point Park or near Kings Island was expressed during public meetings. Some participants favored river related types of business uses such as a restaurant overlooking the river, a marina for fueling or buying bait, or a boat rental shop. Others at the meetings suggested preserving the natural and open space feel of the two locations.

The area near the Pierce Motel along TH 169 may have some potential for river related commercial use. This area has been used for commercial purposes in the past (a restaurant was located adjacent to TH 169). This area is directly opposite the Mississippi River from the City of Champlin's 'historic' downtown (Mississippi Crossings). Furthermore, the City of Champlin has planned for commercial use along its riverbank east of the bridgehead. Locating commercial uses here would focus riverfront commercial in one location and would be preferable over a location such as Kings Island, which the City prefers to conserve as primarily natural open space.

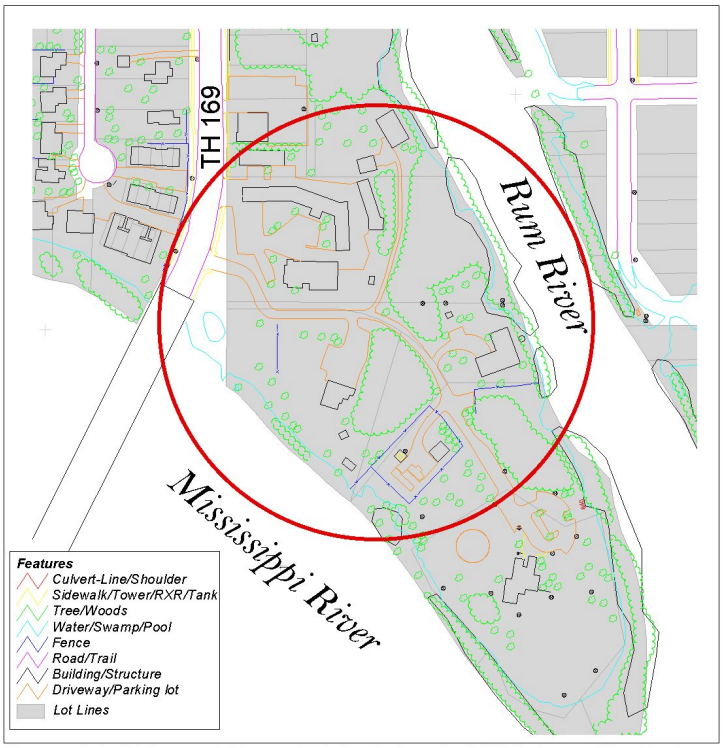


Figure: Potential Commercial Area and Existing Features – (Source: City of Anoka, April 2001)

However, the area south of the Pierce Motel property to the Mississippi River is currently zoned for multiple family residential and designated High Density Residential and Public/Semi-public on the 2020 General Land Use map (see Future Land Use map). The existing uses in the area include a single-family house, Shiloh House ministries, a lift station, and Peninsula Point Park. The area is very visible from both Highway TH 169 and the Mississippi River and has improved access since the construction of a new frontage road (South Ferry Frontage Road) with a controlled access onto Highway TH 169. The City of Anoka generally supports expanding select commercial uses into this area. The right commercial use could draw visitors to the area, take advantage of river views and access, compliment the recreational uses provided in Peninsula Point Park, and serve as a gateway feature to Anoka. Expanding commercial uses into this area would require amendments to the Comprehensive Plan and zoning map. At this time, the City simply has identified a general study area where such commercial expansion may be considered in the future.

The City of Anoka also supports the City of Champlin's efforts and plans to reestablish its downtown riverfront commercial.

Public Spaces and Scenic Overlooks

Parks and open space areas will continue to play an important role in the corridor. Future plans for the City's park and recreation system are outlined in the Parks, Open Space and Trails chapter of the Comprehensive Plan.

Kings Island

Kings Island is classified in the Comprehensive Plan as a "conservatory area" which requires minimal maintenance and is primarily preserved as a natural area. Opportunity exists to enhance this area with trails and interpretive improvements maintaining a focus on the environment and habitat preservation.

Existing Scenic Overlooks

Existing overlooks or public viewing areas of the Mississippi River can be found at Peninsula Point Park and Mississippi River Community Park. Rice and Levee Beach also provide opportunities for viewing of the river as does the Ferry Street Bridge. Additional overlook opportunities are present at several streets that dead-end at the river (some with a cul-de-sac and others that simply end.) These streets include Shaw Avenue, Levee Avenue, Third Avenue and Kings Lane. Storm sewer pipes located under these streets outlet surface water run-off into the Mississippi River.

These dead-ends are public property and provide access to the river in an informal manner. The Third Street dead-end is maintained and its shoreline is rip-rapped. Other dead-ends are typically overgrown with vegetation and often used as a place to dump grass clippings or brush. In several cases, a beaten path has developed were people make their way down to the water's edge. Previous planning for the critical area stated that *"…existing rights-of-way should not receive any intensive recreational improvements, but should be maintained so local residents will be able to gain access to the river. To prevent users from encroaching on private property, natural screening should be provided."* This plan supports these previous planning efforts.

Opportunity exists to improve these areas and define public spaces while distinguishing between adjacent private spaces. All of these locations present desirable views of the river; however, protection of the private realm must be considered in any improvement that may occur.

An overlook of the Rum River at Harrison Street is a good example of a scenic overlook. Plans or designs of these scenic overlooks should seek to:

- Optimize views to the river
- Clearly define the public realm vs. private property
- Minimize impervious surface areas (Parking would be on street. They would not need to provide off-street parking as they are more intended as a walking destination.)
- Present a design theme that relates to the neighborhood and tells a story of the river
- Connect to the community and remain embedded within the neighborhood
- Determine appropriateness of public access to the river
- Establish responsibility, funding and schedule for maintenance
- Maintain consistency with Executive Order 79-19.

Future planning and design efforts to improve these areas should include adjacent property owners and the neighborhood as well as members of the broader community.

Photo: Street ending in cul-de-sac at 3rd Avenue Corridor and Peninsula Point Park.

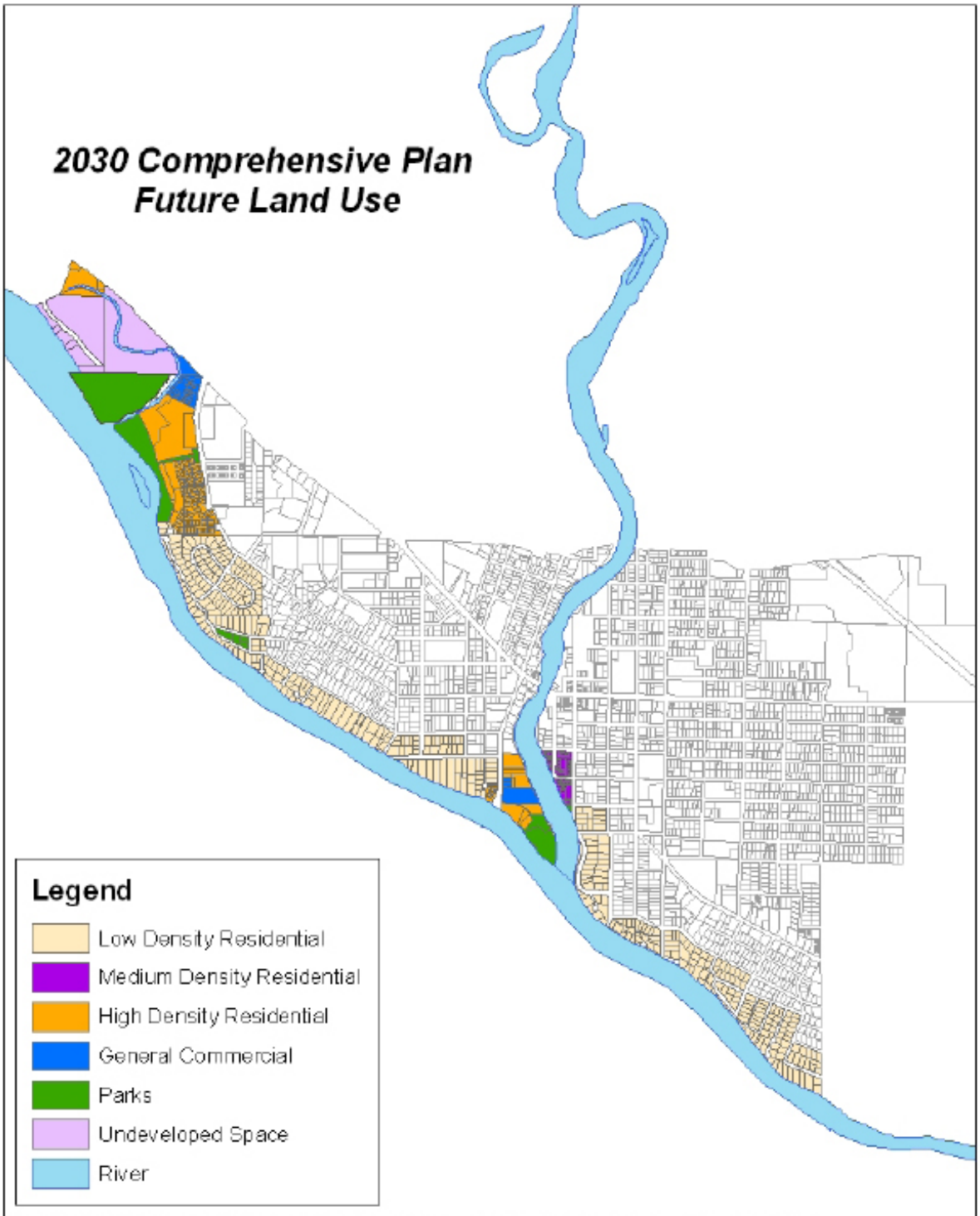


Figure 6. Future Land Use Map - Source: City of Anoka Comprehensive Plan

Figure: Future Land Use Map – (Source: City of Anoka)

Mississippi River Corridor Goals & Policies

Mississippi River Corridor Goals

The following goals are established for the Mississippi River Corridor. These goals emulate the Guiding Principles and Community Vision that are described in the first section of the Anoka Comprehensive Plan.

1. Tell the story and celebrate the history of the Mississippi River and its importance to the City of Anoka.
2. Protect the Mississippi River Corridor from negative environmental and visual impacts of human development.
3. Optimize the economic benefits of riverfront development without compromising the intentions of the Critical Area Corridor.
4. Establish community connections to and from the corridor for Anoka's neighborhoods and downtown.
5. Satisfy the intentions of the Critical Area Act and other regional river corridor planning and regulatory initiatives.

Policy Framework

The intent of the following policy framework is to help meet the goals of the City of Anoka's Comprehensive Plan and Mississippi River Corridor and to satisfy statutory requirements of Critical Area Act legislation.

Environmental ~ Natural Watercourses and Wetlands

1. Protect natural watercourses through easements or land dedications during the development plan review process and subdivision regulations.
2. Meet minimum standards established by the MPCA regarding stormwater discharged into the Rum or Mississippi Rivers.
3. Minimize direct overland runoff and improve quality of runoff onto adjoining streets and watercourses.
4. Encourage the use of on-site infiltration techniques (such as rainwater gardens or drainage swales) for stormwater drainage and retention.
5. Do not disturb riverbank areas of natural watercourses except when making improvements to stabilize shorelines or riverbanks.

6. Use techniques that are supported by area hydrologists or the Anoka County Conservation Department (i.e. incorporating natural vegetation or other Best Management Practices) for riverbank improvements or shoreline stabilization projects where appropriate.

7. Comply with federal, state and local requirements to avoid floodplain and wetland development.

Environmental ~ Slopes

1. Protect bluffs with slopes greater than 18% that are susceptible to severe erosion. Adopt appropriate regulations to maintain the vegetative cover on these slopes in order to minimize erosion problems.

2. Adopt appropriate development controls for bluffs with slopes between 12% and 18% that are subject to lesser degrees of erosion in order to minimize erosion and slippage. Such controls should include replacement of vegetative cover on these slopes to minimize erosion problems.

3. Adopt regulatory controls to minimize the time soil is left bare during construction, and to assure necessary precautions to trap sediment.

4. Shoreline protection and stabilization shall be individual property owners' responsibility. The City should work with other entities to provide design standards for those who want to make improvements.

Environmental ~ Soils

1. Discourage the use of individual septic treatment systems (ISTS) where public sewer service is available and ensure existing systems are in compliance with local and state laws. (See Utilities Locations map for suspected locations of ISTS within the corridor.)

2. Consider soil classification information when determining appropriate land uses and building designs.

Floodplain

1. Review and revise the 100-year flood plain for all watercourses within the City of Anoka in accordance with applicable procedures.

2. Enforce City adopted flood plain regulations.

Woodlands ~ Urban Forest and Natural Vegetation

1. Avoid removal of trees and other native vegetation. Replant appropriate vegetation where removal is unavoidable.

2. Adopt subdivision and site plan regulations that require identification of existing trees, trees to be removed and proposed new plantings.

3. Seek technical assistance to provide the necessary resources for a reforestation program along the Mississippi River.

4. Minimize alteration of existing native vegetation and encourage restoration of native vegetation.

5. Adopt programs to manage undeveloped islands in their natural state.

Land Use

1. Maintain existing public access points to the river to allow pedestrians to view the river and provide natural screening where appropriate to avoid conflicts with adjacent property owners and prevent encroachment.

2. Ensure that development of structures, roads, screening, landscaping, construction placement, maintenance, and stormwater runoff are compatible with the character and uses in the Corridor.

3. Require site plan review of development projects in the corridor, except for development of one single-family house.

4. Require site plans to adequately assess and reasonably minimize adverse effects and maximize beneficial effects of proposed development. Site plan applications will include:

    - Description of activities undertaken to ensure consistency with the objectives of Executive Order 79-19
    - Maps that specify topography and expected physical changes in the site as a result of the development
    - Description of measures that address adverse environmental effects
    - Drainage plans
    - Landscaping (including re-vegetation) and buffering plans
    - Building elevations that indicate proposed exterior materials
    - Illustration of compliance with all zoning (setbacks, building heights, etc.) and subdivision requirements
    - Identification of opportunities for open space preservation and public viewing of the river corridor

5. Maintain a predominantly residential land use pattern in the critical area corridor in Anoka, and limit commercial expansion.

6. Encourage the use of Planned Unit Developments (PUDs) for larger developments to preserve natural features and allow for scenic vistas, trails and walkways.

7. Require a topographic "certificate of survey" to accompany all requests for building permits for principal structures.

8. Minimize impervious surface coverage and site alteration within the Critical Area Corridor, especially on riparian lots, through unique and sensitive site design.

9. Promote reuse and rehabilitation of existing structures, allow for reconstruction of existing uses that are involuntarily destroyed in residential zoning districts, and place reasonable limits on the expansion of nonconformities that have the potential to adversely affect surrounding properties, the City as a whole and the character of the Urban Developed District.

10. Prohibit the reconstruction of non-conforming uses that are destroyed by any means to an extent of more than 50% of the current City-appraised market value of the property including land and structures.

11. Require reasonable portions of appropriate riverfront access land or other lands in interest to be dedicated to the public in residential and planned unit developments, and commercial and industrial subdivisions within the corridor. In the event of practical difficulties or physical impossibility, allow an equivalent amount of cash contribution in lieu of land for park, trail, open space, stormwater drainage areas, or other public services within the corridor.

12. Minimize any adverse effects associated with water transportation facilities.

Public Facilities Policies

1. Preserve shoreland areas that are not suitable for urban development because of susceptibility to flooding, high ground water levels, or steep slopes.

2. Provide continuous trails within or near the Critical Area Corridor for pedestrian and bicycle use.

3. Link trails within the Critical Area to the citywide trail system.

4. Develop the design of new trails within the corridor with input from the adjacent neighborhood as well as the greater community.

5. Include public art and design elements that reflect and reinforce the City of Anoka's identity.

6. Design trails with bituminous surface (or other appropriate hard surface) and separate bicycle and pedestrian traffic where possible.

7. Do not locate trails in private yards between the house and the river in existing residential areas, unless all affected property owners solicit it.

8. Limit overhead electric transmission or other public utility lines to existing crossings, and use submarine cables where possible.

9. Consider appropriate uses of adjacent lands between the river and the road or utility during planning and design for reconstruction of roadways or utility corridors. Consideration should be given to scenic overlooks, pedestrian crossings and facilities, and public access to the riverfront during planning and design of transportation facilities.

10. Design and construct new or modified transportation and utility facilities in a manner that compliments the planned land and water uses in the corridor. Reconstruct roads or utilities in a manner that they do not stimulate development that is incompatible with the Urban Developed District.

11. Minimize river crossings and concentrate at existing crossings where possible.

12. Do not use the corridor as a convenient right-of-way.

View-sheds

1. Consider and minimize obstruction of views of and from the river when permitting new development or redevelopment within the corridor. Keep these views as natural as possible.

2. Enhance and maintain views to the river from public streets that dead-end at the river.

3. Balance the rights of private property owners with the interests of the general public when considering the building of any structures that may inhibit views to the river from adjacent property or public right-of-way.

Opportunities for Enhancing the River Corridor

Many opportunities exist to achieve the goals and objectives of the City's Mississippi River Corridor Plan and the Critical Area Act/MNRRA Program. These opportunities are consistent with the Community's vision and guiding principles as articulated in the background section of the Anoka Comprehensive Plan.

1. Evaluate possibility of developing dead-end streets into passive scenic overlooks.

   An opportunity to reclaim dead-end streets as a public space and a "passive" access point to the river exists. The opportunity would be to explore possible designs of these sites with adjacent property owners and interested community members to achieve a design that balances the goals of the general public and private landowners.

2. Establish a Master Plan for King's Island Park

   It has been expressed that Kings Island be preserved as a natural space with some passive uses such as trails, benches and interpretive centers that focus on habitat and wildlife interpretation. This type of open space use would be consistent with the Critical Area Act and MNRRA Program.

3. Sponsor Educational Programs

   There are numerous resources in the Twin Cities area that are available to help provide resources and training to communities and individual riverfront property owners who wish to implement shoreline restoration or preservation improvements. Anoka residents value education/training opportunities regarding landscaping using native species, urban forestry, and storm water management

   This strategy can be implemented across multiple municipalities. The Cities of Champlin, Ramsey, Dayton, Coon Rapids and other communities have similar interests and plans.

   The City of Anoka held a Riverbank Stabilization Workshop in July 2002 in partnership with the National Parks Service and the Anoka County Conservation District that was well attended by Anoka and Ramsey residents.

4. Trail Corridor Planning, Design and Implementation.

   One regional goal is to have a trail that connects all the communities within the Critical Area Corridor from south of Hastings to Dayton and Ramsey. Anoka's Comprehensive Plan supports providing a trail through the City connecting Coon Rapids and Ramsey that would be part of the Mississippi River Regional Trail Corridor. Further planning is necessary to design and implement the trail.

5. Design and Build a Pedestrian Bridge over the Rum River to Connect to Peninsula Point Park.

   A key guiding principle in Anoka's Community Plan is to improve connectivity. An existing pedestrian bridge is located approximately 1/3 of a mile to the north of Peninsula Point Park. This bridge is at an inconvenient location to enhance connections to the park. As with all development in the corridor, a pedestrian bridge will need to be evaluated against the vision and guiding principles and the goals and policies in this plan as well as regional and federal regulatory laws.

   Connecting the east side of the Rum River to Peninsula Point Park serves many purposes. It provides a better connection to an otherwise hidden gem in Anoka in Peninsula Point Park. It facilitates the Mississippi River Regional Trail Corridor connection within the Critical Area Boundary and it completes the Rum River Trail Corridor connecting Peninsula Point Park with the northern limits of the City. There may be some hesitation from community members about building a pedestrian bridge in an otherwise pristine river view, so unique architecture and design should be a key component of this strategy to help blend the proposed bridge into the existing landscape and minimize the environmental impacts.

6. Develop a Cultural Resource Inventory and a Strategy of Historic Interpretation along the River Corridor.

   The River Corridor is an historic place and is tied to historic activities and eras. Anoka is a developed community and little opportunity exists to look for and find any archeological remnants. However, there is opportunity for the Anoka Heritage Preservation Commission, Anoka County Historical Society as well as the Hennepin County Historical Society and any other local history organizations to work cooperatively to prepare a cultural resource inventory and to map out a strategy for how and where to tell the story of development along the Mississippi River. The River itself should be emphasized as an exhibit at the Anoka County Historical Society.

   Such efforts would compliment the current cultural resource inventory and historic interpretation being done in historic downtown Anoka and along the Rum River trail (which join the Mississippi River Critical Area).

7. Update the Zoning Ordinance

   Changes in legislation and emerging development trends require community's to periodically update their local zoning ordinances. This plan and Executive Order 79-19 provide the policy direction that will help guide the establishment of more defined regulations associated with development in the Mississippi River Corridor (Critical Area). A thorough review of all City Ordinances will be completed to ensure conformance with Critical Area Act (Executive Order 79-19) requirements. MNRRA policies (in addition to those required by Executive Order 79-19) to protect views to and from the river through the utilization of setback, building height and other regulations should be evaluated as part of the process to update the zoning ordinance. Ordinances will be updated where necessary to comply with Executive Order 79-19 and meet the objectives of this plan.

   Specific ordinances to review include flood plain regulations, development performance standards, grading regulations, storm water management, individual septic treatment system management, administrative procedures, and environmental protection requirements.

8. Hold a Forum to Educate the Public about the Permitting Process

   Without experience in the development business, understanding the process of obtaining site and building development permits can be confusing and cumbersome when undertaking even a small development project. This is the case regardless of whether one lives in Anoka or not. The DNR and other state, local and regional permitting agencies have the resources to educate people on what types of reviews and approvals are required for various kinds of projects. These agencies also have technical staff that can offer suggestions and resolutions to problems associated with rivers.

Photo: Potential Scenic Overlook 1

Photo: Potential Scenic Overlook 2

Photo: Potential Scenic Overlook 3

Photo: Potential Scenic Overlook 4

Photo: Potential Scenic Overlook 5

Public forums should be held on an annual basis to provide the general public with updates on legislative changes and new techniques to preserve the river corridor and private property within the Critical Area. This process should be a joint effort with other communities along the river.

9. Capital Improvement Programming

   The City of Anoka has a capital improvement program (CIP) that establishes projects and funding sources for 5-year time frames. This CIP will continue to be a part of the City's program and may include projects that are sited in the Critical Area Corridor and will be consistent with the standards and guidelines in Executive Order 79-19.

10. Notification of development activities

    For those developments that require discretionary action or a public hearing, the City shall notify the DNR at least 30 days before taking action on the application.

The images on this and the following page illustrate potential opportunities within the Mississippi River Corridor.

Endnotes

[1] Minnesota State Planning Agency, Information Handbook for the Twin City Metropolitan Area Mississippi River Corridor Critical Area, January 1977, page 1.

[2] Mississippi River Coordinating Commission and National Park Service, United States Department of the Interior, Comprehensive Management Plan, Mississippi National River Recreation Area, May 22, 1995, Page iii and iv.

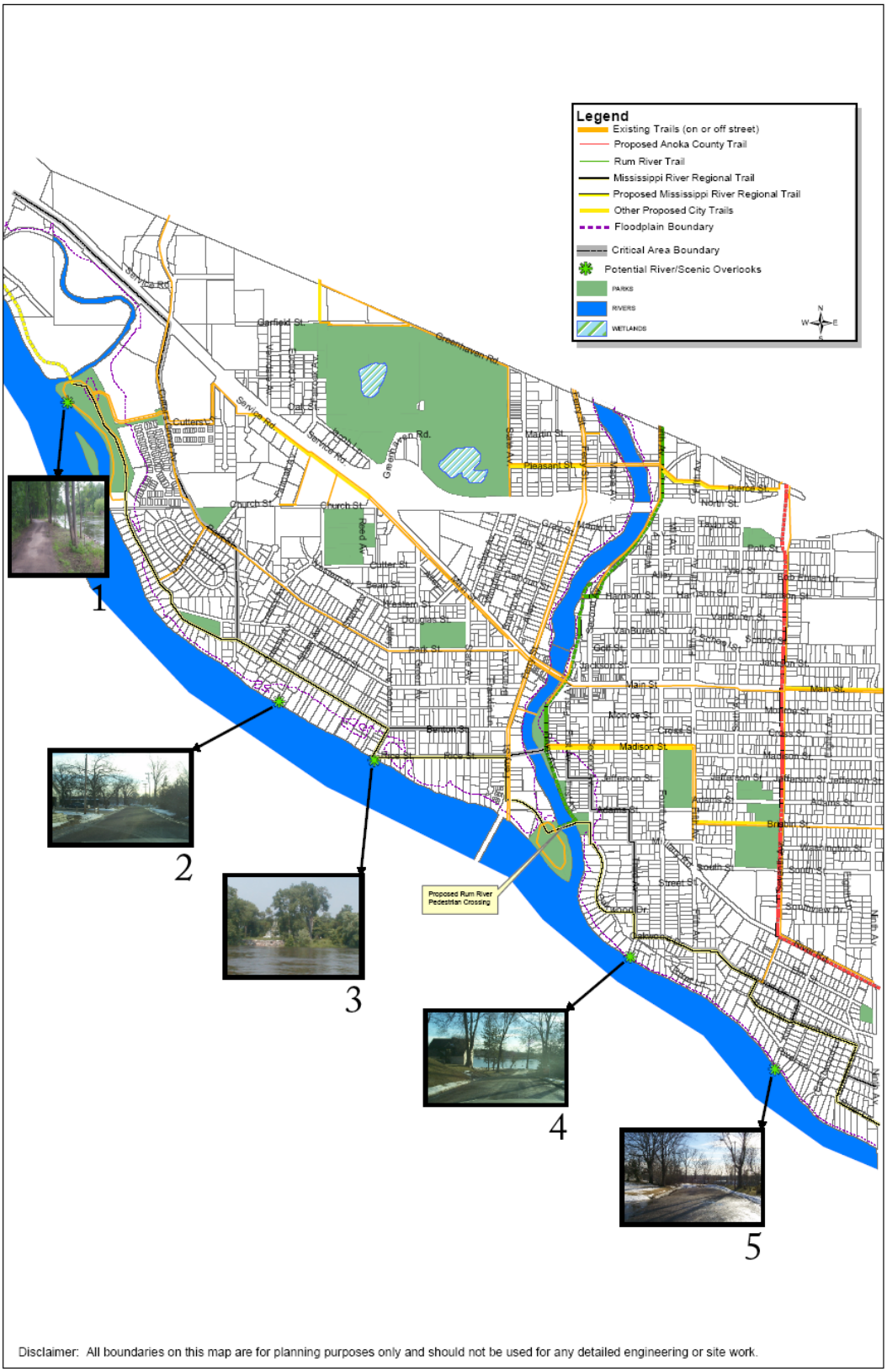


Figure: Mississippi River Corridor Opportunities and Ideas

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Section 1: Background

Section 2: Land Use

Section 3: Public Facilities

Section 4: Implementation

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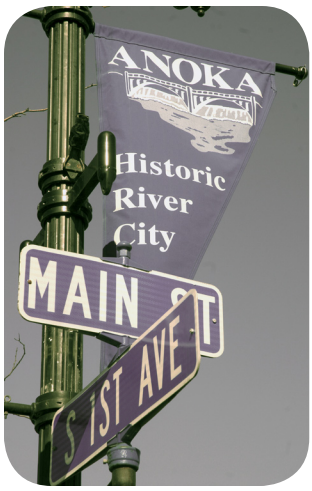
Transportation Plan



Introduction

The purpose of the City of Anoka's Transportation Plan is to provide guidance to the City and other entities in assessing and planning for the City's growth and transportation needs over the next 20 years. This Plan will provide input to the Metropolitan Council's 2030 Regional Transportation Plan. It will also be used to coordinate planning efforts with neighboring communities. This plan builds on and provides an update to the Transportation Plan which was included in the *City of Anoka Community Plan (2001)*.

Photo: Street signs – (Image courtesy of Community Design Solutions and Arnett Muldrow & Associates)

Goals and Objectives

Identifying goals and objectives provides direction and focus for the development of a Transportation Plan. This plan will serve the anticipated growth and projected travel needs of the City of Anoka's residents and businesses over the next 20 years. The goals and objectives have been developed as part of the planning process.

Goal 1

Safety: Develop and maintain a transportation network that promotes the safety of its users by:

- Maintaining infrastructure
- Reviewing geometric improvements annually
- Working with MnDOT to evaluate and set appropriate speeds

Goal 2

Efficient Movement: Strive to ensure that the transportation network promotes the efficient movement of people and goods by:

- Establishing a 2030 proposed functional classification system
- Encouraging consistency between roadway jurisdiction, designation and functional classification
- Supporting efficient multi-modal movement including buses, commuter rail, bicycles, and pedestrians
- Managing access on arterial and collector roadways to preserve mobility and minimize through-traffic on neighboring routes

Goal 3

Land Use/Development: Ensure that decisions regarding transportation system planning and system development are fully integrated with land use by:

- Reflecting the City's land use policies in the transportation system
- Coordinating with adjacent communities
- Identifying and preserving potential corridors for flexible use

Goal 4

Multi-modal: Promote a variety of transportation modes choices in the development of the City's transportation network by:

- Providing options for transit dependent persons
- Encourage provision of and opportunities for transportation services for handicapped and senior residents
- Encouraging the use of trails
- Promoting development of infrastructure for non-motorized transportation
- Preserving corridors for possible multi-modal transportation
- Encouraging the expansion of public transportation
- Promoting and incorporating transit-friendly infrastructure in system planning
- Coordinating with local and regional transit agencies

Goal 5

Environment: The City of Anoka's transportation system will be maintained and developed in a manner that is sensitive to the City's cultural, historic and natural resources and neighborhoods by:

- Minimizing impacts on environmental and natural resources during improvements and maintenance of the system
- Using traffic-calming techniques when and where they are appropriate while preserving safety
- Considering traffic impacts on community livability and cultural, historic, and natural resources

Goal 6

Community Involvement: Include public participation in the planning, construction and maintenance of the transportation system by:

- Engaging the community in planning and decision-making
- Providing the public with reasonable and understandable information
- Providing opportunities for transportation education

Goal 7

Coordination between Jurisdictions: Build cooperation and coordination between jurisdictions:

- Coordinating transportation plans
- Interacting with state, county and local agencies
- Continuing participation in area transportation projects

Goal 8

Investments and Use of Funding: Establish a transportation system that provides for effective and efficient use of potential improvement funds by:

- Preserving, maintaining and managing the existing roadways system
- Constructing new links and developing staged improvements
- Encouraging joint-agency and public-private partnerships
- Minimizing maintenance of existing and construction of new routes in redevelopment areas
- Identify local transportation needs and ways to provide for these needs.

Population Trends

The City of Anoka is a developed community, which is expected to experience modest growth through 2030. Anoka's neighbors to the south and east, Champlin and Coon Rapids, are developed communities which are also not expected to experience a large influx of people over the next two decades. However, its neighbors to the north and west, Andover and Ramsey, are rapidly developing communities (Table 1). The rapid development in these communities has placed, and will continue to place, strain on the local and state transportation system.

Population Forecast for Anoka and Neighboring Cities

	Population			
	2000	***2010***	***2020***	***2030***
Champlin (Hennepin County)	22,193	23,700	24,500	25,800
Andover	26,588	33,000	39,000	40,500
Anoka	18,076	19,000	19,800	20,800
Coon Rapids	61,607	65,700	66,000	65,000
Ramsey	18,510	31,300	45,000	44,000
Anoka County Total:	***124,781***	***149,000***	***169,800***	***170,300***

Table 1: Population Forecast for Anoka and Neighboring Cities

For the purpose of modeling future travel patterns, it is important to determine where in Anoka people will be coming from and going to in the future. For this reason, the City of Anoka, collaborated with Anoka County, to geographically distribute the Metropolitan Council's forecasts for population, households, and employment within the City of Anoka into Transportation Analysis Zones (TAZs). Table 2 shows the forecasted growth in population, households, retail employment, and non-retail employment for the TAZs located within or partially within the City of Anoka. The Transportation Analysis Zones map shows the geographic location of each of the TAZs listed in Table 2. As indicated by Table 2, many parts of Anoka are not expected to experience significant change, while other portions of the city are expected to grow in the next 20 years. In particular, the projected increases of population, households, and employment in TAZ 1926 reflects plans for development of a commuter rail village, adjacent to the Northstar Commuter Rail station currently being built.

Figure: Northstar Commuter Rail Line - (Source: Northstar Commuter Rail, MnDOT/NCDA, 2008)

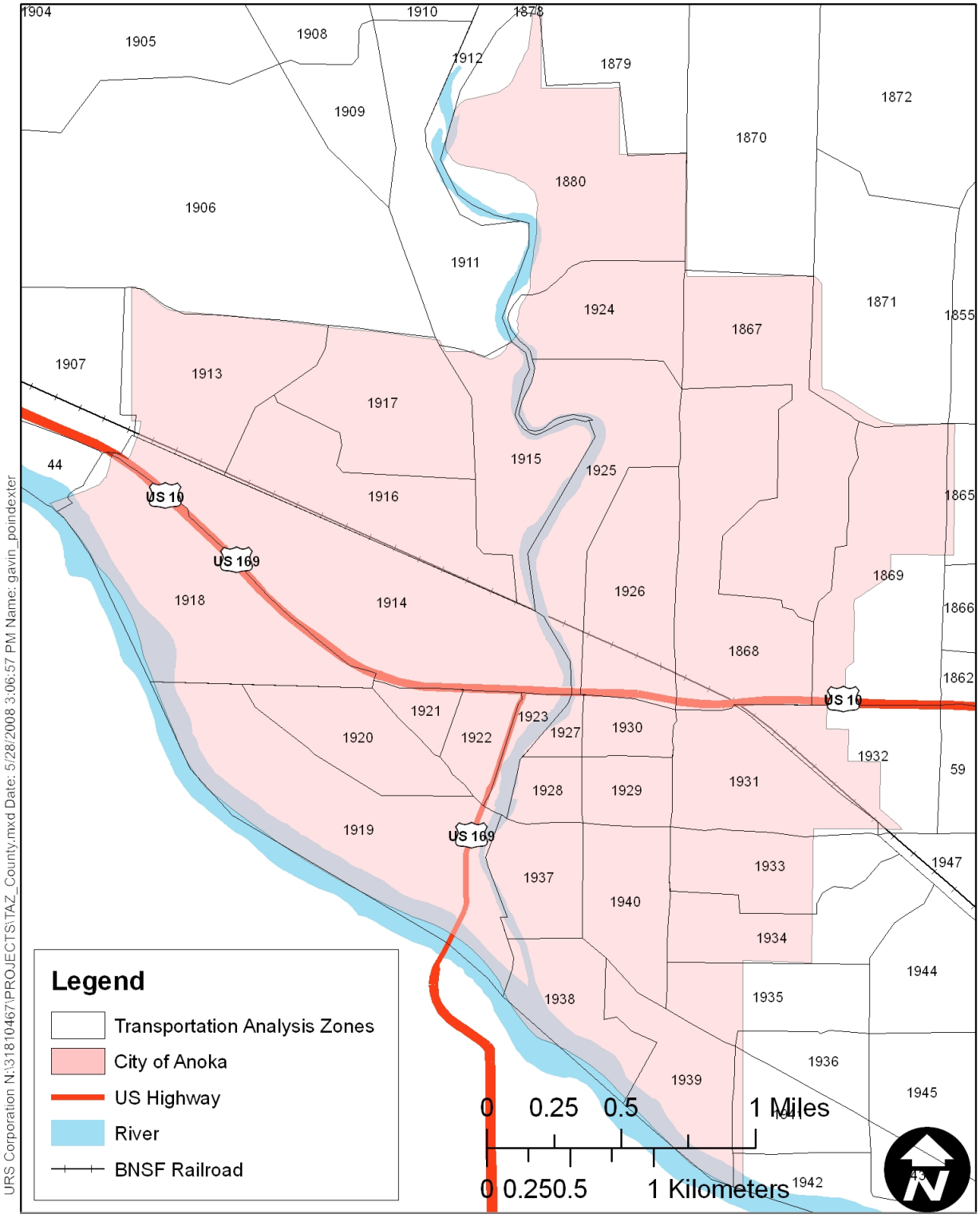


Figure: Transportation Analysis Zones - (Source: MN/DOT and Metro GIS)

Population, Households, and Employment by Traffic Analysis Zones

TAZ	*2030 Population*	*2030 # of Households*	*2030 Retail Employment*	*2030 Non-Retail Employment*
1867	No Change	No change	No Change	No Change
1868	No Change	No Change	15	No Change
1869	100	50	25	40
1880	300	70	100	100
1913	No Change	No Change	No Change	300
1914	100	30	30	100
1915	200	50	No Change	No Change
1916	No Change	No Change	No Change	300
1917	No Change	No Change	No Change	No Change
1918	No Change	No Change	20	20
1919	150	55	No Change	No Change
1920	100	40	40	50
1921	No Change	No Change	20	15
1922	No Change	No Change	30	No Change
1923	No Change	No Change	No Change	No Change
1924	No Change	No Change	No Change	No Change
1925	300	100	No Change	No Change
1926	1300	800	200	500
1928	250	160	50	100
1929	No Change	No Change	20	No Change
1930	No Change	No Change	No Change	No Change
1931	No Change	No Change	No Change	No Change
1932	No Change	No Change	No Change	No Change
1933	No Change	No Change	No Change	No Change
1934	No Change	No Change	No Change	No Change
1935	No Change	No Change	No Change	No Change
1937	No Change	No Change	20	No Change
1938	No Change	No Change	No Change	No Change
1939	No Change	No Change	30	No Change
1940	No Change	No Change	20	40
Totals:	***2,800***	***1,355***	***620***	***1565***

* **Base Year 2010** *Table 2: Population, Households, and Employment by Traffic Analysis Zones – (Source: City of Anoka)*

Handbook Section 4.1
a) Forecast allocation to Traffic Analysis Zones

Roads and Highways

Historically, traffic in the City of Anoka has flowed south toward the major employment and retail centers in the Twin Cities metropolitan area and east to other suburbs in Anoka County. The rural areas to the north and west have generated minimal traffic into Anoka. However, in the last 10 to 15 years, communities to the north and west, such as Ramsey and Andover, have experienced rapid development as the metropolitan area has expanded. This pattern of development in Ramsey and Andover is expected to continue through 2020 before plateauing for the next decade[1]. Development to the north and west of Anoka has affected travel patterns within and through the city.

Over the past decade, a number of factors have shaped travel patterns in Anoka. Downtown Anoka is home to the Anoka County Government Center, Federal Cartridge, Hoffman Enclosures, and many commercial stores. Each generates various levels of traffic. The growth of neighboring communities, increased employment in second and third ring suburbs, and the continued decentralization of population and employment in the Twin Cities metro area have contributed to increased traffic volumes in the City of Anoka.

Despite the decentralization of the Twin Cities, travel demand still focuses on travel to the metropolitan area to the south, with additional traffic from northern communities traveling through Anoka and increasing congestion in the city. Over the past decade, the traffic volumes, measured in Average Annual Daily Traffic (AADT), along segments of TH 10, TH 169, TH 47, Seventh Avenue, and Thurston Avenue have increased (Table 3). The growth in traffic is due to a combination of factors including the growth of the communities north and west of Anoka and the development of the Anoka Enterprise Park.

The Transportation Facilities map shows the transportation network within Anoka.

Handbook Section 4.1
c) Highway and roadway map

Photo: Minneapolis, MN - (Image courtesy of Flickr, 2008)

URS Corporation N:\31810467\PROJECTS\Facilities.mxd Date: 5/28/2008 3:02:24 PM Name: gavin_poindexter

Figure: Transportation Facilities in Anoka – (Source: MN/DOT and MetroGIS)

Change in Traffic Volume from 1995-2005 on Principal and A Minor Arterials in Anoka

			AADT	
Route	***West/North Limit***	***East/South Limit***	***1995***	***2005***
TH 10	West City Limit	Thurston Avenue	34,000	48,500
TH 10	Thurston Avenue	Fair Oak Avenue	38,500	61,500
TH 10	Fair Oak Avenue	Main Street	43,000	61,500
TH 10	Main Street	Rum River	34,000	47,500
TH 10	Rum River	7th Avenue	47,500	67,500
TH 10	7th Avenue	East City Limit	47,500	69,500
TH 169	TH 10	Main Street	21,500	26,500
TH 169	Main Street	Mississippi River	38,500	44,500
TH 47	Bunker Lake Blvd	Pleasant Avenue	14,000	19,000
TH 47	Pleasant Avenue	TH 10	16,000	20,000
Seventh Avenue (CSAH 7)	North City Limit	Bunker Lake Blvd	11,500	15,500
Seventh Avenue (CSAH 7)	Bunker Lake Blvd	38th Avenue	11,500	15,000
Seventh Avenue (CSAH 7)	38th Avenue	Grant Avenue	16,000	21,000
Seventh Avenue (CSAH 7)	Grant Avenue	TH 10	n/a	24,500
Main Street (CSAH 14)	TH 10	TH 169	22,000	17,500
Main Street (CSAH 14)	TH 169	Second Avenue	22,000	26,000
Main Street (CSAH 14)	Second Avenue	Fifth Avenue	22,000	22,000
Main Street (CSAH 14)	Fifth Avenue	Seventh Avenue	19,000	19,500
Main Street (CSAH 14)	Seventh Avenue	East City Limit	16,500	15,500
Fifth Avenue (CSAH 1)	Main Street	Jefferson Street	9,000	12,000
Fifth Avenue (CSAH 1)	Jefferson Street	South Street	11,000	12,000
East River Road (CSAH 1)	South Street	Seventh Avenue	11,000	10,500
East River Road (CSAH 1)	Seventh Avenue	East City Limit	17,000	16,000
Round Lake Boulevard (CSAH 9)	Bunker Lake Blvd	Roosevelt Street	22,000	29,000
Round Lake Boulevard (CSAH 9)	Roosevelt Street	South City Limit	29,000	29,000
Bunker Lake Boulevard (CSAH 116)	West City Limit	Magnesium Street	2,000	8,000
Bunker Lake Boulevard (CSAH 116)	Magnesium Street	Thurston Avenue	3,500	8,000
Bunker Lake Boulevard (CSAH 116)	Thurston Avenue	Barium Street	3,500	14,000
Bunker Lake Boulevard (CSAH 116)	Barium Street	Saint Francis Boulevard	2,000	14,000
Bunker Lake Boulevard (CSAH 116)	Saint Francis Boulevard	Anoka High School	2,000	17,000
Bunker Lake Boulevard (CSAH 116)	Anoka High School	Seventh Avenue	4,500	17,000
Bunker Lake Boulevard (CSAH 116)	Seventh Avenue	38th Avenue	4,500	11,500
Bunker Lake Boulevard (CSAH 116)	38th Avenue	Round Lake Boulevard	7,000	16,500
Thurston Avenue*	Bunker Lake Blvd	Lund Boulevard	4,500	7,000
Thurston Avenue*	Lund Boulevard	Anoka-Hennepin Technical College	4,500	8,500
Thurston Avenue*	Anoka-Hennepin Technical College	TH 10	4,500	11,500

** Thurston Avenue is currently not a Principal Arterial or A Minor Arterial. However, this plan recommends changing the Functional Classification of Thurston Avenue so the traffic volumes are presented consideration (See Functional Classification).*

Table 3: Change in Traffic Volume from 1995-2005 on Principal and A Minor Arterials in Anoka - (Source: Minnesota Department of Transportation (Mn/DOT))

Highway Capacity

Congestion occurs when traffic volumes exceeds roadway capacity. The relationship between traffic volume and roadway capacity is often measured in terms of Level of Service (LOS). LOS refers to the degree of congestion on a road or intersection and is based on vehicle operating speed, travel time, traffic interruptions, delays, safety and driving discomfort. LOS is described by a letter scale from "A" to "F", with "A" representing few constraints on traffic movement and "F" representing severe constraints on traffic movement resulting in significant delays. LOS of "D" is generally considered to be the lowest acceptable LOS. There is a relationship between roadway type and capacity. Table 4 identifies the traffic volume thresholds between LOS "D" and "E" for various types of roadways. Roadways with traffic volumes higher than those in Table 4 are considered congested.

Handbook Section 3.1
f) Capacity and safety issues

LOS Threshold Between "D" and "E" by Roadway Type

Road Type	*Capacity*
2-Lane w/o turn lanes	8,500
2-Lane with turn lanes	13,500
3-Lane with turn lanes	21,000
4-Lane undivided with turn lanes	27,000
4-lane divided with turn lane	35,500
6-lane divided with turn lanes	48,000

Table 4: LOS Threshold Between "D" and "E" by Roadway Type – (Source: Anoka County 2030 Transportation Plan)

Congested Corridors

Currently, several corridors within Anoka are experiencing congestion. These roadways have traffic volumes exceeding the capacity of the roadway. The following roadway segments in the City of Anoka were congested in 2005 (see map of Congested Road Segments in Anoka: 2005).

Photo: Anoka Traffic – (Image courtesy of Community Design Solutions and Arnett Muldrow & Associates)

TH 10 – the entire segment through the City of Anoka

Congestion occurs along TH 10 throughout the City, particularly during peak periods. The segment west of Ferry Street near the signalized intersections of Fairoak Avenue and Thurston Avenue/Cutters Grove Avenue is congested 10-12 hours a day. TH 10 carried between 48,000 and 70,000 vehicles per day in 2005.

TH 169 – from Main Street to the Mississippi River

The portion of TH 169 south of Main Street to the Mississippi River has been congested for years. The limited river crossings cause severe congestion in this area, particularly during peak periods. The signalized intersection at TH 169 and Main Street is unable to accommodate the demand; the segment is a four-lane road with turn lanes. In 2005, over 44,000 vehicles per day traveled on this segment.

TH 47 – from Pleasant Street to the north City Limit

North of Pleasant Street to the City Limit, TH 47 is a two-lane road carrying, on average, 19,000 vehicles per day. This is well above the 13,500 daily vehicle capacity threshold of a two-lane roadway of this type. Residents living north of Anoka and west of the Rum River who have few travel options in this direction and the limited Rum River crossings add to the congestion.

Seventh Avenue – from North Street to TH 10 and north of Bunker Lake Boulevard

The signalized intersections at Seventh Avenue and TH 10 are often congested during peak periods. Traffic flowing north on the east side of the Rum River has few alternative routes.

North of Bunker Lake Boulevard, Seventh Avenue transitions from a four-lane undivided highway to a two-lane road. However, the traffic volume remains at 15,500 after the transition, thus exceeding the capacity for a two-lane road.

North Street – from Seventh Avenue to the east City Limit

North Street is an access road along TH 10 between Seventh Avenue and Round Lake Boulevard in Coon Rapids. In Coon Rapids, North Street provides access to large retail box stores, including Cub Foods, Wal-Mart, and Office Depot. The congestion on North Street is due to a lack of through streets connecting Seventh and Round Lake Boulevard between Bunker Lake Road and North Street. Drivers choose to use the access road, as opposed to TH 10, to avoid the high levels of congestion and delays associated with TH 10.

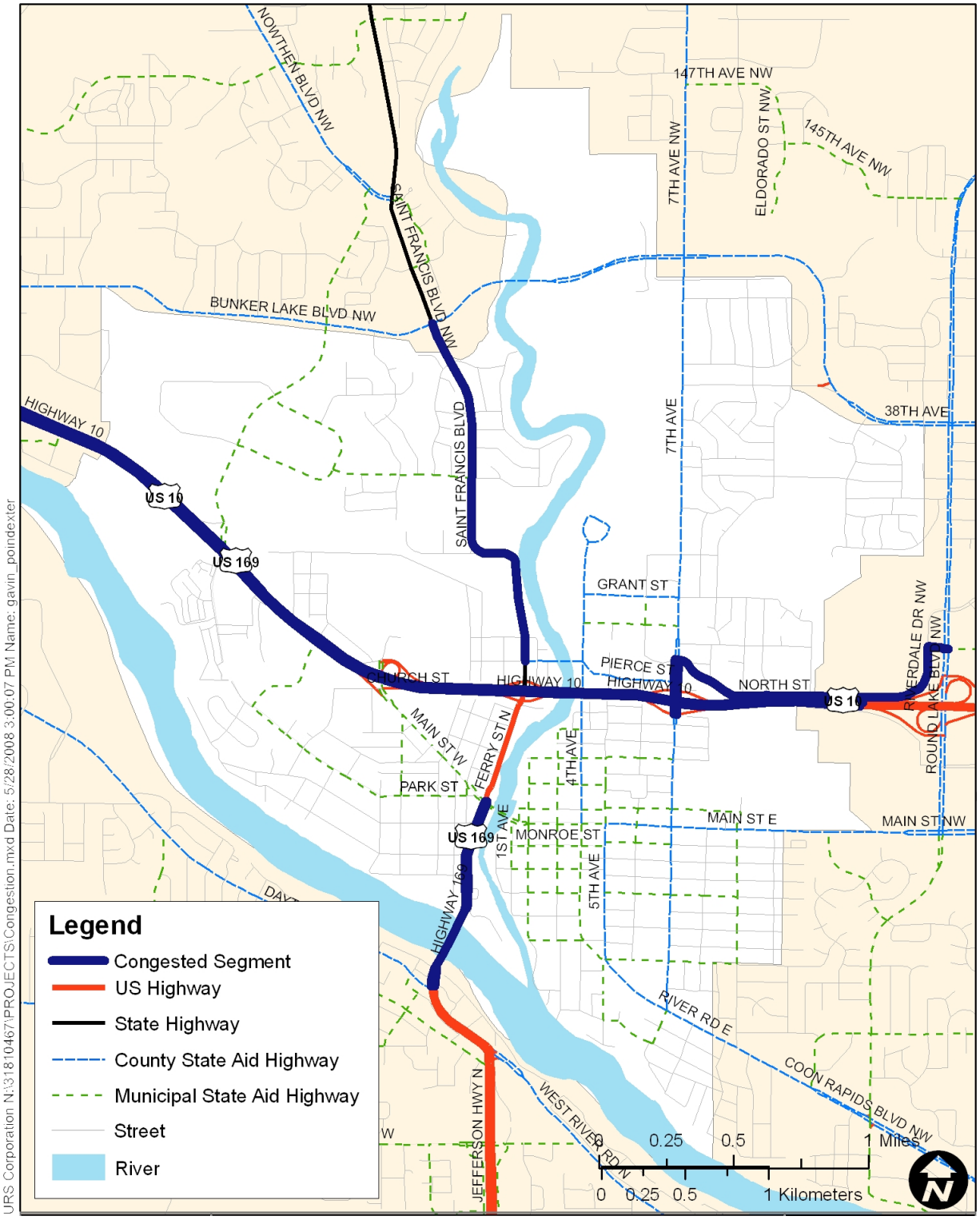


Figure: Congested Road Segments in Anoka: 2005 - (Source: MN/DOT and MetroGIS)

Traffic Projections

Future roadway needs can be determined by examining existing roadway needs and the anticipated future growth patterns. In order to determine the future traffic volumes of the Principal Arterials and A Minor Arterials within Anoka, the AADT in 2030 was projected using a 1.6 multipler applied to the 2005 AADT.

Table 5 presents the projected 2030 AADT for Principal Arterials and A Minor Arterials in Anoka. With anticipated continued growth of traffic volumes, the already congested transportation system is anticipated to become even more congested unless increased capacity is added and/or increased alternatives to driving are provided.

AADT Projections for 2030 for Principal Arterials and A Minor Arterials

Route	*West/North Limit*	*East/South Limit*	AADT *2005*	AADT *2030*
TH 10	West City Limit	Thurston Avenue	48,500	77,600
TH 10	Thurston Avenue	Fair Oak Avenue	61,500	98,400
TH 10	Fair Oak Avenue	Main Street	61,500	98,400
TH 10	Main Street	Rum River	47,500	76,000
TH 10	Rum River	7th Avenue	67,500	108,000
TH 10	7th Avenue	East City Limit	69,500	111,200
TH 169	TH 10	Main Street	26,500	42,400
TH 169	Main Street	Mississippi River	44,500	71,200
TH 47	Bunker Lake Blvd	Pleasant Avenue	19,000	30,400
TH 47	Pleasant Avenue	TH 10	20,000	32,000
Seventh Avenue (CSAH 7)	North City Limit	Bunker Lake Blvd	15,500	24,800
Seventh Avenue (CSAH 7)	Bunker Lake Blvd	38th Avenue	15,000	24,000
Seventh Avenue (CSAH 7)	38th Avenue	Grant Avenue	21,000	33,600
Seventh Avenue (CSAH 7)	Grant Avenue	TH 10	24,500	39,200
Main Street (CSAH 14)	TH 10	TH 169	17,500	28,000
Main Street (CSAH 14)	TH 169	Second Avenue	26,000	41,600
Main Street (CSAH 14)	Second Avenue	Fifth Avenue	22,000	35,200
Main Street (CSAH 14)	Fifth Avenue	Seventh Avenue	19,500	31,200
Main Street (CSAH 14)	Seventh Avenue	East City Limit	15,500	24,800
Fifth Avenue (CSAH 1)	Main Street	Jefferson Street	12,000	19,200
Fifth Avenue (CSAH 1)	Jefferson Street	South Street	12,000	19,200
East River Road (CSAH 1)	South Street	Seventh Avenue	10,500	16,800
East River Road (CSAH 1)	Seventh Avenue	East City Limit	16,000	25,600
Round Lake Boulevard (CSAH 9)	Bunker Lake Blvd	Roosevelt Street	29,000	46,400
Round Lake Boulevard (CSAH 9)	Roosevelt Street	South City Limit	29,000	46,400
Bunker Lake Boulevard (CSAH 116)	West City Limit	Magnesium Street	8,000	12,800
Bunker Lake Boulevard (CSAH 116)	Magnesium Street	Thurston Avenue	8,000	12,800
Bunker Lake Boulevard (CSAH 116)	Thurston Avenue	Barium Street	14,000	22,400
Bunker Lake Boulevard (CSAH 116)	Barium Street	Saint Francis Boulevard	14,000	22,400
Bunker Lake Boulevard (CSAH 116)	Saint Francis Boulevard	Anoka High School	17,000	27,200
Bunker Lake Boulevard (CSAH 116)	Anoka High School	Seventh Avenue	17,000	27,200
Bunker Lake Boulevard (CSAH 116)	Seventh Avenue	38th Avenue	11,500	18,400
Bunker Lake Boulevard (CSAH 116)	38th Avenue	Round Lake Boulevard	16,500	26,400
Thurston Avenue	Bunker Lake Blvd	Lund Boulevard	7,000	11,200
Thurston Avenue	Lund Boulevard	Anoka-Hennepin Technical College	8,500	13,600
Thurston Avenue	Anoka-Hennepin Technical College	TH 10	11,500	18,400

** Forecasted AADT in 2030*
*** Thurston Avenue is currently not Principal Arterial or A Minor Arterial. However, this plan recommends changing the Functional Classification of Thurston Avenue so the traffic forecasts are presented consideration (see Functional Classification).*

Table 5: AADT Forecast for 2030 for Principal Arterials and A Minor Arterials

Safety

Public safety is a high priority for all agencies responsible for improving and maintaining public transportation facilities. To determine potential safety problems in the City of Anoka, a crash analysis was conducted using crash records from Mn/DOT Office of Traffic, Safety, and Operations. The crash data is from 2000 to 2006. There were 3,336 crashes in Anoka during this time period, or approximately 1.3 crashes a day. The number of crashes a year varied from year to year but had showed a generally declining crash rate over the seven-year period (see chart of number of crashes per year in Anoka).

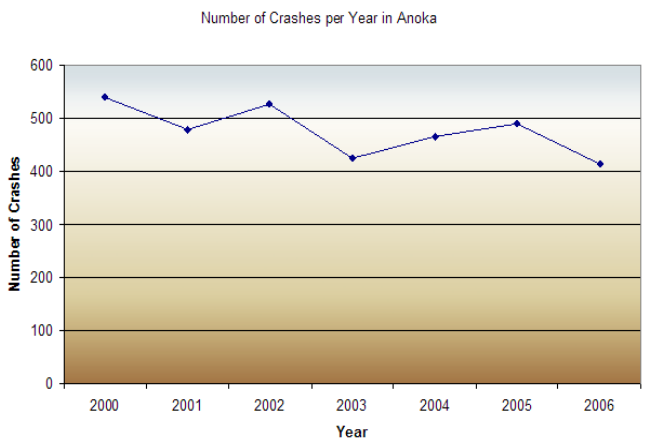


Figure: Number of Crashes per Year in Anoka

Handbook Section 4.1
f) Capacity and safety issues

Crash Analysis

The initial crash analysis identified locations with large volumes of crashes and locations where fatal crashes occurred. The map of crash locations within Anoka shows the ten locations which had at least 70 crashes (or averaged ten crashes per year) and the location of five crashes which resulted in a fatality. For the purpose of determining if a number of crashes occurred at the same location, the number of crashes that occurred within 100 ft. of other crashes was counted. If any crash was within 100 ft. of 70 other crashes, this location was identified in on the map of crash locations within Anoka.

Of the ten locations that averaged more than ten crashes a year, six of them were located along TH 10 and/or TH 169. In addition, three of the fatal crashes occurred along these same roads. Between 2000 and 2006, the intersection of TH 10/TH 169 and Fairoak Avenue was the location of more than 70 crashes, two of which resulted in a fatality. This intersection was identified by Mn/DOT as one of the five worst intersections in Minnesota in terms of crash cost. The intersection of Ferry Street N (TH 47) and Pleasant Street also averaged more than ten crashes a year. The density of crashes along these roads have prompted Mn/DOT, Anoka County, and the City of Anoka to consider redesigning TH 10, TH 169, and TH 47 through the City of Anoka (see Planned Highway Improvements). The redesign of TH 10/TH 169 includes a reduction in the number of access points.

In addition to the TH 10 and TH 47 projects, Anoka is planning to rebuild the intersection of Main Street and Seventh Avenue to reduce the number of crashes at the intersection. Additional consideration should be given to developing methods to reduce the frequency of crashes at the intersections of Seventh Avenue and 38th Avenue NW and Seventh Avenue and Bunker Lake Boulevard. These intersections provide access to Anoka High School. Consideration should also be given to addressing the circumstances which led the fatal crashes at Main Street and First Avenue, and along Garfield Street W.

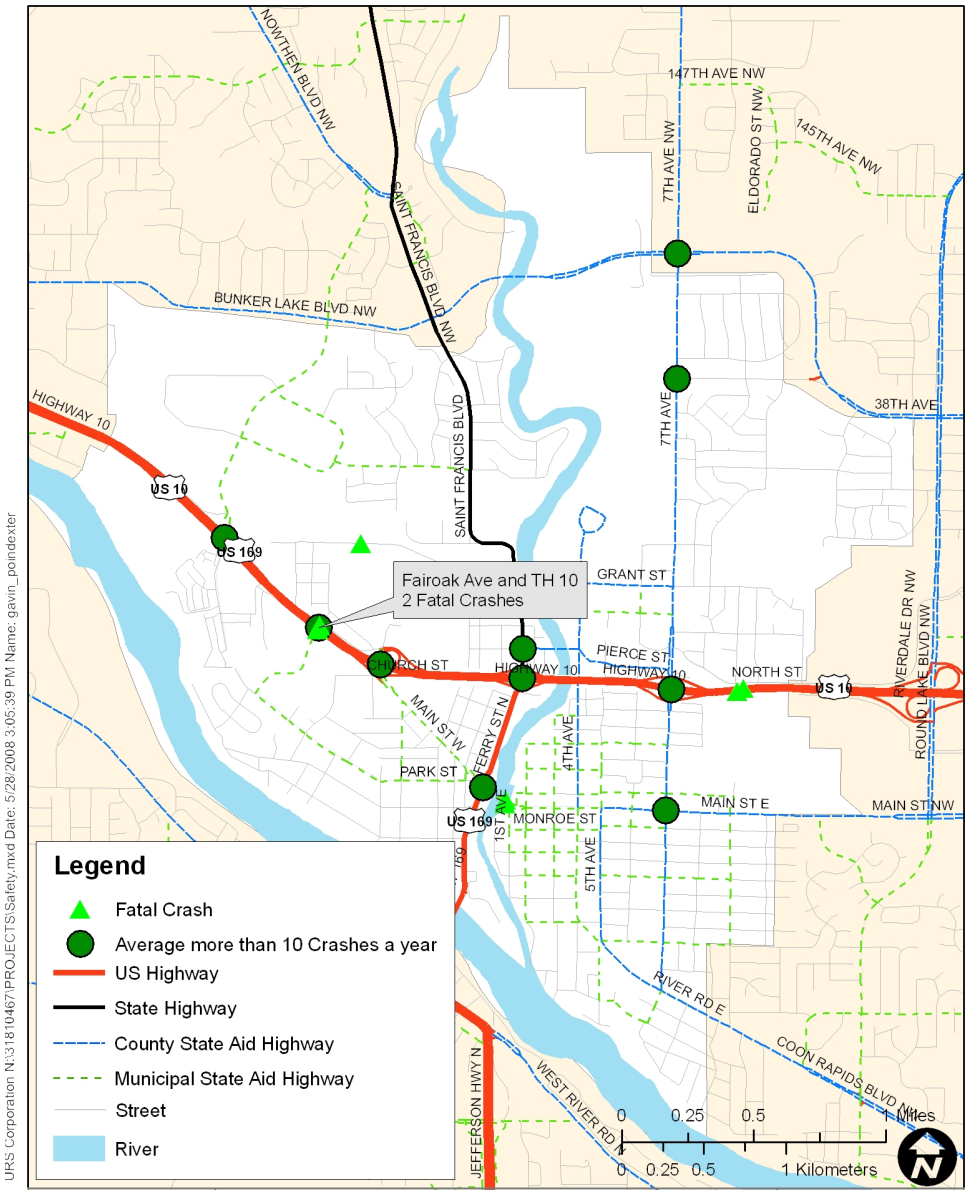


Figure: Crash Locations within Anoka: 2000-2006 - (Source: MN/DOT and MetroGIS)

Traffic Calming

The City of Anoka should consider utilizing traffic calming to improve safety on city roads. Traffic calming is the management of traffic to improve safety and circulation, not only for vehicles, but other users of the roadway such as pedestrians and cyclists. Potential techniques to manage this type of activity include physically modifying a street to divert non-local traffic off local roadways and influence driving behavior, specifically to lower vehicle speeds. The objective is to achieve a traffic behavior pattern that is compatible with other appropriate street activities and adjacent land uses. Examples of traffic calming measures include narrow streets, traffic circles, medians, curb extensions, crosswalks and entry treatments.

Functional Classification

Handbook Section 4.1
b) Functional roadway classifications

An important element of the Transportation Plan study involved the review of the functional classification system. The designated function of a roadway is defined by the role it plays in serving the flow of trips through the overall network. The Metropolitan Council has established detailed criteria for all of the different functional classifications. The intent of a functional classification system is to create a hierarchy of roads that collects and distributes traffic from neighborhoods to the metropolitan highway system, accounting for topography and other physical constraints of the area. Furthermore, functional classification reflects the community's need for both mobility and access.

Roadways with higher classification, such as arterials, should serve larger trip generators such as employment and commercial centers and river crossings. Residential, neighborhood, and commercial uses and places of relatively low demand should have roadways of lower classification, such as collectors and local streets. It is in this manner the future land use plan is integrated into the transportation plan. The existing functional classification of roadways for the City of Anoka is illustrated in the map of Functional Classifications of Roads in Anoka.

Principal Arterials

Principal arterials are the highest roadway classification and are considered part of the metropolitan highway system. Their purpose is to connect the central business districts of the two central cities with each other and with other regional business concentrations in the metropolitan area. They also connect the Twin Cities with important locations outside the metropolitan area. Principal arterials are generally constructed as limited access freeways in the developed area, but may also be constructed as multiple lane divided highways. The principal arterials in the City of Anoka include TH 10 and TH 169. These routes are recommended to remain as principal arterials in the future.

Photo: Principal Arterial Street - (Image courtesy of Flickr, 2008)

Minor Arterials

Minor arterials emphasize mobility over land access and connect cities with adjacent communities and the metropolitan highway system. Major business concentrations and other important traffic generators are often located along minor arterials. In the metropolitan area, minor arterials are divided into two classes – "A" and "B" Minor arterials.

"A" Minor Arterials

The Metropolitan Council has identified minor arterials that are of regional importance because they relieve, expand, or complement the principal arterial system. Sub-classifications of these roads have been categorized as follows:

> ***Relievers*** - Provide direct relief for metropolitan highway traffic. Reliever roadways in Anoka include Main Street west of Fifth Avenue, Fifth Avenue from Main Street to East River Road, East River Road, and Bunker Lake Boulevard. They provide both north-south and east-west mobility in Anoka, relieving TH 10 and TH 169 traffic. These routes are recommended to maintain their existing classification. No future routes are recommended to be added to this classification.
>
> ***Augmenters*** - Augment principal arterials within the interstate ring or beltway (I-494/I-694). There are no augmenters in the City of Anoka.
>
> ***Expanders*** - Connect developing areas outside the I-494/I-694 interstate ring. Expander roadways in Anoka include Main Street east of Fifth Avenue, Seventh Avenue north of TH 10, and Round Lake Boulevard along the city's eastern border. Expanders provide connections between developing areas and connect principal arterials. Expanders in Anoka are recommended to maintain their existing classification.
>
> ***Connectors*** - Provide good, safe connections to and among town centers in transitional and rural areas. Saint Francis Boulevard and Ferry Street N. north of TH 10 are the only connectors in Anoka. These routes are recommended to maintain their existing classification. There are no future routes recommended to be added to this classification. "B" Minor Arterials

The Metropolitan Council defines or considers all minor arterials other than "A" minor arterials as "B" minor arterials. These roadways typically serve a citywide function by providing mobility for medium-length to long trips. There are no "B" Minor Arterials in Anoka.

> ***Major Collectors*** - Serve shorter trips and provide access from neighborhoods to the arterial system. They supplement the arterial system by emphasizing access over mobility. Because of their location, they are lower-volume roads than arterial routes. Major collectors in Anoka include: Park Street, Cutters Grove Avenue, First Avenue from Main Street to Monroe Street, Monroe Street from First Avenue to Fifth Avenue, Fourth Avenue from Main Street to Grant Street, Grant Street from Fourth Avenue to Seventh Avenue, Pierce street from Ferry Street N to Seventh Avenue, North Street from Seventh Avenue to Round Lake Boulevard, and Seventh Avenue from TH 10 to East River Road.
>
> ***Minor Collectors*** - Serve shorter trips and provide access from neighborhoods to the arterial system and other neighborhoods. They supplement the arterial system by emphasizing land access over mobility. There are no minor collectors in Anoka.

Recommended Modifications to Functional Classifications

It is recommended that the functional classification of Thurston Avenue, from TH 10 to Bunker Lake Boulevard, be changed to a "B" Minor Arterial or a Major Collector. It currently functions as a Major Collector by providing access from TH 10 to Anoka Enterprise Park and a residential neighborhood in Ramsey. Traffic volumes along Thurston Avenue were 7,000 – 11,500 vehicles per day in 2005. Its role as a major roadway will be reinforced by the proposed redesign of TH 10/TH 169. The current plans include constructing an interchange at Thurston Avenue. This will serve to focus addition traffic onto Thurston Avenue. After the reconstruction of TH 10/TH 169, it may be appropriate to classify Thurston Avenue as a "B" Minor Arterial.

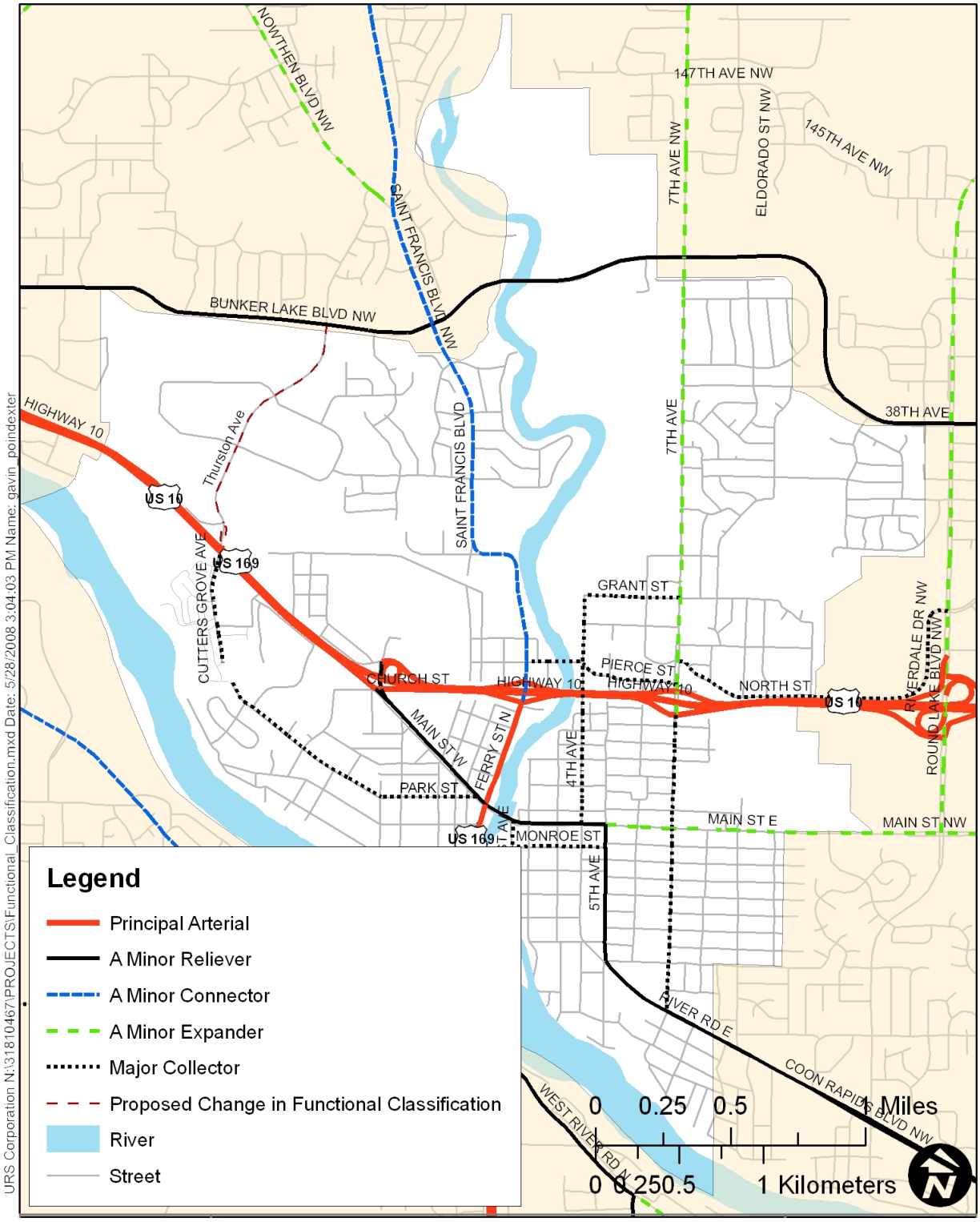


Figure: Functional Classification of Roads in Anoka – (Source: MN/DOT and MetroGIS)

Figure: Jurisdictional Classification of Roads in Anoka - (Source: MN/DOT and MetroGIS)

Jurisdictional

The jurisdiction of roads is an important element in the Transportation Plan because it affects a number of critical organizational function and obligations (regulatory, maintenance, construction and financial). The primary goal in aligning jurisdiction is to match the function of the roadway with the organizational level that is best suited to handle the route's function.

For routes under Anoka County and Mn/DOT's jurisdictions, it is recommended that transfers be pursued as opportunities present themselves. It is not recommended that jurisdictions use this plan to force system change upon unwilling parties. Some examples of times when discussions regarding proper jurisdiction should occur include:

- Construction of a new segment that replaces the function of the current roadway
- Improvement or major rehabilitation of a facility that is identified as a potential transfer

Mn/DOT Jurisdictional Transfers

Mn/DOT and Anoka County have signed a Memorandum Of Understanding (MOU) that states that TH 47 north of TH 10 will be transferred from the state to the county. Currently no date has been set for the transfer; however it is likely that it will occur towards the end of this plan's scope.

Anoka County Jurisdictional Transfers

Anoka County and the City of Anoka are working to develop a plan for a series of jurisdictional transfers from the County to the City in the general vicinity of the commuter rail station. The proposed jurisdictional transfers include Pierce Street from Fourth Avenue to Seventh Avenue, Grant Street from Fourth Avenue to Seventh Avenue, Pleasant Street from Ferry Street to Fourth Avenue, and Fourth Avenue from Main Street north. All of these roads are completely contained within the City of Anoka and are used primarily for circulation within the City. The transfer of jurisdiction will provide increased flexibility for the City as it redevelops the area around the new commuter rail station. The roads being considered for jurisdictional transfer were designated as County Roads, because they provided the primary access to the Regional Treatment Facility. The primary access to the Regional Treatment Facility has been relocated to Seventh Avenue. Prior to completing the jurisdictional transfer, consideration should be given to the future uses of Anoka County owned land along Grant Street and Fourth Avenue, to ensure that future land uses along these roads match the appropriate jurisdiction.

The map of Jurisdictional Classifications of Roads in Anoka shows both the existing and proposed jurisdictional classifications of roads in the City of Anoka.

Handbook Section 4.1
e) Transportation - land use relationship

In order to maximize the efficient use of the transportation system, it is important to coordinate transportation plans with land use planning. Land uses that will generate large numbers of trips need to be located where the transportation system can properly accommodate those trips. The City of Anoka has incorporated the connection between transportation planning and land use planning by locating, and planning to locate, dense developments along major corridors. This allows the transportation system to directly accommodate trips generated by various land uses.

Examples of locating major trip generators in locations where access to them can be appropriately accommodated include:

- Anoka High School – Is located at the intersection of Bunker Lake Boulevard and Seventh Avenue. Both of these roads are A Minor Arterials. They provide direction connections to TH 10 as well as across the Rum River.
- Anoka-Hennepin Technical College – Is located on an access road adjacent to TH 10. This allows vehicles to easily and safely access the Technical College by providing quick access from the TH 10 while still minimizing the locations were vehicles enter and exit TH 10 allowing for safer travel.
- Anoka Enterprise Park – Its location along Thurston Avenue allows employees and deliveries to easily access the various businesses from TH 10 without traveling through residential areas, creating disturbances and potential safety issues.

The City of Anoka is continuing this trend of locating large trip generating land uses in corridors that can adequately accommodate the traffic it generates. Anoka's plans to redevelop the area around the Northstar Commuter Rail Station call for a mix of land uses, including Transit Oriented Development (TOD), residential and commercial (see Commuter Rail Transit Village Future Land Use Concept).

Handbook Section 4.4
b) Map of existing and planned transit facilities

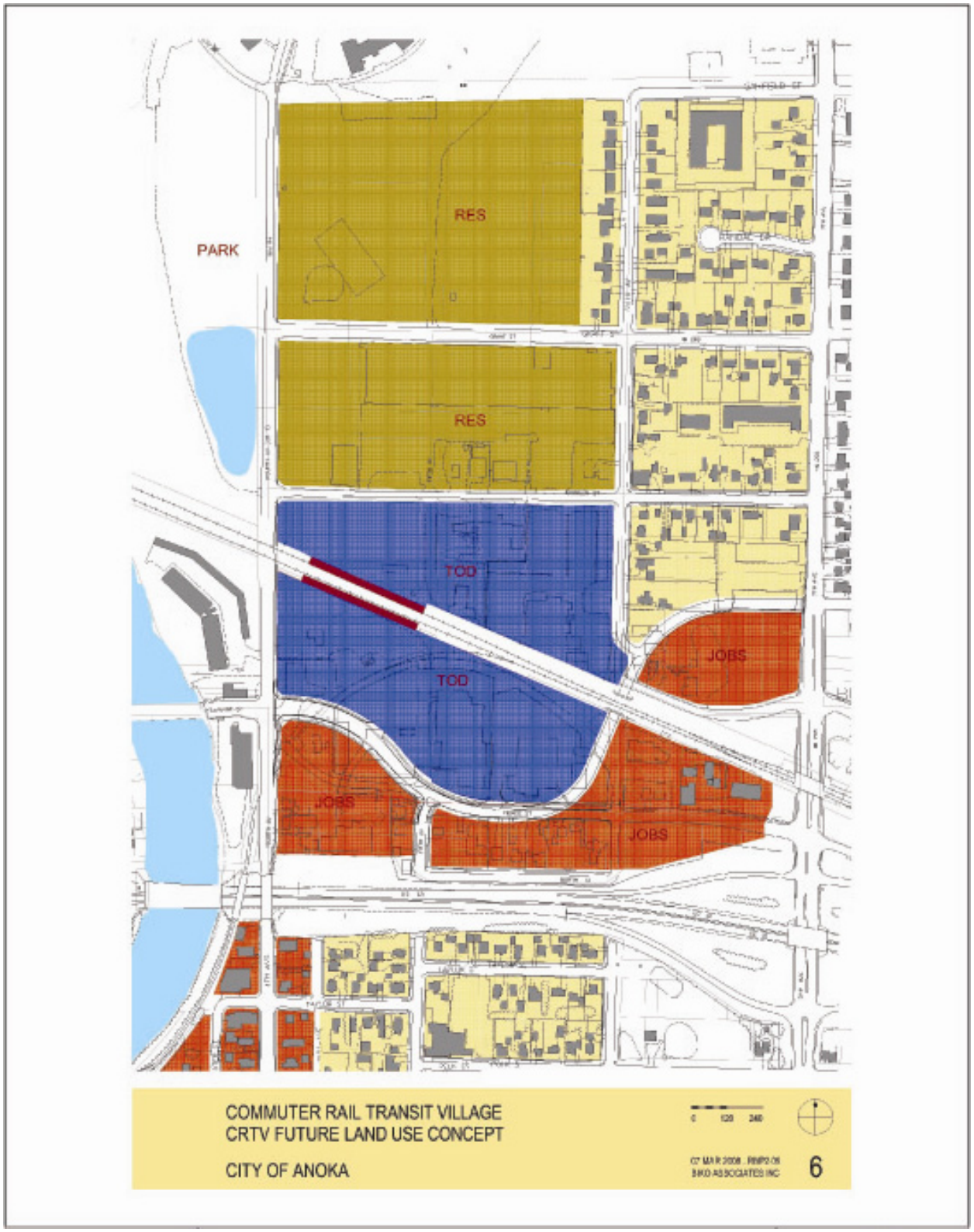


Figure: Commuter Rail Transit Village Future Land Use Concept – (Source: Biko Associates Inc. City of Anoka)

Access Management

Anoka's road system is designed to facilitate the effective, efficient and safe movement of people and goods within and through Anoka. A key component of accomplishing this is providing appropriate access to properties within the city. However, with increased access comes decreases in both mobility and safety. In order to develop the proper balance between access, mobility, and safety it is important that access be managed in a manner that meets the needs of all users of the transportation system. A key component of access management is recognizing the different functions of different types of roadways. The functional classification of a roadway is a good initial guide to the appropriate level of management (see Functional Classification). Roadways with a high functional classification should have fewer access points than roadways with a lower functional classification.

As the community grows the balance between access, mobility, and safety should be reviewed to ensure the community's needs are being met. There are three times an access management plan should be developed:

- Roadway Construction or Reconstruction
- Parcel Creation
- Property Redevelopment

Handbook Section 4.1
g) Access management

Currently, plans are being developed for the reconstruction of both TH 10 and TH 47 in Anoka (see Planned Highway Improvements). Access management is an important element in developing these plans. The current proposals include limiting access to TH 10 within Anoka to three or four locations. While the reconstruction will decrease access from TH 10 to residences and businesses, it will increase mobility and safety in Anoka.

Similarly, as part of the TH 47 study, an option being considered is the addition of a frontage road for residents who live along a portion of TH 47. However, a frontage road will eliminate residents' direct access to TH 47. The elimination of some residential accesses (driveways) onto TH 47 will decrease the congestion caused by vehicles turning in and out of the accesses. In addition, reducing the number of direct driveway accesses will improve safety and reduce the number of rear end crashes and some right angle crashes.

Elimination of direct access is only one method for to managing access along roadways. An additional management strategy is properly locating these access points. When considering where access points should be located, it is important to consider where other accesses and intersections are located or may be located in the future. Configuring or rebuilding accesses and intersections to create a four-way intersection rather than locating two intersections in close proximity has multiple advantages. Four-way intersections allow through traffic to continue straight through an intersection rather than making two turns in a short distance. In addition, the creation of four-way intersections will decrease the potential of traffic back ups from one intersection or access blocking the use of another intersection or access. An example of utilizing this strategy in Anoka is the recent realignment of Pierce Street and Fourth Avenue to create a four-way intersection with Pleasant Street.

In addition to considering the location of accesses across the roadway, the location of accesses and intersections on the same side of the street should be considered as part of an access management plan. Accesses located close together can create safety problems and decrease the mobility on the roadway. The proper spacing of accesses is dependent on the type and volume of traffic on the roadway, type and volume of traffic utilizing the access and other accesses in the vicinity, and geometry of the roadway.

The density of accesses in a developed community like Anoka should be inversely proportional to the functionality of the roadway. A residential street should have more accesses than a Principal Arterial or an "A" Minor Arterial. Access management plans for properties along arterial streets should consider the possibility of shared accesses, right-in/right-out, access roads, and the location of accesses in relationship to each other.

Handbook Section 4.1
d) Planned highway Improvements

Planned Highway Improvements

As discussed in previous sections of this report, several of the roadways in Anoka currently have traffic well in excess of their designed capacity and are experiencing severe congestion as a result. In addition to the increased congestion, the mismatch between roadway design and the volume of traffic has also caused safety problems on some corridors. In particular, this is an issue on TH 10, TH 47 north of TH 10, and TH 169 Mississippi River crossing.

TH 10

In cooperation with Anoka County and the City of Anoka, Mn/DOT is conducting studies to rebuild TH 10 through Anoka. The roadway is currently a four-lane freeway east of Main Street and a four-lane divided highway with turn lanes west of Main Street. The reconstruction of this portion of TH 10 will both increase the capacity of the roadway as well as improve safety by reducing the number of access points along the roadway. Current proposals for TH 10 through Anoka would utilize an intersection at the same location east of the Rum River. West of the Rum River in Anoka there will an interchange located at Thurston Avenue. Access to Ferry Street (TH 47) and Main Street is being studied to address operational and safety concerns.

TH 47

Simultaneous to the TH 10 study, a study is being conducted exploring how to enhance mobility and safety in the TH 47 corridor. The study is being conducted jointly by Mn/DOT, Anoka County, City of Anoka, City of Ramsey and City of Nowthen. The study is investigating the possibility of realigning TH 47 within Anoka. The reconstructed TH 47 will be a four-lane divided highway from TH 10 to the north city limit.

Mississippi River Crossing

Currently, TH 169 is the primary Mississippi River Crossing in the area. Although, no immediate plans exist for the construction of a new bridge crossing, funds have been set aside for acquisition of right-of-way for a future river crossing between TH 169 and TH 101. Current plans locate the river crossing in the vicinity of Ramsey, not in Anoka; the addition of another bridge crossing will greatly affect travel patterns within the city. It is unlikely that a new Mississippi River crossing will be built before 2030.

Main Street and Seventh Avenue

Anoka County received funding to rebuild the intersection of Main Street and Seventh Avenue as part of the 2007 Regional solicitation for Highway Safety Improvement Program (HSIP). The purpose of the project is to improve the safety of the intersection; as mentioned in the safety section, the intersection averages 10 or more crashes a year. The intersection will be rebuilt by 2012.

Pedestrian and Bicycle

Handbook Section 4.2
a) Bicycle and pedestrian policies and programs
b)Bicycle and pediestrian facilities map

Existing Network

Sidewalks

The City of Anoka has a robust network of sidewalks and non-motorized corridors. The current sidewalk network provides pedestrians with access to most residential neighborhoods as well as commercial and institutional facilities within the City of Anoka, including, but not limited to, downtown, schools, Anoka Enterprise Park, Federal Cartridge, and Hoffman Enclosures (two of the largest employers in Anoka).

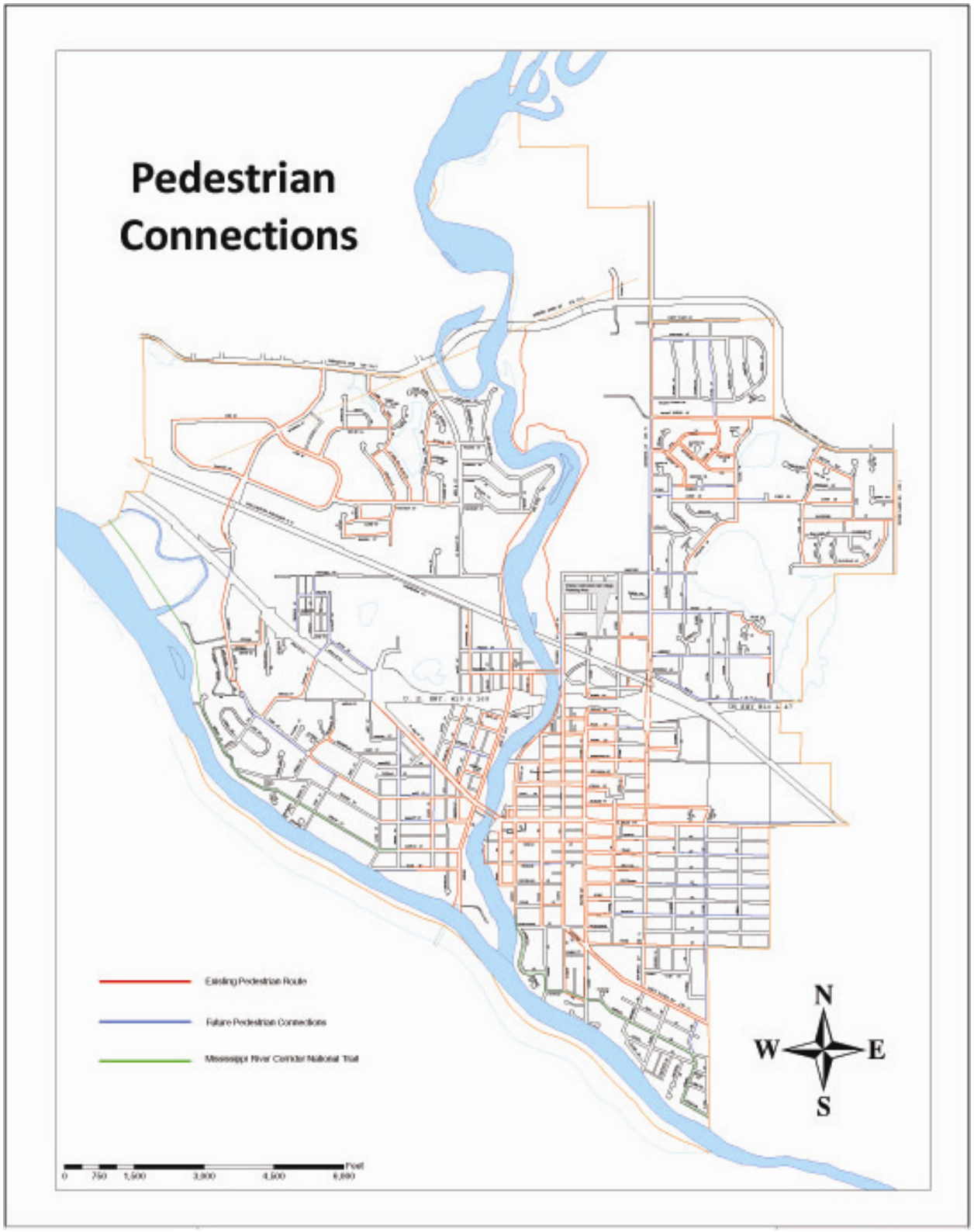


Figure: Pedestrian Connections – (Source: City of Anoka)

Regional Non-motorized Corridors

Most of the Anoka portions of the Rum River Regional Trail have been completed. The trail begins in Peninsula Point Two Rivers Historical Park on the west side of the Rum River, then crosses the Rum River into Akin Riverside Park on the east side before heading north to the Central Anoka County Regional Trail, which travels parallel to Bunker Lake Boulevard (CSAH 116). The Rum River Trail provides scenic views of the river with multiple trailside overlooks.

Central Anoka County Regional Trail

The Central Anoka County Regional Trail is being constructed in phases parallel to Bunker Lake Boulevard as the road is reconstructed. Currently, the trail starts at Seventh Avenue (the east City Limit) and continues west to Germanium Street in Ramsey. The trail provides direct access to Anoka High School.

Mississippi River Regional Trail

The Mississippi River Regional Trail is being developed in partnership with the National Park Service and Anoka County. The National Park Service is working with communities in the Twin Cities to develop a system of connected trails that parallel the Mississippi River. Within the City of Anoka, the portion Mississippi Regional Trail utilizes the existing trails on Kings Island and the Rum River Regional Trail Bridge to cross the Rum River.

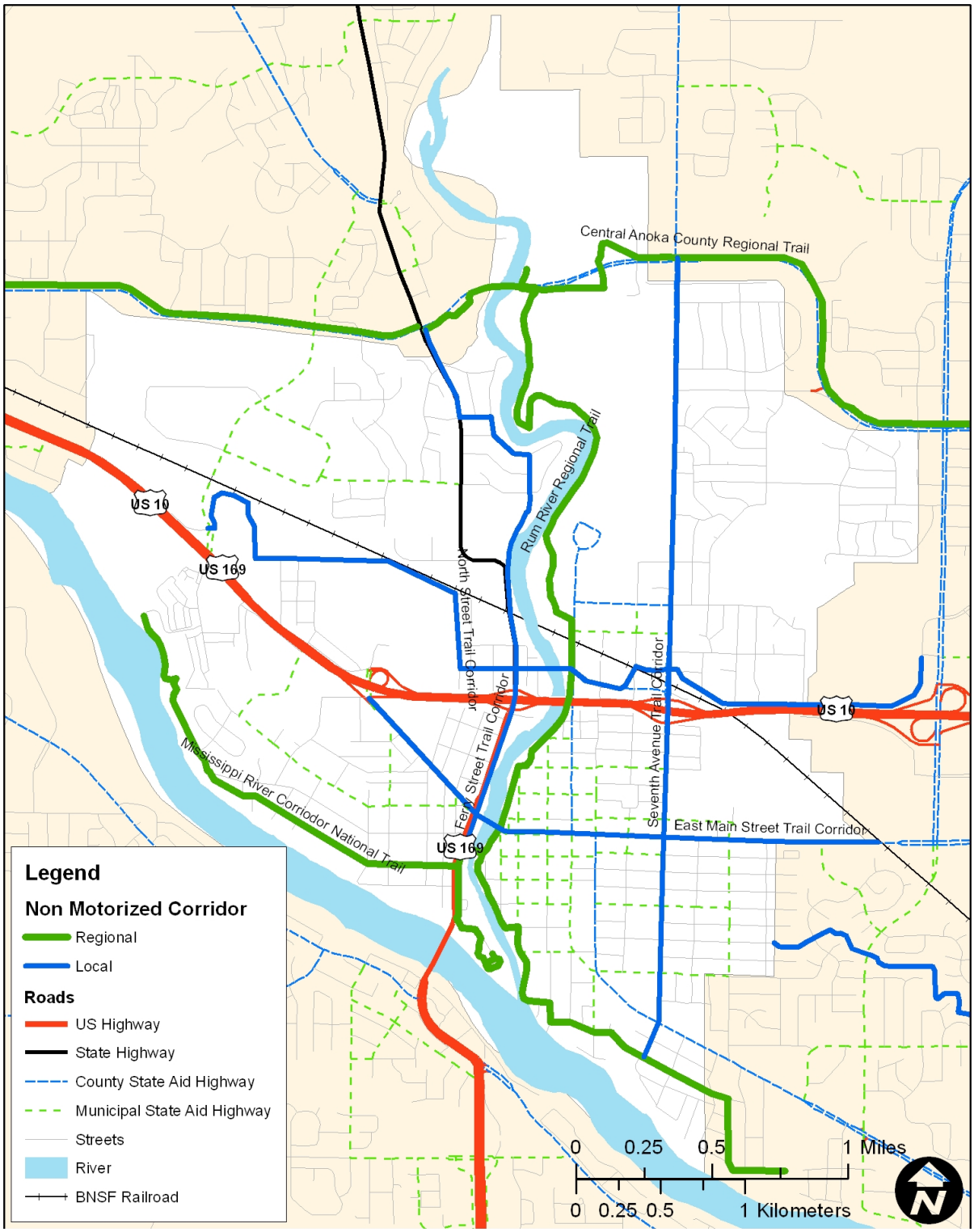


Figure: Non-Motorized Corridors - (Source: MN/DOT and MetroGIS)

Planned Facilities

Sidewalks

Despite the robust network of sidewalks, gaps do exist in the network. In an effort to increase pedestrian accessibility, while remaining fiscally responsible, the City of Anoka has developed a plan to strategically fill gaps in the network within its city limits. The plan calls for the addition of sidewalks along streets in a manner that will provide a sidewalk within a block and a half of almost the entire city. The planned network includes providing sidewalks to all business districts within the city as well as providing connections to neighboring communities.

Non-motorized Facilities

In addition to the sidewalk plan, Anoka has also developed a system of non-motorized corridors. The non-motorized corridors are comprised of a mix of both on-street and off-street facilities. When the system of non-motorized corridors is fully developed, it will include three regional trail corridors which travel through Anoka, as well as six local non-motorized corridors.

Regional

Regional trail plans include completing the Rum River Regional Trail and further developing the Mississippi River Regional Trail.

Local

There are plans to develop six local, non-motorized corridors within Anoka. These corridors are designed to enhance the mobility of the pedestrians and cyclists traveling in Anoka.

- ***E Main Street Trail Corridor*** – Begins at the eastern city limit. The corridor follows Main Street through downtown Anoka to TH 169. Segments are currently being planned and developed for a bicycle/pedestrian bridge over the railroad tracks.
- ***W Main Street Trail Corridor*** – Will be an extension of the E Main Street Trail Corridor, continuing the corridor to TH 10. Currently, a bicycle/pedestrian bridge is being planned and developed for TH 10. In addition, Mn/DOT is assisting to develop a safe bicycle/pedestrian ramp from Fairoak Avenue to W Main Street.
- ***Ferry Street Trail Corridor*** – Begins on the TH 169 bridge over the Mississippi River and travels northbound to the Anoka County Rum River South Park/ Fairgrounds before connecting with the Central Anoka County Regional Trail.
- ***Seventh Avenue Trail Corridor*** – Begins at the Mississippi River Regional Trail and travels north along Seventh Avenue until it connects with the Central Anoka County Regional Trail.

- ***North Street Trail Corridor*** – Begins at the east city limits on North Street and continues westbound through a number of city streets, eventually connecting to Thurston Avenue. Future considerations are being planned for incomplete segments of the trail.

- ***Brisbin Trail Corridor*** – Begins at Brisbin Park on the east side of Anoka, where it connects to the Wedgewood Trail in Coon Rapids. This on-street trail will eventually connect to the Mississippi River Regional Trail.

These corridors are discussed in greater detail in Section 3: Public Facilities – Parks, Open Space and Trails. Figure 10 shows the location of the corridors within Anoka.

Connections to Transit

All of the existing fixed route bus services that provide service to Anoka use streets that have sidewalks on at least one side of the street for a majority of the time that they are in Anoka. In addition, several of the above mentioned non-motorized corridors also have transit service, including W Main Street Trail Corridor, portions of the E Main Street Trail Corridor, North Street Trail Corridor, Seventh Street Trail Corridor, and Ferry Street Trail Corridor. The existing park-and-ride lot is located on the Seventh Street Trail Corridor. The future site of the Northstar Commuter Rail Station is at the confluence of the Rum River Regional Trail and North Street Trail Corridor. The existing park-and-ride lot offers both bicycle racks and bicycle lockers; both of these will be included in the commuter rail station.

Handbook Section 4.2
c) Bicycle and pedestrian connections to transit

Existing Transit Service

Fixed Route Bus

Five fixed route bus routes provide service to the City of Anoka; four are operated by Metro Transit and one by Anoka County Traveler. Combined, these routes provide good coverage throughout the city. The routes provide connection with downtown Minneapolis and suburbs to the east and southeast of Anoka. Table 6 and the map of Transit Services in Anoka show the routes and the frequency of service on weekdays.

Photo: Anoka Bus - (Image courtesy of Community Design Solutions and Arnett Muldrow & Associates, 2008)

Bus Routes Providing Service to Anoka*

Route	*Provider*	*Terminus* *North/West*	*Terminus* *South/East*	*Daily Trips* *(one direction)*
766	Metro Transit	Anoka	Downtown Minneapolis	10
805	Anoka County Traveler	Anoka	Blaine	27
850	Metro Transit	Anoka	Downtown Minneapolis	20
851	Metro Transit	Anoka	Downtown Minneapolis	12
852	Metro Transit	Anoka	Downtown Minneapolis	15

*Anoka is in Transit Market Area III.

Table 6: Bus Routes that Provide Service to Anoka

Handbook Section 4.4
a) Description and map of existing an planned service

Routes 766, 850, 851, and 852 are express bus routes, which mean that they travel on an expressway for a minimum of four miles. Route 766 is designed to provide commuter service into downtown Minneapolis; it travels south from downtown Anoka and provides services along West River Road to communities on the south side of the Mississippi River. Route 850 operates in a similar manner on the north side of the Mississippi River. It provides service to Anoka-Hennepin Technical College, along Main Street, through downtown Anoka and continues along Coon Rapids Boulevard until it intersects with TH 610 and continues to downtown Minneapolis. Route 852 follows a similar route as the 850 north of TH 610, although it includes a loop around the Anoka Enterprise Park off of Thurston Avenue, however, it continues to travel south on the east side of the Mississippi along East River Road where it intersects with Interstate 694 (I 694). In addition to commuter service, Route 852 also provides off-peak service. Route 851 provides direct service from Anoka and Coon Rapids to downtown Minneapolis, including a stop at the park-and-ride at Seventh and Garfield Street.

Unlike the express bus routes, Route 805 provides local service from downtown Anoka through Coon Rapids and Blaine to the Northtown Mall Transit Center, where multiple transfer options are available. The Route 805 currently provides service to the future Commuter Rail Station.

Demand Response

The Anoka County Traveler also operates general public, demand responsive service. Providing service to all Anoka County communities, the Traveler is the only fully accessible county-wide general public paratransit system operating in the State of Minnesota.

The Traveler provides both fixed route and dial-a-ride service. The two services are coordinated so that individuals without easy access to a fixed route service can connect to one via dial-a-ride at a transfer location. Downtown Anoka serves as a transfer point.

Dial-a-ride service varies according to the Metropolitan Transit Taxing District boundaries within the County. Northern communities are located outside the district; therefore, service hours are limited in these areas compared to the southern portion of the County. Within the district, dial-a-ride operates between 5 a.m. and 11 p.m., seven days a week, including holidays.

Paratransit

The Americans with Disabilities Act of 1990 (ADA) requires complementary paratransit service be made available for persons unable to used fixed route in areas where fixed route transportation service is provided for the general public. In Anoka County, the Anoka County Traveler and Metro Mobility provide complementary service.

The Traveler provides paratransit trips anywhere within the County. Trips traveling outside of the County are coordinated with Metro Mobility and transfers are provided at no additional charge to the passenger. There is a transfer location in downtown Anoka at the intersection of Third Avenue and Main Street.

Commuter Rail

Northstar Commuter Rail is scheduled to begin service in 2009. It will provide service from Big Lake to downtown Minneapolis, with stops in Elk River, Anoka, and Coon Rapids. The train will operate on the BNSF tracks with a station in Anoka on Fourth Avenue between Johnson Street and Pierce Street. Northstar will provide five trips from Big Lake to Minneapolis and one reverse trip weekday mornings; five trips from Minneapolis to Big Lake and one reverse trip weekday afternoons/evenings; three round trips each weekend day; and possibly special event service.

Park-and-Ride Facilities

There is currently one park-and-ride facility in Anoka, located on the corner of Garfield Street and Seventh Avenue. Metro Transit Route 851 provides service to the park-and-ride lot, which has 80 parking spaces. Most days the lot is at capacity.

Other Services

Other transit services available in the City of Anoka include the Anoka County Volunteer Transportation Program, Anoka Senior Center, Allina Medical Transportation, and a variety of other private van and taxi services.

Future Transit Needs

Transit service in the City of Anoka provides residents with a variety of transportation options including fixed route bus, demand response and other services. Although current weekday service provides for travel within the City of Anoka, and travel to suburbs to the east and south of Anoka, unmet transportation needs do exist.

Additional Fixed Route

Travel demand between Anoka and communities to the north is increasing. The cities of Ramsey and Andover are expected to experience high growth rates over the next 20 years. Existing service to these areas consists of limited weekday dial-a-ride service and express transit service between the Ramsey Municipal Parking Facility and downtown Minneapolis during peak periods. Because these communities are outside the Metropolitan Transit Taxing District, they are not served by Metro Transit.

Transit service to Champlin and other communities west of the Mississippi River in Hennepin County have limited service options traveling to or from Anoka, particularly during peak hour periods and weekends. Route 766 provides hourly service from downtown Anoka to Minneapolis via West River Road. However, travel during peak hours and on weekends is not available. Individuals traveling to communities west of the river from the Anoka area must transfer buses in downtown Minneapolis to a route heading north, often resulting in long and inconvenient travel times.

Additional east-west service between Anoka and eastern communities in the County has been identified in previous studies as being an unmet transportation need. Anoka County Traveler provides hourly fixed route service from downtown Anoka to Northtown Mall in Blaine. Communities further east, however, are only served by dial-a-ride service.

Commuter Rail

The largest foreseeable change in transit service in Anoka will be the introduction of commuter rail service. A commuter rail station is currently being constructed adjacent the BSNF track and Fourth Avenue. The station will include a park-and-ride lot. Anoka has secured a Congestion Mitigation and Air Quality (CMAQ) grant to fund the construction of a 450-space parking ramp adjacent to the commuter rail station to be built in 2011. The City of Anoka will work with Metro Transit and the Anoka County Traveler in developing potential feeder bus routes.

Park-and-Ride

The park-and-ride facility located at the corner of Seventh Avenue and Garfield Street is currently at or beyond capacity most days. However, it is unclear at this time what impact the Northstar Commuter Rail service will have on the demand for the park-and-ride lot at Seventh Avenue and Garfield Street. The commuter rail station currently being built will include a park-and-ride lot. In addition, Anoka has secured a Congestion Mitigation and Air Quality (CMAQ) grant to fund the construction of a 450-space parking ramp adjacent to the commuter rail station to be built in 2011. The City of Anoka will work with Metro Transit and the Anoka Traveler to assess the need for future park-and-ride facilities within the City of Anoka.

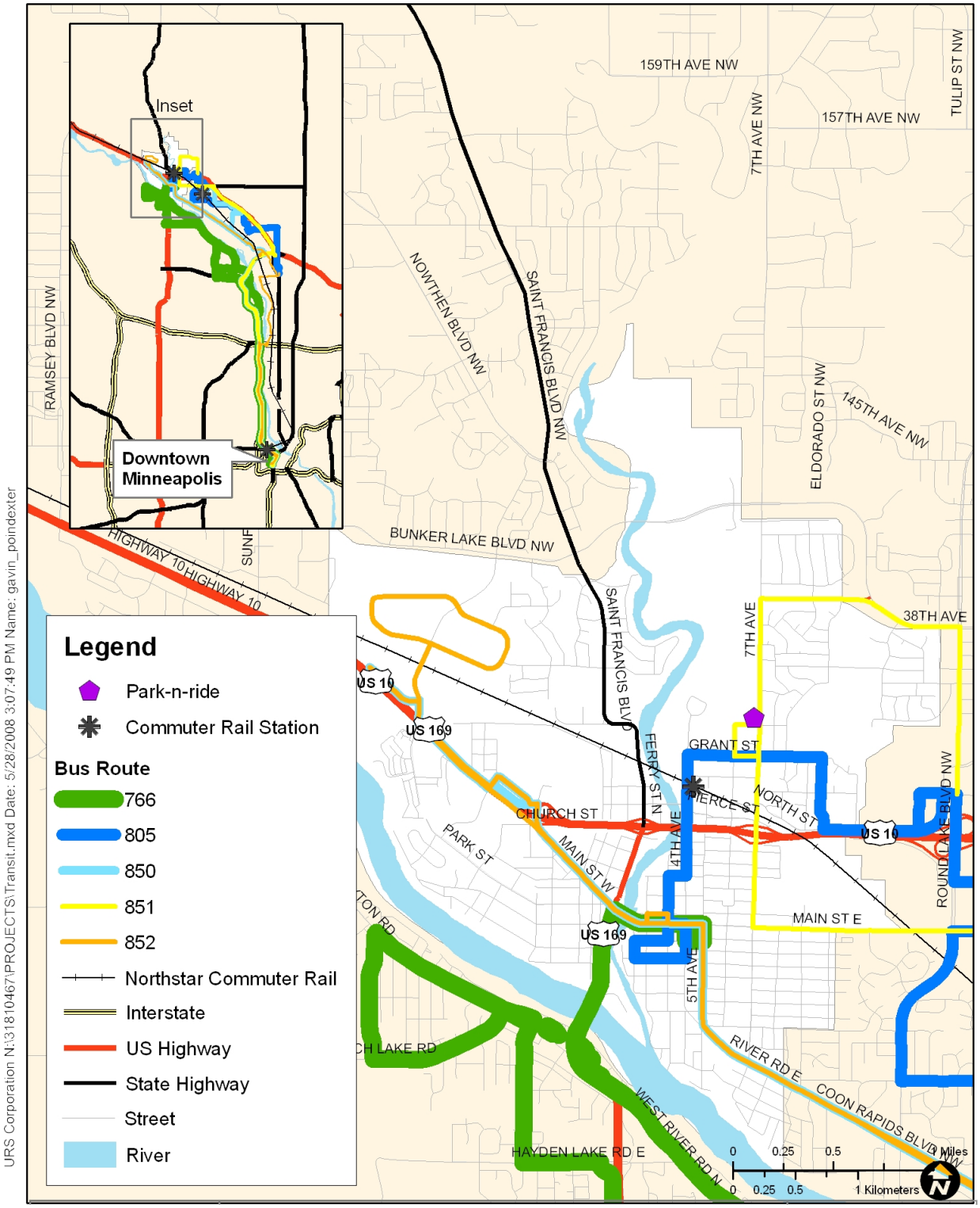


Figure: Transit Service in Anoka – (Source: MN/DOT and MetroGIS)

Handbook Section 4.4
b) Map of existing and planned transit facilities

Aviation

Handbook Section 4.5
a) Airspace protection
d) Heliports

Anoka does not have an aviation facility within its boundaries, nor is it located in the area of influence of an airport or heliport. However, Minnesota Statue 360 requires all communities to protect the region's general airspace by controlling the height of structures. The Zoning Ordinance requires a conditional use permit for structures over thirty-five feet in height unless the structure is a wireless telecommunications tower located on public property and less than one-hundred sixty-five (165) feet in height. Towers higher than one-hundred and sixty-five (165) feet would require a variance from this provision. Consistent with the Aeronautics Rules and Regulations, Part 8800.1200, as amended, the City will notify the Commissioner of Mn/DOT at least thirty (30) days in advance of any application where the applicant proposes any construction or alteration of a structure that would exceed a height of two hundred (200) feet above ground level at the site, or any construction or alteration of greater height than the imaginary surface extending upward and outward at a slope of 100:1 from the nearest point of the nearest runway of a public airport.

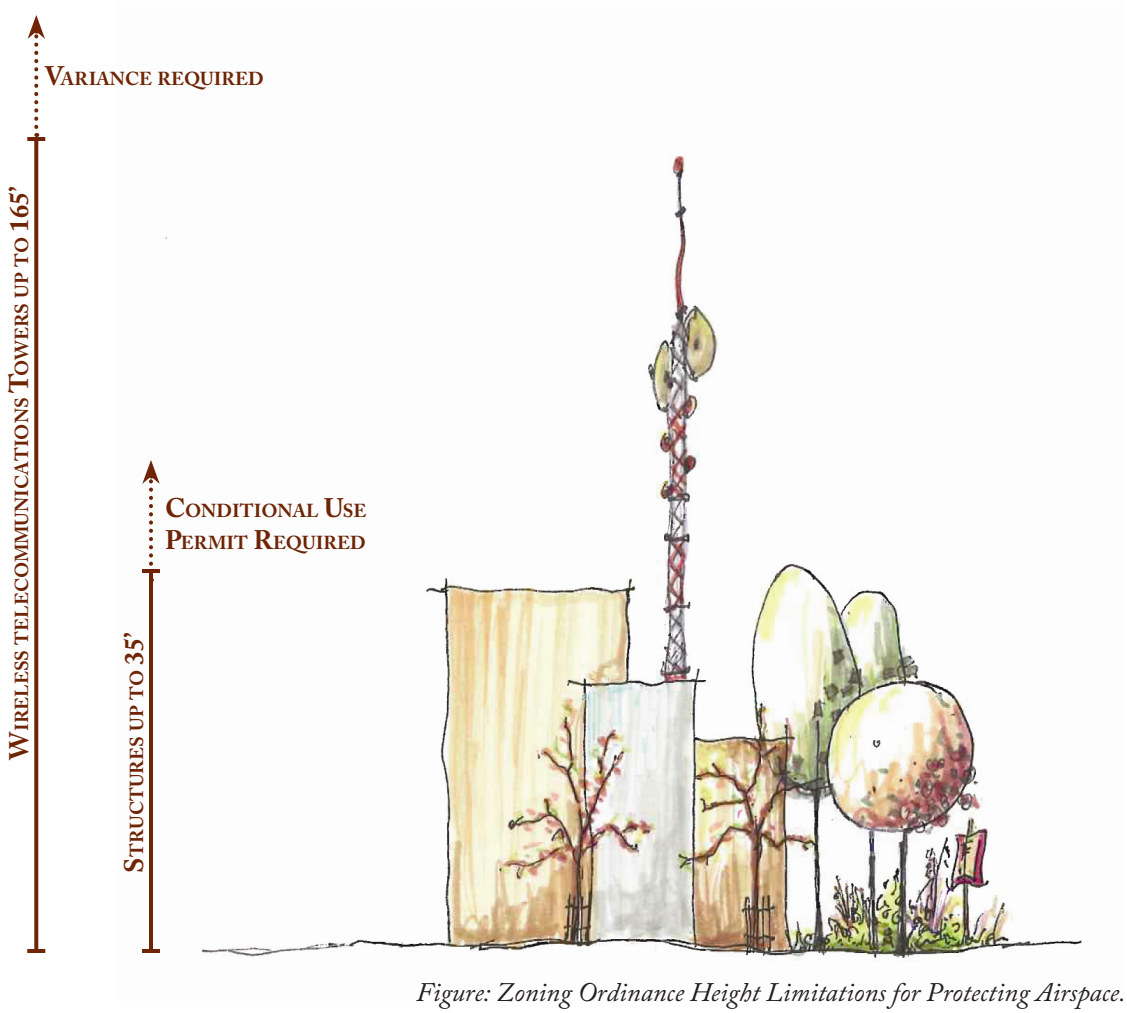


Figure: Zoning Ordinance Height Limitations for Protecting Airspace.

Freight

Trucking

Over-the-road trucks transport a variety of products including agricultural, commercial, and industrial goods, in addition to other raw materials. Most of the freight movement via trucking through the City of Anoka exists along TH 10 and TH 169. Trunk Highway 10 and TH 169 are important routes connecting St. Cloud and other northern communities to the Twin Cities. They provide access from rural elevators and farming communities to processors and shipping terminals. Mn/DOT estimated that approximately 2 to 6 percent of all traffic on these two roadways within Anoka was truck traffic in 2005.

Rail

The rail line serving Anoka is a transcontinental mainline of the Burlington Northern Santa Fe Railway (BNSF). The line links St. Cloud with the core of the Twin Cities metropolitan area. Within the City of Anoka, the line runs parallel to TH 10. Freight service is heavy on this line, with 35 to 50 trains per day, and serves as the mainline between Chicago and Seattle.

The line is equipped with Automatic Block Signals (ABS) normally used for single direction operation on each of the two tracks. Passenger train speeds between Coon Rapids and St. Cloud can exceed 75 miles an hour with the exception of some crossovers and some other restrictions.

Roadway-railroad crossings within the City are presented in Table 7.

Railroad Crossing in Anoka

Cross Street	*At-Grade*	*Grade Separated*
Private Road	x	
TH 10		x
Seventh Avenue		x
Fourth Avenue	x	
N Ferry Street (TH 47)	x	
Thurston Avenue		x

Table 7: Railroad Crossing in Anoka

Photo: Railroad Crossing Signal – (Image courtesy of Flickr, 2008)

Project Development and Environmental Review

Implementation of transportation improvements identified in the transportation plan may require additional public participation and environmental review depending upon the size and type of project. The City of Anoka has numerous environmentally sensitive areas due to the presence of the Mississippi River and the Rum River. The presence of these rivers means that the area could include cultural resource sites, including prehistoric sites and historic structures. Because of the potential for cultural resource sites, attention to possible environmental impacts early in the project development process is recommended to avoid or minimize impacts. If federal funding is involved in a project, a federal environmental document must be prepared. The type of document would depend on the size of the project. If no federal funding is involved state environmental review requirements may apply, also depending on the size of the project. Local ordinances or guidelines may also apply, along with a variety of local, state and federal permits that regulate wetlands, water quality, air quality, noise and other environmental resources. Early coordination with these agencies can reduce delays in the project development process and in acquiring applicable permits.

Financing

Potential Funding Sources

One of the key questions for any Transportation Plan is whether the plan can be implemented with available financial resources. The City of Anoka should examine the following potential sources of funds.

- SAFETEA-LU
- Cooperative agreement funds
- Turnback Funds
- Private Development Funds
- Safety Funds
- Leverage Local Funds
- Transit Funds
- Legislative appropriation
- Demonstration funds
- Gas Tax
- Sales Tax revenues
- General obligation Bonds

Partnerships

To stretch the Anoka's limited resources, the City should consider the following partnerships:

- Partnering with other agencies – pooling resources with other governmental agencies may allow governments to accomplish mutual goals while providing high quality service the community.
- Public-Private Partnerships – should be considered for projects where the primary benefit of the project will be born by a single entity or a small group of entities.

Other Opportunities

In addition to increasing revenue to accommodate the growing need to increase capacity of the transportation system, the City of Anoka should look into options that do not require additional resources.

- Learning to live with congestion
- Education regarding Travel Demand Management

Travel Demand Management

Travel Demand Management (TDM) programs provide an opportunity to reduce travel demand on the regional highway system. Existing and future employment concentrations in an area, particularly in office complexes, provide an opportunity to implement TDM programs. The City of Anoka supports coordination with regional TDM efforts including:

- Provide information on carpooling and vanpooling to employees on a regular basis, providing preferential parking and guaranteed ride home programs
- Encourage participation in Minnesota Rideshare's ride-matching program
- Encourage employers to offer flexible work hours and set a goal to reduce peak hour trips
- Coordinate with adjacent communities and Anoka County to develop potential commuter/rideshare lots off of major arterial routes
- In the summer of 2008, the City of Anoka will begin a trial period of a compressed work week for some city employees. The compressed work week will allow some city employees to work four 10-hour days a week reducing the number of trips taken on the city's transportation system by 70 to 80 trips a week.

Plan Implementation

The previous sections of this report have examined the existing and future transportation needs in the City of Anoka. These needs were developed based on technical analysis and City input. This section of the report establishes the steps necessary to implement the Plan goals and priorities given limited funds. A transportation plan must be flexible enough to be responsive to the current needs while providing proper guidance to address important long-term transportation system issues.

Metropolitan Council Plan Review

One of the key functions of the Metropolitan Council's review of transportation plans is to ensure that regional systems are managed efficiently and effectively and that the regional system plans are used as the basis for planning. Plan reviews also provide the Metropolitan Council and related governments (adjacent communities and Anoka County) with the opportunity to work together to coordinate planning efforts. To ensure coordination, state law gives the Council authority to require a local government unit to modify its plan if the Metropolitan Council finds that the plan results in a substantial impact on, or departure from, metropolitan system plans (aviation, parks and open space, transportation and sanitary sewers).

Transportation Plan Adoption

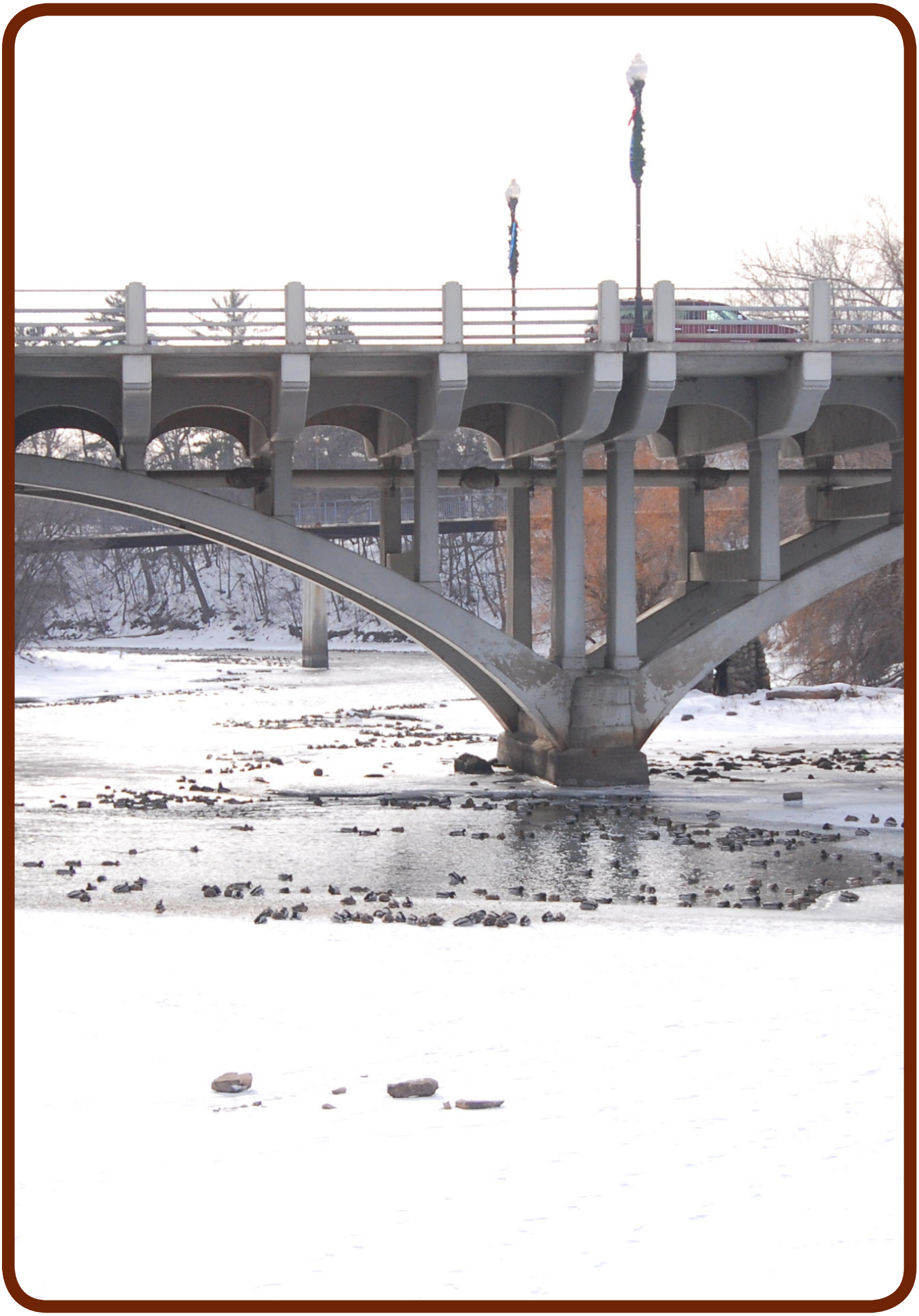
Upon completion of Metropolitan Council review and compliance with Metropolitan Council requirements, the City of Anoka should adopt the Plan within nine months of Metropolitan Council Action. By adopting the Plan, the City will establish priorities and guidelines on which future transportation decisions will be based. Anoka, at that time or subsequently, may take actions needed to implement the Plan.

The City should periodically review the assumptions under which the Transportation Plan was developed, including estimates of future development, population trends, changing financial resources, and public input and update the Plan accordingly. Depending on the speed and degree of change, it is recommended that the Plan be reviewed at least every five years.

Endnotes

[1] Metropolitan Council, 2030 Regional Development Framework – Revised Forecasts as of January 9, 2008

Photo: Driving across the Rum River - (Image courtesy of Community Design Solutions and Arnett Muldrow & Associates)



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Water Resources

Sanitary Sewer System Plan

Overview

The Sanitary Sewer System plan has been prepared in accordance with the Water Resource Management Policy plan prepared by the Metropolitan Council in 2005. This plan contains a description of the existing wastewater collection system and an analysis of the local system to determine future estimated sanitary sewer flows. Additionally, ordinances and policies regarding infiltration and inflow and illegal connections to the sanitary sewer system are summarized.

Existing Sanitary Sewer System

Metropolitan Council System

Anoka has five (5) Metropolitan Council interceptors that collect wastewater for the City. Met Council interceptor numbers 8362-299, 7707, 7707A and 8751 serve the portion of Anoka located west of the Rum River while Interceptor number 7034 serves the northeast portion of Anoka. The interceptor locations and general services are illustrated on Exhibit 1 and are described below.

MCES Interceptor 8362-299 is a 30" diameter gravity main that starts at the northern boundary of Anoka at Thurston Avenue and County Road 116. MCES Meter M302 is located at this location and totals a portion of the sanitary sewer flow for the City of Ramsey. Interceptor 8362-299 drains southerly for approximately 3,000 feet and terminates at its intersection with Interceptor 7707 at McKinley Street and Rainier Avenue.

Interceptor 7707 starts as a 30" diameter gravity main at McKinley Street and St. Francis Boulevard. As it drains west, it increases to a 42" main before its connection with Interceptor 8362-299. Interceptor 7707 continues west approximately 400 feet further where is intersects with Interceptor 7707A. The diameter of the main increases to 48" and drains south into MCES Lift Station L42. City of Anoka Sanitary Sewer District 1 drains to Lift Station L42. Interceptor 7707 changes to a forcemain from Lift Station L42 to its southern terminus hear MCES Meter Station M301.

Interceptor 7707A is a 36" gravity main that enters Anoka at its western boundary with the City of Ramsey and drains east following alignment of McKinley Street where it intersects Interceptor 7707 at McKinley Street and Lund Boulevard.

Interceptor 7034 is located in the northeast portion of the City serving City of Anoka Sanitary Sewer District Number 5. This interceptor drains into the City of Anoka Lift Station Number AL08 located at 38th Avenue and 7th Avenue. The remaining portion of Anoka east for the Rum River drains into the City of Anoka Lift Station AL06 located east of the River Rum upstream from its confluence with the Mississippi River. City of Anoka Sanitary Sewer District No.'s 5-13 drain to Lift Station AL06.

Sanitary sewer flow from Lift Station AL06 drains southwest, under the Rum River, where is joined by a municipal main and by Interceptor 7707. City of Anoka Sanitary Sewer District No.'s 2-4 drain to this point. Sewer flow continues to the southwest for approximately 200 feet and terminates at MCES Lift Station L33 located east of the Mississippi River. MCES Meter M301 is also located at this location. From MCES Lift Station L33, the sanitary sewer flow is pumped to the Champlin-Anoka-Brooklyn Park Interceptor.

Existing Municipal System

System Characteristics

The City of Anoka is served by the Metropolitanropolitan Council Environmental Services wastewater treatment and collection system. The City of Anoka sewer system consists of 65 miles of gravity and force main. The City operates 18 sanitary sewer lift stations, which are monitored by the City's SCADA system. The Anoka sanitary sewer system is illustrated in Exhibit 1.

The estimated 2005 population of the City of Anoka is 18,121 according to U.S. Census Bureau data. In 2005, there were 5,033 connections to the sanitary sewer system with an estimated sewer service population of 18,092. There are 12 known septic systems currently in use within the City.

Land Use	*No. Connections*
Residential Single Family	*4,269*
Multi-Family	*177*
Subtotal	*4,446*
Commercial	*557*
Institutional	*2*
Industrial	*28*
Total	*5,033*

Table 1: Sewer Connections by Land Use in 2005

Existing Sanitary System Flow Rates

The 2008 total community sanitary sewer flow as measured by the Metropolitan Council was 675.2 MG. The 2009 community flow is projected to be 649.8 MG

High Flow Generators

High flow generators are those properties that produce more than 50,000 gallons per day of effluent or produce flows greater than 5% of the total flow produced by the City. The City of Anoka does not have any high flow generators.

Intercommunity Flows

There are no inter-community connections between Anoka and adjoining communities.

Maintenance

The Sewer and Water Division of the City of Anoka Public Works Department is responsible for all maintenance activies associated with the sanitary sewer system. Preventative maintenance is conducted by the department on a regular basis including:

- Rehabilitate & update lift stations
- Replacement of house services within the right of way during street reconstruction projects
- Rehabilitation of clay pipe mains during street reconstruction projects
- Sanitary sewer pipe repairs
- Replacement of manhole casting and rings
- Television reports
- Infiltration inspections
- Root treatment
- Sewer main cleaning on a rotating schedule

There are no major outstanding maintenance issues with the sanitary sewer system at this time.

Community Policies and Ordinances

Usage and discharge into the sanitary sewer system is limited as prescribed in "Sewage and Waste Control Rules and Regulations" as published under State Law by Metropolitan Waste Control Commission. Said rules prohibit the discharge of the following to the municipal sanitary sewer system.

1.) No person shall discharge or cause to be discharged to any public sanitary sewer any storm water, surface water, ground water, roof runoff, subsurface drainage, unpolluted cooling water or unpolluted industrial process water.

2.) No person shall construct cause to be constructed, or operate any device that provides a cross-connection between the sewer system and the water supply.

3.) No person shall discharge or cause to be discharged any material or wastes into a manhole without authorized permission from the Anoka Sewer Department. No person, other than the Sewer Department personnel, shall open, remove or tamper with any manhole, lift station, or other sewage facility.

4.) No person shall discharge or cause to be discharged any motor oil, grease, poisonous substances, corrosive waste, inflammable or explosive liquid, garbage, radioactive waste, any substance capable causing an obstruction to the flow of the sewers, or wastes with a high concentration of suspended or dissolved solids.

Inflow and Infiltration (I&I)

The City of Anoka aggressively pursues all discovered storm or ground water discharges to the sanitary sewer system. As noted above, roof drain and foundation connections to the sanitary sewer are prohibited by policy. Manholes are regularly inspected on a three-year cycle during the sewer cleaning process. Suspect lines or leaking manholes are promptly repaired. Manhole lids with "pick holes" are replaced with solid covers as discovered. Manholes in known high water areas are fitted with sealed covers.

Individual Septic Treatment Systems (ISTS)

The City of Anoka has 24 known on-site septic treatment systems. They are regulated under Section 38-91 thru 38-99 of the City Code. The ordinance is administered by the Public Services Department and regulated by the Code Enforcement Division.

2030 Sanitary Sewer System Plan

The purpose of the 2030 Sanitary Sewer System Plan is to anticipate changes to the system that may be required to alter development control practices to allow for development for a responsible Capital Improvement Program for the sanitary sewer system. Additionally, the Plan allows the Metropolitan Council to review the future adequacy of the Metropolitan Council interceptor, lift station and treatment system. The 2030 Sanitary Sewer Plan has been developed to portray the condition of the Anoka sanitary sewer system under future flow conditions assuming that the population and employment forecasts are achieved.

Sanitary Sewer Flow Forecasts

The Metropolitan Council prepares population, household, and employment forecasts on a periodic basis. These forecasts are based upon the policies reflected in the Regional Blueprint and provide the basis for sizing Metropolitan Council facilities. The City has prepared forecasts that are based on the availability of vacant land. The forecasts are utilized to develop estimated sanitary sewer flows for the Metropolitan Council and local sanitary sewer systems.

Table 2 summarizes the Metropolitan Council's and the City of Anoka's 2000 and forecasted population household, and employment for years 2010, 2020, and 2030.

	2000	*2010*	*2020*	*2030*
Population	*18,076*	*19,000*	*19,800*	*20,800*
Employment	*13,489*	*14,400*	*15,200*	*16,200*
Households	*7.262*	*7,900*	*8,500*	*9,000*

The City of Anoka is fully developed and only minor land-use changes are anticipated as properties are redeveloped throughout the City. The area north of Bunker Lake Boulevard east of the Rum River is currently zoned Farm Residence. No changes to the existing sanitary sewer system are planned at this time.

Estimated future sanitary sewer flow forecasts are determined by multiplying the residential and employment populations by typical sanitary sewer flow rates of 100 gpcd and 25 gpcd, respectively. These rates are typical sanitary sewer flow rates for the corresponding land use.

Year	*Residential Population*	*Diff.*	*Residential Flow (MGY)*	*Employee Population*	*Diff.*	*Employment Flow (MGY)*	*Total Flow*
2010	*19,000*	*924*	*652.3*	*14,400*	*1200*	*121.2*	*773.5*
2015	*19,400*	*400*	*657.2*	*14,800*	*400*	*122.0*	*779.2*
2020	*19,800*	*400*	*662.1*	*15,200*	*400*	*123.9*	*786.0*
2025	*20,300*	*500*	*667.0*	*15,700*	*500*	*124.7*	*791.7*
2030	*20,700*	*400*	*671.8*	*16,200*	*500*	*125.5*	*797.3*

Table 3: Projected Sanitary Sewer Flow

The Metropolitan Council has established a range of flows for Anoka that are based upon historical Metropolitan Council wastewater flow data and the forecasts for future households and employment. Table 4 summarizes these estimated sanitary system flows.

Year	*Low*	*High*
2010	*765*	*880*
2020	*770*	*890*
2030	*780*	*905*

Table 4: Estimated Sanitary System Flows

The sewer forecasts for years 2010, 2020 and 2030 are within the range of estimated Metropolitan Council flow estimates.

Tables 5-7 subdivides the total projected sanitary flow shown in Table 3 into three (3) subareas of the City of Anoka. Table 5 shows projected sanitary sewer flow from the portion of the City of Anoka that is tributary to MCES L42. This area coincides with the City of Anoka Sanitary Sewer District No. 1. Table 7 shows the projected sanitary sewer flow from the City of Anoka Sanitary Sewer Districts 5-13, which comprises the portion of the City of Anoka east of the Rum River.The projected sanitary sewer flow rates for each subarea were calculated based on uniform growth over the City.

Year	Res. Pop.	Res. Flow (MGY)	Emp. Pop.	Emp. Flow (MGY)	Total Flow
2000	3,132	111.4	3,440	30.9	142.3
2010	3,295	113.1	3,648	31.0	144.5
2015	3,337	114.0	3,753	31.6	145.6
2020	3,378	114.8	3,857	31.8	146.6
2025	3,463	115.7	3,909	32.0	147.7
2030	3,547	116.5	3,961	32.3	148.8

Table 5: Projected Sanitary Sewer Flow – Sanitary Sewer District 1

Year	Res. Pop.	Res. Flow (MGY)	Emp. Pop.	Emp. Flow (MGY)	Total Flow
2000	3,596	128.1	1,840	16.5	144.6
2010	3,774	130.1	1,952	16.7	146.8
2015	3,861	131.0	2,008	16.9	147.9
2020	3,948	132.9	2,063	17.1	150.0
2025	4,046	133.5	2,091	17.1	150.6
2030	4,144	134.0	2,119	17.2	151.2

Table 6, Projected Sanitary Sewer Flow – Sanitary Sewer District 2–4

Year	Res. Pop.	Res. Flow (MGY)	Emp. Pop.	Emp. Flow (MGY)	Total Flow
2000	11,348	403.2	7,920	71.2	474.4
2010	11,931	409.1	8,400	72.2	481.3
2015	12,203	411.8	8,640	72.7	484.5
2020	12,474	414.4	8,880	73.1	487.5
2025	12,792	417.9	9,000	73.8	491.7
2030	13,109	421.3	9,120	74.4	495.7

Table 7, Projected Sanitary Sewer Flow – Sanitary Sewer District 5–13

Rum River Crossing

A possible extension of MCES Interceptor 7034 has been discussed between the Metropolitan Council Environmental Services and the Cities of Anoka and Andover. This interceptor extension would connect the northeast portion of Anoka and the southeast portion of Andover to MCESA Interceptor 7707 located to the west of the Rum River. A crossing under the Rum River would be required to construct this extension. The construction of this interceptor would allow the City of Anoka to eliminate Lift Station AL08 and approximately 0.75 miles of forcemain. Lift Station AL08 is in good working order and has recently been reconditioned.

The forcemain and lift station can handle possible future sanitary flow from undeveloped land, within the City of Anoka, north of Bunker Lake Boulevard by changing the impellers. The extension of interceptor 7034 would save the City of Anoka from future electrical and maintenance costs but otherwise has minimal benefit to the City of Anoka.

Design Criteria

Sanitary sewer pipe sizes are based on Recommended Standards for Wastewater Facilities by the Great Lakes-Upper Mississippi River Board of State and Provincial Public Health and Environmental Managers (10 States Standards). Estimated average daily sanitary sewer flows are based on population and employment forecasts considering the proposed land uses. The ultimate estimated sanitary sewer pipe flow utilizes a factor of 3.8 for the ratio between peak hourly flow and average daily flow. Sanitary sewer pipe capacity is determined by assuming full-pipe flow, Manning's "n" value of 0.013, and minimum pipe slopes as recommended in the 10 States Standards.

Capital Improvements

The City of Anoka utilizes a combination of special assessments, user revenues, connection fees and/or general funds to finance sanitary sewer system improvements. A copy of the City's Five

Year Capital Improvement Plan is located on the following page.

Stormwater Managment Plan

This subsection cotains the City's stormwater management plan as authored by Barr Engineering in 2002. It is the operational plan that was approved by the Lower Rum River Watershed Management Organization (LRRWMO) aand is the plan that the City currently uses. It should be noted that the LRRWMO is in the process of updating their plan. Upon completion of their update, the City will bring its plan into conformance within 45 days. Also included in this subsection are copies of the City's Stormwater Pollution Prevention Plan (SWPPP) as well as local regulations which addresses grading and land disturbance. All documents pertaining to stormwater are located in Appendix B.

Water Supply Plan

This subsection contains a supply system description and evaluation, an emergency response plan, a conservation plan, and items to fulfill the Metropolitan Land Planning Act requirements. This document is located in Appendix B.

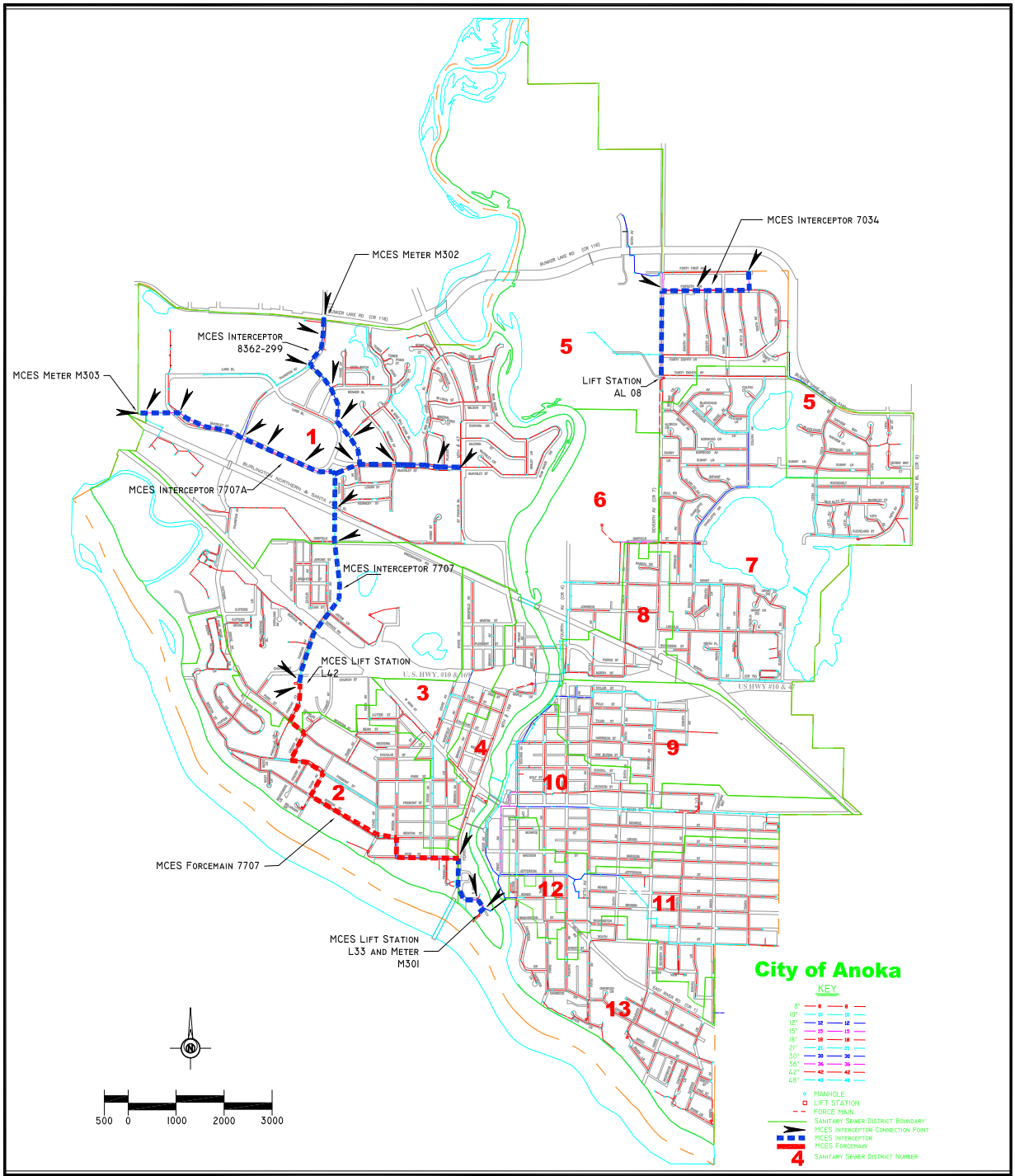
City of Anoka, Minnesota

Capital Improvement Plan

2009 thru 2013

PROJECTS BY FUNDING SOURCE

Source	Project#	Priority	2009	2010	2011	2012	2013	Total
Sanitary Sewer Fund								
2009 Street Renewal Project	*EN-09-01*	3	269,600					*269,600*
2010 Street Renewal Project	*EN-10-01*	4		270,000				*270,000*
2011 Street Renewal Project	*EN-11-01*	4			335,000			*335,000*
2012 Street Renewal Project	*EN-12-01*	3				276,000		*276,000*
East River Road Reconstruction	*EN-12-02*	3				150,000		*150,000*
2013 Street Renewal Project	*EN-13-01*	3					276,000	*276,000*
Sanitary Sewer Fund Total			269,600	270,000	335,000	426,000	276,000	*1,576,600*
GRAND TOTAL			269,600	270,000	335,000	426,000	276,000	*1,576,600*



ANOKA

City of Anoka Comprehensive Sanitary Sewer Plan

Exhibit 1 - System Map with Districts

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Anoka Municipal Utility

Mission Statement

Anoka Municipal Utility (AMU) is a city-owned public utility that provides the community's electric needs as described by AMU's mission statement:

> "*AMU ... meets the community's electric needs in the most cost effective and reliable manner possible through innovation, efficiency, and professional operations.*
>
> *AMU is vital to the community to maintain and enhance the quality of life, the local economy, and the environment. AMU believes local control over an essential commodity such as electricity is beneficial to the community.*"

AMU was established by the City of Anoka for the purpose of providing electricity to the residents of the City. AMU also provides electricity to residents outside of the City limits but within the service area boundaries established by the State of Minnesota. Service is provided to all eligible applicants upon provision of required information.

Standard Services

Electric service provided by the AMU is alternating current having a nominal frequency of 60 Hertz (cycles per second). The following secondary services are also available:

Single Phase Service

120/240 Volt, 3-Wire, Grounded Neutral; generally available where the total load is less than 100 KVA (Kilo Volt Ampere).

Three Phase Service

1. 120/208 Volt; "Y," 4-Wire, Grounded Neutral. Generally available where the total load is 75 KVA or greater for underground service, or 45 KVA or greater for overhead service.

2. 120/240 Volt, Delta, 4-Wire, Grounded Neutral and 240 Volt (and 480 Volt), Delta, 3-Wire services are no longer offered. Delta services are being phased out over time as customer's electric needs change.

3. 277/480 Volt, "Y," 4-Wire, Grounded Neutral. Generally available where the total load is 150 KVA or greater.

Primary Service Voltage

Three phase, 7200/12500 Volt, 4-Wire, Grounded Neutral Service. Available only by special request where the total load is 500 KVA or greater.

AMU Vision Statement

The AMU Vision Statement was developed by the Anoka Municipal Utility Advisory Board during early 1999 and the statement was adopted by the City Council in March 1999. Following is an excerpt from that statement:

> "*As the community moves into the next century, AMU will continue to be a City-owned public utility that anticipates and meets the community's utility needs at the lowest possible rates. AMU, as a City-owned enterprise, is vital to the community to maintain and enhance the quality of life, the economy, and the environment.*"

As a community-owned enterprise in a competitive environment, AMU is a role model in the public sector for its streamlined form of governance. While the City retains the final authority, AMU exercises broad discretion in the critical operational and policy decisions that are necessary for competitive success. A critical link in forging this relationship is AMU's strategic planning process. The process allows the City and Utility to agree on strategic direction and desired outcomes, but allows the Utility the freedom through its dedication, discipline, and persistence in developing, executing, and achieving the desired outcomes. The Strategic Plan also provides accountability, whereby AMU and the City can agree on the utility's performance.

AMU's industrial and commercial partners view us as partners in their business. AMU anticipates their requirements, listens to their needs, and responds with flexible services. In the rare instances when service is disrupted, AMU is well-known for rapid restoration of power. AMU is one of the City's primary competitive advantages in economic development efforts to expand the commercial and industrial base.

AMU has developed effective communication mechanisms that allow the organization to be fully informed of the rapidly changing operating environment. AMU empowers team members to make decisions on issues that affect them. Because the team is empowered, well trained, and trusted, most issues can be resolved at the level at which the issue occurs. As a team, AMU welcomes change because they know that innovation and continuous improvements are the source of security, and that changes will be supported through training, coaching, recognition, and rewards.

AMU recognizes that their competitive position is maintained through the knowledge and expertise of their people. People are AMU's competitive advantage. Therefore, investments in human resource development are essential to their continued service innovation, productivity improvements, and customer satisfaction.

AMU acts in a professional and courteous manner and treats all people as they would want to be treated. Each team member is an ambassador of AMU and is aware of the image portrayed to the public.

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ANOKA
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AMU Values Statement

Honesty

We are open and honest with our customers and each other. We conduct our operations with integrity. We fulfill commitments made to customers.

Customer Satisfaction

Our customers provide our reason for being. We are sensitive to their needs and work to ensure their satisfaction. A principal measure of our success is the satisfaction level of our customers.

Quality

We work with our customers to define their requirements and strive to meet them. We do the job right the first time. In this way, we do not deplete our limited resources and we demonstrate our respect to customers by providing them with error-free products and services. Our commitment to quality makes their job easier and communication with us a pleasure.

Innovative Products/Services

We are a leading edge organization. We must continuously improve our products, services, and processes to achieve these goals. Innovation is our formula for survival.

Teamwork

We are a team. Each employee is a key player on the team. We respect each other, promote diversity, and believe that our differences are the source of our strength. Having fun and helping people grow are vital parts of our continued ability to perform effectively.

Community

We are responsible members of the community. We share our knowledge and talents to help our community become a better place to live and work.

Financial Management

We conduct our activities in a financially responsible manner. We seek at all time the proper balance between low cost, low rates, and generation of capital for future performance. We seek to be exemplary stewards of the public resources we manage.

Photo: City of Anoka Electric Department Truck – (Image courtesy of Community Design Solutions and Arnett Muldrow & Associates)

REAL. CLASSIC.™

Residential Recycling & Waste Reduction

Residential Recycling & Waste Reduction Board

The Waste Reduction and Recycling Board (WRRB) oversees the residential recycling program funded by State SCORE (Select Committee on Recycling and the Environment) funds. The board serves in an advisory capacity to the city council on recycling and waste reduction issues.

Specific duties include negotiating the residential curbside recycling contract, assuring proper collection, handling, and disposal of recyclables, sponsoring recycling drop off days and other recycling opportunities, and providing education and promotions to improve recycling habits and the reduction of waste among residents.

Goals

Common WRRB Goals

- Host spring and fall recycling events.
- Host paper shredding/document destruction events.
- Host two recycling educational presentations at local elementary schools.
- Improve/add recycling opportunities at city-sponsored events.
- Increase recycling participation at multi-family properties.
- Proactively educate on e-waste regulations to promote recycling of electronic devices.
- Promote residential recycling via city newsletter, city website, mailings, and other media as needed.
- Meet once per month, or as needed, to discuss various recycling opportunities and activities to help improve the quality of life in the City of Anoka.

Future WRRB Goals

- Consideration of a permanent city-owned and operated recycling center.
- Promote and increase recycling opportunities and procedures in all city offices.
- Establish recycling programs in all city-owned parks

Photo: Reduce. Reuse. Recycle – (Image courtesy of Flickr, 2008)

e. reuse. recycle.

CKAGING HAS BEEN REUSED
FROM RECYCLED MATERIALS
UP ON OUR ENVIRONMENT.
CONSIDER USING IT AGAIN!

reduce. reuse. re

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OR MADE FROM RECYCLED M
TO EASE UP ON OUR ENVIR
PLEASE CONSIDER USING

REAL. CLASSIC.™

Parks, Open Space & Trails

Overall Goal

To provide a wide range of recreational opportunities for all citizens and visitors while balancing maintenance, acquisition and development of parks and recreational areas.

Introduction

The City of Anoka contains numerous recreational areas including regional and local river corridors, athletic complexes, neighborhood parks, open space and trails. The trails are designed for walking, jogging and non-motorized forms of transportation. During the past years, Anoka has maintained a tradition of excellence in the provision of parks and recreational opportunities. It continues to be a goal of the City of Anoka to provide excellence in parks and recreation for generations to come.

Park Board

The City of Anoka Park Board was established in 1919. The Board, now referred to as the Anoka Park and Recreation Advisory Board, makes recommendations to the City Council on park and recreation issues, the use of recreational facilities by schools in the community, open space, and natural resource areas. The Board also advises the City Council regarding trails and waterways, boat launches and docks, and the boulevards and trees.

The Park and Recreation Department also works with Anoka-Hennepin District #11, as well as athletic organizations, to ensure the provision of recreational facilities throughout the seasons.

Park and Recreation Planning

Structured planning for Anoka's park system first occurred with the 1975 "Oasis Plan," prepared by Wehrman Chapman Associates. The Oasis Plan was used in development of the 1980 Parks and Recreation Section of the Comprehensive Plan. One outcome of this plan was the adoption of shade tree policies and standards for boulevard plantings.

In 1986, the City sent out 6,000 questionnaires to residents to determine recreational parks needs. The results of this survey were used to further develop the park program.

Efforts to gain community input regarding parks and recreation in Anoka were undertaken during the 1998 Community Planning Fair, held in August at various park locations throughout the City.

Further planning occurred in 2005, when Northwest Associated Consultants (NAC) prepared a Park Facilities Needs Assessment to quantify demand for active playfield facilities by programmed sports, evaluate the ability to improve and expand active playfield facilities for programed sports within the park system and school sites, identify and quantify facility demand to determine surplus or shortfall in active playfield facilities, and identify opportunities to respond to facility shortfalls.

Since 2005, the City has completed several goals and projects identified in the Needs Assessment and Park Plan Amendment including the creation of two full size soccer fields, the reconstruction of Sunny Acres Park, and the creation of a preferred development plan for the park bordering the Rum River as part of the North Central Business District redevelopment project.

In 2007/2008, Park Department staff participated in public information gathering sessions as part of the citywide comprehensive plan update, sharing the information gathered by NAC in 2006 Park Amendment.

History of Parks and Recreation

Hunting and fishing provided the earliest forms of recreation in Anoka. During the Civil War, the Armory was used for organized basketball for members of the Minnesota Reserves. In addition, informal baseball games were played.

While still a township, three areas emerged as parks: Akin Riverside Park, Peninsula Point Park and Bridge Square.

In the early 1900s, houseboats provided recreation for summer dwellers from the Minneapolis – St. Paul area. Historic photos also show extensive wood walkways along both sides of the Rum River, as well as steam and paddle boats that brought entertainers to the City.

During the World Wars, typical recreational events included outdoor band concerts, theatrical performances and recitals from passing musicians, football, baseball and basketball games and swimming in the river. Until the 1950s, the City provided swimming lessons at the Rice Street Beach on the Mississippi River.

In the early 1950s, a new swimming pool was constructed with funds from Charles Horn, President of Federal Cartridge Company. During this time, the City added a recreation department, offering summer activities and after school events.

During the 1960s, organized softball, hockey, baseball, volleyball, basketball, and tennis increased significantly which created a demand for more park facilities.

In the 1970s, Community Education programs were developed through the Anoka-Hennepin School District. These programs were organized to provide additional youth activities. Also during this time, more City fields were added to accommodate increased participation in tennis and soccer.

In the 1990s, the City completed Mississippi River Community Park and Peninsula Point Park, both of which include internal trails that link to other pedestrian pathways. In the late 1990s, the City reconstructed the Charles Horn pool creating the Anoka Aquatic Center. The facility was one of the first outdoor zero-depth aquatic facilities in the Twin Cities. In addition, a redevelopment plan was created for George Green and Bonnell Parks to create a large multi-use park complex.

Since the millennium, focus has shifted from building new parks to rejuvenating the older parks in the community. In 2003, Akin Riverside Park was reconstructed and recognized by the American Association for State and Local History with a Certificate of Commendation for the Heritage Trail. This is also a major component of the downtown river promenade.

Photo: Anoka Aquatic Center – (Image courtesy of Community Design Solutions and Arnett Muldrow & Associates)

Trends in Recreation

The following are current recreational trends taking place in the City of Anoka:

1. Tournament Play

   - Demand to provide multi faceted recreation facility development in the form of special use sports complexes.

   Tournament play for athletic associations is growing in demand. Due to Anoka's scattered play field locations, tournament play lacks a centralized node. Each of the existing parks is designed with a variety of sports facilities and the lack of specialization in parks discourages tournament opportunities for various youth organizations.

2. Athletic Diversity

   - Demand to meet the needs and desires of an increased diversity of sports, which include an increased diversity of ages and gender.

   Greater diversification of sports on the basis of gender and age has required a greater variety of field sizes and types. The current park system has difficulty providing a full range of park facilities to address these changing needs.

   Diversification of sports itself has increased demand for facilities. Growing popularity in football, soccer, softball, hockey, lacrosse and cricket have increased the burden on City park facilities.

3. Safety

   - Demand to provide all participants with maintained, safe play fields to ensure the safe play of organized sports.

   Sports organizations have expressed safety concerns related to conducting league games on playfields that are unsafe for their participants. Two large active play field parks, John Ward and Sunny Acres, are built on decommissioned landfills, creating continual maintenance and safety issues. The topsoil in several playfields heaves and settles continually due to the decomposition of the substrate, resulting in an uneven topography.

4. Natural Resource Protection

   - Demand for protection and development of natural/environmental areas for passive and educational purposes.

   Land redevelopment pressures in Anoka and surrounding communities puts added demand on park acquisition. Anoka must plan and prepare for the next decade today to preserve its future open space options.

Park Classification System

The Park Classification System was formulated in 1975 as a part of Anoka's outdoor activity space inventory study and adjusted in 2005 to reflect current recreational trends, which are taking place in Anoka's active playfield facilities. These trends include tournament play, athletic diversity, safety, and natural resource protection.

This data was correlated with park and open space standards established by the Metropolitan Council Classification System and National Recreation and Parks Association. This information provides a blue print for communities when evaluating current park properties and facilities as well as the future needs of a community based on projected population growth and future development. The Park Classification System for Anoka has been adjusted to focus on the communities' need and desires in a manner that promotes more efficient use of existing facilities and limits the need for new parks.

The park system has 728.6 acres of city owned property, however, 139.0 of those acres encompass wetlands, water towers, cemeteries and non-developable open space. There are an additional 118.1 acres of non-city owned public open space within the City. Existing facilities are classified into the following areas:

Mini Park

Mini parks provide specialized facilities that serve a concentrated or limited population or specific group, such as toddlers & preschoolers; and may be located near apartment complexes, townhouse developments, or commercial centers. Mini parks are usually less than 1 acre in size and provide a service area radius of less than ¼ mile.

Neighborhood Park / Playground

Neighborhood parks are targeted to be 2 to 25 acres in size and have been designed to provide a maximum amount of recreational alternatives and activities such as field games, court games, and skating. These parks should be easily accessible to neighborhood populations, geographically centered if possible, with safe walking and bicycle access.

In Anoka, neighborhood parks are less than 10 acres in size and have evolved from a mix of passive and active parkland to intensive playfield and playground development due to pressures from organized sports clubs, physical education classes, and after school athletic programs.

Photo: Sports Equipment - (Image courtesy of Flickr, 2008)

Community Playground / Playfield

Community playfields are highly active parks, varying in size from 25 – 50 acres, which serve a programmed intensive recreational use such as athletic fields and complexes.

Photo: Baseball Field – (Image courtesy of Flickr, 2008)

In Anoka, these parks serve community-wide outdoor athletic recreational needs. Community playfields provide centralized accessibility with multi-park functions often serving as neighborhood parks as well. Area schools utilize a number of the City's community playfields for physical education classes and after school athletic programs.

Anoka's parks in this category are grossly undersized when compared to the Metropolitan Council classification system. Anoka's community playfields range in size from 4 to 33 acres of developed parkland.

Community Park and Nature

The purpose of this classification is to provide a combination of active and passive recreation areas, such as walking, scenic viewing, and picnicking, which are oriented toward the sites' natural amenities and beauty. There may be some field and court games located in these parks depending on site suitability and community need.

Anoka has utilized this classification to include facilities that provide an aesthetic appeal to the entire community population due to their proximity to the Rum and Mississippi Rivers and other environmental features. These parks contain open space areas, trails, educational components, and passive recreation opportunities.

Conservancy Lands

Conservancy land provides areas of natural quality such as wetlands, lakes, and river property that is preserved for environmental or aesthetic benefits to the community and/or because the negative effects of developing them. There are no national guidelines for acreage in this category; but the conservancy area should be large enough to protect the intended resource.

This is a new category for Anoka. The agreement of a 200-acre Conservation Easement held by Anoka Soil & Water Conservation District (ASWCD) led to the inclusion of this category. The easement was signed in October of 2007. The City is currently working with ASWCD to develop a management plan for the area.

Special Features and Open Space

Special feature parks and open space generally specialize in single purpose recreational activities such as golf courses, display gardens, arenas, etc and sites of historic importance. There is no specified acreage in the national standards provided for such facilities. Anoka offers nearly 220-acres of specialized parks.

Non-City Public Recreation and Open Space

Within the City of Anoka, other government entities, such as Anoka County and Anoka-Hennepin Independent School District #11, own property that contributes to the outdoor recreation system. Many school sites are utilized for indoor recreational activities as well. Those activities include fitness classes, gymnasium sports, and arts and crafts.

Non-Park Additional Open Space

The City also owns 139 acres of non-park open space. This category includes publicly owned wetlands, ponding areas, water tower sites, and two cemeteries. This non-park property owned by the City contributes to Anoka's open space.

Parks Inventory

Handbook Section 6.1
a) Existing regional parks & trails map and description

The existing Parks, Recreation and Open Space areas in Anoka include:

Table: Summary of Parks Inventory

Summary of Parks Inventory:

		Total Acres
1	Mini Parks	6.4
2	Neighborhood Parks	15.4
3	Community Playground/Play Fields	88.1
4	Community Park and Nature	60.1
5	Conservancy Lands	200.0
6	Special Feature Parks and Open Space	219.6
7	Non-City Public Recreation and Open Space	118.1
8	Non-Park Additional Open Space	139.0

Figure: Parks and Recreation Facilities – (Source: City of Anoka)

Mini Parks

Mini parks provide specialized facilities that serve a concentrated or limited population or specific group, such as toddlers and preschoolers; and may be located near apartment complexes, townhouse developments, or commercial centers.

Park Size:	• Less than 1 acre
Service Area:	• Less than ¼ mile radius preferred
	• ½ mile radius in select circumstances
Per Capita Standard:	• 0.25 to 0.5 acres per 1,000 population

While the mini parks offer limited recreation facilities, their distribution throughout the City addresses park needs of isolated neighborhoods.

Table: Mini Parks Inventory

Mini Parks Inventory:			
1	***Bob Ehlen***		
	This park provides general green space in a residential area and is comprised of shade trees and open space. At times, it also functions as a secondary skating rink.		
	Address/Location: 1131 Benton Street	**Acres:**	1.8
2	***Brom Canoe Rest***		
	The park is used often and functions well in its existing capacity as a canoe access to the Rum River and canoe-resting place with picnic tables, fire ring, signage and native plant materials.		
	Address/Location: 3812 Rum River Drive	**Acres:**	1.0
3	***Elm Street***		
	This park has playground equipment, limited trees and is used for sliding in the wintertime. The park also functions as a storm water retention pond.		
	Address/Location: 900 Elm Street	**Acres:**	1.0
4	***Garfield Tot Lot***		
	The park consists of a small open picnic shelter, trees, playground equipment, security lights, picnic tables and benches and a grill. Formerly leased from the state, this property has recently been purchased by the City of Anoka and will become part of the CRTV development.		
	Address/Location: 611 Garfield Street	**Acres:**	0.4

Photo: Child at a Playground – (Image courtesy of Flickr, 2008)

5 ***Goodrich***

This small park, located next to Goodrich Field along 5th Avenue, is the former location of the skate park, which has been relocated to John Ward Park.

Address/Location: 1650 4th Avenue **Acres:** 1.4

6 ***Grant Tot Lot***

This park includes playground equipment, a picnic shelter, picnic tables and benches. The park borders the south portion of Sunny Acres and wetland area.

Address/Location: 3001 9th Avenue **Acres:** 0.8

7 ***Tract B (park name to be determined)***

This park is not yet developed and exact location undetermined, but inclusion of a park with playground equipment will be a requirement of any future development on the State of MN owned property currently referred to as Tract B.

Address/Location: TBD **Acres:** TBD

Mini Parks Total Acres: ***6.4***

Neighborhood Parks

Neighborhood parks are targeted to be 2 to 25 acres in size and have been designed to provide a maximum amount of recreational alternatives and activities such as field games, court games, and skating. These parks should be easily accessible to neighborhood populations, geographically centered if possible, with safe walking and bicycle access. Neighborhood parks have evolved from passive parkland to intensive playground and play field development due to pressures from organized sports and physical education classes and after school athletic programs.

Park Size:
- 2 to 25 acres

Service Area:
- Approximately ½ to ¾ mile radius uninterrupted by principal roadways or major physical barriers.
- Secondary service to residences within ¾ mile radius

Per Capita Standard:
- 2.5 to 3.5 developed acres per 1,000 population

Anoka's neighborhood parks fall well below targeted national standard range for both current and projected ten-year populations. Anoka's current neighborhood parks range in size from 2.0 to 5.5 acres. The small size of the existing neighborhood parks limit capacity for larger sport facilities.

Photo: Rick Sorenson Park – (Image courtesy of City of Anoka)

Neighborhood Parks Inventory:

1 ***Brisbin***

Brisbin provides year-round recreational use with playground equipment, soccer field, shade trees, picnic table and benches, a secondary skating rink and parking lot. It includes a ten-foot bituminous trail that connects residents to the Coon Rapids Trail and Anoka-Hennepin Regional Trail. This park also serves as a storm water retention area.

Address/Location: 1047 Brisbin Street **Acres:** 2.7

2 ***Highland***

Playground equipment, mature oak trees, picnic tables, grills and a secondary skating rink are all features of this quiet park. The park is adjacent to the west side of Greenhaven Municipal Golf Course.

Address/Location: 3000 Euclid St **Acres:** 2.5

3 ***King***

A covered picnic shelter with tables and grills, playground equipment, picnic area and secondary skating rink for winter activities make up King Park. It also has a small t-ball field. King Park is named for Anoka's first k-9 officer; winner of the Lassie Award for saving a child's life.

Address/Location: 1201 Park Street **Acres:** 2.0

4 ***Rick Sorenson***

This park services Sandburg Middle School and Franklin Elementary physical education needs. It provides playground equipment, a small picnic area, a baseball field, a full size basketball court, four tennis courts, a four-season building and an improved parking lot. It includes two athletic fields that accommodate football and soccer, general skating rink and sport lighting for two hockey rinks. It also serves as a storm water retention area.

Address/Location: 2015 State Ave. **Acres:** 5.5

5 ***Rudy Johnson***

This park provides playground equipment, four season recreation buildings with restrooms, picnic area, picnic tables, grills, one baseball/softball field, one football/soccer field, small roller hockey rink and mature trees. The park provides a lighted general skating rink and a small hockey rink with supervised warming house and minimum parking. This park also serves as a storm water retention area. Washington Elementary and St. Stephen's School utilize this park for their physical education and extracurricular athletic programs.

Address/Location: 605 Polk St. **Acres:** 2.7

Neighborhood Parks Total Acres: ***15.4***

Community Playground/Playfields

Community playground/playfields have been classified as those active parks which are 4 to 35 acres of developed land and serve a programmed intensive recreational use. The City has designed these parks to serve community-wide outdoor athletic recreational needs. Community playground / playfields provide centralized accessibility with multi park functions often serving as neighborhood parks as well. Area schools utilize a number of the City's community playground / playfields for physical education classes and after school athletic programs.

Park Size: • 4 to 35 developed acres

Service Area: • Community wide

Per Capita Standard: • 2.0 to 2.5 developed acres per 1,000 population

Photo: Baseball Equipment – (Image courtesy of Flickr, 2008)

The community playground / play field acreage indicates that the City is above national standards. However, two of the City's most significant community playground / play fields (John Ward and Sunny Acres) overlay reclaimed landfills, which complicates both the developed use and maintenance of the parks for larger field sports. Generally valued as the highest in existing amenities of the seven park classifications, community playground / play fields provide the majority of organized sports needs.

Table: Community Playground/Play Fields Inventory

Community Playground/Play Fields Inventory:

1 ***Bonnell Fields***

This park is directly north of the George Green Park complex and provides multi-purpose athletic fields for soccer, football, and softball. Both Fred Moore and Sandburg Middle Schools utilize the fields for after school activities and physical education classes during the day. This park also serves as a storm water retention area for the southeast quadrant of the city.

Address/Location: 1571 7th Avenue **Acres:** 6.3

2 ***Castle Field***

Castle field is Anoka's premiere lit baseball field for youth and adult baseball. It includes a concession stand, restrooms, scoreboard, dugouts, batting cage, public address system, bleachers, unpaved parking lot, and paved handicap accessible parking area.

Address/Location: 601 Jacob Lane **Acres:** 4.1

Photos: Playgrounds at George Enloe, John Ward and Sunny Acres - (Images courtesy of City of Anoka)

3 ***George Enloe***

This is a multi-purpose youth athletic complex with year round recreation activities. The park has a four season activities building and winter activities that include lit sliding hill, general skating and a hockey rink with supervised warming house. Its amenities also include two playground structures, softball fields, one baseball field with lights, soccer field, three parking lots, sand volleyball, basketball court, two lit tennis courts, picnic area, restrooms, nature and park area and a bituminous walking trail.

Address/Location: 631 Lund Blvd **Acres:** 23.0

4 ***John Ward***

John Ward Park, built atop a decommissioned landfill, is more commonly known in the community as 'Rocket Park' due to the large rocket shaped playground structure. The original rocket was installed in the late 1960s. Since then, two replacement playground structures have maintained the theme. This park serves as an athletic complex, which includes three softball fields (two lit), two (lit) football fields, and a small soccer field. The park also has a bathroom facility, two picnic shelters, a skate park, large open space and two parking lots in addition to parking on Forest Avenue.

Address/Location: 2400 Forest Ave. **Acres:** 14.0

5 ***Sunny Acres***

Developed in the late 1970s, this athletic field complex has been reclaimed from a decommissioned landfill and is part of the city's northeast watershed area and wetland. The park consists of a four softball fields, picnic shelter, activity pavilion / concession stand with restrooms, playground equipment, four lit tennis courts, three parking lots, picnic area with tables and grills, large nature area / open space and walking trail. Across the street at Wilson Elementary School the City provides a skating area.

Address/Location: 3399 Colfax Ave. **Acres:** 33.7

6 ***Grey Ghost Fields (Soccer Fields – South of 116)***

This park, built in 2007, specifically addresses the needs of the growing popularity of soccer and can accommodate lacrosse in the future. Two full size soccer fields and parking area were created adjacent to the Anoka High School. Future plans include lighting the fields. There are an additional 2.9 acres of city owned land remaining to the west of the fields.

Address/Location: 4200 Bunker Lake Blvd. **Acres:** 7.0

Community Playground/Play Fields Total Acres: ***88.1***

Community Park and Nature

The purpose of this classification is to provide both active and passive recreation areas oriented toward the sites' natural amenities and beauty. The City has designed this classification to provide facilities with an aesthetic appeal to the entire community population and to preserve significant natural resources. These parks contain open space areas, trails, educational components and passive recreation.

Park Size: • n/a

Service Area: • Community wide

Per Capita Standard: • 5 to 8 acres per 1,000 population

Anoka's community park and nature classification falls just below targeted national standard range. As the purpose of community park and nature classification states, it is intended for these parks to serve a passive recreation role.

Table: Community Park and Nature Inventory

Community Park and Nature Inventory:

1 ***Akin Riverside***

Located near the Central Business District, this park borders the eastern shore of the Rum River from Bridge Square to Jefferson Street. It includes a pedestrian bridge that crosses the Rum River connecting the park/trail to Ferry Street and provides a view of the historic Eastman Amphitheater and stone house. The park includes playground equipment, picnic shelter with restrooms, picnic tables and benches, grills, and river access with two fishing platforms and a boat launch. This park received a commendation for the historic elements located throughout the park and on the trail.

Address/Location: 1721 River Avenue **Acres:** 6.5

2 ***City Hall Dam East / NCBD Park Development***

The 1941 dam attracts thousands of tourists and residents who enjoy the river walk and fishing. Picnic tables, an observation deck, handicapped accessible boat dock and trail provide boaters with access to downtown businesses.

The existing park area will be incorporated into the NCBD park development. The park will extend from Main to Harrison Street. A preferred development plan has been adopted for this park, but development/construction is dependent on the redevelopment projects in the area and will likely occur in three phases. The Park will include historic elements, continuation of the trail as part of the Rum River Regional Trail. In addition, the preferred plan includes a courtyard amphitheater, and river overlooks.

Address/Location: 2015 First Avenue **Acres:** 1.8

Future Acres*: 3.4

**Based on the preferred development plan*

Photo: City Hall Beside the Rum River Dam – (Image courtesy of City of Anoka)

3 ***City Hall Dam West***

The courtyard and landscaped area provides river access and picnic tables. It also could be a part of the west side river promenade. This courtyard is a favorite sitting and fishing area. However, it is somewhat underutilized because the steep hill near it makes river access difficult. Canoe's portage on this side of the Rum River because it is safer and less turbulent. Additional City property exists just north of the courtyard, but its slope prohibits any development. An additional ½ acre parcel adjacent to the North was donated to the City from the Bonnell Family in 2007. The property is too steep to provide access to the river from the street but a river overlook is possible.

Address/Location: 2030 Ferry Street **Acres:** 1.6

4 ***Henry Hammer Trail***

This trail begins with a scenic vista with river access and commemorative plaque in honor of past Park Board member, Henry Hammer. The trail meanders north adjacent to the Rum River through a heavy wooded area. It extends to another large scenic vista with picnic tables, grills, an open area, and river access to fishing. It then continues north providing a pedestrian crossing at Highway 10 and connects to the Fourth Avenue sidewalk area. This trail is part of the Rum River Regional Trail.

Address/Location: 2nd & Harrison St. (trailhead) **Acres:** 3.0

5 ***Stout Pond Trail***

This pond/trail was dedicated in 1997 in memory of Gary Stout, a planner of the City's Enterprise Park. The man-made pond is used for storm drainage purposes but provides wildlife habitat for waterfowl and other animals. The property contains a paved trail around the pond with multiple sitting areas. There are three access points from the industrial park to the trail.

Address/Location: Enterprise Park **Acres:** 11.6

6 ***Mississippi River Community***

This community park is directly adjacent to the Mississippi River. It incorporates the natural beauty of a wooded flood plain area with passive recreation, including a paved trail through a prairie flower area. The park includes four distinctive shelters, with picnic tables, grills and concession area, which are connected by a boardwalk. The playground structure is shaped in the form of a ship, reminding users of the park connection with the Mississippi River. Additional amenities include open space play area for baseball/softball, picnic areas, parking lots, sand volleyball, basketball court, tennis courts, restrooms, natural area, mature trees, fishing pier, river access for canoe launch, landscaping and 1.7 miles of paved trails. Approximately 18 acres is developed parkland.

Address/Location: 2751 Cutters Grove Avenue **Acres:** 35.6

Community Parks and Nature Total Acres: ***60.1***

Conservancy Lands

Conservancy lands provide areas of natural quality such as wetlands, lakes, and river property that is preserved for environmental or aesthetic benefits to the community and/or because the negative effects of developing them.

There are no national guidelines for acreage in this category; but the conservancy area should be large enough to protect the intended resource.

Table: Conservancy Lands Inventory

Conservancy Lands Inventory:			
7	***Rum River Conservation Area*** This property has been left in its natural state and in 2007, was placed in a conservation easement that will be held by Anoka Soil and Water Conservation District. The easement ensures that this land cannot be sold or developed. The City and ASWCD will work together to manage the property and its uses. There are multiple unimproved hiking trails winding throughout the easement area.		
	Address/Location:	NW Corner of CR 116 and CR 7 along the Rum River	**Acres:** 200.0
		Conservancy Lands Total Acres:	***200.0***

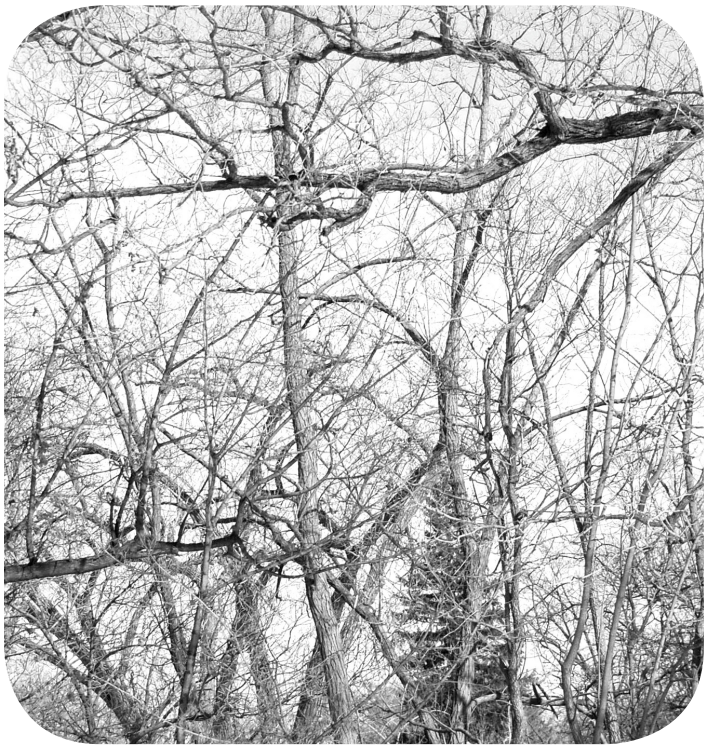

Photo: Trees in Anoka – (Image courtesy of Community Design Solutions and Arnett Muldrow & Associates)

Special Feature Parks and Open Space

Special use parks and open space are for single purpose recreational activities and historic parks. Anoka has 219.6 acres of special use parks and open space with the single largest component being the Greenhaven Golf Course at 130.7 acres.

There are no national standards for comparison

Photo: Community Garden Plots – (Image courtesy of City of Anoka)

Table: Special Feature Parks and Open Space Inventory

Special Feature Parks and Open Space Inventory:

1 ***Aaron Greenwald***

This park is the smallest park in Anoka. It was a gift to the City from the Grand Army of the Republic (G.A.R.) & John Cady Legion Post #102.

Address/Location: 115 Park Street **Acres:** 0.1

2 ***Bridge Square***

This area was dedicated to the City for use as the original Town Square and included a bandstand, farmer's market and City festivals. It is currently used as a parking lot.

Address/Location: Main St. & First Avenue **Acres:** n/a

3 ***Community Garden Plots***

This property serves as the location of Anoka's garden plots created by the Human Rights Commission. Residents living in apartments, condos, and town homes now have access to a 25'x25' area to plant vegetable or perennial gardens.

Address/Location: 804 Jackson Street **Acres:** 0.5

4 ***Eastman Amphitheater / Windego Park***

This site is presently on the National Register of Historic Places. This site is landlocked with no access from the north and south. The property is currently being leased to the Windego Park Society, which is pursuing fund raising opportunities for future refurbishment.

Address/Location: 1830 Ferry Street **Acres:** 0.5

5 ***Greenhaven Golf Course***

18-hole championship golf course complete with Pro-shop, banquet center, and bar area. The golf course operates as an enterprise fund for the city. A portion of the property houses the Parks and Golf Maintenance Building.

Address/Location: 2800 Greenhaven Rd. **Acres:** 130.7

6 ***George Green***

The park is located between Bonnell Fields to its north and Lincoln Elementary School to its south. Large Bur Oaks provide a serene setting for the bicentennial band shell, Senior Center building, and the Anoka Aquatic Center. The park includes three paved parking areas, five tennis courts (three lit), playground equipment, and horseshoe courts.

Address/Location: Park Pavilion: 1498 6th Avenue
Aquatic Center: 1551 7th Avenue
Senior Center: 1502 6th Avenue
Acres: 8.8

7 ***Kings Island***

This parcel is located directly south of Highway 10 and the Anoka-Hennepin Technical College. The ox bow provides storm water runoff access from the Industrial park into the Mississippi River. 18-acres of this parcel is platted as part of the Mississippi River Community Park. Construction of Segment 4 of the Mississippi River Regional Trail is proposed to cross this site.

Address/Location: South of Hwy 10 – Northwest of City **Acres:** 57.0

Photo: Greenhaven Fountain - (Image courtesy of Community Design Solutions and Arnett Muldrow & Associates)

8 ***Memorial***

Adjacent to Forest Hill Cemetery, this property is designated as the Veteran's Memorial for services on Memorial Day. The memorial was designed with a podium, statue of Soldier Rick Sorenson, cannon, and multiple flagpoles among the statue representing the Hands of God.

Address/Location: 611 Church Street **Acres:** 2.4

9 ***Land North of CR 116***

Undeveloped open space remaining after 200 acres of Rum River Nature Area was conserved in the conservation easement.

Address/Location: North of CR 116 & West of 7th Ave **Acres:** 68.6

10 ***Peninsula Point Two Rivers***

Located at the confluence of the Rum and Mississippi Rivers, this historic park was once known as the 'Gathering Place' and 'Fireman's Grove.' In 1995, with the assistance of Legislative Commission on Minnesota's Resources (LCMR) grant, the City took possession of the site, converting it from a sewage treatment plant to a park. This park includes a unique seasonal building that offers restrooms, a meeting room, concession service area and a shelter. There is also an observation deck, boat docks, multiple historical markers, playground equipment, interpretive trail and an open area.

Address/Location: 1460 Ferry Road **Acres:** 8.3

11 ***Rice Street Overlook***

Prior to 1957, this area was used as a public swimming beach where the City taught swim lessons. Today, the park functions as a sitting area and provides access to the river for fishing or launching a canoe. In 1997, the city constructed a large river boulder retaining wall to prevent soil erosion. This site is home of a historic Eastern Cottonwood tree.

Address/Location: 532 Rice Street **Acres:** 0.2

Special Feature Parks and Open Space Total Acres: ***219.6***

Photo: View from Peninsula Point Park – (Image courtesy of City of Anoka)

Non-City Public Recreation and Open Space

Within the City of Anoka, other government jurisdictions, such as Anoka County and Anoka-Hennepin School District -11, own property that contributes to the outdoor Anoka park and recreation system. School sites are considered recreational sites for indoor activities as well. Indoor activities include aerobics, arts and craft classes, and gymnasium sports.

Table: Non-City Public Recreation and Open Space Inventory

Non-City Public Recreation and Open Space Inventory:

1 ***Anoka County Rum River South Park / Fairgrounds***

Along the river the park has a picnic pavilion, canoe and boat launch onto the Rum River, fishing pier, picnic tables with grills, open play area, playground equipment, paved hiking/biking trails, portable restroom, paved parking lot and drinking water fountain.

The Anoka County Fair Board, a non-profit organization, operates the County fairgrounds and manages the fair activities. This property includes all infrastructure associated with the Anoka County Fair. There is a 15-acre parking area located west of 47.

Address/Location: 3000 Ferry Street North (Highway 47) **Acres:** 53.2

2 ***Anoka Area Ice Arena***

The non-profit organization, Anoka Area Ice Arena Incorporated, solely manages, operates and maintains the ice arena. This property includes two indoor sheets of ice and facilities for civic organizations, community events as well as shows and indoor soccer.

Address/Location: 4111 Seventh Avenue NW **Acres:** 3.0

3 ***Anoka Senior High School***

This facility includes eight tennis courts, three baseball fields, three softball fields, four soccer fields, one football field, one track parking lot, open space, natural area, boat dock/boat launch and brick inlay walk/trail. Community Education and athletic organizations use athletic facilities after 5:00 p.m. and during the summer.

Address/Location: 3939 7th Avenue North **Acres:** 38.0

4 ***Franklin Elementary***

This facility includes playground equipment, basketball court, and open nature area with picnic shelters.

Address/Location: 215 West Main Street **Acres:** 2.3

5 ***Goodrich Athletic Field***

This historic bowl-type stadium and field is utilized for middle/high school track and field, soccer and football games; it is also utilized for special civic events.

Address/Location: 1650 4th Avenue **Acres:** 5.0

Image: Anoka Sports - (Image courtesy of Anoka High School)

6 ***Lincoln Elementary***

This school facility includes playground equipment, football field, soccer field and two baseball fields. During winter months is becomes a winter skating rink location with warming house, lit full size hockey rink, general rink and small hockey rink.

Address/Location: 540 South Street **Acres:** 4.4

7 ***Peter Enoch Kindergarten Center***

This school facility includes playground equipment.

Address/Location: 2740 Wingfield Avenue North **Acres:** 1.0

8 ***Washington Elementary***

This school facility includes playground equipment, baseball fields, soccer field, parking lot, basketball court, open space play area and trails.

Address/Location: 2171 6th Avenue North **Acres:** 1.6

9 ***Wilson Elementary***

This school facility includes two playground structures, three baseball/softball fields, one football/soccer field, two parking lots, basketball court, nature area / open space and trails. During winter months it is utilized for winter skating activities that include a supervised warming house, two full sized lit hockey rinks and lit general rink.

Address/Location: 1025 Sunny Lane **Acres:** 8.6

10 ***Fred Moore Middle School***

This school facility includes a parking lot, community indoor pool, indoor gymnasiums, theater and small outdoor nature area.

Address/Location: 1523 Fifth Ave. South **Acres:** 0.5

11 ***Sandburg Middle School***

This school facility has no outdoor recreational facilities but is equipped with indoor gymnasiums.

Address/Location: 1902 Second Ave. South **Acres:** 0.5

Non-City Public Recreation and Open Space Total Acres: ***118.1***

Non-Park Additional Open Space

The City of Anoka also owns 139 acres of non-recreational open space. This category includes publicly owned wetlands, ponding areas, water tower site and public cemeteries. This non-park property owned by the City contributes to the open space in Anoka.

Table: Non-Park Additional Open Space Inventory

Non-Park Additional Open Space Inventory			
	Acres		**Acres**
Anoka Plaza Drainage	1.6	Meadow Creek City Ponding	28.2
Forest Hill Cemetery	25.7	Mineral Pond	9.2
Goodrich Water Tower	1.6	Oakwood Cemetery	5.3
Hutton & Rowe Drainage Area	2.8	South Street Storm Drainage	1.2
McKinley Reservoir/Pond	10.0	Sunny Acres Wetland	53.4
		Total Acres	***139.0***

Trails

Handbook Section 6.1
a) Existing regional parks & trails map and description
b) Proposed regional parks & trails map and description

These intermodal, non-motorized pedestrian transportation corridors provide citizens safe passage to parks, natural resource areas, schools, central business districts and libraries. The trails connect local, regional and state trail systems. Types of trails include: on street, sidewalks, connector trails, and inner park trails throughout the City.

There is a tremendous effort throughout the state to develop trail systems and corridors. Anoka is no exception to the statewide effort and continues the process of designing, developing and constructing trails and bridges to accommodate citizens.

The City's roadway and sidewalk system is an excellent resource from which primary trails can be developed and established. They are safe, clean, and provide an environment for free movement of non-motorized wheeled riding or moving devices for people and pedestrians. The City has identified six specific pedestrian corridors providing additional recreational activity to its residents.

There are three Regional Trail Corridors and six Local Trail Corridors that link citizens to neighboring communities, parks, schools and other areas of interest in Anoka. The Anoka Park Board adopted present and future trail goals on January 19, 1999 to emphasize those corridors.

Handbook Section 4.2
b) Bicycle and pedestrian facilities map
c) Bicycle and pedestrian connections to transit

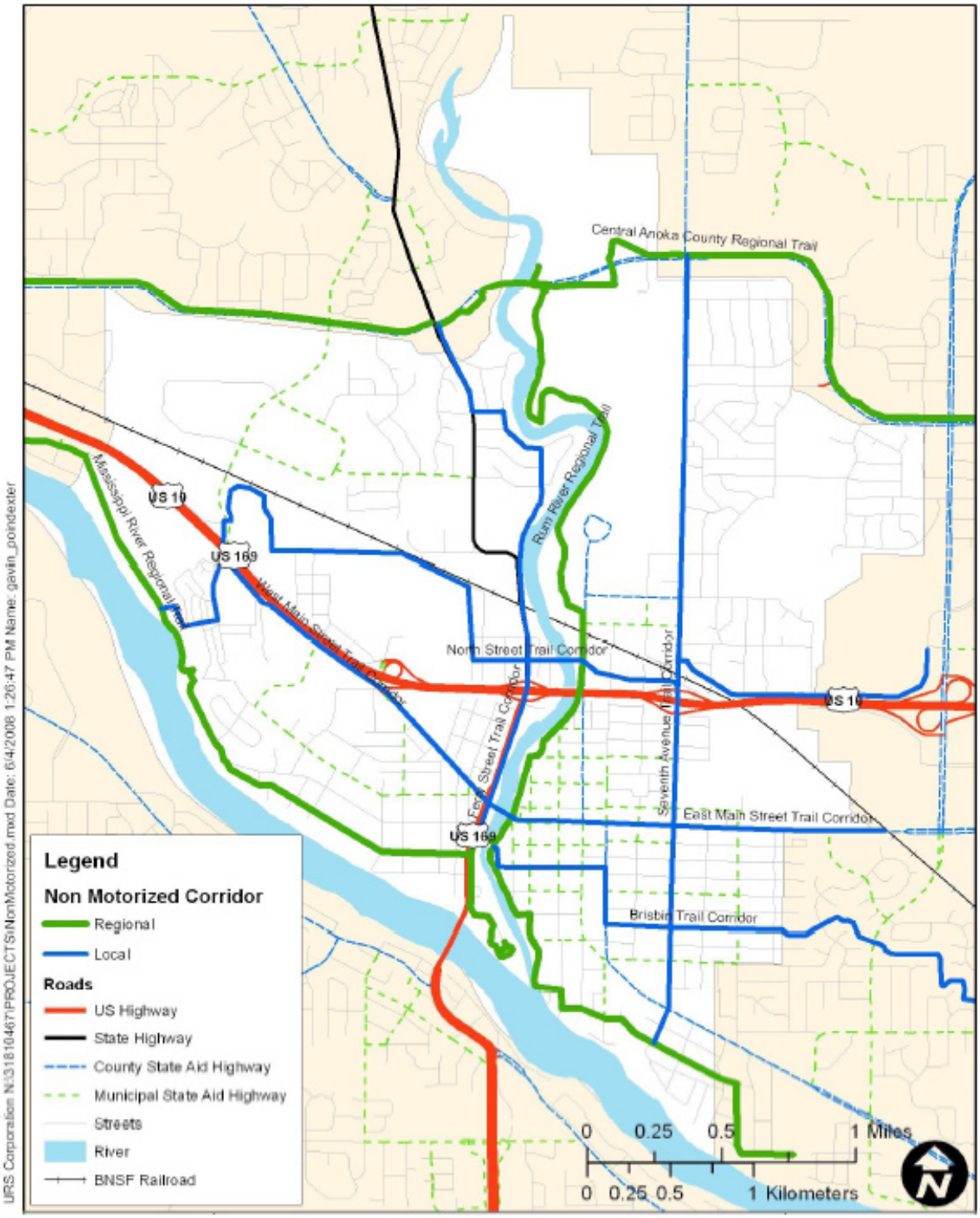

Figure: Non-Motorized Corridors - (Source: MN/DOT and MetroGIS)

Regional Trail Corridors

Mississippi River Regional Trail

The Mississippi River Regional Trail is a vital link to the regional trail system. When complete, the trail will follow the Mississippi River through the entire length of the city of Anoka and Anoka County. The Anoka County Master plan for this trail proposes a route following the Mississippi River that runs from the city of Minneapolis to the city of Elk River. The majority of the trail is complete through the cities of Fridley, Coon Rapids, and Anoka utilizing both on-street and off-street alignments.

The Anoka County Feasibility Study identifies the trail in five segments; segments 4 and 5 are located in the City of Anoka. Segment 4 begins at the east end of Rivlyn Avenue on the boarder of the City of Ramsey and extends to the southeast across Kings Island where it connects into the existing interior trails of Mississippi River Community Park. The exact location of the trail through Kings Island has not yet been determined but preferred and alternate routes have been identified. The trail continues out of the park onto Benton Street.

Segment 5 takes the trail east on Benton Street to Levee Avenue. The trail then follows the sidewalk system on Levee Avenue to Ferry Street where it continues southeasterly toward the Mississippi River. The trail crosses Ferry Street and continues easterly into Peninsula Point Park. The final portion of this segment includes construction of a pedestrian bridge across the Rum River connecting to Akin Riverside Park; the trail continues southeasterly along Oakwood Avenue where it connects to existing trail segments in the City of Coon Rapids.

Rum River Regional Trail

The Rum River Regional Trail begins at the Akin Riverside boat launch and travels north along the eastern shore of the Rum River. The trail goes under the Main Street Bridge, behind Anoka City Hall and through the North Central Business District where it merges onto the Henry Hammer Trail. The trail continues north on 4th Avenue sidewalks and then moves back off the street to follow the banks of the Rum River behind the Metro Regional Treatment Center and Anoka High School, eventually crossing Bunker Lake Blvd (County Road 116) via the pedestrian bridge. The trail currently ends at the Anoka County Library.

The Anoka County master plan for the trail proposes a 19-mile route from the City of Anoka to the Isanti County line. The planned trail extension will head east ¼ mile from the Library on Rum River Blvd then turns north on CSAH 7 through the cities of Andover and Ramsey connecting with the Rum River Central Regional Park. The trail continues through Oak Grove and St. Francis where it will eventually connect with a future trail within Isanti County.

Photo: Rum River Regional Trail Signage – (Image courtesy of Community Design Solutions and Arnett Muldrow & Associates)

Central Anoka County Regional Trail

The Central Anoka County Regional Trail utilizes a small portion of existing trail in the City of Anoka from Thurston/Dysprosium Avenues to 7th Avenue on Rum River Blvd. Currently only two segments of the trail are complete; the segment in Anoka, and one that travels from Round Lake Blvd east to Hanson Blvd in Andover.

The Anoka County master plan proposes an 18-mile route that traverses the county from the city of Ramsey east to the Washington County border, but the specific path of the trail has not yet been determined. It is anticipated that the trail will follow Rum River Blvd through the cities of Ramsey, Anoka, Andover, Coon Rapids and Blaine. Exact routes through Lino Lakes and Centerville are unknown. When complete, the trail will proved links to the Mississippi River and Rum River trails in Anoka, as well as other trails within the county.

Local Trail Corridors

East Main Street Trail Corridor

The E Main Street Trail Corridor begins at the eastern corporate limits of the City, providing pedestrian access to the downtown area on the Main Street sidewalks to 5th Avenue. This trail continues through the Central Business District for foot traffic only from 5th Avenue to 1st Avenue. Bike traffic follows Monroe Street (1 block south). The trail cross the Main Street Bridge and connects to the Ferry Street Trail Corridor and the Hwy 10 / West Main Street Trail Corridor.

Ferry Street Trail Corridor

The Ferry Street Trail Corridor begins at the Highway 169 / Mississippi River Bridge, which is identified as the corporate limits between the cities of Anoka and Champlin. The trail travels north along the sidewalk system on the east side of Ferry Street until Martin Street where the trail crosses the railroad tracks and enters the Anoka County Rum River South Park. The trail moves on-street through residential neighborhoods on McKinley Avenue, Rum River Drive, and Coolidge Street before heading north on St. Francis Blvd (Hwy 47). On the east side of St. Francis Boulevard a bituminous trail connects Coolidge Street to Bunker Lake Boulevard (County Rd. 116) where the trail links with the Central Anoka County Regional Trail.

Seventh Avenue Trial Corridor

The Seventh Avenue Trail Corridor begins at the Mississippi River Regional Trail and continues north along Seventh Avenue utilizing sidewalks to the City's north corporate limits at 41st Avenue. The corridor provides pedestrian access to a number of different parks, the Anoka Aquatic Center, Anoka Senior High School, Anoka County Library and then links together with Central Anoka County Regional Trail. At this point, the corridor will merge with the Rum River Regional Trail.

North Street Trail Corridor

The North Street Trail Corridor (County Road 79) begins at the corporate limits of Anoka and Coon Rapids. The trail follows the north side of County Road 79, primarily on street, to Seventh Avenue. After a short jaunt south along the 7th Avenue sidewalk, the trail travels west along the sidewalks of Pierce Street and Pleasant Avenue. The trail moves on-street following State Avenue south around the perimeter of Green Haven Golf Course on Greenhaven Road. The trail again heads west onto Garfield Road. A future trail connection from Garfield Road to Thurston Avenue is planned with new road alignment. Once joined with Thurston Avenue, users could join the Mississippi River Regional Trail to the south or follow Thurston Avenue to the North and link to the Central Anoka County Regional Trail.

Brisbin Trail Corridor

The Brisbin Trail Corridor begins at the corporate limits of Anoka and Coon Rapids at its junction with the City of Coon Rapids Wedgewood Trail, which provides access to Coon Rapids Dam Regional Park and Elm Creek Regional Park. The trail moves west along Brisbin Street past the Anoka Aquatic Center and George Green Park. The trail heads north along 5th Avenue to Madison Street where it again travels west to Akin Riverside Park joining the Rum River Regional Trail heading north or the Mississippi River Regional Trail to the south.

Highway 10/West Main Street Corridor

The Highway 10 / W Main Street Corridor begins at the Ferry and Main Street intersection and travels west along West Main Street to Highway 10. The City is working with the Minnesota Department of Transportation (MnDOT) to develop safe pedestrian access from West Main Street to Fairoak Avenue and eventually to the Thurston Avenue intersection where the trail will connect to the Mississippi River Regional Trail at Cutters Grove Avenue/Thurston Avenue. Re-development of Highway 10 will dictate the trail location from W. Main Street to Thurston Avenue.

Goals for Anoka Parks, Trails and Open Space System

Thirteen recreational goals have been identified to meet the needs of the City of Anoka's recreational community and are as follows:

Handbook Section 6.1
b) Proposed regional parks & trails map and description

Goal 1

Complete trail connection along and across Highway 10 / Main Street and other park areas.

Objective

To create a safe pedestrian thoroughfare along Highway 10 / West Main Street with strategic crossings at Thurston Avenue, Fairoak Avenue, and the West Main Street / Highway 10 interchange allowing north / south pedestrian and bike circulation.

Strategy

The Minnesota Department of Transportation (MnDOT) will be widening Highway 10 / Main Street to six (6) lanes. The City will work with MnDOT to plan this trail to parallel the new highway and allow strategic pedestrian and bike crossings.

Goal 2

Construct Anoka County Mississippi River Regional Trail connection through Kings Island connecting to the existing trail system in Mississippi River Community Park.

Objective

To construct trail connections in partnership with Anoka County and the National Park Service, providing a vital link to the region trail system and the Mississippi National River and Recreation area while improving park amenities.

Strategy

Work with Anoka County and the National Park Service to construct trail connections that will link to the regional trail system and the Mississippi National River and Recreation area.

Photo: Mississippi River Community Park – (Image courtesy of City of Anoka)

Goal 3

Construct a twenty-five (25) acre multi-purpose athletic complex.

Objectives

To address the park facilities shortage of seventy-five (75) foot and seventy (70) foot base pad baseball fields.

To provide additional opportunities for maintenance restoration of other athletic turf areas. To provide a future opportunity for lacrosse when necessary.

Strategy

While recognizing the political sensitivity of the Rum River Nature preserve, there appears to be enough land adjacent to the Anoka County Library for a baseball complex and parking lot. The possibility of utilizing land just west of the Anoka High School owned by the school district and other property owned by the state could provide an opportunity to develop an athletic complex south of 116.

Goal 4

Reconstruct George Green Park and Bonnell Fields.

Objective

To reconstruct these adjacent parks to better utilize their play field configurations, access and circulation while offering more off-street parking opportunities.

Strategy

Parking: Parking is proposed to be located near the large existing Aquatic Center lot. This optimizes the parking central to George Green and Bonnell Fields. Parking currently incorporates on-street parking on Brisbin Street and South Street. Additional off-street parking will be created adjacent to the Senior Center on the site of the current pavilion.

Site Structures: The existing picnic pavilion is proposed to be demolished. A new shelter will be constructed in the center of the park complex to create a focal point and icon. The existing picnic shelter lacks the utility and the location to function as the park's main identifier.

The existing band shell will be left where it stands. The wooded area surrounding the stage creates a backdrop for events. The metal bleachers would be replaced with ornamental benches.

Aquatic Center: The existing Aquatic Center is a recently renovated major community attraction. It is a primary focal point for recreational activities, as well as swim lessons. The addition of deck space, lap swim, slides and swim lesson areas may be considered to accommodate high-level public demand.

Access and Circulation: Access needs to be addressed at each of the corners of the park. Access to the elementary school to the south and to the middle school to the west needs improvement. The master plan proposes to narrow street widths and add on-street parking to South and Brisbin Streets. Narrowing the street entrances slows vehicular traffic and promotes pedestrian access and safety. It also provides a sense of entry into the park.

Sidewalks have been proposed to not only follow around the outside of the park, but to enter and allow people to participate in park activities. Connecting the major attractions, like the Aquatic Center, playground, senior center, picnic shelter and band shell into a pedestrian walkway is essential to unifying the park. The looping walking trail through the wooded portion of George Green connects all of the major park elements and provides a nice informal path through the park.

A formal pedestrian walkway is proposed to join George Green and Bonnell Fields. This walkway crosses Brisbin Street and will provide the major access point from one side of the park to the other. A traffic circle will slow vehicular traffic creating a safer pedestrian crossing between the parks.

Play fields and Courts: The existing ball fields are proposed to be redeveloped to allow for additional parking facilities, basketball courts and a small shelter, which terminates the pedestrian walkway across Brisbin Street. A large play field will be combined into the ball fields. Tennis courts are to be relocated to allow the picnic shelter to be located in the center of the park.

Vegetation: Trees are proposed to line the park boundary. These trees are vital to creating a sense of place and to identify the park as being different than its surrounding context. Mass tree plantings are proposed to buffer existing residences bordering the park from activities taking place in the park.

Goal 5

Encourage revitalization of the Eastman Amphitheater and establish the Rum River Promenade.

Objectives

To revitalize historic Eastman Amphitheater as a public gathering space for community members and visitors.

To create connection to the adjacent Akin Riverside Park: Rum River Promenade.

Strategy

Eastman Amphitheater and Akin Riverside offer opportunity for river connection and extension of the Rum River Trail. Directly north of Akin Riverside is the existing City Hall Dam East and proposed NCBD where co-ops, condos, lofts, retail and office spaces are slated for construction.

The City Hall Dam East offers an existing Rum River Promenade from Akin Riverside Park, under Main Street, to the existing Port of Anoka at the Anoka City Hall and through the new NCBD community space. The Rum River Promenade should connect the Eastman Amphitheater as a major public destination for community events.

Goal 6

Complete passive recreation areas of the Rum River Trail and Rum River Conservation Area.

Objective

To provide a high degree of interaction with the natural environment in natural areas of the Rum River Trail and Rum River Nature preserve without a detrimental impact on the landscape and significant infrastructure development.

Strategy

Preserve the Rum River Trail and Rum River Conservation Area natural landscape features to ensure environmental protection and simultaneously provide access for public use and enjoyment. This will include creating amenities in passive recreation areas, which include paved trails for hiking, wildlife watching, running, and picnicking and historic interpretive areas. Inappropriate activities include competitive sports and mechanized recreational conveyances

Goal 7

Complete passive recreation areas of the North Central Business District (NCBD)

Objective

To provide a high degree of interaction with the natural environment in natural areas of the NCBD without a detrimental impact on the landscape and significant infrastructure development.

Strategy

Preserve the NCBD natural landscape features to ensure environmental protection and simultaneously provide access for public use and enjoyment. This will include creating amenities in passive recreation areas, which include paved trails for hiking, wildlife watching, running fishing, picnicking, and historical interpretive areas. Inappropriate activities include competitive sports and mechanized recreational conveyances

Goal 8

Complete passive recreation at the Commuter Rail Transit Village (CRTV)

Objective

To provide a high degree of interaction with the natural environment in natural areas of the CRTV without a detrimental impact on the landscape and significant infrastructure development.

Strategy

Preserve the CRTV natural landscape features to ensure environmental protection and simultaneously provide access for public use and enjoyment. This will include creating amenities in passive recreation areas, which include paved trails for hiking, wildlife watching, and running. Inappropriate activities include competitive sports and mechanized recreational conveyances.

Goal 9

Complete the incorporation of historic elements throughout the parks system.

Objective

To ensure that future park rehabilitation and reconstruction embraces past historic park planning efforts.

Strategy

Research and incorporate historic park elements into all future park planning rehabilitation and reconstruction projects to ensure that Anoka's landscape history is successfully preserved.

Goal 10

Work with Anoka Hennepin School District 11 to better utilize City and school district athletic facilities.

Objective

To coordinate City and school district park facilities for more effective utilization of existing athletic facilities.

Strategies

The City and school district should re-evaluate the school and City parks to consolidate programmed sports into specialized playfields. This re-evaluation will guide the athletic associations in programming, education, practice, league play and tournaments. In addition, the City and school district should meet routinely to discuss coordination of facility needs, maintenance, management and programming.

Photo: Historic Ruins – (Image courtesy of Community Design Solutions and Arnett Muldrow & Associates)

Goal 11

Complete facility improvements at Castle Field

Objective

To coordinate with Legion Post #102, District #11 and local athletic associations to improve facilities.

Strategy

Parking: Resurface the parking area located on Greenhaven Drive with bituminous material and add curb and gutter.

Design Improvements: Replace irrigation system. The current system is connected to the system at Greenhaven Golf Course. Upgrade lighting to meet AAA standard foot-candles. Because the current light towers do not meet wind-load requirements, upgrading will require replacement of the current lighting. The current lighting is substandard for 18+ baseball.

Site Structures: Replace existing concession stand and restroom building, replace dugouts, re-build timber retaining wall at corner of Jacob Lane and Greenhaven Road, replace park signage, and create a 6-foot wide warning track along the outfield fence perimeter.

Goal 12

Incorporate signage throughout the local & regional trail system

Objective

To ensure that residents and visitors are able to fully utilize the trail system.

Strategy

Work with Anoka County to provide uniform trail signage for Regional Trails while incorporating a unique design for local trail corridors.

Goal 13

Rum River Channel Restoration

Objective

To provide a safe navigable river channel for boat traffic on the Rum River from Akin Riverside Park to the dock at City Hall.

Strategy

Successful permit application to remove rubble and restore channel depth occurred in 2008. The City will work to develop plans for restoration project and allocate funding.

2006 – 2008 Recently Completed Projects

Project 1:

Sunny Acres Park Reconstruction Phase 1 & 2

In 2006, the reconstruction of Sunny Acres Park was completed. This project began in 2005 with the replacement of the playground equipment. In 2006, a new trail, parking lot improvements, field leveling, construction of a small picnic shelter, and resurfacing of existing tennis courts completed the project.

Project 2:

Rum River Conservation Easement - 200 acres

On October 17, 2007, elected officials signed an easement agreement with the Anoka Soil and Water Conservation District, which permanently conserves 200 acres of combined oak savanna & prairie from development in the future. The easement includes an environmental management plan and use policy.

Project 3:

Preferred Park Development Plan for passive recreation areas in the North Central Business District Park.

On December 17, 2007 the council accepted a three-phase development plans for this passive park to be constructed along the east bank of the Rum River from Main Street to Harrison Street. Phase One of the plan is complete with the reconstruction of the Henry Hammer Overlook, which doubles as a storm water basin for the adjacent development. Phases Two and Three include the construction of a trail, courtyard, shelter and bathrooms, and historical elements. Construction of the park is dependent on the progress of the adjacent condo/loft development.

Photo: Rum River District Urban Lofts Advertisement - (Image courtesy of Community Design Solutions and Arnett Muldrow & Associates)

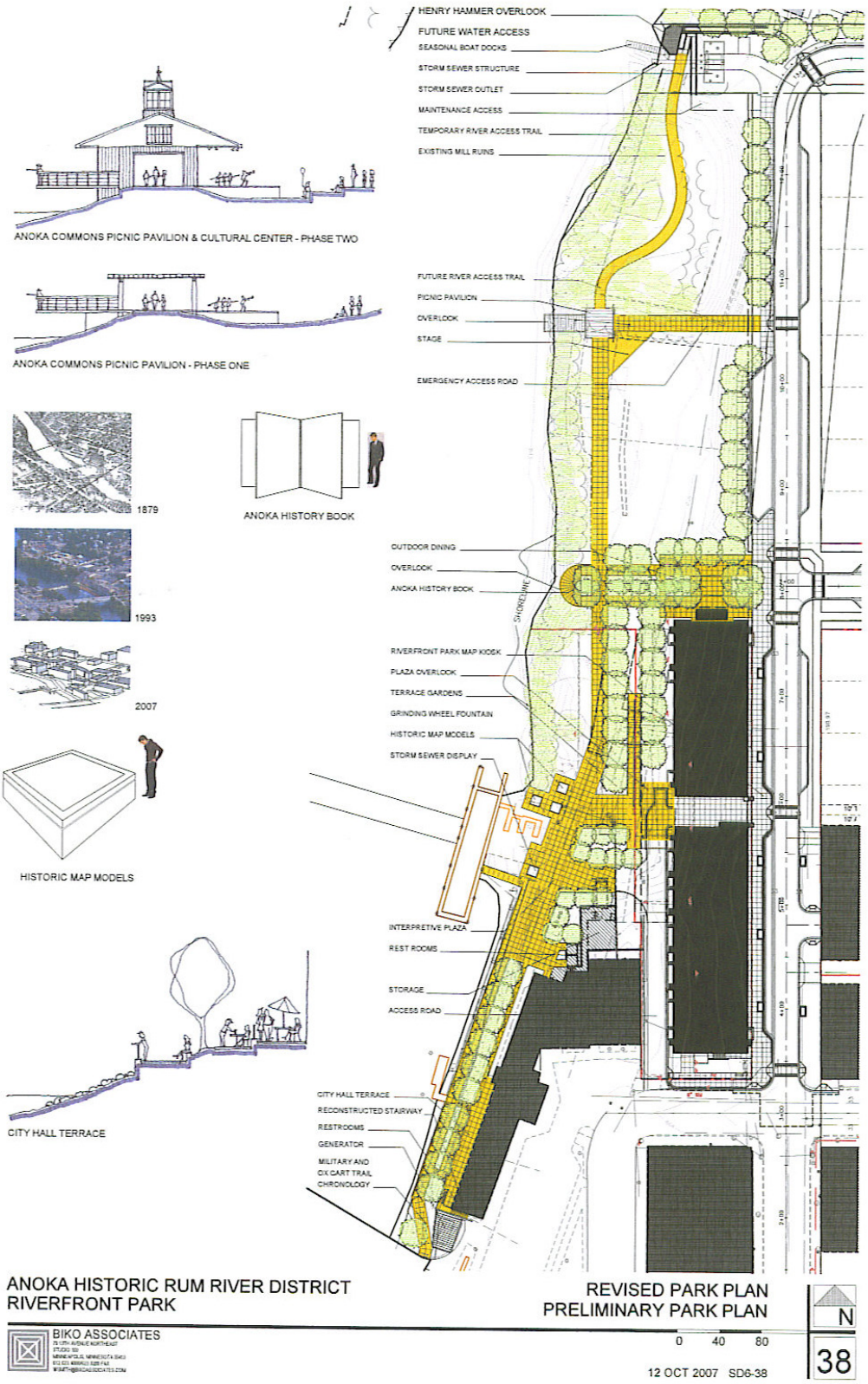

Figure: Preliminary Riverfront Park Preferred Park Plan Concept – (Source: Biko Associates and City of Anoka)

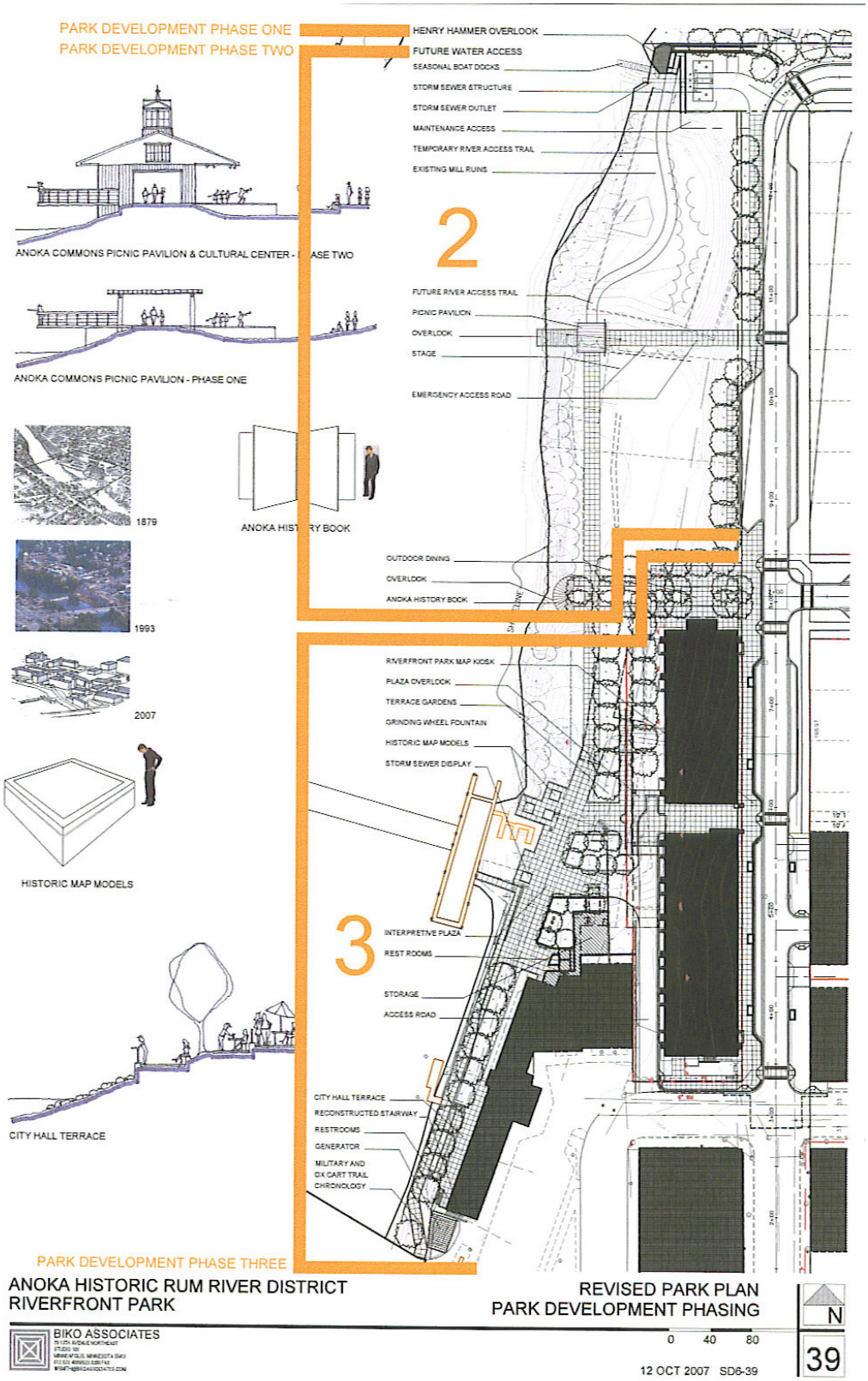

Figure: Revised Riverfront Park Preferred Park Plan Concept – (Source: Biko Associates and City of Anoka)

Project 4:

Construction of two-field soccer complex located south of County Road 116 adjacent to the Anoka High School.

Construction of two soccer fields (regulation size) and a parking area was completed at the end of 2007. Additional development plans include lighting the fields. The fields will open for use to the public in the summer of 2008.

Project 5:

Grant Application for East Main Trail Connection

Filed in partnership with the City of Coon Rapids, the grant would provide 50 percent match of the funding necessary to construct a pedestrian trail on the north side of the bridge from 11th Avenue in Anoka to Round Lake Blvd in Coon Rapids. Currently, there is no sidewalk on the bridge forcing pedestrians to walk on the shoulder or in the center median.

Project 6:

Mississippi River Community Park - Reconstruct Deck & Replace Playground Equipment.

Reconstruction of the deck and replacement of the playground equipment is currently in progress and will be completed by July 1, 2008.

It was intended that the Mississippi River Regional Trail connection through Kings Island would be completed in conjunction with the deck reconstruction, but funding and the specific location of the trail is not yet available. The trail connection is listed in the goals section.

Implementation Policies

The Anoka Park and Recreation Advisory Board has existed since 1919. The Board is guided by the policies and principles of the City Code. The Anoka's Parks and Recreation Advisory Board has many functions; the Board oversees parks, recreation, facility users, performing arts, urban forestry, trails, and the aquatic center.

The Parks and Recreation Department at the City of Anoka administer the following policies:

Utilization

1. Coordinate with school district to consolidate programmed sports into specialized play fields.

2. Routinely meet with school district to discuss coordination of facility needs, maintenance, management and programming.

Design

1. Identify high quality natural, scenic and historical areas to preserve and enhance them for public use and enjoyment.

2. Develop and build our trail corridors, greenways and linear parks to maximize recreational opportunities, interconnect neighborhoods and promote community distinction and regional facilities.

3. Develop the urban landscape in the Central Business District and the reforestation of our parks, boulevards and community.

4. Increase the recreational opportunities for senior citizens.

5. Meet the American with Disabilities Act (ADA) standards and federal safety standards at all municipal owned facilities, including parks and trails.

6. Integrate the historical significance of the community through interpretive trails in our parks and recreation areas.

7. Maintain existing and plant new boulevard trees on the rights-of-ways for neighborhood beautification and vitality.

School District

1. Continue Joint Powers Agreements, amended in 2005, with Anoka-Hennepin School District -11 to share recreational facilities, programs and services where feasible.

Process

1. Develop conservation planning techniques that identify the importance of preservation of natural resources and open space.

2. Develop a recreational capital improvement plan facility-by-facility and provide for an annual update.

3. Provide the highest quality of park maintenance services and routinely review service needs.

4. Make efforts to provide the appropriate level of staff, equipment and facilities.

5. Routinely review park and trail dedication requirements when modifications are needed.

6. Routinely evaluate athletic complex needs of local athletic organizations.

7. Annually review and coordinate all Parks and Recreation goals as directed by the Anoka City Council and as advised by the Parks and Recreation Advisory Board.

Public Involvement

1. Provide information and educate the public about recreational opportunities in and around the City.

2. Create the opportunity for citizens to participate in recreation activities that focus on the Rum and Mississippi Rivers. Develop a sense of stewardship and responsibility to preserve these rivers for recreational opportunities for current users and future generations.

3. Identify and implement Youth First recreation activities through organized recreation, community education, churches, and civic organizations.

4. Actively encourage the support of civic organizations and corporate/business community and education systems through funding, developing, volunteering and maintaining the recreation system.

Funding

Develop a funding resource that meets the needs for maintenance and replacement of the City's parks and recreation program.

Financing

Understanding the resources and tools available for implementation of the Parks, Trails and Open Space Plan will aid in the decision making process for future development. The following financial resources will be routinely analyzed to determine the availability of funding for recreational facilities and programs:

1. Park Dedication Fees

2. User Fees

3. Donations

4. General Tax Levy

5. Grants

6. Partnerships with other governmental agencies and/or private corporations

Financing Policies

The following City policies regarding park and trail facility financing will be followed:

1. Establish park dedication requirements for new development reflective of its impact and benefit from the City's ultimate park and trail system.

2. Apply park dedication standards to all new subdivision and redevelopment projects to address the growing need for recreation associated with community growth.

3. Establish fees to cover costs associated with the development, maintenance and operation of community recreational facilities and programs where appropriate.

4. Work with Community Education, Athletic Associations and Anoka Hennepin School District 11 to provide equitable use of available facilities and fair distribution of program costs.

5. Budget park and trail maintenance operations and capital outlay into the City annual financial budget.

6. Establish a five-year capital improvement plan for park and trail improvements, renovations and maintenance to assist in preparing annual park and trail capital outlay budgets.

7. Pursue state and regional park and trail grants to supplement local financing.

8. Investigate corporate partnerships with other government agencies and /or private organizations to source park and trail funding. These partnerships may be entered into when the objective of the outside agencies or organization is consistent with City park or trail goals.

9. Unsolicited gifts or donations will be accepted as part of the Anoka park and trail system if they are free of obligations which may limit the use of a facility, do not offend other segments of community and do not come with a hidden or later cost for development, maintenance, operation which is outside the City's best interest.

Anoka Parks List

Mini Parks

1 Bob Ehlen
2 Brom Canoe Rest
3 Elm Street
4 Garfield Tot Lot
5 Goodrich
6 Grant Tot Lot

Neighborhood Parks

7 Brisbin
8 Highland
9 King
10 Rick Sorenson
11 Rudy Johnson

Community Playground / Play Fields

12 Bonnell Fields
13 Castle Field
14 George Enloe
15 John Ward
16 Sunny Acres
17 Soccer Fields S of CR 116

Community Park and Nature

18 Akin Riverside
19 City Hall Dam East / NCBD Park
20 City Hall Dam West
21 Henry Hammer Trail
22 Mississippi River Community Park
23 Stout Pond Trail

Conservancy Lands

24 Rum River Nature

Special Use Parks and Open Space

25 Aaron Greenwald
26 Bridge Square
27 Community Gardens
28 Eastman Amphitheater
29 Greenhaven Golf Course
30 George Green
31 Kings Island
32 Memorial Park
33 Property N of 116
34 Peninsula Point Two Rivers Park
35 Rice Street Overlook

Non City Public Recreation and Open Space

36 Anoka County Fairgrounds / Rum River South Park
37 Anoka Area Ice Arena
38 Anoka Senior High School
39 Franklin Elementary
40 Fred Moore Middle School
41 Goodrich Athletic Field
42 Lincoln Elementary
43 Peter Enoch Kindergarten Center
44 Sandberg Middle School
45 Washington Elementary
46 Wilson Elementary

Non-Park Additional Open Space

46 Anoka Plaza Drainage
47 Forest Hill Cemetery
48 Goodrich Water Tower
49 Hutton & Rowe Drainage Area
50 McKinley Reservoir / Pond
51 Meadow Creek Pond
52 Mineral Pond
53 Oakwood Cemetery
54 South Street Storm Drainage
55 Sunny Acres Wetland

Parks, Public Recreation & Open Space Facilities Inventory Matrix Key:

Feature Equipped	n	Boat Launch	B	Portable Restroom	R
Primary Rink Location	P	Canoe Launch/Access	C	Indoor Gym Facility	G
Secondary Rink Location	S				

Parks, Public Recreation & Open Space

Figure: Facilities Inventory Matrix

	Picnic Facilities / Tables	Picnic Shelters	Park Building	Playground Equipment	Restrooms	Boat or Canoe Access	Fishing	Swimming	Cross Country Skiing	Snowmobile Trails	Hockey Rink	Pleasure Skating	Sledding	Baseball Field	Football Field	Soccer Field	Softball Field	Basketball Court	Horseshoe Pit	Tennis Court	Volleyball Court	Conservation Area	Equestrian Trails	Skate Park	Biking / Walking Trail	Parking Lot
Mini Parks																										
Bob Ehlen												S														
Brom Canoe Rest	n				R	C	n																			
Elm Street	n			n																						
Garfield Tot Lot	n	n		n																						
Goodrich																										
Grant Tot Lot	n	n		n																						
Neighborhood Parks																										
Brisbin	n			n								S				1									n	n
Highland	n			n								S						n								
King	n	n		n								S					n									
Rick Sorenson	n		n	n	R						n	P		1		n	n	n		4						n
Rudy Johnson	n		n	n	R						n	P					n									n
Community Playgrounds & Playfields																										
Bonnell															n		2									
Castle Field			n		n									1												n
George Enloe	n		n	n	n						n	P	n	1	n	n	3	n		4	1				n	n
John Ward	n	2		n	n										2		3							n		n
Sunny Acres	n	1	n	n	n											2	4			4					n	n
Grey Ghost Fields					R											2									n	n
Community Parks & Nature																										
Akin Riverside	n	n		n	n	B	n																		n	n
City Hall Dam / NCBD	n				R		n																		n	n
City Hall Dam West	n					C	n																			n
Henry Hammer Trail	n						n																		n	
Mississippi River Community	n	4		n	R	C	n											n	n		1				n	n
Stout Pond Trail																									n	n
Conservancy Lands																										
Rum River Nature Area						C	n		n														n		n	
Special Features & Open Space																										
Aaron Greenwald																										
Bridge Square																									n	n
Community Gardens																										
Eastman Amphitheater							n																			
Greenhaven Golf Course					n		n		n																	n
George Green	n		n	n	R			n										n	n	7					n	n
Kings Island																										
Land N of 116																										
Memorial																										n
Peninsula Point Two Rivers	n	n	n	n	n	C	n																		n	n
Rice Street Overlook						C	n																			
Non-City Public Recreation & Open Space																										
Anoka Co. Fairgrounds / Rum River South	n	n	n	n	n	B	n										n								n	n
Anoka Area Ice Arena					n						n															n
Anoka Senior High School					n	C								n	n	n	n	G		n	G				n	n
Franklin Elementary				n	n												n	G			G					n
Fred Moore MS / Goodrich Field			n		n			n							n			G			G					n
Lincoln Elementary			n	n	n						n	P					n	G			G					n
Peter Enoch K. Center				n	n																					n
Sandburg M S					n													G			G					n
Washington Elementary				n	n												n	G			G					n
Wilson Elementary			n	n	n						n	P					n	G			G					n

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Section 1: Background
Section 2: Land Use
Section 3: Public Facilities
Section 4: Implementation

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Goals & Implementation Summary

Executive Summary

Handbook Section 2.1
a) Policies and objectives

This section summarizes the actions needed to accomplish the goals and policies established throughout this Plan.

The creation of the implementation program is ongoing. The following section does not fully describe all programs and policies that may be considered by the City in implementing the Plan.

Ordinances and Land Use

Implementation of the goals and policies of the land use section of this Plan will be accomplished, in great part, through zoning ordinances. The City will work to develop and refine existing zoning ordinance standards. In addition, the City will continue developing guidelines for development where appropriate. To facilitate this process, the City will hold public meetings and public hearings and will provide information to residents regarding proposed changes.

Central to this Plan update is the creation of a refined master plan and development of transit-oriented development standards for the Northstar Commuter Rail Station area. The rail station master plan assumes the City will create ordinances and standards to implement the desired development of this area.

Architectural and design standards are also important to the City. This is evidenced in the recently created Main Street Mixed Use District standards. The City anticipates creation of similar standards in other areas of the City.

The City also anticipates review of several sections of the zoning ordinance. In particular, the City is in the process of reviewing the General Industrial Standards and related district designations.

The following Land Use Goals will guide the refinement, creation and implementation of Land Use ordinances and policies for the City of Anoka:

Goal 1

Consider physical development within a community-wide framework which recognizes the unique aspects of the City's setting and ensures top quality design of new construction and development.

- Promote the application of urban design considerations which define and enhance the City's unique character. Urban design deals with the quality of the built environment -- how it looks, feels, functions, and how it embodies local culture and context. It is the City's intent to define and improve the City's desired physical characteristics and form, visual quality and order, and overall image and identity. Urban design concerns both the built environment and the effects of urban development on the natural environment and the quality of life.

- Support programs and activities that foster community spirit and identity.

- Improve the image and appearance of existing commercial and industrial areas, with particular emphasis on the appearance of buildings, signage, and landscaping.

- Ensure that commercial and industrial sites and buildings are adequately maintained, and that corrective maintenance is undertaken as required.

Goal 2

Encourage a land use balance within the City to promote the efficient provision of City services, the generation of revenues to cover the cost of those services, and a mix of employment and housing opportunities. Land use balance refers to an appropriate mix of various land uses that are interdependent and mutually supportive.

- Ensure that public properties are maintained in a timely manner.

- Improve and upgrade older public utility and infrastructure facilities through a program of scheduled improvements.

- Continue to expand and continue to diversify the economic base.

- Encourage the provision of life cycle housing.

Goal 3

Assure that the City's land development regulations provide for efficiency, compatibility, compliance, variety, flexibility, and innovations.

- Grant zoning changes only when it can be demonstrated that rezoning will result in a community or neighborhood benefit that outweighs any potential adverse impact upon surrounding properties. Conformance with policies of the Community Plan and other adopted City plans may be used to demonstrate community or neighborhood benefit.

- Incorporate performance standards, where appropriate, into land development regulations and criteria.

- Periodically review City ordinances and development regulations and amend, if necessary.

Goal 4

Protect and maintain the stability and diversity of the City's neighborhoods.

- Prepare Neighborhood Master Plans.

  Development of each Master Plan will include development of a generalized map which includes proposed uses, transportation systems, utility systems, drainage systems, and open space. Each plan should also establish minimum and maximum densities. The actual use of the land and existing zoning should be considered in preparation of master plans. Adoption of a Master Plan by the City Council may result in changes in the land use designations and zoning districts. In those instances, the Land Use Plan and Zoning Ordinance will be amended to reflect the change(s).

- Involve affected neighborhoods and property owners in proposed land use, development, and capital construction projects.

- Recognize and support the unique physical character and development patterns of neighborhoods.

- Ensure zoning changes in neighborhoods are compatible with the scale and physical character of the neighborhood.

- Encourage discussion between developers, the neighborhood, and the City, where appropriate, as part of the process of determining land use changes in neighborhoods.

- When reviewing master plans and rezoning requests, consider the impact on nearby neighborhoods, including neighborhood integrity, change in traffic volumes and patterns, changes in surface drainage, the effect of lighting levels, and other changes that produce a clearly undesirable effect.

Goal 5

Promote, reinforce and maintain the Central Business District as the heart of the City and as a center for business, government, culture, arts, and special community events.

- Preserve, maintain, and enhance the historic character of the Central Business District as an important and irreplaceable community asset.

- Invite pedestrian activity, exhibit visual and physical quality in design to attract visitors and residents, and support economic vitality.

- Promote easy access to the Central Business District from all parts of the City.

- Strengthen the circulation and parking system in the Central Business District to provide safe and convenient vehicular travel that complements and enhances pedestrian movement.

- Encourage rehabilitation of buildings that are in disrepair.

- Further link and utilize the riverfront in and near the Central Business District.
- Conduct beautification efforts in the Central Business District.
- Continue landscaping public areas.
- Provide general maintenance in the Central Business District.

Goal 6

Develop a master plan for the Commuter Rail Transit Village

- Complete market studies to determine appropriate uses.
- Consider economic development, housing needs, and other land use needs in the city when developing the plans and determining future land use of these areas.
- Provide a compatible mix of land uses that support and complement transit oriented development near the station area.
- Concentrate a mix of complementary, well integrated land uses within walking distance of the transit station.
- Provides uses of a density and configuration that will capitalize on the presence of commuter rail service.
- Encourage a mix of commercial/office/light industrial uses that will create new jobs, generate tax revenue, attract new residents, and provide new amenities.
- Encourage development of higher-density housing options.
- Develop minimum standards for new residential, commercial, office and light industrial uses within the commuter rail village planning area.
- Develop standards that require buildings to front on the street with parking located behind buildings and taller buildings located closest to the station. Consider reduced parking requirements or parking lot maximums.
- Incorporate standards for security (CPTED).
- Use urban design to enhance the community identity of the station area and make the area attractive, safe and convenient.

Goal 7

Development a master plan for the City owned land north of Bunker Lake Boulevard and west of Seventh Avenue.

- Complete market studies to determine appropriate uses.
- Consider economic development, housing needs, and other land use needs in the city when developing the plans and determining future land use of these areas.
- Consider uses that compliment the conservation area.
- Consider access and traffic impacts.
- Consider design standards to encourage quality buildings.

Goal 8

Evaluate future use of City owned lands.

- Periodically update the City Council on City owned land that is underutilized and could be used for future economic development where appropriate.
- Consider the citywide benefit of selling/developing City owned land.

Economic Development

Overall Economic Development Goal

To promote balanced community growth among a variety of economic sectors, to strengthen the tax base, expand employment opportunities, build community wealth and enhance the quality of life in the City of Anoka.

Goal 1

Create Marketplace Identity: To create a positive community identity in the marketplace via branding and advertising.

- Create a specific graphic image and related statement of value.
- Produce a brand/logo and tagline.
- Advertise this identity via various media.

Goal 2

Improve Business Climate: To Promote a strong business climate within the City.

- Maintain strong cooperative relationships among the City, Anoka Chamber, Anoka Business & Landowners and private businesses.
- Promote a healthy balance among various economic sectors including industry, retail, services and government.
- Promote small business development through provision of business assistance and financial services.
- Promote the retention and expansion of existing business.
- Promote the unique business niche that Anoka offers within the region and the State.
- Promote Anoka as a tourist destination.

Goal 3

Expand the Retail Sector: To build the retail sector by attracting specific and targeted retail businesses.

- Attract specific desired retailers including a grocery store and fine dining restaurant.
- Attract retailers that fill gaps in the local mix.
- Attract businesses that offer certain quality of life experiences.
- Maximize occupancy of retail space.
- Increase the number of retail businesses and retail employment.

Goal 4

Create and Implement a Strategic Business Plan: To create a financial roadmap to guide investments in future developments.

- Develop a list of priority projects.
- Create a list of uses of funds for these projects.
- Create a list of sources of funds for these projects.
- Match sources and uses of funds over a 10 to 20 year period.
- Establish a decision-making process to implement the plan.

Goal 5

Construct Supportive Infrastructure: To provide infrastructure necessary to carry out economic development activities.

- Provide necessary public improvements. (See Capital Improvement Program)
- Provide a multi-modal transportation system. (See Transportation Section)
- Promote development of communication networks.
- Promote provision of life-cycle housing. (See Housing Section)
- Provide public facilities that support economic development.
- Provide recreational facilities that support economic development.

Goal 6

Diversify and Expand the Tax Base: To strengthen the tax base through balanced land use and business diversification.

- Promote development of vacant land with uses that achieve city goals and complement existing uses.
- Redevelop vacant or blighted properties for uses that meet city goals and complement existing uses.
- Rehabilitate deteriorated properties to enhance value and use.
- Use redevelopment to create land use balance within the city.

Goal 7

Expand Employment Opportunities: To expand employment opportunities within the City.

- Promote a diversified and balanced economic base which supports a variety of jobs.
- Retain existing companies and support their growth and expansion.
- Foster a mix of jobs that result in laddered wages among jobs within the City.
- Promote or encourage programs that match people and jobs.
- Promote programs that provide labor training to enhance upward mobility.

Goal 8

Foster and Support Development of Community Leaders: To involve citizens in community decision-making in order to develop future community leaders.

- Create ways for citizens to participate in public decision-making.
- Recruit citizens to serve on advisory boards.
- Hold appreciation and recognition events for advisory board members.
- Recognize value of leadership from non-resident stakeholders.
- Promote citizen-initiated projects.

Implementation

1. Complete Branding and implement marketing program

    - Complete branding process

    Upon recommendation by the Anoka Economic Development Commission's marketing subcommittee, Community Design Solutions and Arnett Muldrow & Associates were hired and a steering committee was formed to guide the process of creating new marketing tools for the City of Anoka. The consultants designed a new logo and tagline, provided the city with a market analysis, a large portfolio of photographs, additional design tools, a style guide, an implementation plan, and a final report.

    Logo

    The logo and tagline emerged over the process of public input and observation of Anoka's unique assets. The word type features "Anoka" in all-caps and a balanced, symmetrical treatment with the beginning and ending "A's". An offset baseline creates a space for a modifier such as the tagline, the state indication, etc. Moreover, the offset "A's" are treated with a horizontal swoop to allude to the flow of water from the two rivers in Anoka. Additionally, the "NOK" in-between is intended to relate to the bridges that span over Anoka's rivers.

ANOKA
REAL. CLASSIC.

Tagline

The tagline "Real. Classic." captures many of Anoka's assets and leaves room for interpretation and expansion. For example, many participants who provided input during the process commented on one of the indelible impressions made on them when they moved to Anoka was the people here were "real." Additionally, Anoka's "real" historic downtown is a unique contrast to the emerging trend of suburban developments attempting to re-create a historic downtown environment.

"Classic" is a word ripe with meaning that is appropriate for Anoka. First, in its purest sense, one of the definitions of classic is "historically memorable." This captures a great deal of the essence of Anoka as it's layout, natural resources, architecture, and cultural history are truly historically memorable.

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- Initiate advertising and marketing program

  On June 16, 2008, the Anoka City Council adopted a new city logo and tag line recommended by the Anoka Economic Development Commission (EDC). With a new logo and tag line approved, the City of Anoka and its Economic Development Commission will work with local businesses and organizations to introduce the design tools and capture a return on investment by attracting more businesses and boosting tourism.

  On August 18, 2008 the Anoka City Council adopted a policy for non-city use of the city logo by non-profit and for-profit organizations. The adopted policies provide a framework for community-wide implementation of the new city brand among local businesses and organizations.

  Updated versions of the city website, letterhead, newsletter, and other communication materials will incorporate the new city brand. Use of the newly adopted branding and marketing tools will allow the city to improve communication with the public and maintain a strong identity.

2. Support and collaborate within networks and organizations

- Participate as a member of the Anoka Area Chamber of Commerce.
- Collaborate with the Anoka Business & Landowners Association.
- Cooperate with Rediscover Anoka.
- Maintain liaison with the Anoka Technical College.

3. Implement a Strategic Business Plan

- Create a Financial Management Plan including the roles of:
  - General Fund
  - Enterprise Funds
  - Tax increment districts
  - Tax abatement
  - Grants and other sources
  - Prepare project source and use of funds statements
- Use existing Tax Increment Districts
  - 1987 HRA---NCBD/ RiversPointe
  - 1988 CC---Thurston/US Hwy 10 Corridors
  - 2005 CC—Historic Rum River District
  - 2006 HRA---Central Business District
- Identify appropriate new tax increment district(s)
  - Commuter Rail Transit Village
  - South Ferry Street
  - West Main Street
  - East Main Street
- Use the Tax Abatement financing according to policy where appropriate
- Issue HRA Commercial Rehabilitation Loans
- Issue HRA Commercial Rehabilitation Grants (Fire Suppression)
- Issue HRA Housing Rehabilitation Loans
- Establish a Capital Asset Reinvestment Plan
- Seek grants for other agencies

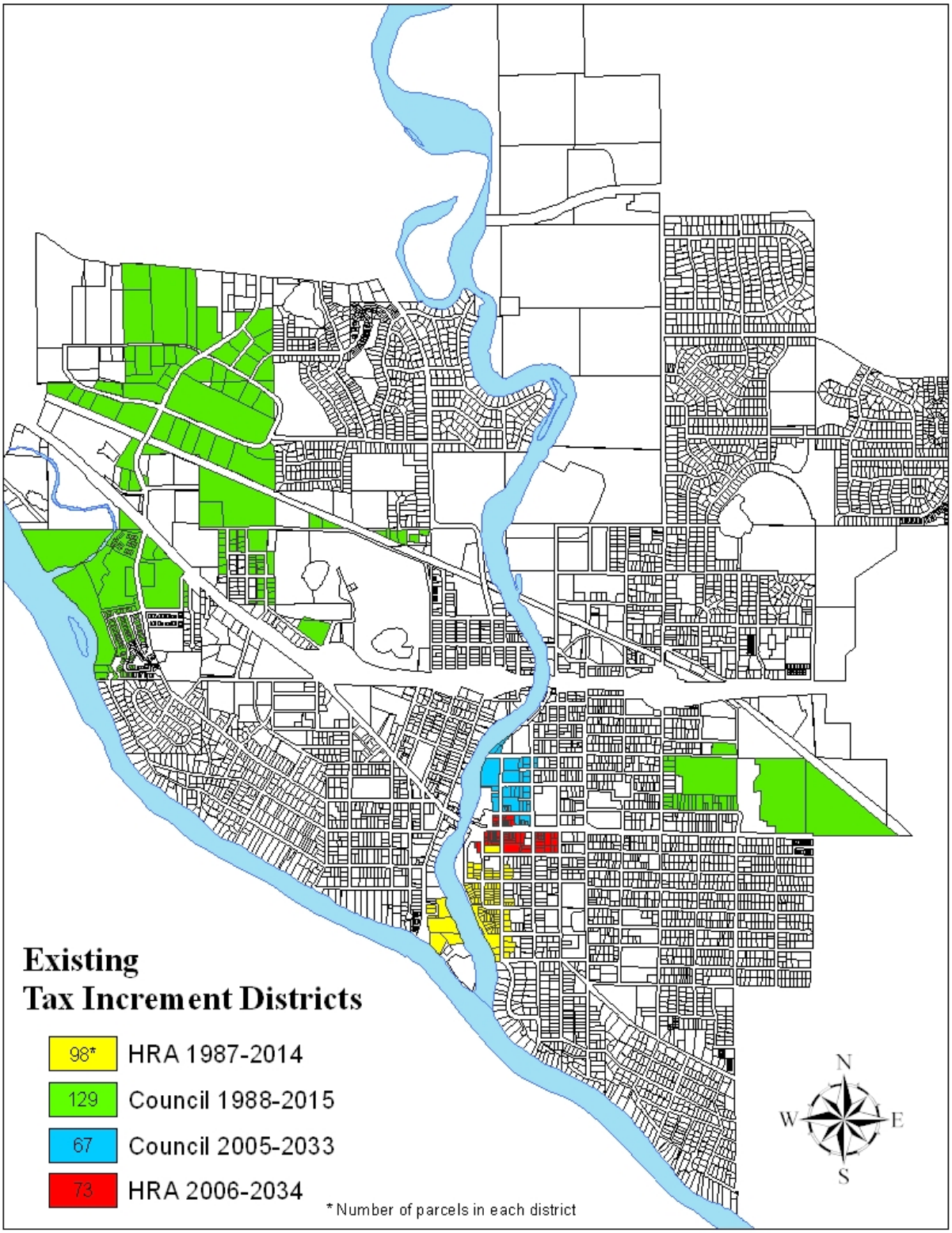

Figure: Existing Tax Increment Districts - (Source: City of Anoka)

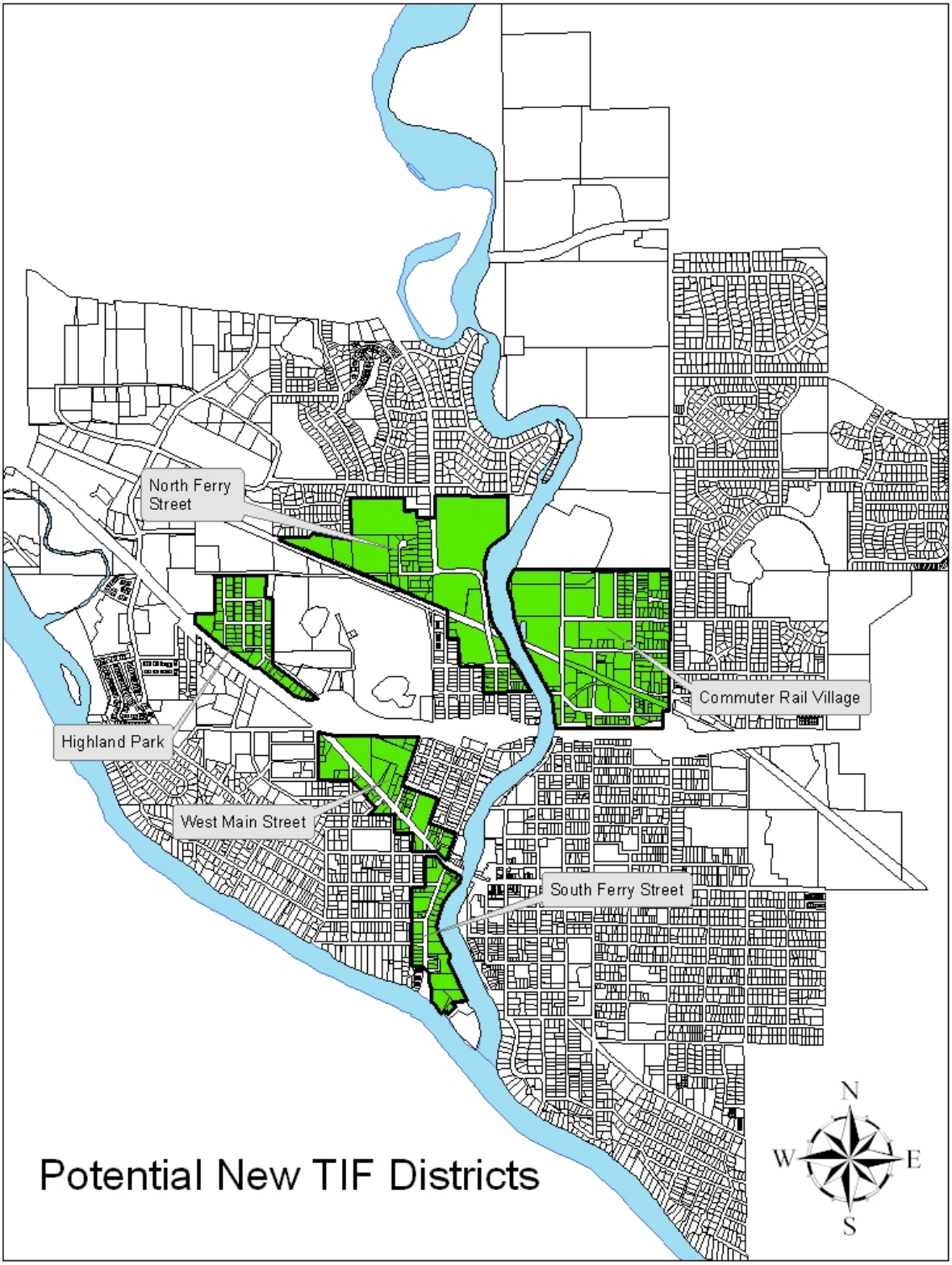

Figure: Potential New Tax Increment Districts – (Source: City of Anoka)

4. Invest in public infrastructure and facilities that support private investments

- Construct public infrastructure systems to support private development including:

  - Communications systems
  - Electric Utility
  - Street Renewal Program

- Construct and maintain public facilities including:

  - Charles Horn Swimming Pool
  - City Hall
  - Greenhaven Golf Course
  - Parks Building
  - Park system including Kings Island
  - Public Safety Center
  - Public Service Center

5. Focus resources on points of identity, destination, and economic intersections

- Create identification signage and promote investments at the following gateways with priority given to those identified in **bold**.

  - Bunker Lake @ Thurston
  - Bunker Lake @ Highway 47
  - Bunker Lake @ 7th Avenue
  - Bunker Lake @ Round Lake Blvd
  - East River Road
  - **Ferry Street @ Mississippi Bridge**
  - **Main Street-East @ 11th Avenue**
  - **Main Street-West @ Rum River Bridge**
  - North Street @ 11th Avenue
  - U S Highway 10-East
  - **U S Highway 10-West**
  - U S Highway 10 @ Main Street

- Recognize the economic importance of the following major destinations with priority given to those identified in **bold**.

  - Anoka Enterprise Park
  - Anoka High School
  - Anoka Technical College
  - **Central Business District**
  - **Commuter Rail Village**
  - Federal/Hoffman

Images: Anoka Signage Concepts – (Images courtesy of Community Design Solutions and Arnett Muldrow & Associates)

- Capitalize upon investment/development opportunities at the following intersections with priority given to those identified in **bold**.

  - **Bunker Lake Blvd/7th Avenue**
  - Bunker Lake Blvd/Hwy 47
  - Bunker Lake Blvd/Round Lake Blvd
  - **Bunker Lake Blvd/Thurston Avenue**
  - Ferry/Pleasant
  - **Main/Ferry**
  - Main/2nd Avenue
  - Main/7th Avenue
  - 7th Avenue/East River Rd
  - 7th Avenue/38th Avenue
  - **US 10/Thurston**
  - **US 10/Main Street**
  - US 10/Ferry Street
  - US 10/7th Avenue

Photo: Intersection at Main Street and 2nd Avenue N - (Image courtesy of Community Design Solutions and Arnett Muldrow & Associates, 2008)

6. Invest in projects along corridors of commerce and culture

   - Guide and promote development along the following commercial corridors with priority given to those identified in **bold**.

     - 7th Avenue
     - BNSF Railroad
     - Bunker Lake Blvd
     - East River Road
     - Ferry Street-North
     - **Ferry Street-South**
     - **Main Street-East**
     - **Main Street-West**
     - MN Highway 47
     - Thurston Avenue
     - **US Highway 10**

   - Guide and promote developments along cultural corridors including:

     - Mississippi River—MNRRA trail, accesses, Kings Island
     - Rum River—trail, dam, navigation, accesses, public uses

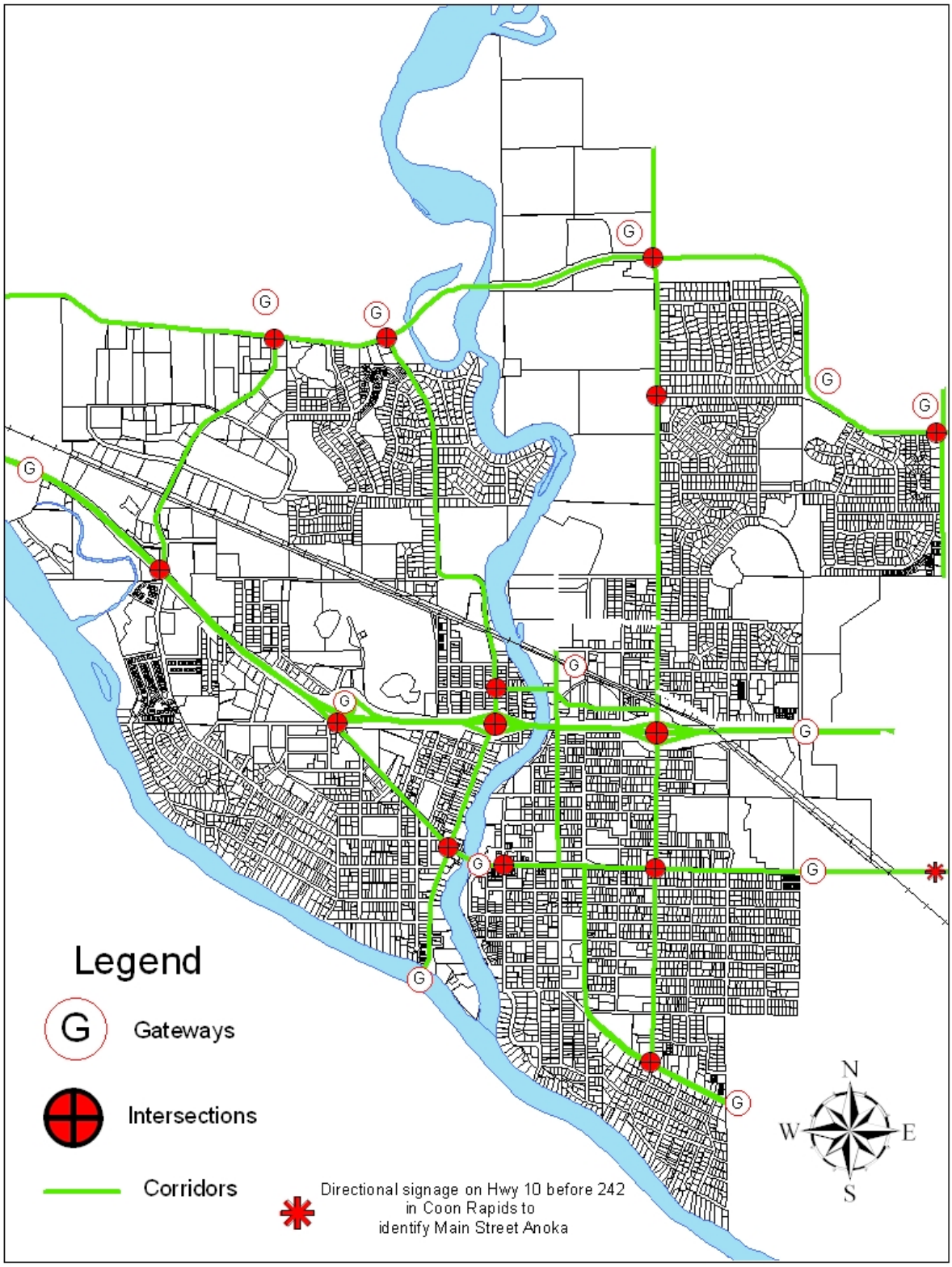

Figure: Potential Intersections for Development – (Source: City of Anoka)

7. Invest in sites and neighborhoods ready for growth based upon market conditions

- Promote development and investment at the following sites with priority given to those identified in **bold**.

  - **11th Avenue**
  - 3rd/Jackson
  - Castle Field
  - **Eniva Corporation**
  - Graco Inc.
  - Hunts Bus
  - K-Mart
  - Mobile Home Park
  - **Rivertown Lofts**

- Promote development and investment in the following neighborhoods with priority given to those identified in **bold**.

  - Anoka Enterprise Park
  - Central Business District-intersection of Main Street and Rum River
  - **Commuter Rail Village-intersection of rail line and Rum River**
  - Coopers Landing
  - Federal/Hoffman
  - Franklin School
  - Highland Park
  - **Historic Rum River District project**
  - Rottlund Master Plan
  - City Hall re-use
  - Third Avenue, Van Buren to Harrison
  - County leased lot redevelopment
  - Jackson Street
  - **Land North of Bunker**
  - Pinewski/Smith properties
  - Schwartzmans/Fairgrounds
  - Thurston/Bunker
  - **West Main Shopping Center**

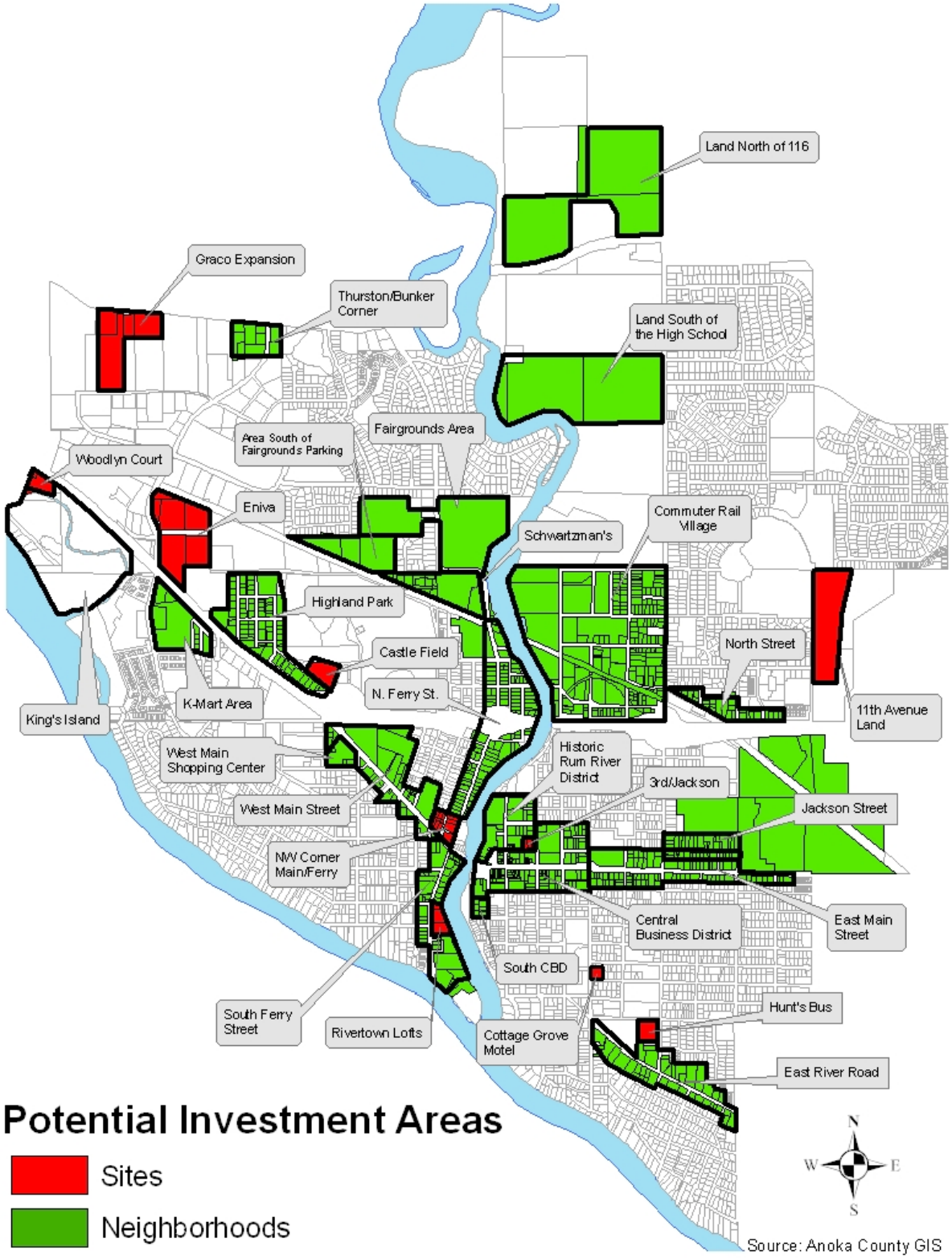

Figure: Potential Investment Areas – (Source: City of Anoka)

Housing Goals & Policies

Handbook Section 7.1
e) Housing implementation program

As part of the comprehensive planning process, the City and the HRA requested input from residents through a variety of methods to understand the important housing issues in the City. The City conducted community meetings and provided an online survey to gather input from residents. The HRA conducted strategic planning sessions and evaluated the community feedback to prepare goals that would help use the HRA's resources effectively to address housing in the City. Through this process, several new goals were prepared to ensure that the housing stock in the City remains in quality condition and that the development of new housing meets the future needs of the City. The main focus of the goals is to provide a diversity of quality housing now and in the next 20 years so that the community continues to provide an excellent quality of life for its residents.

Each goal is supported by existing data. A set of implementation strategies are identified to help policy makers reach the goals over the next 20 years.

Photo: Anoka House - (Image courtesy of Flickr, 2008)

Goal 1

Increase the quality and value of the existing single family and multifamily housing units in the City of Anoka.

Supportive Findings:

1. Housing units in the City are aging

    - Homes over 30 years of age require maintenance; 70 percent of the Anoka's housing units are nearly 30 years old or more.

2. There's a lower overall value of housing units in Anoka compared to surrounding communities

    - 61 percent of the single family detached homes and 68 percent of multifamily homes have an assessed value under $206,800 (Assessor, January 2007).
    - Anoka's residential market value per capita (2005) was $51,073; homestead residential value was $39,706, much lower than surrounding communities.
    - Median Sale Price of homes at year end in 2006 was $200,873 and $195,293 at the year end of 2007 (realtor association based on mls data for all homes sold). These values are the third lowest median value compared to surrounding communities.
    - In 2000, Anoka had a lower than average housing values at $119,000, 16 percent lower than surrounding communities.

Implementation Strategies:

1. Continue to provide home renovation programs.

    - Encourage participation in the CHORE program, paint-up/fix-up programs such as the Metro Paint-A-Thon Program and the Community Fix-up Fund.
    - Continue holding clean up/pick up days for appliances and furniture and the annual home improvement show.
    - Continue to offer HRA home renovation loans and rebates.
    - Continue to provide access to Construction Management Advice and educate residents on the benefit of this service for renovation projects.

2. Support the removal of housing blight in residential areas to increase home and neighborhood value.

    - Continue a Scattered Site Replacement Program.

- Promote volunteer programs and partnerships to facilitate exterior renovations.
- Continue enforcing the zoning ordinance provision which limits the number of vehicles that may be parked on a residential property.

3. Encourage energy efficiency and sustainability in home renovation and new construction.
    - Educate residents on energy rebates.
    - Provide access to resources for improvements to homes that use green building techniques.
    - Evaluate the potential for providing specific rebate or loan programs for home renovations utilizing green building methods.

Goal 2

Ensure quality living conditions for all residents through the enforcement of ownership and rental housing maintenance codes and housing programs.

Supportive Findings:

1. Based on Code Enforcement Reports from 2003-2006, there were **1,005** property maintenance complaints of which approximately **12 percent were due to deferred maintenance issues**. In 2007, 2,944 properties were inspected, 565 notifications for code violations were mailed and 7 citations were issued. In addition, 364 notifications were mailed and 40 citations were issued as a result of the 400 violations reported by residents.
2. The lower than average incomes in Anoka ($42,639), in comparison to the average incomes of surrounding communities, limit residents' ability to improve homes.

Implementation Strategies:

1. Encourage continued and timely enforcement of all maintenance codes.
    - Assist in providing education to residents regarding maintenance expectations.
    - Continue the City "PACE" program for proactive identification of code violations.
2. Encourage code compliance of homes prior to resale.
    - Explore the costs and benefits of establishing a truth-in-housing or point-of-sale program in the City.
3. Continue to monitor and inspect rental properties.

- Increase communication with landlords on current codes and good rental practices.

4. Promote rehabilitation of rental properties.

    - Create a rental rehabilitation program with a focus on older rental properties throughout the city.

5. Monitor properties in foreclosure.

    - Create a foreclosure plan with a focus on housing maintenance and a process to encourage resale of homes.

Goal 3

Promote the expansion, redevelopment and renovation of older, smaller homes.

Supportive Findings:

1. Anoka has smaller than average lot sizes compared with other Anoka County communities.

2. Anoka's single family homes are smaller than average.

    - 10 percent of homes have an average of 820 square feet.

    - The average existing home sizes in Anoka ranges from 676 – 978 square feet (note, there are home in Anoka greater than 978 square feet). In contrast, the average new home is 1,400 square feet and a typical one-bedroom apartment is 950 square feet.

    - 22 percent of Anoka single family homes are two bedroom.

3. In 2000, Anoka had lower than average housing values at $119,000, 16 percent lower than surrounding communities.

Implementation Strategies:

1. Promote design ideas associated with smaller home renovation

    - Explore options to provide architectural assistance and ideas to residents and builders

    - Provide design and renovation information to assist in historic home renovation.

2. Promote use of city, county and state renovation loan programs such as the fix-up funds for home renovation.

3. Evaluate lot combinations where small, non-conforming homes exist for replacement with move-up and higher value housing.

Goal 4

To diversify the housing stock, promote home ownership among all housing types and provide housing options to attract young buyers and families.

Supportive Findings:

1. The population of the City of Anoka is aging and there is a decrease in the younger age categories.

2. Of the 13,400 jobs in the City, Anoka residents hold only 10 percent; 90 percent of the City's workers commute out of Anoka for their job.

3. There is a limited availability of newer, move up housing to attract growing families.

    - There are only 147 single-family homes (only 3 percent of the total ownership housing stock) that have a market value of $350,000 and above.

    - There are only 3 townhomes, condominiums or quadhomes that have a market value $350,000 and above.

Implementation Strategies:

1. Provide workforce housing options in the City specifically for first time homebuyers and new young families.

    - Promote the value of quality affordable homes near established city services and schools.

    - Promote community benefits including parks, trails, recreational opportunities, small community downtown and good schools.

2. Link new jobs to existing and new housing in the City.

3. Evaluate new higher valued housing opportunities to provide move-up housing for existing and new employees in the City.

Goal 5

To provide opportunities for older residents to remain living in the City.

Supportive Findings:

1. There is an increasing growth of older residents and an increasing percentage of older adults living alone.

   - 32 percent of all households include one adult (22 percent is average in other communities).
   - 34 percent of single person households are over the age of 65.
   - 19 percent of all households includes individuals 65 or older.
   - 49 percent of over age 65 households live in rental housing.

Implementation Strategies:

1. Evaluate methods for older adults to age in place and/or transition to alternate housing

   - Support the transition of seniors leaving existing homes and selling to new young buyers.
   - Evaluate resources and access to services for home maintenance and renovation for older adults who prefer to age in place.
   - Evaluate the development of cooperative homes for older adults with shared centralized services.

Photo: Anoka senior housing – (Image courtesy of Community Design Solutions and Arnett Muldrow & Associates, 2008)

Goal 6

To consider new affordable housing opportunities to achieve the Metropolitan Council Livable Communities goals through 2020.

Supportive Findings:

1. Metropolitan Council predicts that there will need to be 51,000 new affordable housing units constructed in the Twin Cities between 2011-2020 to meet projected low-income household growth.

2. Based upon a formula which considers the projected growth of new households, level of existing affordable housing units, existing and projected job opportunities and access to transit, the Metropolitan Council estimates that Anoka will need to accommodate 96 additional affordable ownership or rental housing units between 2011-2020.

3. Of the 3,686 rental units in the City less than 7 percent of these units are assisted with Section 8 rental assistance.

Implementation Strategies:

1. Evaluate options to provide housing affordable to those with incomes at or below 60 percent of the current area median income in redevelopment areas of the City.

2. Evaluate new home ownership opportunities for those with incomes at or below 60 percent of the area median incomes such as Habitat for Humanity and land trust housing.

Photo: Welcome Home – (Image courtesy of Flickr, 2008)

Heritage Preservation Plan

As the earliest settlement, county seat, and major agricultural and commercial center in Anoka County, the City of Anoka contains the majority of historic properties identified in the County survey. However, these properties are being threatened by deterioration and redevelopment. The heritage preservation plan is necessary to preserve community identity and specific cultural resources that reflect the heritage of our community.

Preservation Goals

1. Preserve the distinctive historic character and identity of Anoka as a small town.
2. Preserve the identity of the historic neighborhoods in the City.
3. Recognize the unique character of the downtown area and preserve the historic "Main Street" image of the Central Business District and residential neighborhoods.
4. Preserve and protect the historic aspects of the community.
5. Encourage and promote preservation of local history relating to businesses, civic, social and religious organizations and resident individuals and families.
6. Research and interpret local history to residents, visitors, and tourists.

Preservation Policies

1. Consider heritage preservation goals as part of land use planning, rezoning, and redevelopment.
2. Monitor zoning of areas to protect historically significant structures.
3. Promote historically sensitive rehabilitation and infill redevelopment of compatible architectural styles in the Central Business District and residential neighborhoods.
4. Promote and encourage the collection of local history by local businesses, social civic religious organizations, families and individuals.
5. Identify and honor Anokans who have made significant contributions to the community.

Implementation - Action Steps

1. Remain a certified local government for heritage preservation.
    - Review and strengthen the Historic Preservation ordinance.
    - Review proposed Heritage Preservation districts and sites.
    - Review and update design guidelines for existing and proposed Heritage Preservation districts and sites.
    - Update the inventory of historical aspects of the community.
2. Support programs to preserve the historic aspects of the community.
    - Encourage expansion of the Commercial Rehab Revolving Loan Fund.
    - Encourage the use of the Revolving Loan Fund for housing rehabilitation.
    - Promote architectural guidelines for funded projects which emphasize historically significant rehabilitation.
3. Continue projects and programs to interpret local history to residents, visitors, and tourists.
    - Continue the development of the Rum River Heritage Trail on the east bank of the Rum River.
    - Research and create heritage walks in the Central Business District and other appropriate locations.
    - Continue to promote the location and maintenance of historical markers or plaques on appropriate historic resources, along trails, and in City parks to interpret local history.
    - Encourage tours or events which interpret local history.
4. Work in partnership with the Anoka County Historical Society.

Environmental Resources Goals & Policies

Overall Goal

To preserve and enhance the environmental quality of the community.

Environmental Protection Policy

1. The City will review and update the Environmental Protection section of the City Code for consistency with Statute requirements and other agency environmental protection policies.

Natural watercourse policy

1. The City will strive to protect natural watercourses to minimize public investment in storm sewers and improve the quality of stormwater runoff.

Stormwater and Surface Water Management Goals

The following are City goals related to surface water management:

1. The City will take steps to control flooding while minimizing public capital expenditures.
2. The City will strive to achieve water quality standards in lakes, streams, rivers and wetlands consistent with the intended use and classification.
3. The City will take steps to protect and enhance water recreational facilities, fish and wildlife habitat.
4. The City will take steps to increase public participation and knowledge in management of the water resources in the community.
5. The City will maintain the public ditch and drainage way system to convey water to maintain defined flood levels.

Wetland policy

1. The City will identify and protect wetlands of one acre or more in size.

Flood Plain Policy

1. The City will periodically review the flood plain regulations to assure protection from flooding.

Slope policies

1. The City will include standards in the zoning ordinance that require a permit prior to construction, filling or grading for development of sloped areas of 12% or greater.

2. Since shoreline erosion is a very small contributor to river pollution and stabilization projects are very expensive, municipal funds should be used only for serious problems on public lands.

Soils Policies

1. Development shall not be allowed in areas identified as having severe soil limitations unless corrective measures are taken.

2. Private sewer systems shall not be allowed in areas identified as having severe soil limitations.

Woodland policies

1. No clear cutting will be permitted within one hundred feet of the normal high water mark in the areas covered by the Wild and Scenic Rum River regulations and the Mississippi River Critical Area.

2. Selective cutting of trees in excess of four inches in diameter (measured at four feet above the ground) will be permitted provided that cutting is spaced in several cutting operations and a continuous tree cover is maintained.

3. The policies regarding woodlands listed above are not intended to prevent the removal of disease or insect infested trees; rotten or damaged trees that present safety hazards; the pruning of understory vegetation, shrubs, plants, bushes, grasses; harvesting of crops; or the cutting of trees that are less than four inches in diameter at four feet in height.

4. Where clear cutting occurs, the following standards should apply:

    - Clear cutting shall not be used as a cutting method where soil, slope, or other watershed conditions are fragile and subject to injury.

    - Clear cutting shall be conducted only where clear cut blocks, patches or strips are, in all cases, shaped and blended with the natural terrain.

    - The size of clear cut blocks, patches or strips shall be kept at a minimum.

Additional Policies

In addition to the goals and policies listed throughout this section, the following policies have been identified:

1. To recognize and avoid, where possible, significant natural features in the placement of infrastructure, in areas of development or redevelopment.

2. Continue to support efforts for community education and awareness of air quality issues.

3. Consider the effect of soil disturbance and grading on air quality and soil erosion in review of development plans.

4. Enhance community awareness about the importance of the urban forest and the positive impact trees and shrubs have on the environment. Urban forest includes all trees and shrubbery on public or private property within the City.

5. Promote public and private tree planting, replacement and preservation programs to sustain the urban forest.

6. Make conservation and efficient utilization of all energy sources a high priority in the City's operation and development of facilities.

Mississippi River Corridor Goals & Policies

Mississippi River Corridor Goals

The following goals are established for the Mississippi River Corridor. These goals emulate the Guiding Principles and Community Vision that are described in the first section of the Anoka Comprehensive Plan.

1. Tell the story and celebrate the history of the Mississippi River and its importance to the City of Anoka.

2. Protect the Mississippi River Corridor from negative environmental and visual impacts of human development.

3. Optimize the economic benefits of riverfront development without compromising the intentions of the Critical Area Corridor.

4. Establish community connections to and from the corridor for Anoka's neighborhoods and downtown.

5. Satisfy the intentions of the Critical Area Act and other regional river corridor planning and regulatory initiatives.

Policy Framework

The intent of the following policy framework is to help meet the goals of the City of Anoka's Comprehensive Plan and Mississippi River Corridor and to satisfy statutory requirements of Critical Area Act legislation.

Environmental ~ Natural Watercourses and Wetlands

1. Protect natural watercourses through easements or land dedications during the development plan review process and subdivision regulations.

2. Meet minimum standards established by the MPCA regarding stormwater discharged into the Rum or Mississippi Rivers.

3. Minimize direct overland runoff and improve quality of runoff onto adjoining streets and watercourses.

4. Encourage the use of on-site infiltration techniques (such as rainwater gardens or drainage swales) for stormwater drainage and retention.

5. Do not disturb riverbank areas of natural watercourses except when making improvements to stabilize shorelines or riverbanks.

6. Use techniques that are supported by area hydrologists or the Anoka County Conservation Department (i.e. incorporating natural vegetation or other Best Management Practices) for riverbank improvements or shoreline stabilization projects where appropriate.

7. Comply with federal, state and local requirements to avoid floodplain and wetland development.

Environmental ~ Slopes

1. Protect bluffs with slopes greater than 18% that are susceptible to severe erosion. Adopt appropriate regulations to maintain the vegetative cover on these slopes in order to minimize erosion problems.

2. Adopt appropriate development controls for bluffs with slopes between 12% and 18% that are subject to lesser degrees of erosion in order to minimize erosion and slippage. Such controls should include replacement of vegetative cover on these slopes to minimize erosion problems.

3. Adopt regulatory controls to minimize the time soil is left bare during construction, and to assure necessary precautions to trap sediment.

4. Shoreline protection and stabilization shall be individual property owners' responsibility. The City should work with other entities to provide design standards for those who want to make improvements.

Environmental ~ Soils

1. Discourage the use of individual septic treatment systems (ISTS) where public sewer service is available and ensure existing systems are in compliance with local and state laws. (See Utilities Locations map for suspected locations of ISTS within the corridor.)

2. Consider soil classification information when determining appropriate land uses and building designs.

Floodplain

1. Review and revise the 100-year flood plain for all watercourses within the City of Anoka in accordance with applicable procedures.

2. Enforce City adopted flood plain regulations.

Woodlands ~ Urban Forest and Natural Vegetation

1. Avoid removal of trees and other native vegetation. Replant appropriate vegetation where removal is unavoidable.

2. Adopt subdivision and site plan regulations that require identification of existing trees, trees to be removed and proposed new plantings.

3. Seek technical assistance to provide the necessary resources for a reforestation program along the Mississippi River.

4. Minimize alteration of existing native vegetation and encourage restoration of native vegetation.

5. Adopt programs to manage undeveloped islands in their natural state.

Land Use

1. Maintain existing public access points to the river to allow pedestrians to view the river and provide natural screening where appropriate to avoid conflicts with adjacent property owners and prevent encroachment.

2. Ensure that development of structures, roads, screening, landscaping, construction placement, maintenance, and stormwater runoff are compatible with the character and uses in the Corridor.

3. Require site plan review of development projects in the corridor, except for development of one single-family house.

4. Require site plans to adequately assess and reasonably minimize adverse effects and maximize beneficial effects of proposed development. Site plan applications will include:

    - Description of activities undertaken to ensure consistency with the objectives of Executive Order 79-19

    - Maps that specify topography and expected physical changes in the site as a result of the development

    - Description of measures that address adverse environmental effects

- Drainage plans
- Landscaping (including re-vegetation) and buffering plans
- Building elevations that indicate proposed exterior materials
- Illustration of compliance with all zoning (setbacks, building heights, etc.) and subdivision requirements
- Identification of opportunities for open space preservation and public viewing of the river corridor

5. Maintain a predominantly residential land use pattern in the critical area corridor in Anoka, and limit commercial expansion.
6. Encourage the use of Planned Unit Developments (PUDs) for larger developments to preserve natural features and allow for scenic vistas, trails and walkways.
7. Require a topographic "certificate of survey" to accompany all requests for building permits for principal structures.
8. Minimize impervious surface coverage and site alteration within the Critical Area Corridor, especially on riparian lots, through unique and sensitive site design.
9. Promote reuse and rehabilitation of existing structures, allow for reconstruction of existing uses that are involuntarily destroyed in residential zoning districts, and place reasonable limits on the expansion of nonconformities that have the potential to adversely affect surrounding properties, the City as a whole and the character of the Urban Developed District.
10. Prohibit the reconstruction of non-conforming uses that are destroyed by any means to an extent of more than 50% of the current City-appraised market value of the property including land and structures.
11. Require reasonable portions of appropriate riverfront access land or other lands in interest to be dedicated to the public in residential and planned unit developments, and commercial and industrial subdivisions within the corridor. In the event of practical difficulties or physical impossibility, allow an equivalent amount of cash contribution in lieu of land for park, trail, open space, stormwater drainage areas, or other public services within the corridor.
12. Minimize any adverse effects associated with water transportation facilities.

Public Facilities Policies

1. Preserve shoreland areas that are not suitable for urban development because of susceptibility to flooding, high ground water levels, or steep slopes.

2. Provide continuous trails within or near the Critical Area Corridor for pedestrian and bicycle use.

3. Link trails within the Critical Area to the citywide trail system.

4. Develop the design of new trails within the corridor with input from the adjacent neighborhood as well as the greater community.

5. Include public art and design elements that reflect and reinforce the City of Anoka's identity.

6. Design trails with bituminous surface (or other appropriate hard surface) and separate bicycle and pedestrian traffic where possible.

7. Do not locate trails in private yards between the house and the river in existing residential areas, unless all affected property owners solicit it.

8. Limit overhead electric transmission or other public utility lines to existing crossings, and use submarine cables where possible.

9. Consider appropriate uses of adjacent lands between the river and the road or utility during planning and design for reconstruction of roadways or utility corridors. Consideration should be given to scenic overlooks, pedestrian crossings and facilities, and public access to the riverfront during planning and design of transportation facilities.

10. Design and construct new or modified transportation and utility facilities in a manner that compliments the planned land and water uses in the corridor. Reconstruct roads or utilities in a manner that they do not stimulate development that is incompatible with the Urban Developed District.

11. Minimize river crossings and concentrate at existing crossings where possible.

12. Do not use the corridor as a convenient right-of-way.

View-sheds

1. Consider and minimize obstruction of views of and from the river when permitting new development or redevelopment within the corridor. Keep these views as natural as possible.

2. Enhance and maintain views to the river from public streets that dead-end at the river.

3. Balance the rights of private property owners with the interests of the general public when considering the building of any structures that may inhibit views to the river from adjacent property or public right-of-way.

Transportation Goals and Objectives

Identifying goals and objectives provides direction and focus for the development of a Transportation Plan. This plan will serve the anticipated growth and projected travel needs of the City of Anoka's residents and businesses over the next 20 years. The goals and objectives have been developed as part of the planning process.

Goal 1

Safety: Develop and maintain a transportation network that promotes the safety of its users by:

- Maintaining infrastructure
- Reviewing geometric improvements annually
- Evaluating and setting appropriate speeds

Goal 2

Efficient Movement: Strive to ensure that the transportation network promotes the efficient movement of people and goods by:

- Establishing a 2030 proposed functional classification system
- Encouraging consistency between roadway jurisdiction, designation and functional classification
- Supporting efficient multi-modal movement including buses, commuter rail, bicycles, and pedestrians
- Managing access on arterial and collector roadways to preserve mobility and minimize through-traffic on neighboring routes

Goal 3

Land Use/Development: Ensure that decisions regarding transportation system planning and system development are fully integrated with land use by:

- Reflecting the City's land use policies in the transportation system
- Coordinating with adjacent communities
- Identifying and preserving potential corridors for flexible use

Goal 4

Multi-modal: Promote a variety of transportation modes choices in the development of the City's transportation network by:

- Providing options for transit dependent persons
- Encourage provision of and opportunities for transportation services for handicapped and senior residents
- Encouraging the use of trails
- Promoting development of infrastructure for non-motorized transportation
- Preserving corridors for possible multi-modal transportation
- Encouraging the expansion of public transportation
- Promoting and incorporating transit-friendly infrastructure in system planning
- Coordinating with local and regional transit agencies

Goal 5

Environment: The City of Anoka's transportation system will be maintained and developed in a manner that is sensitive to the City's cultural, historic and natural resources and neighborhoods by:

- Minimizing impacts on environmental and natural resources during improvements and maintenance of the system
- Using traffic-calming techniques when and where they are appropriate while preserving safety
- Considering traffic impacts on community livability and cultural, historic, and natural resources

Goal 6

Community Involvement: Include public participation in the planning, construction and maintenance of the transportation system by:

- Engaging the community in planning and decision-making
- Providing the public with reasonable and understandable information
- Providing opportunities for transportation education

Goal 7

Coordination between Jurisdictions: Build cooperation and coordination between jurisdictions:

- Coordinating transportation plans
- Interacting with state, county and local agencies
- Continuing participation in area transportation projects

Goal 8

Investments and Use of Funding: Establish a transportation system that provides for effective and efficient use of potential improvement funds by:

- Preserving, maintaining and managing the existing roadways system
- Constructing new links and developing staged improvements
- Encouraging joint-agency and public-private partnerships
- Minimizing maintenance of existing and construction of new routes in redevelopment areas
- Identify local transportation needs and ways to provide for these needs.

Photo: Main Street at night in Anoka – (Image courtesy of Flickr, 2008)

Water Resources

Runoff Management and Flood Control

- No flow rate increases in already-overtaxed stormwater systems.
- Implement Anoka's stormwater management ordinance.
- Place high priority on providing 100-year level of protection for the city's stormwater system.
- Require 10-year level of service for new stormwater systems and for existing systems as opportunities arise.
- Manage waterways as potential natural resource areas.

Water Quality Management

- Modify city review, permitting and enforcement processes for construction activities to ensure water quality goals are met.
- Heighten community awareness through education and training.
- Manage city water resources so that the beneficial uses of streams, wetlands, ponds, and lakes remain available to the community.
- Work with the counties, townships, and upstream landowners to encourage upstream pollutant reduction in areas closer to the srouch of such pollutants.
- Use regional detention areas, where practical and physically possible, as opposed to individual on-site detention to reduce flooding, control discharge rates, and provide necessary storage volume.
- Implement a runoff water quality monitoring program, if required to do so (i.e. NPDES requirements.)
- Promote stormwater retention through infiltration practices and demonstration projects, where soil conditions allow and where not detrimental to groundwater supplies.

Residential Recycling & Waste Reduction Goals

Common WRRB Goals

- Host spring and fall recycling events.
- Host paper shredding/document destruction events.
- Host two recycling educational presentations at local elementary schools.
- Improve/add recycling opportunities at city-sponsored events.
- Increase recycling participation at multi-family properties.
- Proactively educate on e-waste regulations to promote recycling of electronic devices.
- Promote residential recycling via city newsletter, city website, mailings, and other media as needed.
- Meet once per month, or as needed, to discuss various recycling opportunities and activities to help improve the quality of life in the City of Anoka.

Future WRRB Goals

- Consideration of a permanent city-owned and operated recycling center.
- Promote and increase recycling opportunities and procedures in all city offices.
- Establish recycling programs in all city-owned parks

Photo: Please Recycle – (Image courtesy of Flickr, 2008)

Parks, Trails and Open Space

Goals for Anoka Parks, Trails and Open Space System

Thirteen recreational goals have been identified to meet the needs of the City of Anoka's recreational community and are as follows:

Handbook Section 6.1
b) Proposed regional parks & trails map and description

Goal 1

Complete trail connection along and across Highway 10 / Main Street and other park areas.

Objective

To create a safe pedestrian thoroughfare along Highway 10 / West Main Street with strategic crossings at Thurston Avenue, Fairoak Avenue, and the West Main Street / Highway 10 interchange allowing north / south pedestrian and bike circulation.

Strategy

The Minnesota Department of Transportation (MnDOT) will be widening Highway 10 / Main Street to six (6) lanes. The City will work with MnDOT to plan this trail to parallel the new highway and allow strategic pedestrian and bike crossings.

Goal 2

Construct Anoka County Mississippi River Regional Trail connection through Kings Island connecting to the existing trail system in Mississippi River Community Park.

Objective

To construct trail connections in partnership with Anoka County and the National Park Service, providing a vital link to the region trail system and the Mississippi National River and Recreation area while improving park amenities.

Strategy

Work with Anoka County and the National Park Service to construct trail connections that will link to the regional trail system and the Mississippi National River and Recreation area.

Goal 3

Construct a twenty-five (25) acre multi-purpose athletic complex.

Objectives

To address the park facilities shortage of seventy-five (75) foot and seventy (70) foot base pad baseball fields.

To provide additional opportunities for maintenance restoration of other athletic turf areas. To provide a future opportunity for lacrosse when necessary.

Strategy

While recognizing the political sensitivity of the Rum River Nature preserve, there appears to be enough land adjacent to the Anoka County Library for a baseball complex and parking lot. The possibility of utilizing land just west of the Anoka High School owned by the school district and other property owned by the state could provide an opportunity to develop an athletic complex south of 116.

Goal 4

Reconstruct George Green Park and Bonnell Fields.

Objective

To reconstruct these adjacent parks to better utilize their play field configurations, access and circulation while offering more off-street parking opportunities.

Strategy

Parking: Parking is proposed to be located near the large existing Aquatic Center lot. This optimizes the parking central to George Green and Bonnell Fields. Parking currently incorporates on-street parking on Brisbin Street and South Street. Additional off-street parking will be created adjacent to the Senior Center on the site of the current pavilion.

Site Structures: The existing picnic pavilion is proposed to be demolished. A new shelter will be constructed in the center of the park complex to create a focal point and icon. The existing picnic shelter lacks the utility and the location to function as the park's main identifier.

The existing band shell will be left where it stands. The wooded area surrounding the stage creates a backdrop for events. The metal bleachers would be replaced with ornamental benches.

Aquatic Center: The existing Aquatic Center is a recently renovated major community attraction. It is a primary focal point for recreational activities, as well as swim lessons. The addition of deck space, lap swim, slides and swim lesson areas may be considered to accommodate high-level public demand.

Access and Circulation: Access needs to be addressed at each of the corners of the park. Access to the elementary school to the south and to the middle school to the west needs improvement. The master plan proposes to narrow street widths and add on-street parking to South and Brisbin Streets. Narrowing the street entrances slows vehicular traffic and promotes pedestrian access and safety. It also provides a sense of entry into the park.

Sidewalks have been proposed to not only follow around the outside of the park, but to enter and allow people to participate in park activities. Connecting the major attractions, like the Aquatic Center, playground, senior center, picnic shelter and band shell into a pedestrian walkway is essential to unifying the park. The looping walking trail through the wooded portion of George Green connects all of the major park elements and provides a nice informal path through the park.

A formal pedestrian walkway is proposed to join George Green and Bonnell Fields. This walkway crosses Brisbin Street and will provide the major access point from one side of the park to the other. A traffic circle will slow vehicular traffic creating a safer pedestrian crossing between the parks.

Play fields and Courts: The existing ball fields are proposed to be redeveloped to allow for additional parking facilities, basketball courts and a small shelter, which terminates the pedestrian walkway across Brisbin Street. A large play field will be combined into the ball fields. Tennis courts are to be relocated to allow the picnic shelter to be located in the center of the park.

Vegetation: Trees are proposed to line the park boundary. These trees are vital to creating a sense of place and to identify the park as being different than its surrounding context. Mass tree plantings are proposed to buffer existing residences bordering the park from activities taking place in the park.

Goal 5

Encourage revitalization of the Eastman Amphitheater and establish the Rum River Promenade.

Objectives

To revitalize historic Eastman Amphitheater as a public gathering space for community members and visitors.

To create connection to the adjacent Akin Riverside Park: Rum River Promenade.

Strategy

Eastman Amphitheater and Akin Riverside offer opportunity for river connection and extension of the Rum River Trail. Directly north of Akin Riverside is the existing City Hall Dam East and proposed NCBD where co-ops, condos, lofts, retail and office spaces are slated for construction.

The City Hall Dam East offers an existing Rum River Promenade from Akin Riverside Park, under Main Street, to the existing Port of Anoka at the Anoka City Hall and through the new NCBD community space. The Rum River Promenade should connect the Eastman Amphitheater as a major public destination for community events.

Goal 6

Complete passive recreation areas of the Rum River Trail and Rum River Conservation Area.

Objective

To provide a high degree of interaction with the natural environment in natural areas of the Rum River Trail and Rum River Nature preserve without a detrimental impact on the landscape and significant infrastructure development.

Strategy

Preserve the Rum River Trail and Rum River Conservation Area natural landscape features to ensure environmental protection and simultaneously provide access for public use and enjoyment. This will include creating amenities in passive recreation areas, which include paved trails for hiking, wildlife watching, running, and picnicking and historic interpretive areas. Inappropriate activities include competitive sports and mechanized recreational conveyances

Goal 7

Complete passive recreation areas of the North Central Business District (NCBD)

Objective

To provide a high degree of interaction with the natural environment in natural areas of the NCBD without a detrimental impact on the landscape and significant infrastructure development.

Strategy

Preserve the NCBD natural landscape features to ensure environmental protection and simultaneously provide access for public use and enjoyment. This will include creating amenities in passive recreation areas, which include paved trails for hiking, wildlife watching, running fishing, picnicking, and historical interpretive areas. Inappropriate activities include competitive sports and mechanized recreational conveyances

Goal 8

Complete passive recreation at the Commuter Rail Transit Village (CRTV)

Objective

To provide a high degree of interaction with the natural environment in natural areas of the CRTV without a detrimental impact on the landscape and significant infrastructure development.

Strategy

Preserve the CRTV natural landscape features to ensure environmental protection and simultaneously provide access for public use and enjoyment. This will include creating amenities in passive recreation areas, which include paved trails for hiking, wildlife watching, and running. Inappropriate activities include competitive sports and mechanized recreational conveyances.

Photo: Historic Ruins – (Image courtesy of Community Design Solutions and Arnett Muldrow & Associates)

Goal 9

Complete the incorporation of historic elements throughout the parks system.

Objective

To ensure that future park rehabilitation and reconstruction embraces past historic park planning efforts.

Strategy

Research and incorporate historic park elements into all future park planning rehabilitation and reconstruction projects to ensure that Anoka's landscape history is successfully preserved.

Goal 10

Work with Anoka Hennepin School District 11 to better utilize City and school district athletic facilities.

Objective

To coordinate City and school district park facilities for more effective utilization of existing athletic facilities.

Strategies

The City and school district should re-evaluate the school and City parks to consolidate programmed sports into specialized playfields. This re-evaluation will guide the athletic associations in programming, education, practice, league play and tournaments. In addition, the City and school district should meet routinely to discuss coordination of facility needs, maintenance, management and programming.

Goal 11

Complete facility improvements at Castle Field

Objective

To coordinate with Legion Post #102, District #11 and local athletic associations to improve facilities.

Strategy

Parking: Resurface the parking area located on Greenhaven Drive with bituminous material and add curb and gutter.

Design Improvements: Replace irrigation system. The current system is connected to the system at Greenhaven Golf Course. Upgrade lighting to meet AAA standard foot-candles. Because the current light towers do not meet wind-load requirements, upgrading will require replacement of the current lighting. The current lighting is substandard for 18+ baseball.

Site Structures: Replace existing concession stand and restroom building, replace dugouts, re-build timber retaining wall at corner of Jacob Lane and Greenhaven Road, replace park signage, and create a 6-foot wide warning track along the outfield fence perimeter.

Goal 12

Incorporate signage throughout the local & regional trail system

Objective

To ensure that residents and visitors are able to fully utilize the trail system.

Strategy

Work with Anoka County to provide uniform trail signage for Regional Trails while incorporating a unique design for local trail corridors.

Goal 13

Rum River Channel Restoration

Objective

To provide a safe navigable river channel for boat traffic on the Rum River from Akin Riverside Park to the dock at City Hall.

Strategy

Successful permit application to remove rubble and restore channel depth occurred in 2008. The City will work to develop plans for restoration project and allocate funding.

Parks, Trails and Open Space Implementation Policies

The Anoka Park and Recreation Advisory Board has existed since 1919. The Board is guided by the policies and principles of the City Code. The Anoka's Parks and Recreation Advisory Board has many functions; the Board oversees parks, recreation, facility users, performing arts, urban forestry, trails, and the aquatic center.

The Parks and Recreation Department at the City of Anoka administer the following policies:

Utilization

1. Coordinate with school district to consolidate programmed sports into specialized play fields.

2. Routinely meet with school district to discuss coordination of facility needs, maintenance, management and programming.

Design

1. Identify high quality natural, scenic and historical areas to preserve and enhance them for public use and enjoyment.

2. Develop and build our trail corridors, greenways and linear parks to maximize recreational opportunities, interconnect neighborhoods and promote community distinction and regional facilities.

3. Develop the urban landscape in the Central Business District and the reforestation of our parks, boulevards and community.

4. Increase the recreational opportunities for senior citizens.

5. Meet the American with Disabilities Act (ADA) standards and federal safety standards at all municipal owned facilities, including parks and trails.

6. Integrate the historical significance of the community through interpretive trails in our parks and recreation areas.

7. Maintain existing and plant new boulevard trees on the rights-of-ways for neighborhood beautification and vitality.

School District

1. Continue Joint Powers Agreements, amended in 2005, with Anoka-Hennepin School District -11 to share recreational facilities, programs and services where feasible.

Process

1. Develop conservation planning techniques that identify the importance of preservation of natural resources and open space.

2. Develop a recreational capital improvement plan facility-by-facility and provide for an annual update.

3. Provide the highest quality of park maintenance services and routinely review service needs.

4. Make efforts to provide the appropriate level of staff, equipment and facilities.

5. Routinely review park and trail dedication requirements when modifications are needed.

6. Routinely evaluate athletic complex needs of local athletic organizations.

7. Annually review and coordinate all Parks and Recreation goals as directed by the Anoka City Council and as advised by the Parks and Recreation Advisory Board.

Public Involvement

1. Provide information and educate the public about recreational opportunities in and around the City.

2. Create the opportunity for citizens to participate in recreation activities that focus on the Rum and Mississippi Rivers. Develop a sense of stewardship and responsibility to preserve these rivers for recreational opportunities for current users and future generations.

3. Identify and implement Youth First recreation activities through organized recreation, community education, churches, and civic organizations.

4. Actively encourage the support of civic organizations and corporate/business community and education systems through funding, developing, volunteering and maintaining the recreation system.

Photo: Money Tree – (Image courtesy of Flickr, 2008)

Parks, Trails and Open Space Funding

Develop a funding resource that meets the needs for maintenance and replacement of the City's parks and recreation program.

Financing

Understanding the resources and tools available for implementation of the Parks, Trails and Open Space Plan will aid in the decision making process for future development. The following financial resources will be routinely analyzed to determine the availability of funding for recreational facilities and programs:

1. Park Dedication Fees
2. User Fees
3. Donations
4. General Tax Levy
5. Grants
6. Partnerships with other governmental agencies and/or private corporations

Financing Policies

The following City policies regarding park and trail facility financing will be followed:

1. Establish park dedication requirements for new development reflective of its impact and benefit from the City's ultimate park and trail system.

2. Apply park dedication standards to all new subdivision and redevelopment projects to address the growing need for recreation associated with community growth.

3. Establish fees to cover costs associated with the development, maintenance and operation of community recreational facilities and programs where appropriate.

4. Work with Community Education, Athletic Associations and Anoka Hennepin School District 11 to provide equitable use of available facilities and fair distribution of program costs.

5. Budget park and trail maintenance operations and capital outlay into the City annual financial budget.

6. Establish a five-year capital improvement plan for park and trail improvements, renovations and maintenance to assist in preparing annual park and trail capital outlay budgets.

7. Pursue state and regional park and trail grants to supplement local financing.

8. Investigate corporate partnerships with other government agencies and /or private organizations to source park and trail funding. These partnerships may be entered into when the objective of the outside agencies or organization is consistent with City park or trail goals.

9. Unsolicited gifts or donations will be accepted as part of the Anoka park and trail system if they are free of obligations which may limit the use of a facility, do not offend other segments of community and do not come with a hidden or later cost for development, maintenance, operation which is outside the City's best interest.

Photo: Harvesting Funds - (Image courtesy of Flickr, 2008)

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Capital Improvement Plan

Introduction and Purpose

The Capital Improvement Plan (CIP) is a flexible plan based upon long-range planning and financial projections, which schedules the major public improvements that may be incurred by the City over the next five years. Flexibility of the CIP is established through annual review and assures that the program will become a continuing part of the budgetary process and that it will be consistent with changing demands as well as changing patterns in cost and financial resources. Funds are appropriated only for the first year of the program, which is then included in the annual budget.

The CIP serves as a tool for implementing certain aspects of the City's Comprehensive Plan; therefore, the program describes the overall objectives of City development, the relationship between projects with respect to timing and need, and the City's fiscal capabilities.

The CIP can help assure:

- A systematic approach to planning and initiating capital projects affording the opportunity to plant the location, timing and financing of needed public improvements.
- The development of a realistic program of capital spending within the City's projected fiscal capability to finance such projects, avoiding sharp change in the tax levy or bonded indebtedness.
- The coordination of public and private improvement projects permitting adequate time for design and engineering to eliminate duplication of effort and expense.
- The expenditure of public funds that are compatible with the City's adopted Comprehensive Plan.
- That the public is kept informed of the proposed future projects and expenditures
- That private investors are aware of the City's long-range development program so that they may guide their development in a way that is compatible with the City's program.
- Aid in achieving federal, state and/or county participation by providing the necessary planning and lead time for successful application for grants.

Handbook Section 7.1
d) Capital Improvement Program

Program Descriptions

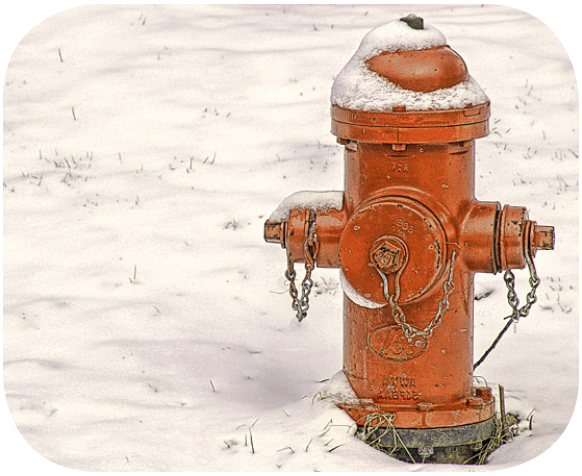

Photo: Fire Hydrant – (Image courtesy of Flickr, 2008)

In order to effectively plan for and manage the projects contained in the CIP, it is necessary to group similar activities in "Program Categories." The City of Anoka's activities are divided into four program categories:

1. Utilities
2. Transportation
3. Parks, Cemetery and Aquatics
4. General Public Buildings.

The city also includes an outline of proposed expenditures for unscheduled projects. Program categories are explained in the following sections.

Utilities Program

Program Description: The Utilities Program includes the Municipal water, sanitary sewer, storm sewer and electric systems.

Program Goal: Provide reliable, efficient and safe utility service to all parts of the city with a minimum of adverse effects on the environment.

Municipal Water System

- The goal of the water system is to provide water in sufficient quantities at sufficient pressure, with a high degree of reliability and safety to all parts of the City so as to satisfy the normal demands of the general public for water while at the same time providing sufficient reserve in case of fire emergency or power outages.
- Water quality shall meet the purity standards of the Minnesota Department of Health.
- Any hydrant on the system shall, under maximum condition, deliver no less than 500 gallons per minute with a residential pressure of 20 pounds per square inch.
- The system shall be looped to provide maximum reliability.
- The supply and storage system shall be designed and maintained to have maximum reliability.

Municipal Sanitary Sewer System

- The goal of the sanitary sewer system is to promote a healthful environment by collecting all sewage from existing and projected development in a sanitary and economic manner.
- Provide sewer lines of adequate size and grade to collect and transmit all discharge sewage.
- Prevent sewage from overflowing into the natural environment.
- Prevent sewage back-ups.
- Encourage and promote connection of all generators of sewage to the municipal system
- Meet the effluent and infiltration standards of the Metropolitan Waste Control Commission.

Storm Sewer System

- Manage and control surface and ground water in order to protect he man-made and natural environment in a safe and efficient manner.
- Prevent flooding.
- Prevent damage to property due to erosion.
- Meet water quality standards established by the controlling regulatory law or authority.

Electric System

- Provide safe and reliable access to electrical power for current and future customers of the electric utility through proper infrastructure and facilities.
- Purchase electric power through its membership in the Minnesota Municipal Power Association.
- Mange electric power distribution to prevent brown outs and electric shortages.

Photo: City of Anoka Electric Department Truck – (Image courtesy of Community Design Solutions and Arnett Muldrow & Associates)

Transportation Program

Program Description: This includes streets, sidewalks, traffic signs and signals, vehicular parking facilities and street lighting.

Program Goal: Provide for the safe and efficient movement of people and goods throughout the city.

Streets

- The goal of the street program is to provide safe, convenient, economic public streets to best facilitate the movement of vehicular traffic.
- Streets should be constructed with permanent surfaces, concrete curb and gutter, and with ancillary storm drainage, to standards established by the City.
- Streets should be of a size and load capacity consistent with their functional classifications.
- Timely major repair to preserve the basic capital investment in streets.

Sidewalks

- To provide safe and convenient pedestrian system with incidental recreational benefits.

Signs/Signals

- To provide an efficient and orderly system of street and traffic signing so as to promote safe, convenient travel throughout the City.
- Sighs and signals should be installed in conformity with the Minnesota Manual on Uniform Traffic Control Devices.
- Periodic surveys and studies should be made to document the effectiveness of City signing patterns.

Parking Facilities

- To provide such supporting facilities as will promote maximum use of public parking spaces by employers, employees, customers and visitors.
- Provide and maintain parking facilities for present and anticipated needs of the City of Anoka.

Photo: City of Anoka Municipal Parking Ramp - (Image courtesy of Community Design Solutions and Arnett Muldrow & Associates)

Street Lights

- Provide a system of street lighting within the City that will promote safe and convenient vehicular and pedestrian travel on City streets.
- Provide lighting at each street intersection within the city.
- Provide mid-block street lighting in conformance with the City's street lighting policy, in order to provide equitable cost efficient lighting.
- To continually update the system so as to provide energy and cost efficient lighting.

Parks, Cemetery, Aquatics and Golf

Program Description: This includes community parks, neighborhood parks, open spaces, recreational structures, and facilities and cemetery infrastructure.

Program Goal: Provide facilities for safe, stimulating and comprehensive leisure time activities for Anoka citizens and provide final resting places for residents of Anoka.

Neighborhood Facilities

- To provide convenient walking access to park sites and to develop such sites to provide optimum recreational serviceability consistent with the preservation and enhancement of pleasing aesthetic qualities.
- Acquire property or use rights on those neighborhoods that need convenient walking access to park facilities.
- Develop neighborhood park facilities to meet the needs of various user groups.
- Preserve and maintain existing structures and facilities in order to retain current service and safety levels.
- Preserve and enhance the aesthetic qualities of neighborhood parks.

Community Facilities

- Provide park sites which serve the entire City and to provide facilities that serve community-wide needs.
- Acquire or maintain sites that have valuable and unique natural characteristics to preserve irreplaceable community resources.
- Preserve properties that have valuable historic-cultural qualities.
- Preserve and maintain existing structures and facilities in order to retain current service and safety levels.
- Construct or acquire structures and facilities necessary to meet the changing needs of the community.

Cemetery Infrastructure

- Provide cemetery plots sufficient to meet the demands of the residents of

Anoka.

- Ensure safe access to the cemetery year-round.
- Preserve and maintain current cemetery infrastructure and beauty.

Golf Course

- Provide 18-hole golf course for the enjoyment of residents, businesses and customers that participate in the sport of golf.
- Maintain and upgrade current facilities to provide a high quality golfing and banquet facility.
- Maintain and improve current 18-hole golf course to provide customers with a quality golfing experience.

General Public Buildings

Program Description: This includes community parks, neighborhood parks, open spaces, recreational structures and facilities and cemetery infrastructure.

Program Goal: Provide facilities for safe, stimulating and comprehensive leisure time activities for Anoka citizens and provide final resting places for residents of Anoka.

Administrative Offices

- Provide facilities for the efficient and save conduct of legislative and administrative functions of the City.
- Maintain current facilities in a state of good repair so as to maximize cost effectiveness and avoid costly repair.
- Upgrade facilities as necessary to provide for the efficient, safe and effective provision of City Services.

Maintenance Facilities

- Provide facilities for the efficient and safe conduct of City maintenance functions.
- Maintain current facilities in a state of good repair so as to maximize cost effectiveness and avoid costly repair.
- Upgrade facilities as necessary to provide for the efficient, safe and effective provision of City services.

Public Safety Facilities

- Provide facilities for the efficient and safe conduct of City public safety functions.
- Maintain current facilities in a state of good repair so as to maximize cost effectiveness and avoid costly repair.
- Upgrade facilities as necessary to provide for the efficient, safe and effective provision of City services.
- Provide police and fire station for storage of police and fire equipment and for training and meetings of police and fire fighters to ensure prompt and efficient protection of life and property.

Senior and Aquatic Center

- Provide community facilities which meet the social, recreational and cultural needs of youth and senior citizens.
- Maintain current facilities in a state of good repair so as to maximize cost effectiveness and avoid costly repair.
- Upgrade facilities as necessary to provide for the efficient, safe and effective provision of City services.

Summary of Impacts on Major Funding Sources

Aquatic Capital Fund

The aquatic capital fund has a current fund balance of $438,000. The funds are used to make improvements to the Anoka Aquatic Center. If at any time in the future the City wishes to completely redevelop the Aquatic Center, issuing debt will be required to pay for the redevelopment.

Building Capital Improvement Fund

The capital improvement fund has a negative fund balance because of the property purchased in 2004 in preparation of redevelopment of the Commuter Rail Transit Village. As soon as this property is sold, funds will become available for investing in city buildings. In the meantime, the electric fund transfer and general fund future transfers will help pay for immediate needs. It is projected that the property will be sold by 2011 and this fund will have a positive fund balance.

Cemetery Improvement Fund

The cemetery fund has $177,000 available for infrastructure improvements. The city will use a majority of this balance over the next five years. It will be necessary to discuss funding sources for future improvements to the cemeteries in Anoka.

Electric Fund

The electric fund has a healthy $12,200,000 fund equity. About 7.5 million of this is borrowed internally to the Tax Increment fund and the Capital Improvement fund to pay for land purchases and redevelopment. It is also proposed that the electric fund will loan $4.6 million internally to the Tax Increment fund in 2011 to help fund the Commuter Rail Transit Village parking ramp. These funds will all be paid back to the electric fund by 2015. The electric fund also transfers $265,000 to the general fund to help offset the tax levy and $130,000 to building capital improvement funds to help pay for needed building improvements.

General Fund Reserves/Current Revenues

General fund reserves continue to be at a very healthy balance of 63% of current operating expenditures. The council has budgeted to spend down $637,000 of the reserves in 2008, leaving an unspent excess reserve of about $1 million. The capital improvement plan includes spending about $1 million on improvements on Main Street during the street reconstruction project. This will place general fund reserves at 41% of total operating expenditures, which is an appropriate level of reserves. The additional general fund capital project items will need to me include in the overall budget process and levy decisions.

Golf Fund

The golf fund has made several improvements to the buildings in 2007 and 2008 through the issuance of revenue bonds in 2008. In addition to building improvements, the irrigation system will be overhauled in the fall of 2008. These improvements were necessary to keep the golf course viable and competitive. The debt from the revenue bonds will be paid back through savings on efficiencies created with the improvements and increased golf revenues.

Park Capital Improvements Fund

The park capital improvement fund sources are derived from the liquor store and interest earnings. With all the future park redevelopments needs, this fund will need to increase the amount transferred from the liquor store to maintain a fund balance. The city may need to consider a park bond in the future in order to keep up with the growing needs of the parks infrastructure.

Park Dedication Fund

The park dedication fund will receive new dollars from developments throughout the city. These funds will help pay for new parks in the newly developed areas. In addition to park dedication feeds, the proceeds from the sale of Lot 1 in the historic Rum River district will be needed to help fund the historic Rum River park area. The city is also applying for grants to help pay for this endeavor.

Parking Fund

The parking fund has the fund balance necessary to pay for the improvements needed. The parking fund generates revenue though parking permits and interest earnings.

Sanitary Sewer Fund

In 2007, the city increased the sanitary sewer rates to pay for current and future infrastructure and operating needs. Due to projected increases in infrastructure improvements, a rate increase will be proposed for 2010.

Storm Sewer Fund

In 2003, the city implemented a storm water utility fee based on general impervious surface rules. Projected costs form this fund continue to escalate into the future. Annual rate increases will need to be implemented to help fund the infrastructure needs of the City's storm sewer system.

Street Renewal Fund

The street renewal fund maintained a fund balance of about $3 million to allow interest earnings to help pay for annual renewal projects. Since 2003, the city has needed to use some fund balance to pay for infrastructure costs not covered by other sources. Annual revenues are generated from franchise fee and property assessments. Property assessments will have annual rate increases to keep up with the increased costs of infrastructure replacement. Water, Sewer and Storm Sewer funds pay their share of the infrastructure improvements. The City also receives state aid funding for state aid streets within the city. Due to the large volume of street renewal projects occurring over the next few years, the balance in this fund will dip down to about $1 million. The fund is projected to have the $3 million balance back by 2020. The City's street renewal plan includes reconstruction of about ¾ of a mile of road each year. This is about a 90-year replacement plan. It is a goal of the public works director to reconstruct roads at least once every 68 years or 1 mile of road each year.

Photo: Road Construction Workers – (Image courtesy of MnDOT, 2008)

Tax Increment Fund

The tax increment fund continues to have a negative fund balance. The City has borrowed internally to fund projects within the tax increment districts. The Enterprise Park TIF District will be decertified in 2015. The Enterprise Park TIF District will continue to pay back the loans to the other funds through 2015. In addition, the fund will continue to support projects within the district including the commuter rail area. The Historic Rum River TIF District will run for the next 25 years and the funds will be used to pay for the debt issued for the parking ramp and the infrastructure improvements in the area.

Water Fund

The water fund will struggle through the next ten years with revenue, debt and infrastructure needs. The needs are much greater than the revenues currently generated. It is anticipated that there will needed to be water rate increases for the next four years. Staff is trying to postpone infrastructure needs in this fund as long as possible. There was a revenue bond issued in 2001, which will be paid off in 2017, which will greatly improve the revenue and expense ratio.

Revenue Projections Showing Impacts of Projects on Funding Sources

*Please see supplementary document for revenue projections showing impacts of projects on funding sources.

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Official Controls

Executive Summary

Handbook Section 7.1
a) Describe official controls

Official controls for the City of Anoka are comprised of the codes, ordinances, fiscal devices and other strategies used to implement the City's Comprehensive Plan. The City Code may be accessed online at:

http://www.ci.anoka.mn.us/index.asp?Type=B_BASIC&SEC={D49D28C8-4188-44A6-9CDB-3FA3CEC59250}

Go! to Anoka's City Code

Schedule for Updating Official Controls

Handbook Section 7.1
c) Schedule for updating official controls

July 2008 to April, 2009	Review M-2 General Industrial Standards; Establish Planned Transit Oriented District (PTOD) Boundaries; Review and amend PTOD standards; Review and consider adoption of standards for Wind Energy Conversion Systems (WECS)
December 2008 status:	Planning Commission and City Council will consider amendments to the M-2 General Industrial Standards and M-2 District Boundaries (some areas) in January 2009; Additional review of M-2 standards and boundaries in the rail station area and establishment of PTOD District in rail area and potential amendments to PTOD standards in Feb – Apr 2009.
Jan to April 2009	Develop and adopt standards for wind energy conversion systems
May 2009 to Sept 2009	Consider zoning classification for vacant city-owned parcel adjacent to Anoka Nature Preserve (200-acre conservation area)
May 2009 to Sept 2009	Review Subdivision section of the Zoning Ordinance for consistency with MnDot and Anoka County access management standards.
May 2009 to Sept 2009	Review and amend nonconforming use and nonconforming structure regulations

Photo: Stack of Paper - (Image courtesy of Flickr, 2008)

Transportation

2009 Continue working on Highway 10 and 47 projects; Anoka County CSAH 1 study; Construction of West Main Street Project

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City of Anoka Stormwater and ISTS Ordinance

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Appendix B

Emergency Water and Conservation Plan
City of Anoka Stormwater Management Plan
City of Anoka Stormwater and ISTS Ordinance
City of Anoka Stormwater Pollution Protection

DEPARTMENT OF NATURAL RESOURCES - DIVISION OF WATERS and METROPOLITAN COUNCIL
WATER EMERGENCY AND CONSERVATION PLANS

These guidelines are divided into four parts. The first three parts, Water Supply System Description and Evaluation, Emergency Response Procedures and Water Conservation Planning apply statewide. Part IV, relates to comprehensive plan requirements that apply only to communities in the Seven-County Twin Cities Metropolitan Area. If you have questions regarding water emergency and conservation plans, please call (651) 296-0512 or (651) 297-2835 or e-mail your question to wateruse@dnr.state.mn.us. Metro Communities can also direct questions to the Metropolitan Council at watersupply@metc.state.mn.us or (651) 602-1066.

DNR Water Appropriation Permit Number(s)	1976-6187
Name of Water Supplier	City of Anoka
Address	2015 First Av. Anoka, MN 55303
Contact Person	Pete Klingenberg
Title	Water & Sewer Superintendent
Phone Number	(763) 576-2923
E-Mail Address	pklingenberg@ci.anoka.mn.us

PART I. WATER SUPPLY SYSTEM DESCRIPTION AND EVALUATION

The first step in any water supply analysis is to assess the current status of demand and supplies. Information in Part I, can be used in the development of Emergency Response Procedures and Conservation Plans.

A. ANALYSIS OF WATER DEMAND.

Fill in Table 1 for the past 10 years water demand. If your customer categories are different than the ones listed in Table 1, please note the changes below.
The City of Anoka has three rate classifications; residential, commercial, and industrial. Institutional facilities are incorporated into the commercial rate.

TABLE 1 Historic Water Demand

Year	Total Population	Population Served	Total Connections	Residential Water Sold (MG)	C/I/I Water Sold (MG)	Wholesale Deliveries (MG)	Total Water Sold (MG)	Total Water Pumped (MG)	Percent Unmetered/ Unaccounted	Average Demand (MGD)	Maximum Demand (MGD)	Residential gallons/ capita/day	Total gallons/ capita/day
1998	17693	17693	4993	456.2	470.5	0	926.8	1140	18.71%	2.54	5.6	70.6	176.5
1999	17693	17693	4921	392.9	392.2	0	785.1	1041.6	24.63%	2.15	5.5	60.8	161.3
2000	17693	17693	4953	474.4	461.7	0	936.0	1142.5	18.07%	2.56		73.5	176.9
2001	18172	18172	4951	450.7	442.0	0	892.7	1108.5	19.47%	2.45		68.0	167.1
2002	18172	18172	4961	388.6	429.9	0	818.5	957.1	14.48%	2.24	6.7	58.6	144.3
2003	18172	18172	5101	457.0	412.4	0	869.5	955.8	9.03%	2.38	5.1	68.9	144.1
2004	18172	18172	5123	397.1	389.9	0	787.1	974.8	19.26%	2.16	4.4	59.9	147.0
2005	18172	18172	5189	387.0	376.9	0	763.9	916.3	16.63%	2.09	7.3	58.3	138.1
2006	18172	18172	5079	423.5	416.1	0	839.7	1041.9	19.41%	2.30	7.8	63.9	157.1
2007	18121	18121	5066	438.4	410.6	0	849.0	1078	21.24%	2.33	6.1	66.3	163.0

MG – Million Gallons **MGD** – Million Gallons per Day **C/I/I**- Commercial, Industrial, Institutional

Residential. Water used for normal household purposes, such as drinking, food preparation, bathing, washing clothes and dishes, flushing toilets, and watering lawns and gardens.

Institutional. Hospitals, nursing homes, day care centers, and other facilities that use water for essential domestic requirements. This includes public facilities and public metered uses. You may want to maintain separate institutional water use records for emergency planning and allocation purposes.

Commercial. Water used by motels, hotels, restaurants, office buildings, commercial facilities, both civilian and military.

Industrial. Water used for thermoelectric power (electric utility generation) and other industrial uses such as steel, chemical and allied products, food processing, paper and allied products, mining, and petroleum refining.

Wholesale Deliveries. Bulk water sales to other public water suppliers.

Unaccounted. Unaccounted for water is the volume of water withdrawn from all sources minus the volume sold.

Residential Gallons per Capita per Day = total residential sales in gallons/population served/365 days **Total Gallons per Capita per Day** = total water withdrawals/population served/365 days

NOTE: Non-essential water uses defined by Minnesota Statutes 103G.291, include lawn sprinkling, vehicle washing, golf course and park irrigation and other non-essential uses. Some of the above categories also include non-essential uses of water.

Water Use Trends. Discuss factors that influence trends in water demand (i.e. growth, weather, industry, conservation). If appropriate, include a discussion of other factors that affect daily water use, such as use by non-resident commuter employees or large water consuming industry.
The City of Anoka is an older, nearly fully developed community. On the whole, water use per capita has trended downward over the past ten years. Conversely, hotter, drier summers and the associated use of irrigation water have tended to balance reduced domestic use. Limited opportunities do exist within the City for new residential development. Under a full build out scenario, anticipating approximately 700 family units with a 175 / 525 split of single family and multi-family units, we expect a growth in water demand to remain basically flat between now and 2020. Factors for industrial growth are unknown at this time.

TABLE 2 Large Volume Users - List the top 10 largest users.

Customer	Gallons per year (millions)	% of total annual use
Hoffman Engineering	27	2.66%
Anoka Hennepin Regional Treatment Center	16	1.58%
Anoka County Courthouse	8.5	0.84%
Federal Cartridge Corp.	5.8	0.57%
Anoka Sr. High School	5.6	0.55%
Mate Precision Tooling	5.4	0.53%
Anoka County Jail	4.4	0.43%
Typhoon Car Wash	4.2	0.41%
Anoka County Government Center	3.7	0.36%
Hoffman SCO	2.7	0.27%

B. TREATMENT AND STORAGE CAPACITY.

TABLE 3(A) Water Treatment

Water Treatment Plant Capacity	8 M	Gallons per day
Describe the treatment process used (ie, softening, chlorination, fluoridation, Fe/Mn removal, reverse osmosis, coagulation, sedimentation, filtration, others). Also, describe the annual amount and method of disposal of treatment residuals, if any.		
The City of Anoka provides filtration plus iron and manganese removal as well as chlorination and fluoridation. Treatment residuals are backwashed to sanitary sewer for disposal.		

TABLE 3(B) Storage Capacity - List all storage structures and capacities.

Total Storage Capacity		**Average Day Demand** (average of last 5 years)	
2.4 M	Gallons	2.3 M	Gallons per day
Type of Structure	Number of Structures	Gallons	
Elevated Storage	3	2.4 M	
Ground Storage	0		
Other:	0		

C. WATER SOURCES. List all groundwater, surface water and interconnections that

supply water to the system. Add or delete lines to the tables as needed.

TABLE 4(A) Total Water Source Capacity for System (excluding emergency connections)

Total Capacity of Sources	6750	Gallons per minute
Firm Capacity (largest pump out of service)	5250	Gallons per minute

TABLE 4(B) Groundwater Sources - Copies of water well records and well maintenance information should be included with the public water supplier's copy of the plan in Attachment . If there are more wells than space provided or multiple well fields, please use the List of Wells template (see Resources) and include as Attachment .

Well # or name	Unique Well Number	Year Installed	Well & Casing Depth (ft)	Well Diameter (in)	Capacity (GPM)	Geologic Unit	Status
1	201178	1912	409	10	500	FIG	Not in service
2	201182	1918	170	16	500	Drift	Not in service
3	202971	1947	452	20/14	950	FIG	Active
4	201191	1959	657	24/16	1000	MTS/HIN	Active
5	201218	1965	444	24/16	1350	FIG	Active
6	224625	1974	640	30/24	450	IR/MTS	Active
7	453792	1989	490	30/24	1500	MTS	Active
8	676405	2002	425	30/24	1500	FIG	Active

Status: Active use, Emergency, Standby, Seasonal, Peak use, etc. GPM – Gallons per Minute
Geologic Unit: Name of formation(s), which supplies water to the well

TABLE 4(C) Surface Water Sources

Intake ID	Resource name	Capacity (GPM/MGD)
N/A		

GPM – Gallons per Minute MGD – Million Gallons per Day

TABLE 4(D) Wholesale or Retail Interconnections - List interconnections with neighboring suppliers that are used to supply water on a **regular basis** either wholesale or retail.

Water Supply System	Capacity (GPM/MGD)	Wholesale or retail
N/A		

GPM – Gallons per Minute MGD – Million Gallons per Day

TABLE 4(E) Emergency Interconnections - List interconnections with neighboring suppliers or private sources that can be used to supply water on an emergency or occasional basis. Suppliers that serve less than 3,300 people can leave this section blank, but must provide this information in Section II C.

Water Supply System	Capacity (GPM/MGD)	Note any limitations on use
Coon Rapids	0.5 MGD	Hydrant to Hydrant Connection
Ramsey	2.0 MGD	Dependent on availibility
Andover	0.5 MGD	Hydrant to Hydrant Connection

GPM – Gallons per Minute MGD – Million Gallons per Day

D. DEMAND PROJECTIONS.

TABLE 5 Ten Year Demand Projections

Year	Population Served	Average Day Demand (MGD)	Maximum Day Demand (MGD)	Projected Demand (MGY)
2008	18121	2.33	6.7	850.450
2009	18201	2.33	6.7	850.450
2010	19000	2.33	6.7	850.453
2011	20280	2.33	6.7	850.456
2012	20360	2.33	6.7	850.457
2013	21810	2.33	6.7	850.461
2014	21890	2.33	6.7	850.461
2015	21970	2.33	6.7	850.461
2016	22050	2.33	6.7	850.462
2017	22130	2.33	6.7	850.462

MGD – Million Gallons per Day MGY – Million Gallons per Year

Projection Method. Describe how projections were made, (assumptions for per capita, per household, per acre or other methods used).
Populations were initially predicted using linear interpolation of Metropolitan Council projections. Local projections of population increase were added in 2011 and 2013 to reflect planned development. Average day demands were calculated by multiplying the last five-year average total per capita water usage, less unaccounted water, by the projected population served. Maximum day demand was calculated using a peaking ratio of 2.89, which was the average of the past ten years.

E. RESOURCE SUSTAINABILITY

Sustainable water use: use of water to provide for the needs of society, now and in the future, without unacceptable social, economic, or environmental consequences.

Monitoring. Records of water levels should be maintained for all production wells and source water reservoirs/basins. Water level readings should be taken monthly for a production well or observation well that is representative of the wells completed in each water source formation. **If water levels are not currently measured each year, a monitoring plan that includes a schedule for water level readings must be submitted as Attachment .**

TABLE 6 Monitoring Wells - List all wells being measured.

Unique well number	Type of well (production, observation)	Frequency of Measurement (daily, monthly etc.)	Method of Measurement (steel tape, SCADA etc.)

Water Level Data. Summarize water level data including seasonal and long-term trends for each ground and/or surface water source. If water levels are not measured and recorded on a routine basis then provide the static water level (SWL) when the well was constructed and a current water level measurement for each production well. Also include all water level data taken during well and pump maintenance.

All of the City's production wells are measured monthly. However, in the course of this study a procedural error in data gathering was discovered which negated the data's value. Adjustments to the data gathering procedure have been implemented and are outlined in Attachment A-1. Also, discussions are underway to provide continuous level monitoring through the existing SCADA system.

Table 6-A illustrates the original and present levels of each well along with the date they were read.

It would be difficult to characterize any water level trend, given the lack of data. However, operators report some level drops in the Mount Simon wells, most particularly at well 7 (Unique I.D. 453792). It is speculated that an adjacent municipal well in the City of Andover may be influencing levels in this well.

Operators also report little or no change in the summer to winter recovery time when compared to previous years.

Table 6-A Basic Static Level Information

Well #	Unique I.D.	In service date	Original Static Level	Present Static Level	Date Read
1	201178	1912	12	NIS	
2	201182	1918	12	NIS	
3	202971	1947	12	34.5	2/8/2008
4	201191	1959	35	44.2	10/8/2008
5	201218	1965	43.3	49	10/8/2008
6	224625	1974	28.1	5	3/15/2008
7	453792	1989	21	43	10/8/2008
8	676405	2002	30.8	27	2/8/2008

Ground Water Level Monitoring – DNR Waters in conjunction with federal and local units of government maintain and measure approximately 750 observation wells around the state. Ground water level data are available online www.dnr.state.mn.us/waters. Information is also available by contacting the Ground Water Level Monitoring Manager, DNR Waters, 500 Lafayette Road, St. Paul, MN 55155-4032 or call (651) 296-4800.

Natural Resource Impacts. Indicate any natural resource features such as calcareous fens, wetlands, trout streams, rivers or surface water basins that are or could be influenced by water withdrawals from municipal production wells. Also indicate if resource protection thresholds have been established and if mitigation measures or management plans have been developed.
The City presently acquires its water solely from deep formation wells. Other than the long-term impact of withdrawals by Anoka and other communities on these deep aquifers, no natural resource impacts are known at this time.

Sustainability. Evaluate the adequacy of the resource to sustain current and projected demands. Describe any modeling conducted to determine impacts of projected demands on the resource.
Given that the City is nearly fully developed, it is unlikely that the resources capacity will be exceeded for the life of this document.

Source Water Protection Plans. The emergency procedures in this plan are intended to comply with the contingency plan provisions required in the Minnesota Department of Health's (MDH) Wellhead Protection (WHP) Plan and Surface Water Protection (SWP) Plan.	
Date WHP Plan Adopted:	
Date for Next WHP Update:	
SWP Plan:	☐ In Process ☐ Completed ☐ Not Applicable

F. CAPITAL IMPROVEMENT PLAN (CIP)

Adequacy of Water Supply System. Are water supply installations, treatment facilities and distribution systems adequate to sustain current and projected demands? ☐ Yes ☒ No If no, describe any potential capital improvements over the next ten years and state the reasons for the proposed changes (CIP Appendix C).
The addition of a production well and treatment plant in 2018

Proposed Water Sources. Does your current CIP include the addition of new wells or intakes? ☒ Yes ☐ No If yes, list the number of new installations and projected water demands from each for the next ten years. Plans for new production wells must include the geologic source formation, well location, and proposed pumping capacity.

The City is proposing one new 1500 gpm production well located in its Enterprise Industrial Park on the northwest side of town (approximate location, Lat. 45-13', Lon 93-25',). Source formation is proposed to be the Franconia Ironton-Galesville. Annual production (after 2018) is projected as 265 MGY.

Water Source Alternatives. If new water sources are being proposed, describe alternative sources that were considered and any possibilities of joint efforts with neighboring communities for development of supplies.

The City of Anoka continues to examine the possibility of renovating two of its production wells that are currently not in service (Unique Well #'s 201178 & 201182). Should these renovations prove feasible and successful, the addition of another production well will be unnecessary for the life of this document.

Preventative Maintenance. Long-term preventative programs and measures will help reduce the risk of emergency situations. Identify sections of the system that are prone to failure due to age, materials or other problems. This information should be used to prioritize capital improvements, preventative maintenance, and to determine the types of materials (pipes, valves, couplings, etc.) to have in stock to reduce repair time.

Since 2000, the City has committed to the replacement of watermains and associated fixtures in conjunction with its annual street renewal program. The focus of the program has been to replace antiquated infrastructure in the older parts of town. At present, the City has replaced approximately 17% of its pre-1960 watermain. (See attached map) The City intends to continue this program for the foreseeable future. (See attached CIP Appendix C).

PART II. EMERGENCY RESPONSE PROCEDURES

Water emergencies can occur as a result of vandalism, sabotage, accidental contamination, mechanical problems, power failures, drought, flooding, and other natural disasters. The purpose of emergency planning is to develop emergency response procedures and to identify actions needed to improve emergency preparedness. In the case of a municipality, these procedures should be in support of, and part of, an all-hazard emergency operations plan. If your community already has written procedures dealing with water emergencies we recommend that you use these guidelines to review and update existing procedures and water supply protection measures.

Federal Emergency Response Plan

Section 1433(b) of the Safe Drinking Water Act as amended by the Public Health Security and Bioterrorism Preparedness and Response Act of 2002 (Public Law 107-188, Title IV – Drinking Water Security and Safety) requires community water suppliers serving over 3,300 people to prepare an Emergency Response Plan. **Community water suppliers that have completed the Federal Emergency Response Plan and submitted the required certification to the U.S. Environmental Protection Agency have satisfied Part II, Sections A, B, and C of these guidelines and need only provide the information below regarding the emergency response plan and source water protection plan and complete Sections D (Allocation and Demand Reduction Procedures), and E (Enforcement).**

Provide the following information regarding your completed Federal Emergency Response Plan:

Emergency Response Plan	Contact Person	Contact Number
Emergency Response Lead	Pete Klingenberg, Water Supt.	763-576-2923 Cell 612-791-7217
Alternate Emergency Response Lead	Mark Anderson, Pub. Works Supt	763-576-2921 Cell 612-791-7219
Emergency Response Plan Certification Date		

Operational Contingency Plan. An operational contingency plan that describes measures to be taken for water supply mainline breaks and other common system failures as well as routine maintenance is recommended for all utilities. Check here ☒ if the utility has an operational contingency plan. At a minimum a contact list for contractors and supplies should be included in a water emergency telephone list.

Communities that have completed Federal Emergency Response Plans should skip to Section D.

EMERGENCY RESPONSE PROCEDURES

A. Emergency Telephone List. A telephone list of emergency contacts must be included as Attachment B to the plan (complete template or use your own list). The list should include key utility and community personnel, contacts in adjacent communities, and appropriate local, state and federal emergency contacts. Please be sure to verify and update the contacts on the emergency telephone list on a regular basis (once each year recommended). In the case of a municipality, this information should be contained in a notification and warning standard operating procedure maintained by the warning point for that community. Responsibilities and services for each contact should be defined.

B. Current Water Sources and Service Area. Quick access to concise and detailed information on water sources, water treatment, and the distribution system may be needed in an emergency. System operation, water well and maintenance records should be maintained in a central secured location so that the records are accessible for emergency purposes and preventative maintenance. A detailed map of the system showing the treatment plants, water sources, storage facilities, supply lines, interconnections, and other information that would be useful in an emergency should also be readily available. Check here ☒ if these records and maps exist and staff can access the documents in the event of an emergency.

C. Procedure for Augmenting Water Supplies. List all available sources of water that can be used to augment or replace existing sources in an emergency. In the case of a municipality, this information should be contained in a notification and warning standard operating procedure maintained by the warning point for that community. Copies of cooperative agreements should be maintained with your copy of the plan and include in Appendix A. Be sure to include information on any physical or chemical problems that may limit interconnections to other sources of water. Approvals from the MN Department of Health are required for interconnections and reuse of water.

TABLE 7 (A) Public Water Supply Systems – List interconnections with other public water supply systems that can supply water in an emergency.

Water Supply System	Capacity (GPM/MGD)	Note any limitations on use
City of Andover	0.5 MGD	Hose connection
City of Coon Rapids	0.5 MGD	Hose connection
City of Ramsey	2.0 MGD	Dependent on availability

GPM – Gallons per Minute MGD – Million Gallons per Day

TABLE 7 (B) - Private Water Sources – List other sources of water available in an emergency.

Name	Capacity (GPM/MGD)	Note any limitations on use
N/A		

GPM – Gallons per Minute MGD – Million Gallons per Day

D. Allocation and Demand Reduction Procedures. The plan must include procedures to address gradual decreases in water supply as well as emergencies and the sudden loss of water due to line breaks, power failures, sabotage, etc. During periods of limited water supplies public water suppliers are required to allocate water based on the priorities established in Minnesota Statutes 103G.261.

Water Use Priorities (Minnesota Statutes 103G.261)

First Priority. Domestic water supply, excluding industrial and commercial uses of municipal water supply, and use for power production that meets contingency requirements.

NOTE: Domestic use is defined (MN Rules 6115.0630, Subp. 9), as use for general household purposes for human needs such as cooking, cleaning, drinking, washing, and waste disposal, and uses for on-farm livestock watering excluding commercial livestock operations which use more than 10,000 gallons per day or one million gallons per year.

Second Priority. Water uses involving consumption of less than 10,000 gallons per day.

Third Priority. Agricultural irrigation and processing of agricultural products.

Fourth Priority. Power production in excess of the use provided for in the contingency plan under first priority.

Fifth Priority. Uses, other than agricultural irrigation, processing of agricultural products, and power production.

Sixth Priority. Non-essential uses. These uses are defined by Minnesota Statutes 103G.291 as lawn sprinkling, vehicle washing, golf course and park irrigation, and other non-essential uses.

List the statutory water use priorities along with any local priorities (hospitals, nursing homes, etc.) in Table 8. Water used for human needs at hospitals, nursing homes and similar types of facilities should be designated as a high priority to be maintained in an emergency. Local allocation priorities will need to address water used for human needs at other types of facilities such as hotels, office buildings, and manufacturing plants. The volume of water and other types of water uses at these facilities must be carefully considered. After reviewing the data, common sense should dictate local allocation priorities to protect domestic requirements over certain types of economic needs. In Table 8, list the priority ranking, average day demand and demand reduction potential for each customer category (modify customer categories if necessary).

Table 8 Water Use Priorities

Customer Category	Allocation Priority	Average Day Demand (MGPD)	Demand Reduction Potential (MGPD)
Residential	1	1.20	0.45
Institutional	2*	0.03	0
Commercial	3	0.61	0.14
Industrial	4	0.22	0.05
Irrigation	5**	0	0
Non-essential	6***	0.27	0.27
	TOTALS	2.33	0.91

MGPD – Million Gallons per Day

Note: For the purposes of this table, the demand reduction potential is derived from the difference between the average day demand and the average January day demand.

- * While the City does not have a billing rate for an “Institutional” Category, certain key

public facilities can be identified. These include schools, nursing homes, correctional facilities, and, to a limited extent, hotels.

- ** The City supplies no irrigation water for agricultural or recreational (golf course) purposes.
- *** This category largely includes separately billed lawn irrigation at commercial and industrial sites. It should also be noted that savings in the "Non-essential" category would be substantially higher in the summer time since this irrigation is used only about 150 days per year.

Demand Reduction Potential. The demand reduction potential for residential use will typically be the base demand during the winter months when water use for non-essential uses such as lawn watering do not occur. The difference between summer and winter demands typically defines the demand reduction that can be achieved by eliminating non-essential uses. In extreme emergency situations lower priority water uses must be restricted or eliminated to protect first priority domestic water requirements. Short-term demand reduction potential should be based on average day demands for customer categories within each priority class.

Triggers for Allocation and Demand Reduction Actions. Triggering levels must be defined for implementing emergency responses, including supply augmentation, demand reduction, and water allocation. Examples of triggers include: water demand >100% of storage, water level in well(s) below a certain elevation, treatment capacity reduced 10% etc. Each trigger should have a quantifiable indicator and actions can have multiple stages such as mild, moderate and severe responses. Check each trigger below that is used for implementing emergency responses and for each trigger indicate the actions to be taken at various levels or stages of severity in Table 9.

- ☒ Water Demand
- ☒ Treatment Capacity
- ☒ Storage Capacity
- ☐ Groundwater Levels
- ☐ Surface Water Flows or Levels
- ☐ Pump, Booster Station or Well Out of Service
- ☒ Governor's Executive Order – Critical Water Deficiency (required by statute)
- ☐ Water Main Break
- ☐ Loss of Production
- ☒ Security Breach
- ☒ Contamination
- ☐ Other (list in Table 9)

Table 9 Demand Reduction Procedures

Condition	Trigger(s)	Actions
Stage 1 (Mild)	By ordinance (Annually)	Odd/even watering restrictions
Stage 2 (Moderate)	Water Demand > 108% of firm capacity (8.2 MGD) Two towers out of service	Total Sprinkling Ban (major constrains on 6th priority and the irrigation component of the 1st priority)
Stage 3 (Severe)	Stage 2 measures unable to maintain pumpage below 100% of firm capacity. Security Breach Contamination	Constrain the 5th through 3rd priority as deemed appropriate. Further constrains are site and emergency specific. Coordinate with other emergency management agencies.
Critical Water Deficiency (M.S. 103G.291)	Executive Order by Governor & as provided in above triggers	Stage 1: Restrict lawn watering, vehicle washing, golf course and park irrigation and other nonessential uses

		Stage 2: Suspend lawn watering, vehicle washing, golf course and park irrigation and other nonessential uses

Note: The potential for water availability problems during the onset of a drought are almost impossible to predict. Significant increases in demand should be balanced with preventative measures to conserve supplies in the event of prolonged drought conditions.

Notification Procedures. List methods that will be used to inform customers regarding conservation requests, water use restrictions, and suspensions. Customers should be aware of emergency procedures and responses that they may need to implement.
Stage 1 emergencies are publicly noticed through the City's official newspaper (Anoka County Union), the City newsletter, utility bill "stuffers", the City Hall reader board, and portable signage (hydrant sandwich boards). Stage 2 emergencies will include all of the Stage 1 methods plus announcements on local cable TV and radio, as well as the City's website. Stage 3 emergencies will be handled on a case-by-case basis. All of the above methods will be used as deemed appropriate. In the case of pumpage issues, 4th and 3rd priority users will be contacted directly to optimize appropriate constraints. In the case of security or contamination issues, all of the above methods will be used as necessary, plus wider media (general broadcast) components may be incorporated.

E. Enforcement. Minnesota Statutes require public water supply authorities to adopt and enforce water conservation restrictions during periods of critical water shortages.

Public Water Supply Appropriation During Deficiency.
Minnesota Statutes 103G.291, Subdivision 1.

Declaration and conservation.
(a) If the governor determines and declares by executive order that there is a critical water deficiency, public water supply authorities appropriating water must adopt and enforce water conservation restrictions within their jurisdiction that are consistent with rules adopted by the commissioner.
(b) The restrictions must limit lawn sprinkling, vehicle washing, golf course and park irrigation, and other nonessential uses, and have appropriate penalties for failure to comply with the restrictions.

An ordinance that has been adopted or a draft ordinance that can be quickly adopted to comply with the critical water deficiency declaration must be included in the plan (include with other ordinances in Attachment 7 for Part III, Item 4). Enforcement responsibilities and penalties for non-compliance should be addressed in the critical water deficiency ordinance.
Sample regulations are available at www.dnr.state.mn.us/waters

Authority to Implement Water Emergency Responses. Emergency responses could be delayed if city council or utility board actions are required. Standing authority for utility or city managers to implement water restrictions can improve response times for dealing with emergencies. Who has authority to implement water use restrictions in an emergency?

☒ Utility Manager ☒ City Manager ☒ City Council or Utility Board
☒ Other (describe): Public Services Director

Emergency Preparedness. If city or utility managers do not have standing authority to implement water emergency responses, please indicate any intentions to delegate that authority. Also indicate any other measures that are being considered to reduce delays for implementing emergency responses.

PART III. WATER CONSERVATION PLAN

Water conservation programs are intended to reduce demand for water, improve the efficiency in use and reduce losses and waste of water. Long-term conservation measures that improve overall water use efficiencies can help reduce the need for short-term conservation measures. Water conservation is an important part of water resource management and can also help utility managers satisfy the ever-increasing demands being placed on water resources.

> Minnesota Statutes 103G.291, requires public water suppliers to implement demand reduction measures before seeking approvals to construct new wells or increases in authorized volumes of water. Minnesota Rules 6115.0770, require water users to employ the best available means and practices to promote the efficient use of water. Conservation programs can be cost effective when compared to the generally higher costs of developing new sources of supply or expanding water and/or wastewater treatment plant capacities.

A. Conservation Goals. The following section establishes goals for various measures of water demand. The programs necessary to achieve the goals will be described in the following section.

Unaccounted Water (calculate five year averages with data from Table 1)		
Average annual volume unaccounted water for the last 5 years	171.5 M	gallons
Average percent unaccounted water for the last 5 years	17.1	percent
AWWA recommends that unaccounted water not exceed 10%. Describe goals to reduce unaccounted water if the average of the last 5 years exceeds 10%.		
Anoka's unaccounted water can, in part, be reconciled by examining finished water production procedures. The quantity of water used in treatment plant filter backwash activities is estimated by plant operators to be approximately 65 MGY. This represents about 38% of the total unaccounted volume, and reduces the average unaccounted volume percentage to 11.4%. Never the less, Anoka's water department has established a goal of reducing unaccounted water to 9% or below over the next 5 years.		

Residential Gallons Per Capita Demand (GPCD)	
Average residential GPCD use for the last 5 years (use data from Table 1)	63.45 GPCD
In 2002, average residential GPCD use in the Twin Cities Metropolitan Area was 75 GPCD. Describe goals to reduce residential demand if the average for the last 5 years exceeds 75 GPCD.	

Total Per Capita Demand: From Table 1, is the trend in overall per capita demand over the past 10 years ☐ increasing or ☒ decreasing? If total GPCD is increasing, describe the goals to lower overall per capita demand or explain the reasons for the increase.

Peak Demands (calculate average ratio for last five years using data from Table 1)	
Average maximum day to average day ratio	2.9

If peak demands exceed a ratio of 2.6, describe the goals for lowering peak demands.
Stricter enforcement of lawn irrigation restrictions. A steeper graduated rate curve is under consideration. The goal is to bring the maximum day peaking ratio to 2.5.

B. Water Conservation Programs. Describe all short-term conservation measures that are available for use in an emergency and long-term measures to improve water use efficiencies for each of the six conservation program elements listed below. Short-term demand reduction measures must be included in the emergency response procedures and must be in support of, and part of, a community all-hazard emergency operation plan.

1. **Metering.** The American Water Works Association (AWWA) recommends that every water utility meter all water taken into its system and all water distributed from its system at its customer's point of service. An effective metering program relies upon periodic performance testing, repair, repair and maintenance of all meters. AWWA also recommends that utilities conduct regular water audits to ensure accountability.

Complete Table 10 (A) regarding the number and maintenance of customer meters.

TABLE 10 (A) Customer Meters

	Number of Connections	Number of Metered Connections	Meter testing schedule (years)	Average age/meter replacement schedule (years)
Residential	4472	4475	N/A	30 yrs / 20 yrs*
Institutional	N/A			/
Commercial	568	592	7 yrs	15 yrs / 20 yrs
Industrial	26	32	1 yr	10 yrs / 15 yrs
Public Facilities	N/A			/
Other	N/A			/
TOTALS	5066	5099		

* At the time of this writing, the Water Department is in the process of changing out all of its residential water meters, some of which are over fifty years old. This project is scheduled to be completed within the next three years.

Unmetered Systems. Provide an estimate of the cost to install meters and the projected water savings from metering water use. Also indicate any plans to install meters.
At present, there are no known un-metered systems.

TABLE 10 (B) Water Source Meters

	Number of Meters	Meter testing schedule (years)	Average age/meter replacement schedule (years)
Water Source (wells/intakes)	6	1	10 yrs / 5 yrs*
** Treatment Plant			/

* Wellhead meters are typically rebuilt every 5 years rather than replaced.

** It is recommended that production meters be installed at each treatment plant.

2. **Unaccounted Water.** Water audits are intended to identify, quantify, and verify water and revenue losses. The volume of unaccounted-for water should be evaluated each billing cycle. The AWWA recommends a goal of ten percent or less for unaccounted-for water. Water audit procedures are available from the AWWA and MN Rural Water Association.

Frequency of water audits: ☐ each billing cycle ☒ yearly ☐ other:

Leak detection and survey: ☐every year ☐ every years ☒ periodic as needed
Year last leak detection survey completed: 2008

Reducing Unaccounted Water. List potential sources and efforts being taken to reduce unaccounted water. If unaccounted water exceeds 10% of total withdrawals, include the timeframe for completing work to reduce unaccounted water to 10% or less.
Unaccounted water is a significant concern for the Anoka water department. As stated above, residential meters are being replaced. Completion: 2011 Commercial/industrial meters are currently slated for a more aggressive inspection and testing schedule. First cycle completion: 2009 It is also recommended that production versus billing be checked monthly, with a reconciliation procedure developed to further reduce unaccounted water. As stated above in III A, the goal is to reduce water loss to at or below 9% over the next 5 years.

3. **Conservation Water Rates.** Plans must include the current rate structure for all customers and provide information on any proposed rate changes. Discuss the basis for current price levels and rates, including cost of service data, and the impact current rates have on conservation.

Billing Frequency: ☒ Monthly ☐ Bimonthly ☐ Quarterly
☐ Other (describe):

Volume included in base rate or service charge: gallons or 0 cubic feet

Conservation Rate Structures
☐ Increasing block rate: rate per unit increases as water use increases
☐ Seasonal rate: higher rates in summer to reduce peak demands
☒ Service charge or base fee that does not include a water volume

Conservation Neutral Rate Structure
☐ Uniform rate: rate per unit is the same regardless of volume

Non-conserving Rate Structures
☐ Service charge or base fee that includes a large volume of water
☐ Declining block rate: rate per unit decreases as water use increases
☐ Flat rate: one fee regardless of how much water is used (unmetered)

Other (describe):

Water Rates Evaluated: ☒ every year ☐ every years ☐ no schedule
Date of last rate change: 2007

Declining block (the more water used, the cheaper the rate) and flat (one fee for an unlimited volume of water) rates should be phased out and replaced with conservation rates. Incorporating a seasonal rate structure and the benefits of a monthly billing cycle should also be considered along with the development of an emergency rate structure that could be quickly implemented to encourage conservation in an emergency.

Current Water Rates. Include a copy of the actual rate structure in Attachment C or list current water rates including base/service fees and volume charges below.

Non-conserving Rate Structures. Provide justification for the rate structure and its impact on reducing demands or indicate intentions including the timeframe for adopting a conservation rate structure.

4. **Regulation.** Plans should include regulations for short-term reductions in demand and long-term improvements in water efficiencies. Sample regulations are available from DNR Waters. Copies of adopted regulations or proposed restrictions should be included in Appendix B of the plan. Indicate any of the items below that are required by local regulations and also indicate if the requirement is applied each year or just in emergencies.

☒ Time of Day: no watering between 10:00 am/pm and 7:00 am/pm
(reduces evaporation) ☐ year around ☒ seasonal ☐ emergency only
☒ Odd/Even: (helps reduce peak demand) ☐ year around ☒ seasonal ☐ emergency only
☐ Water waste prohibited (no runoff from irrigation systems)
Describe ordinance:
☐ Limitations on turf areas for landscaping (reduces high water use turf areas)
Describe ordinance:
☐ Soil preparation (such as 4”-6” of organic soil on new turf areas with sandy soil)
Describe ordinance:
☐ Tree ratios (plant one tree for every square feet to reduce turf evapotranspiration)
Describe ordinance:
☐ Prohibit irrigation of medians or areas less than 8 feet wide
Describe ordinance:
☐ Permit required to fill swimming pool ☐ every year ☐ emergency only
☐ Other (describe):

State and Federal Regulations (mandated)

☒ Rainfall sensors on landscape irrigation systems. Minnesota Statute 103G.298 requires "All automatically operated landscape irrigation systems shall have furnished and installed technology that inhibits or interrupts operation of the landscape irrigation system during periods of sufficient moisture. The technology must be adjustable either by the end user or the professional practitioner of landscape irrigation services."

☒ Water Efficient Plumbing Fixtures. The 1992 Federal Energy Policy Act established manufacturing standards for water efficient plumbing fixtures, including toilets, urinals, faucets, and aerators.

Enforcement. Are ordinances enforced? ☒ Yes ☐ No If yes, indicate how ordinances are enforced along with any penalties for non-compliance.
Seasonal and odd/even restrictions are enforced using a patrol and penalty assessment as follows: 1st Violation: Written warning 2nd Violation: $25.00 fine 3rd Violation: $50.00 fine 4th Violation: $100.00 fine 5th Violation: $200.00 fine 6th Violation: Criminal Prosecution / Termination of service

5. **Education and Information Programs.** Customers should be provided information on how to improve water use efficiencies a minimum of two times per year. Information should be provided at appropriate times to address peak demands. Emergency notices and educational materials on how to reduce water use should be available for quick distribution during an emergency. If any of the methods listed in the table below are used to provide water conservation tips, indicate the number of times that information is provided each year and attach a list of education efforts used for the last three years.

Current Education Programs	**Times/Year**
Billing inserts or tips printed on the actual bill	1
Consumer Confidence Reports	1
Local news papers	Occasionally
Community news letters	4
Direct mailings (water audit/retrofit kits, showerheads, brochures)	N\A
Information at utility and public buildings	Public postings
Public Service Announcements	N\A
Cable TV Programs	N\A
Demonstration projects (landscaping or plumbing)	Model demo of water treatment plant
K-12 Education programs (Project Wet, Drinking Water Institute)	N\A
School presentations	N\A
Events (children's water festivals, environmental fairs)	N\A
Community education	N\A
Water Week promotions	N\A
Information provided to groups that tour the water treatment plant	Tours given on request
Website (include address: www.ci.anoka.mn.us)	Yes
Targeted efforts (large volume users, users with large increases)	Direct communication with user
Notices of ordinances (include tips with notices)	
Emergency conservation notices (recommended)	Per Emergency Response Plan
Other:	

List education efforts for the last three years in Attachment of the plan. Be sure to indicate whether educational efforts are on-going and which efforts were initiated as an emergency or drought management effort.

Proposed Education Programs. Describe any additional efforts planned to provide conservation information to customers a minimum of twice per year (required if there are no current efforts).
Conservation information will be provided to customers twice per year.

A packet of conservation tips and information can be obtained by contacting DNR Waters or the Minnesota Rural Water Association (MRWA). The American Water Works Association (AWWA) www.awwa.org or www.waterwiser.org also has excellent materials on water conservation that are available in a number of formats. You can contact the MRWA 800/367-

6792, the AWWA bookstore 800/926-7337 or DNR Waters 651/296-0512 for information regarding educational materials and formats that are available.

6. **Retrofitting Programs.** Education and incentive programs aimed at replacing inefficient plumbing fixtures and appliances can help reduce per capita water use as well as energy costs. It is recommended that communities develop a long-term plan to retrofit public buildings with water efficient plumbing fixtures and that the benefits of retrofitting be included in public education programs. You may also want to contact local electric or gas suppliers to see if they are interested in developing a showerhead distribution program for customers in your service area.

A study by the AWWA Research Foundation (Residential End Uses of Water, 1999) found that the average indoor water use for a non-conserving home is 69.3 gallons per capita per day (gpcd). The average indoor water use in a conserving home is 45.2 gpcd and most of the decrease in water use is related to water efficient plumbing fixtures and appliances that can reduce water, sewer and energy costs. In Minnesota, certain electric and gas providers are required (Minnesota Statute 216B.241) to fund programs that will conserve energy resources and some utilities have distributed water efficient showerheads to customers to help reduce energy demands required to supply hot water.

Retrofitting Programs. Describe any education or incentive programs to encourage the retrofitting of inefficient plumbing fixtures (toilets, showerheads, faucets, and aerators) or appliances (washing machines).
None at this time

Plan Approval. Water Emergency and Conservation Plans must be approved by the Department of Natural Resources (DNR) every ten years. Please submit plans for approval to the following address:

DNR Waters
Water Permit Programs Supervisor
500 Lafayette Road
St. Paul, MN 55155-4032

or Submit electronically to wateruse@dnr.state.mn.us.

Adoption of Plan. All DNR plan approvals are contingent on the formal adoption of the plan by the city council or utility board. Please submit a certificate of adoption (example available) or other action adopting the plan.

Metropolitan Area communities are also required to submit these plans to the Metropolitan Council. Please see PART IV. ITEMS FOR METROPOLITAN AREA PUBLIC SUPPLIERS.

METROPOLITAN COUNCIL

PART IV. ITEMS FOR METROPOLITAN AREA PUBLIC SUPPLIERS

Minnesota Statute 473.859 requires water supply plans to be completed for all local units of government in the seven-county Metropolitan Area as part of the local comprehensive planning process. Much of the required information is contained in Parts I-III of these guidelines. However, the following additional information is necessary to make the water supply plans consistent with the Metropolitan Land Use Planning Act upon which local comprehensive plans are based. Communities should use the information collected in the development of their plans to evaluate whether or not their water supplies are being developed consistent with the Council's Water Resources Management Policy Plan.

Policies. Provide a statement(s) on the principles that will dictate operation of the water supply utility: for example, "It is the policy of the city to provide good quality water at an affordable rate, while assuring this use does not have a long-term negative resource impact."
It is the policy of the City to provide quality water at a reasonable cost. The City should also ensure that the supply is sufficient to meet the City's water related needs, while employing conservation measures to assure that water use does not have a long term negative impact on the aquifers the City is using.

Impact on the Local Comprehensive Plan. Identify the impact that the adoption of this water supply plan has on the rest of the local comprehensive plan, including implications for future growth of the community, economic impact on the community and changes to the comprehensive plan that might result.
This water supply plan is congruent with the local comprehensive plan.

Demand Projections

Year	Total Community Population	Population Served	Average Day Demand (MGD)	Maximum Day Demand (MGD)	Projected Demand (MGY)
2010	19000	19000	2.33	6.7	850.4
2020	19800	19800	2.33	6.7	850.5
2030	20800	20800	2.33	6.7	850.5
Ultimate	22000	22000	2.33	6.8	850.6

Population projections should be consistent with those in the Metropolitan Council's *2030 Regional Development Framework* or the Communities 2008 Comprehensive Plan update**.** If population served differs from total population, explain in detail why the difference (ie, service to other communities, not complete service within community etc.).

PLAN SUBMITTAL AND REVIEW OF THE PLAN

The plan will be reviewed by the Council according to the sequence outlined in Minnesota Statutes 473.175. **Prior to submittal to the Council, the plan must be submitted to adjacent governmental units for a 60-day review period.** Following submittal, the Council determines if the plan is complete for review within 15 days. If incomplete, the Council will notify the community and request the necessary information. When complete the Council will complete its review within 60 days or a mutually agreed upon extension. The community officially adopts the plan after the Council provides its comments.

Plans can be submitted electronically to the Council; however, the review process will not begin until the Council receives a paper copy of the materials. Electronic submissions can be via a CD, 3 ½" floppy disk or to the email address below. Metropolitan communities should submit their plans to:

Reviews Coordinator Metropolitan Council 390 N. Robert St. St. Paul, MN 55101	electronically to: watersupply@metc.state.mn.us

Minnesota Unique Well No.
201178

County Anoka
Quad Anoka
Quad ID 120B

MINNESOTA DEPARTMENT OF HEALTH
WELL AND BORING RECORD
Minnesota Statutes Chapter 103I

Entry Date 04/15/1991
Update Date 01/12/2007
Received Date

Well Name ANOKA 1
Township Range Dir Section Subsections Elevation 855 ft.
31 25 W 1 AADACA **Elevation Method** 7.5 minute topographic map (+/- 5 feet)

Well Depth	Depth Completed	Date Well Completed
409 ft.	409 ft.	00/00/1912

Drilling Method Cable Tool

Drilling Fluid –
Well Hydrofractured? ☐ Yes ☐ No
From Ft. to Ft.

Use Community Supply **PWS ID** 1020001 **Source** S01

Casing Type Steel (black or low carbon) **Joint** No Information **Drive Shoe?** ☐ Yes ☐ No **Above/Below** ft.

Casing Diameter	Weight	Hole Diameter
10 in. to 160 ft.	lbs./ft.	

Open Hole from 160 ft. to 409 ft.

Screen NO **Make** **Type**

Diameter	Slot/Gauze	Length	Set Between

Well Address
FERRY ST
ANOKA MN 55303

Geological Material	Color	Hardness	From	To
DRIFT			0	231
SANDSTONE	WHITE		231	246
SHALE			246	300
SANDSTONE		HARD	300	385
SANDSTONE		SOFT	385	409

Static Water Level
12 ft. from Land surface Date Measured 00/00/1912

PUMPING LEVEL (below land surface)
ft. after hrs. pumping g.p.m.

Well Head Completion
Pitless adapter manufacturer Model
☐ Casing Protection ☐ 12 in. above grade
☐ At-grade (Environmental Wells and Borings ONLY)

REMARKS
WELL PROBABLY CASED INTO THE FRANCONIA FORMATION.

Located Minnesota Geological Survey **Method** GPS SA On (averaged)
Unique Number Verification Information from owner **Date** N/A
System *UTM - Nad83, Zone15, Meters* **X:** 469402 **Y:** 5006338

Grouting Information Well Grouted? ☐ Yes ☐ No

Nearest Known Source of Contamination
_feet _direction _type
Well disinfected upon completion? ☐ Yes ☐ No

Pump ☑ Not Installed Date Installed
Manufacturer's name PEERLESS Model number __ HP 30 Volts
Length of drop Pipe _ ft. Capacity 600 g.p.m Type Turbine Material

Abandoned Wells Does property have any not in use and not sealed well(s)? ☐ Yes ☐ No

Variance Was a variance granted from the MDH for this well? ☐ Yes ☐ No

Well Contractor Certification
Mccarthy Well Co. 27022
License Business Name Lic. Or Reg. No. Name of Driller

First Bedrock Franconia **Aquifer** Franconia-Ironton-Galesvill
Last Strat Ironton-Galesville **Depth to Bedrock** 231 ft.

County Well Index Online Report **201178** Printed 3/27/2008 HE-01205-07

Minnesota Unique Well No.
201182

County Anoka
Quad Anoka
Quad ID 120B

MINNESOTA DEPARTMENT OF HEALTH
WELL AND BORING RECORD
Minnesota Statutes Chapter 103I

Entry Date 04/15/1991
Update Date 01/12/2007
Received Date

Well Name ANOKA 2
Township Range Dir Section Subsections Elevation 855 ft.
31 25 W 1 AADBAA **Elevation Method** 7.5 minute topographic map (+/- 5 feet)

Well Depth 427 ft. **Depth Completed** 427 ft. **Date Well Completed** 00/00/1918
Drilling Method Cable Tool

Drilling Fluid --
Well Hydrofractured? ☐ Yes ☐ No
From Ft. to Ft.

Use Community Supply **PWS ID** 1020001 **Source** S02

Casing Type Steel (black or low carbon) **Joint** No Information **Drive Shoe?** ☐ Yes ☐ No **Above/Below** ft.

Casing Diameter 16 in. to ft. **Weight** lbs./ft. **Hole Diameter**

Open Hole from ft. to ft.

Screen **Make** **Type**
Diameter **Slot/Gauze** **Length** **Set Between**

Well Address
FERRY ST
ANOKA MN 55303

Geological Material	Color	Hardness	From	To
DRIFT			0	231
SANDSTONE	WHITE		231	246
SHALE			246	300
SANDSTONE			300	385
FINE SAND CAVED			385	427

Static Water Level
12 ft. from Land surface Date Measured 00/00/1918

PUMPING LEVEL (below land surface)
ft. after hrs. pumping g.p.m.

Well Head Completion
Pitless adapter manufacturer Model
☐ Casing Protection ☐ 12 in. above grade
☐ At-grade (Environmental Wells and Borings ONLY)

NO REMARKS

Grouting Information Well Grouted? ☐ Yes ☐ No

Located Minnesota Geological Survey **Method** GPS Differentially Corrected
Unique Number Verification Information from owner **Date** N/A
System *UTM - Nad83, Zone15, Meters* **X:** 469377 **Y:** 5006413

Nearest Known Source of Contamination
_feet _direction _type
Well disinfected upon completion? ☐ Yes ☐ No

Pump ☐ Not Installed Date Installed
Manufacturer's name Model number __ HP 0 Volts
Length of drop Pipe _ft. Capacity _g.p.m Type Material

Abandoned Wells Does property have any not in use and not sealed well(s)? ☐ Yes ☐ No

Variance Was a variance granted from the MDH for this well? ☐ Yes ☐ No

First Bedrock Franconia **Aquifer** Indeterminate
Last Strat Ironton-Galesville **Depth to Bedrock** 231 ft.

Well Contractor Certification
Mccarthy Well Co. 27022
License Business Name Lic. Or Reg. No. Name of Driller

County Well Index Online Report **201182** Printed 3/27/2008
HE-01205-07

Minnesota Unique Well No.

202971

County Anoka
Quad Anoka
Quad ID 120B

MINNESOTA DEPARTMENT OF HEALTH

WELL AND BORING RECORD

Minnesota Statutes Chapter 103I

Entry Date 04/15/1991
Update Date 02/06/2007
Received Date

Well Name ANOKA 3

Township Range Dir Section Subsections Elevation 872 ft.

Township	Range	Dir	Section	Subsections	Elevation Method
31	24	W	7	BCADAB	7.5 minute topographic map (+/- 5 feet)

Well Depth	Depth Completed	Date Well Completed
452 ft.	274 ft.	00/00/1947

Drilling Method Cable Tool

Drilling Fluid –

Well Hydrofractured? ☐ Yes ☐ No
From Ft. to Ft.

Use Community Supply **PWS ID** 1020001 **Source** S03

Casing Type Steel (black or low carbon) **Joint** No Information **Drive Shoe?** ☐ Yes ☐ No **Above/Below** 0 ft.

Well Address
5TH AV S
ANOKA MN 55303

Casing Diameter	Weight	Hole Diameter
20 in. to 72 ft.	lbs./ft.	
14 in. to 120 ft.	lbs./ft.	

Open Hole from 72 ft. to 452 ft.

Screen NO **Make** **Type**

Diameter	Slot/Gauze	Length	Set Between

Geological Material	Color	Hardness	From	To
DRIFT CLAY AND SAND			0	72
LIMEROCK			72	73
LIMEROCK			73	96
DIRTY SANDROCK			96	134
SHALE, SOFT SANDSTONE			134	160
SHALE			160	206
SANDY SHALE			206	228
SANDY SHALE			228	236
COARSE CLEAN SANDROCK			236	280
HARD SANDROCK AND SHALE			280	281
HARD SANDROCK AND SHALE			281	308
RED SHALE			308	323
GRAY SHALE			323	366
GRAY SHALE			366	373
SANDROCK AND SHALE			373	416
SOFT WHITE SANDROCK			416	452

Static Water Level
12 ft. from Land surface Date Measured 00/00/1947

PUMPING LEVEL (below land surface)
ft. after hrs. pumping g.p.m.

Well Head Completion
Pitless adapter manufacturer Model
☐ Casing Protection ☐ 12 in. above grade
☐ At-grade (Environmental Wells and Borings ONLY)

REMARKS
GAMMA LOGGED 1-22-2003. LOGGED BY JIM TRAEN.
RECONSTRUCTED, JULY 2003 (TRAUT WELLS; 320-251-5090)

Located Minnesota Geological Survey **Method** GPS SA On (averaged)
Unique Number Verification Information from owner **Date** N/A
System *UTM - Nad83, Zone15, Meters* **X:** 469816 **Y:** 5004487

Grouting Information Well Grouted? ☐ Yes ☐ No

Grout Material: Neat Cement	from 0 to 120 ft.	13.5 yrds.
Grout Material: Neat Cement	from 274 to 447 ft.	74 yrds.

Nearest Known Source of Contamination
_feet _direction _type
Well disinfected upon completion? ☐ Yes ☐ No

Pump ☐ Not Installed Date Installed
Manufacturer's name Model number __ HP _ Volts
Length of drop Pipe _ft. Capacity _g.p.m Type Material

Abandoned Wells Does property have any not in use and not sealed well(s)? ☐ Yes ☐ No

Variance Was a variance granted from the MDH for this well? ☐ Yes ☐ No

Borehole Geophysics Yes
First Bedrock St.Lawrence **Aquifer** Franconia-Ironton-Galesvill
Last Strat Mt.Simon **Depth to Bedrock** 72 ft.

Well Contractor Certification

License Business Name	Lic. Or Reg. No.	Name of Driller
Mccarthy Well Co.	27022	

County Well Index Online Report **202971** Printed 3/27/2008 HE-01205-07

Minnesota Unique Well No.

201191

County Anoka
Quad Anoka
Quad ID 120B

MINNESOTA DEPARTMENT OF HEALTH

WELL AND BORING RECORD

Minnesota Statutes Chapter 103I

Entry Date 04/15/1991
Update Date 01/12/2007
Received Date

Well Name ANOKA 4

Township Range Dir Section Subsections Elevation 883 ft.

31 25 W 1 CBBBAC **Elevation Method** 7.5 minute topographic map (+/- 5 feet)

Well Depth	Depth Completed	Date Well Completed
657 ft.	657 ft.	04/21/1959

Drilling Method Cable Tool

Drilling Fluid --

Well Hydrofractured? ☐ Yes ☐ No
From Ft. to Ft.

Use Community Supply **PWS ID** 1020001 **Source** S04

Casing Type Steel (black or low carbon) **Joint** No Information **Drive Shoe?** ☐ Yes ☐ No **Above/Below** ft.

Well Address
PARK ST
ANOKA MN 55303

Casing Diameter		Weight	Hole Diameter
24 in. to	237 ft.	lbs./ft.	
16 in. to	520 ft.	lbs./ft.	

Open Hole from 520 ft. to 657 ft.

Screen NO **Make** **Type**

Diameter	Slot/Gauze	Length	Set Between

Geological Material	Color	Hardness	From	To
SAND & GRAVEL			0	25
SANDY CLAY			25	75
SANDY CLAY			75	90
CLAY	BLUE		90	110
CLAY & ROCKS & GRAVEL			110	200
SANDSTONE			200	219
SHALE & SAND	RED		219	225
SHALE & SAND	GRAY		225	237
SHALE & SAND	RED		237	245
SHALE & SAND	GRAY		245	270
SHALE & SAND	GREEN		270	330
SHALE	GREEN		330	385
SHALE & SAND	GREEN		385	400
SHALE & SAND	GRAY		400	430
SHALE & SAND	GRAY		430	460
SHALE DRY	BROWN	HARD	460	480
SHALE DRY	BROWN	HARD	480	505
SANDSTONE & SHALE			505	652
HINCKLEY SANDSTONE & SHALE			652	657

Static Water Level
35 ft. from Land surface Date Measured 04/21/1959

PUMPING LEVEL (below land surface)
83 ft. after hrs. pumping 1800 g.p.m.

Well Head Completion
Pitless adapter manufacturer Model
☐ Casing Protection ☐ 12 in. above grade
☐ At-grade (Environmental Wells and Borings ONLY)

REMARKS
M.G.S. NO. 563. G.W.Q NO.0076.

Grouting Information Well Grouted? ☑ Yes ☐ No

Grout Material: Neat Cement from 220 to 520 ft. 386 bags

Located Minnesota Geological Survey **Method** GPS Differentially Corrected

Unique Number Verification Information from owner **Date** N/A

System *UTM - Nad83, Zone15, Meters* X: 467904 Y: 5005774

Nearest Known Source of Contamination
_feet _direction _type
Well disinfected upon completion? ☐ Yes ☐ No

Pump ☐ Not Installed Date Installed
Manufacturer's name Model number __ HP _ Volts
Length of drop Pipe _ft. Capacity _g.p.m Type Material

Abandoned Wells Does property have any not in use and not sealed well(s)? ☐ Yes ☐ No

Variance Was a variance granted from the MDH for this well? ☐ Yes ☐ No

Cuttings Yes
First Bedrock St.Lawrence **Aquifer** Mt.Simon-Hinckley
Last Strat Hinckley Sandstone **Depth to Bedrock** 200 ft.

Well Contractor Certification

Layne Well Co.	27010	SCHUEY, P.
License Business Name	Lic. Or Reg. No.	Name of Driller

County Well Index Online Report **201191** Printed 3/27/2008 HE-01205-07

Minnesota Unique Well No.

201218

County Anoka
Quad Anoka
Quad ID 120B

MINNESOTA DEPARTMENT OF HEALTH

WELL AND BORING RECORD

Minnesota Statutes Chapter 103I

Entry Date 04/15/1991
Update Date 01/12/2007
Received Date

Well Name ANOKA 5

Township Range Dir Section Subsections Elevation 883 ft.

31 25 W 1 CBBBAD **Elevation Method** 7.5 minute topographic map (+/- 5 feet)

Well Depth	Depth Completed	Date Well Completed
444 ft.	444 ft.	09/24/1965

Drilling Method Cable Tool

Drilling Fluid --

Well Hydrofractured? ☐ Yes ☐ No
From Ft. to Ft.

Use Community Supply **PWS ID** 1020001 **Source** S05

Casing Type Steel (black or low carbon) **Joint** No Information **Drive Shoe?** ☐ Yes ☐ No **Above/Below** ft.

Casing Diameter **Weight** **Hole Diameter**
24 in. to 238 ft. lbs./ft.

Open Hole from 238 ft. to 444 ft.

Screen NO **Make** **Type**
Diameter **Slot/Gauze** **Length** **Set Between**

Well Address

ANOKA MN 55303

Geological Material	Color	Hardness	From	To
SAND AND GRAVEL			0	57
CLAY			57	65
GRAVEL			65	67
CLAY		HARD	67	103
SANDY CLAY, BOULDERS			103	170
ROCK LAYER			170	171
SANDY CLAY, BOULDERS, GRAVEL			171	193
SHALE	BLUE		193	202
SHALE, HARD SANDROCK	VARIED		202	243
SHALE, HARD SANDROCK	VARIED		243	250
SANDSTONE, SHALE HARD SANDSTONE			250	387
SANDSTONE, SHALE HARD SANDSTONE			387	430
SANDSTONE, SHALE HARD SANDSTONE			430	444

Static Water Level
43.3 ft. from Land surface Date Measured 09/24/1965

PUMPING LEVEL (below land surface)
ft. after hrs. pumping g.p.m.

Well Head Completion
Pitless adapter manufacturer Model
☐ Casing Protection ☐ 12 in. above grade
☐ At-grade (Environmental Wells and Borings ONLY)

REMARKS
M.G.S. NO. 433.

Located Minnesota Geological Survey **Method** GPS Differentially Corrected

Unique Number Verification Information from owner **Date** N/A

System *UTM - Nad83, Zone15, Meters* X: 467939 Y: 5005780

Grouting Information Well Grouted? ☑ Yes ☐ No

Grout Material: Neat Cement from 0 to 238 ft. 27.5 yrds.

Nearest Known Source of Contamination
_feet _direction _type
Well disinfected upon completion? ☐ Yes ☐ No

Pump ☐ Not Installed Date Installed
Manufacturer's name Model number __ HP _ Volts
Length of drop Pipe _ ft. Capacity _ g.p.m Type Material

Abandoned Wells Does property have any not in use and not sealed well(s)? ☐ Yes ☐ No

Variance Was a variance granted from the MDH for this well? ☐ Yes ☐ No

Cuttings Yes
First Bedrock St.Lawrence **Aquifer** Franconia-Ironton-Galesvill
Last Strat Eau Claire **Depth to Bedrock** 193 ft.

Well Contractor Certification

Layne Well Co.	27010	HOOVER, L.
License Business Name	Lic. Or Reg. No.	Name of Driller

County Well Index Online Report **201218** Printed 3/27/2008 HE-01205-07

Minnesota Unique Well No.

224625

County Anoka
Quad Anoka
Quad ID 120B

MINNESOTA DEPARTMENT OF HEALTH

WELL AND BORING RECORD

Minnesota Statutes Chapter 103I

Entry Date 04/15/1991
Update Date 01/18/2007
Received Date

Well Name ANOKA 6

Township Range Dir Section Subsections Elevation 880 ft.

32 24 W 30 CDDCAB Elevation Method 7.5 minute topographic map (+/- 5 feet)

Well Depth	Depth Completed	Date Well Completed
640 ft.	640 ft.	06/27/1974

Drilling Method Cable Tool

Well Address
7TH AV
ANOKA MN 55303

Drilling Fluid –

Well Hydrofractured? ☐ Yes ☐ No
From Ft. to Ft.

Use Community Supply PWS ID 1020001 Source S06

Geological Material	Color	Hardness	From	To
TOP SOIL			0	1
SAND & GRAVEL			1	30
SANDY CLAY			30	58
SAND & GRAVEL			58	74
CLAY & GRAVEL			74	126
SAND & CLAY			126	134
SAND			134	155
SAND			155	160
SANDROCK			160	165
SANDROCK			165	188
SANDROCK & SHALE			188	193
SANDROCK	GRAY		193	207
SHALE	GREEN		207	217
SHALE & SANDSTONE	GREEN		217	232
SANDSTONE	GRAY		232	273
SHALE	GREEN		273	308
SHALE	GREEN		308	367
SHALE	GREEN		367	385
SANDROCK	GRAY		385	418
SANDROCK	GRAY		418	420
SANDROCK	PINK		420	428
SHALE			428	470
SANDROCK SHALEY	GRAY		470	495
SANDROCK SHALEY	GRAY		495	500
SANDROCK			500	524
SANDROCK	TAN		524	568
SANDROCK	WHITE		568	629
SANDROCK	PINK		629	633
SHALEY SANDROCK	RED		633	638
SHALE			638	640

Casing Type Steel (black or low carbon) Joint No Information Drive Shoe? ☐ Yes ☐ No Above/Below ft.

Casing Diameter	Weight	Hole Diameter
30 in. to 167 ft.	lbs./ft.	29 in. to 220 ft.
24 in. to 387 ft.	lbs./ft.	24 in. to 640 ft.

Open Hole from 387 ft. to 640 ft.

Screen NO Make Type

Diameter Slot/Gauze Length Set Between

Static Water Level
28.1 ft. from Land surface Date Measured 06/27/1974

PUMPING LEVEL (below land surface)
131.33 ft. after hrs. pumping 2010 g.p.m.

Well Head Completion
Pitless adapter manufacturer Model
☐ Casing Protection ☑ 12 in. above grade
☐ At-grade (Environmental Wells and Borings ONLY)

REMARKS
M.G.S. NO. 946.

Located Minnesota Geological Survey
Method GPS Differentially Corrected
Unique Number Verification Information from owner
Date N/A
System *UTM - Nad83, Zone15, Meters*
X: 470146 Y: 5008276

Grouting Information Well Grouted? ☑ Yes ☐ No

Grout Material: Neat Cement from 0 to 387 ft. 44.5 yrds.

Nearest Known Source of Contamination
_feet _direction _type
Well disinfected upon completion? ☐ Yes ☐ No

Pump ☐ Not Installed Date Installed
Manufacturer's name Model number __ HP _ Volts
Length of drop Pipe _ft. Capacity _g.p.m Type Material

Abandoned Wells Does property have any not in use and not sealed well(s)? ☐ Yes ☐ No

Variance Was a variance granted from the MDH for this well? ☐ Yes ☐ No

Cuttings Yes
First Bedrock St.Lawrence
Last Strat Mt.Simon
Aquifer Ironton-MtSimon
Depth to Bedrock 155 ft.

Well Contractor Certification

Keys Well Co.	62012	SITTIG, R.
License Business Name	Lic. Or Reg. No.	Name of Driller

County Well Index Online Report **224625** Printed 3/27/2008 HE-01205-07

Minnesota Unique Well No.

453792

County Anoka
Quad Coon Rapids
Quad ID 120A

MINNESOTA DEPARTMENT OF HEALTH

WELL AND BORING RECORD

Minnesota Statutes Chapter 103I

Entry Date 06/22/1992
Update Date 01/18/2007
Received Date

Well Name ANOKA 7

Township Range Dir Section Subsections Elevation 868 ft.

Township	Range	Dir	Section	Subsections	Elevation Method
32	24	W	32	BCCDBB	7.5 minute topographic map (+/- 5 feet)

Well Depth	Depth Completed	Date Well Completed
490 ft.	490 ft.	01/15/1989

Drilling Method Cable Tool

Drilling Fluid Water

Well Hydrofractured? ☐ Yes ☐ No
From Ft. to Ft.

Use Community Supply **PWS ID** 1020001 **Source** S07

Casing Type Steel (black or low carbon) **Joint** No Information **Drive Shoe?** ☑ Yes ☐ No **Above/Below** 2 ft.

Well Address
116 CR
ANOKA MN 55303

Casing Diameter	Weight	Hole Diameter
30 in. to 185 ft.	118.65 lbs./ft.	29 in. to 490 ft.
24 in. to 373.5 ft.	94.62 lbs./ft.	

Open Hole from 371 ft. to 490 ft.

Screen NO **Make** **Type**

Diameter	Slot/Gauze	Length	Set Between

Geological Material	Color	Hardness	From	To
SAND & GRAVEL	BROWN	SOFT	0	58
CLAY & GRAVEL	GRAY	SOFT	58	132
CLAY & GRAVEL	BROWN	SOFT	132	147
CLAY & SAND	GRAY	SOFT	147	157
SAND, GRAVEL, & CLAY	BROWN	HARD	157	182
SHALE GRAY RED GREEN		MEDIUM	182	210
SHALE GRAY RED GREEN		MEDIUM	210	235
SHALE GRAY RED GREEN		MEDIUM	235	272
SHALE	RED	HARD	272	287
SHALE	GREEN	HARD	287	323
SANDSTONE & SHALE	GRAY	HARD	323	350
SANDSTONE	PNK/RED	SOFT	350	465
SANDSTONE	PNK/RED	SOFT	465	490

Static Water Level
21 ft. from Land surface Date Measured 02/14/1989

PUMPING LEVEL (below land surface)
116.5 ft. after 24 hrs. pumping 2200 g.p.m.

Well Head Completion
Pitless adapter manufacturer Model
☐ Casing Protection ☑ 12 in. above grade
☐ At-grade (Environmental Wells and Borings ONLY)

REMARKS
M.G.S. NO.2774. GAMMA LOGGED 10-7-1988.

Located Minnesota Geological Survey **Method** GPS Differentially Corrected

Unique Number Verification Information from owner **Date** N/A

System *UTM - Nad83, Zone15, Meters* **X:** 471272 **Y:** 5007499

Grouting Information Well Grouted? ☑ Yes ☐ No

Grout Material: Neat Cement from 0 to 371 ft. 36 yrds.

Nearest Known Source of Contamination
220 feet South East direction Septic tank/drain field type
Well disinfected upon completion? ☑ Yes ☐ No

Pump ☐ Not Installed Date Installed
Manufacturer's name Model number HP Volts
Length of drop Pipe ft. Capacity g.p.m Type Material

Abandoned Wells Does property have any not in use and not sealed well(s)? ☐ Yes ☑ No

Variance Was a variance granted from the MDH for this well? ☐ Yes ☐ No

Cuttings Yes **Borehole Geophysics** Yes
First Bedrock Ironton-Galesville **Aquifer** Mt.Simon
Last Strat Red Clastic Series **Depth to Bedrock** 210 ft.

Well Contractor Certification

License Business Name	Lic. Or Reg. No.	Name of Driller
Bergerson-Caswell	27058	BAKER, E.

County Well Index Online Report **453792** Printed 3/27/2008 HE-01205-07

Minnesota Unique Well No.

676405

County Anoka
Quad Anoka
Quad ID 120B

MINNESOTA DEPARTMENT OF HEALTH

WELL AND BORING RECORD

Minnesota Statutes Chapter 103I

Entry Date 12/12/2002
Update Date 01/12/2007
Received Date

Well Name ANOKA 8

Township	Range	Dir	Section	Subsections	Elevation	
32	24	W	30	CDDBCD	Elevation Method	880 ft. 7.5 minute topographic map (+/- 5 feet)

Well Depth	Depth Completed	Date Well Completed
425 ft.	425 ft.	11/14/2002

Drilling Method Cable Tool

Drilling Fluid Bentonite

Well Hydrofractured? ☐ Yes ☐ No
From Ft. to Ft.

Use Community Supply PWS ID 1020001 Source S08

Casing Type Steel (black or low carbon) Joint Welded Drive Shoe? ☑ Yes ☐ No Above/Below 4 ft.

Casing Diameter		Weight	Hole Diameter	
30 in. to	173.9 ft.	118.65 lbs./ft.	30 in. to	425 ft.
24 in. to	218 ft.	94.62 lbs./ft.		

Open Hole from 214 ft. to 425 ft.

Screen NO Make Type

Diameter	Slot/Gauze	Length	Set Between

Well Address
516 BUNKER LAKE BL
ANOKA MN 55303

Geological Material	Color	Hardness	From	To
SAND & GRAVEL	BROWN	SOFT	0	28
SANDY CLAY	GRY/BRN	SOFT	28	55
SAND & GRAVEL	BROWN	MEDIUM	55	74
CLAY	GRY/BRN	M.HARD	74	162
CLAY	GRY/BRN	M.HARD	162	188
SL S.S. & SHALE	GRN/GRY	MEDIUM	188	213
FR S.S. & SHALE	GRY/BRN	HARD	213	364
IG S.S. & SHALE	WHT/GRN	HARD	364	425
EC SHALE	GRAY	HARD	425	425

Static Water Level
30.8 ft. from Land surface Date Measured 11/08/2002

PUMPING LEVEL (below land surface)
62.2 ft. after 5 hrs. pumping 1530 g.p.m.

Well Head Completion
Pitless adapter manufacturer PUMP HOUSE Model
☐ Casing Protection ☑ 12 in. above grade
☐ At-grade (Environmental Wells and Borings ONLY)

REMARKS
GAMMA LOGGED 8-19-2002. LOGGED BY JIM TRAEN. M.G.S. NO. 4181.
COMPLETED WITH PROGRESSIVE CONSULTING ENGINEERS

Grouting Information Well Grouted? ☑ Yes ☐ No

Grout Material: Neat Cement from 0 to 214 ft. 18 yrds.

Located Minnesota Department of Health
Method GPS SA Off (averaged)
Unique Number Verification N/A
Date N/A
System *UTM - Nad83, Zone15, Meters*
X: 470149 Y: 5008324

Nearest Known Source of Contamination
200 feet N direction Septic tank/drain field type
Well disinfected upon completion? ☑ Yes ☐ No

Pump ☐ Not Installed Date Installed
Manufacturer's name Model number HP Volts
Length of drop Pipe ft. Capacity g.p.m Type Material

Abandoned Wells Does property have any not in use and not sealed well(s)? ☐ Yes ☑ No

Variance Was a variance granted from the MDH for this well? ☐ Yes ☑ No

Cuttings Yes Borehole Geophysics Yes
First Bedrock Jordan
Last Strat Eau Claire
Aquifer Franconia-Ironton-Galesvill
Depth to Bedrock 162 ft.

Well Contractor Certification

Renner E.H. Well	71015	COLBURN, S.
License Business Name	Lic. Or Reg. No.	Name of Driller

County Well Index Online Report | **676405** | Printed 3/27/2008 HE-01205-07

City of Anoka / Well drawdown testing

The City of Anoka will start implementing weekly checks for static /dynamic levels on wells in service. This will done by installing transducers at each well location and using the existing SCADA system to set how often readings will be taken at each location .

Measurements will be taken based on set time periods the well has been off and can be set up in ½ hour increments to take readings. It will also generate a chart showing recovery time periods and levels at other well sites.

We can also setup for watching the water levels during pumping production. Through this process we are looking at improving are well monitoring procedures.

We are estimating this process will be completed at all sites by August of 2009.

Attachment "~~C~~" "A-1"

City of Anoka

Emergency Contact List:

City Supervisors:

Pete Klingenberg: (Water/Sewer Supv.)	(office) 763 576-2923 (cell) 612 791-7217 (home) 763 441-0286
Mark Anderson: (Public Services Supv.)	(office) 763 576-2921 (cell) 612 791-7219 (home) 763 535-9008
Greg Lee: (Public Services Director)	(office) 763 576-2781 (cell) 612 791-7240 (home) 763 434-7861

Licensed Contractors /Plumbers/Excavators: Water Main Repair

Dave Perkins Contracting:	(office) 763-427-0109 (cell/pager) 612-7207-5755
K's Mechanical:	(office) 763-441-8066 (cell/pager) 612-750-8687

Contacts for Emergency Water Connections:

City of Ramsey: John Nelson (Water/Sewer Department)

763-433-9861

City of Andover: Brian Kraabel (Water/Sewer Department)

763-767-5180

City of Coon Rapids: Rick Bednar (Water/Sewer Department)

763 767-6576

Minnesota Department of Health:

Chad Kolstad (District Engineer) 651-643-2103

Karla Peterson (Public Health Engineer) 651-201-4649

Minnesota Pollution Control Agency:

Emily Schnick (Pollution Control Specialist)651-297-8502

Attachment "B"

CITY OF ANOKA

2015 First Avenue No.
Anoka, Minnesota 55303
763-576-2750

WATER & SEWER RATES

Effective January 2008

WATER:

Rate per 100 cu. ft. $ 1.02

Fixed Charge:

Residential	$ 4.75
Commercial	$ 9.50
Industrial	$ 142.00

SEWER:

Rate per 100 cu. ft. $ 2.13

Fixed Charge:

Residential	$ 4.75
Commercial	$ 9.50
Industrial	$ 142.00

Residential sewer charge is based on average water usage billed in January, February & March

Commercial/Industrial sewer charge is based on actual water usage.

A $ .44 water testing fee is sent to the State of Minnesota

Appendix A

Memorandum of Understanding between the Cities of Ramsey and Anoka for the Use and Sale of Water

MEMORANDUM OF UNDERSTANDING BETWEEN THE CITIES OF RAMSEY AND ANOKA FOR THE USE AND SALE OF WATER

PREFACE

It is in the best interests of the general public for various governmental entities to cooperate in providing services. The City of Anoka has reserve well capacity beyond that needed to supply its peak day demand. The City of Ramsey has a developing water utility base which has exhausted the reserve well capacity which it had only a few years ago. Cooperation can cause both City's utilities to benefit. The City of Ramsey will benefit from having a secondary water source to supply its customers in the event of an emergency and will also benefit financially from delaying the expense of an additional well to provide peak day capacity. The City of Anoka water utility will benefit financially from the sale of water it has the capacity to produce. The purpose of this memorandum is to define the terms both cities agree to in entering this mutually beneficial relationship.

LOCATIONS OF INTERCONNECTIONS

There shall be two locations for interconnections between the City of Anoka and the City of Ramsey water systems. The first connection will be a permanent installation located at the Anoka - Ramsey boundary on the north side of Highway #10. The manhole design, backflow preventer, water meter and all valves and fittings necessary to make the permanent correction shall be approved by the City of Anoka Public Works Director or his designee and purchased by the City of Ramsey. The purpose of this connection shall be to provide emergency supply of water to the City of Ramsey in the event of a watermain break or interruption of the City of Ramsey's water supply, and also to provide a supplemental source of water to supply the City of Ramsey's peak day period during the summer months. The amount of water supplied by the City of Anoka at this installation shall not exceed one million gallons per day without the approval of the City of Anoka Public Works Director's Designee.

A second location for an interconnect will be at the southeast corner of the intersection of County Road #116 and Thurston Avenue. This interconnect is intended to be only temporary in nature and will be facilitated by the connection of fittings and hose line run between two hydrants, one from each city. Water drawn at this location will be for emergency use only. The City of Ramsey will contact the Anoka - Champlin Fire Department and/or the City of Anoka Public Works Director's designee for permission to use water from this source whenever it becomes necessary to obtain water from this emergency connection location. The hose couplings adapter and backflow preventer for the temporary connection shall be approved by the City of Anoka and purchased and stored by the City of Ramsey. The meter necessary for measuring the flow from this temporary

connection shall be stored at the City of Anoka and installed under the supervision of the City of Anoka Water Department.

OWNERSHIP OF FACILITY

At the Highway #10 interconnect, the City of Anoka shall own and maintain all distribution piping east of the metering manhole. In addition, the meter utilized at this location shall be purchased by the City of Ramsey, however, it shall be owned and maintained by the City of Anoka. The City of Ramsey shall own and maintain a metering manhole and all distribution piping west of the manhole. Only one-way water flow from the City of Anoka to the City of Ramsey will be provided at this location. One-way flow shall be insured by a double-check, backflow preventer, which shall be owned and maintained by the City of Ramsey. The City of Ramsey shall install the watermain according to an approved design acceptable to the City of Anoka. The cost of the installation, engineering and inspection shall be borne by the City of Ramsey. The City of Anoka shall credit the City of Ramsey, against their water bill, for that portion of the watermain and appurtenances which will be owned by the City of Anoka. This credit is estimated to be $11,473. The actual cost to be the final construction cost plus eight percent for engineering and four percent for inspection. The City of Ramsey shall furnish the City of Anoka a certified copy of the final costs of the watermain installation, engineering and inspection which will be used to determine the credit allotted to the City of Ramsey. The watermain will be installed and tested according to the City of Anoka's specifications. Upon completion, the City of Ramsey shall furnish the City of Anoka a set of reproducible "as built" of the watermain installation.

ANOKA NEEDS TAKE PRIORITY

In the event an emergency or an unusual condition did occur (including the needs of residential and commercial users) within the City of Anoka, the City of Ramsey understands that the City of Anoka must first fulfill the needs to its City. For example, a fire in the City of Anoka will be a higher priority water use than a significant fire and/or domestic water emergency in the City of Ramsey. The City of Anoka will notify the City of Ramsey as promptly as is practicable whenever the amount of water supplied to the City of Ramsey is reduced due to an "emergency or unusual condition".

WATER CONSERVATION

The City of Ramsey agrees to implement water conservation measures which, at a minimum, are as stringent as those imposed on the City of Anoka water users during the periods water from the City of Anoka is being purchased.

PAYMENT FOR WATER

Whenever possible, the water used by the City of Ramsey from either of the interconnections shall be metered. If water is used for fire purpose, or for some other reason, it is not metered, the amount of water used shall be estimated by the Anoka Water Superintendent. Payment for water, metered or estimated, shall be made by Ramsey at Anoka's current rate. (1994 rate is 84.22¢ per 1,000 gallons, or 63¢ per 100 cubic feet.) In addition, a fixed charge of $150 per month is charged for each month water is purchased to cover the cost of metering and billing. Rates to be revaluated on an annual basis. All rate changes approved by the Anoka City Council will be implemented to this agreement.

TERM OF AGREEMENT

This memorandum of understanding will be reviewed every five years. Any change must be approved by both City Councils.

_____
Mayor, City of Anoka

_____
Date

ATTEST:

_____
City Manager, City of Anoka

_____
Date

_____
Mayor, City of Ramsey

_____
Date

ATTEST:

_____
City Administrator, City of Ramsey

_____
Date

Appendix B

Annual Odd/Even Water Restriction for the City of Anoka

REQUEST FOR COUNCIL ACTION

		MEETING DATE: August 18, 2008
AGENDA SECTION: Ordinances and Resolutions	**ORIGINATING DEPT:** Public Works - Engineering	**ITEM NO.:** 9.3
ITEM DESCRIPTION: ORD/Amending Chapter 66, Article IV, Section 66-131; Water Restrictions (1st Reading)		**PREPARED BY:** Greg Lee, P.E. Director of Public Services/ City Engineer

BACKGROUND

The City's Capital Improvement Program (CIP) has a New Well and Treatment Plant scheduled in 2014, which is just beyond the official scope of the CIP. The estimated cost of this improvement is $4,500,000. This item has been placed beyond the scope of the CIP because of the lack of available funds in the Enterprise Fund.

DISCUSSION

During recent budget discussions, staff determined that perhaps the first step that should be taken to delay or perhaps eliminate the need for an additional well and treatment plant is to promote conservation and to limit the peak water demand. This would be done by expanding the current odd/even watering policy to include a restriction that would be applied to selected portions of the day.

In addition to expanding current water conservation regulations, staff is proposing to include a method for assigning penalties for violations. The City's Code does allow for the option to shut off the water to violating properties; however, staff believes that assigning administrative fines is a more appropriate approach. To do this, staff has submitted a proposed revision to section 66-131 of the City Code to allow for administrative fines to be used to for water restriction violations.

FINANCIAL IMPACT

There is no financial impact related to a first reading. Should there be a second reading and adoption, the City will incur cost associated with public notification and enforcement. This would include items such as creating message signs, printing door hangers, and administrative costs associated with processing data and collecting fines. However, the fines collected are anticipated to compensate for administrative costs.

COUNCIL ACTION REQUESTED

It is requested that the City Council hold the first reading of this ordinance. The second reading is scheduled for the September 2, 2008 meeting.

COUNCIL ACTION: Motion by: _____ Second by: _____ Vote: _____

FOLLOW UP: _____

_____

CITY OF ANOKA

ORDINANCE NO. 2008-xxxx

AN ORDINANCE AMENDING THE ANOKA CITY CODE, CHAPTER 66, ARTICLE IV; WATER SYSTEM;

THE COUNCIL OF THE CITY OF ANOKA ORDAINS:

Section 1. Pursuant to Minnesota Law, the Anoka City Charter and the Anoka City Code, and upon a review of a study conducted by City staff, Chapter 22, Article VIII; Water System, is hereby amended, by an affirmative vote of a majority of the Anoka City Councilmembers present, to read as listed on Exhibit A, hereto attached, with stricken text deleted and underlined text inserted into existing code:

Section 2: This Ordinance shall be in full force and effective upon passage and seven days after publication.

_____
Bjorn E. Skogquist, Mayor

_____
Amy T. Oehlers, City Clerk

Introduced: August 18, 2008
Adopted: _____
Published: _____
Effective: _____

	Aye	Nay	Abstain	Absent
Skogquist				
Anderson				
Freeburg				
Rice				
Weaver				

CHAPTER 66. UTILITIES

ARTICLE IV. Water System*

***State law reference**--Authority to regulate use of waterworks, Minn. Stats. §§ 410.33, 410.231, subd. 11.

Section 66-131. Watering restriction(s).

(a) Upon the determination of City staff that water restrictions are necessary to protect water reserves, or to protect the publics' health, safety and/or welfare, the City staff may order the restriction or ban of watering, using City supplied water, which shall include but not be limited to the use of irrigation systems and the watering of grass, trees and shrubs.

(b) The person in whose name the account for City water is kept by the City for each property within the City shall be responsible to maintain compliance with this section on such property. Upon any violation of the restrictions imposed by this article, the ~~Department of Public Works~~ ***City*** may ~~shut off water service to the subject property and service shall be restored when the standard reconnection charges as outlined in the rules and regulations of the utilities department are paid.~~ ***issue written warnings and administrative fines. For cases of repeat or continued violations, the City may prosecute or terminate water service to the subject property. Service may be restored upon payment of all fines and associated service restoration fees.***

REQUEST FOR COUNCIL ACTION

		MEETING DATE: August 18, 2008
AGENDA SECTION: Ordinances and Resolutions	**ORIGINATING DEPT:** Public Works - Engineering	**ITEM NO.:** 11.2
ITEM DESCRIPTION: Adoption of Policy on Water Conservation Regulations		**PREPARED BY:** Greg Lee, P.E. Director of Public Services/ City Engineer

BACKGROUND

The City currently has an odd/even watering policy. It allows citizens to water their lawns and gardens on odd numbered days for odd numbered addresses and even days for even numbered addresses. This policy is in effect from May 1st to August 31st each year. Although not part of the City's current policy, City staff has historically requested property owners not to water during the hours of 10AM to 8PM.

The City of Anoka has six currently active municipal wells. In recent years, these wells have been operating at or near capacity to meet the summer water demand. The City needs to produce an adequate water supply for everyday use in homes and businesses as well as provide an adequate supply for fire protection. During these high demand periods there are times when the water supply has diminished to low levels.

DISCUSSION

The City's Capital Improvement Program (CIP) has a New Well and Treatment Plant scheduled in 2014, which is just beyond the official scope of the CIP. The estimated cost of this improvement is $4,500,000. This item has been placed beyond the scope of the CIP because of the lack of available funds in the Enterprise Fund. However, before the City considers the expenditure of these funds, other options that could delay or perhaps eliminate the need for this new well and treatment plant need to be explored.

The first consideration should be given to conservation. There has been a heightened awareness of environmental issues and an increased desire to conserve natural resources that could be addressed in the City's watering policy. In addition to the odd/even policy, the City may want to consider restricting watering during selected portions of the day.

Many of our neighboring and nearby cities prohibit, or request residents not to water during the middle of the day. This is the period of time which creates the most evaporation, and provides the least amount of benefit for the lawns and gardens. Evaporation rates during this period can be between 30 and 40 percent on summer days. Some studies have indicated that daytime watering may be damaging to the grass blades and plant leaves because the water droplets can act as small magnifying glasses causing them to burn.

The following is a list of watering policies implemented by other cities:

1. Blaine:
   - Tier 1
     - Odd/Even policy.
   - Tier 2
     - In addition to the above Tier I odd/even restriction, sprinkling is prohibited by all properties between the hours of 10:00 AM and 7:00 PM.
   - Tier 3
     - All lawn sprinkling by all properties is totally restricted

2. Andover:

Odd/Even policy with the restriction of no watering, odd or even, between the hours of 12:00 noon and 6:00PM.

Only one written warning is issued to violators. The second violation carries a financial penalty set by City Council resolution. The penalty is adjusted for each following violation.

Newly sodded or seeded yards are exempt from the odd-even restriction for a period of two weeks. Overseeding or spot patching of existing established yards can be watered every day with a hand-controlled hose. This exemption does not allow watering between 12:00 noon and 6:00 p.m. Other exemptions are: car washing, filling of children's swimming pools, children playing in a hose operated sprinkler or water toy.

3. New Brighton

Odd/Even policy. The City asks that citizens avoid lawn sprinkling during the peak demand hours of 4pm to 10pm on hot, dry summer days.

Newly seeded or sodded lawns may be sprinkled every day for a period not to exceed three weeks.

Violation of these policies is punishable by a fine of $40.

4. Champlin

Odd/Even policy with the restriction of no watering, odd or even, between the hours of 10:00AM and 7:00 PM. Adopted on January 8, 2007 – Ordinance No. 633. Regulations are in effect from May 1st to Labor Day each year.

Hand watering is allowed at anytime. New sod and seed are exempt for four weeks only. Children can run in the sprinkler any time, but are asked not leave the sprinkler running.

The first violation will result in a written warning. The second and each subsequent violation will result in an excess use fine of $75.00 per day.

5. Ramsey

Odd/Even sprinkling ban effective May 29th to September 4th. No watering between 10:00AM to 8:00PM.

New sod or seeded areas may be watered every day for two weeks to establish root growth, but not between 10:00AM and 8:00PM.

6. Coon Rapids

Odd/Even policy from June 1st to August 31st. There are exceptions for new sod/seed/shrubs. There are no specific hourly restrictions.

The City does have the right by State Statute to regulate the use of its waterworks. Given this, Staff has developed a written a policy pertaining to Water Conservation Regulations. A copy of this proposed policy is attached for the City Council's consideration. In addition to establishing water conservation regulations for sprinkling and irrigation, the proposal also includes a method for assigning penalties for violations. The City's Code does allow for the option to shut off the water to violating properties; however, staff believes that assigning administrative fines is a more appropriate approach. If the City Council concurs with this approach, staff will submit a proposed revision to section 66-131 of the City Code to allow for administrative fines to be used to for water restriction violations. If adopted, these administrative fines would be added to the City's Fee Schedule and reviewed and updated periodically.

As a note, in addition to proposed conservation measures, City staff is researching the viability of re-commissioning two existing wells (Well No. 1 & No. 2 – located off of Ferry Street south of the Fairgrounds) that were decommissioned several years ago due to the general plant condition and building in which they are housed as well as their pumping inefficiencies as compared to newer wells.

FINANCIAL IMPACT

The City may be able to delay or perhaps eliminate the need for a new well and treatment plant, which has an estimated cost of $4,500,000.

The City is subject to an annual permit fee from the DNR (Department of Natural Resources) for all water pumped by the City. In 2005, the DNR started a summer surcharge program which assigns additional charges based on summer usage. This amounts to several thousands of dollars annually for Anoka. If the additional volume of water pumped in the summer months over the winter months is reduced, the surcharge is reduced proportionally.
"A surcharge of $20 per million gallons is applied to the volume of water used in each of the months of June, July, and August that exceeds the volume of water used in January of each year. The summer surcharge applies to municipal water use, irrigation of golf courses and landscape irrigation. This is a surcharge in addition to the regular fee rate based on the yearly total volume used."

The City will incur cost associated with public notification and enforcement. This would include items such as creating message signs, printing door hangers, and administrative costs associated with processing data and collecting fines. However, the fines collected are anticipated to compensate for administrative costs.

COUNCIL ACTION REQUESTED

It is recommended that the City Council make a motion adopting the Water Conservation Regulations.

COUNCIL ACTION: Motion by: _____ Second by: _____ Vote: _____

FOLLOW UP: _____

_____

WATER CONSERVATION POLICY

Policy Number: 2008-03
Council Adopted: August 18, 2008

Introduction.

In order to conserve a natural resource and to help ensure the sustainability of this resource it is important that that the City regulates the use of its water supply. The purpose of this document is to establish regulations for the use of the City water supply. These regulations also establish penalties for violations of the City Code that is associated with said regulations. The goal of implementing these regulations is to reduce the peak water demand on the system and reduce the potential for not meeting the water demands of the City for domestic use and for fire protection.

I. CITY CODE (Revised Version - as proposed on August 18, 2008)

CHAPTER 66. UTILITIES

ARTICLE IV. Water System*

***State law reference**--Authority to regulate use of waterworks, Minn. Stats. §§ 410.33, 410.231, subd. 11.

Section 66-131. Watering restriction(s).

(a) Upon the determination of City staff that water restrictions are necessary to protect water reserves, or to protect the publics' health, safety and/or welfare, the City staff may order the restriction or ban of watering, using City supplied water, which shall include but not be limited to the use of irrigation systems and the watering of grass, trees and shrubs.

(b) The person in whose name the account for City water is kept by the City for each property within the City shall be responsible to maintain compliance with this section on such property. Upon any violation of the restrictions imposed by this article, the City may issue written warnings and administrative fines. For cases of repeat or continued violations, the City may prosecute or terminate water service to the subject property. Service may be restored upon payment of all fines and associated service restoration fees.

II. Water Sprinkling and Irrigation Regulations

Tier # 1 Restrictions: May 1st thru August 31st Odd/Even restrictions

Example: All properties with odd number addresses (7501) may water on odd numbered calendar days (June 11), and all properties with even numbered addresses (2612) may water on even numbered calendar days (June 10).

In addition to the Odd/Even restrictions, there will be no lawn watering between the hours of 10 A.M. and 7 P.M.

Tier # 2 Restrictions: May 1st thru August 31st all lawn sprinkling by all properties is totally restricted. Established by order of the Director of Public Services/City Engineer after notification of the City Manager and the Mayor

The following exceptions will apply to Tier #1:

- Private Wells.
- The City of Anoka watering public uses facilities / parks, athletic fields, and golf course property which require more frequent watering to prevent unreasonable damage.
- The hand watering of plants, flowers, gardens, or trees using a hose.
- Exemptions will be made for new sod and seed for 30 days with a permit issued from the Public Services Department.
- Other exemptions will be washing of vehicles, filling swimming pools, and children playing in a hose operated sprinkler or water toy.

The following exceptions will apply to Tier #2:

- Private Wells.
- The hand watering of plants, flowers, gardens, or trees using a hose.
- Exemptions will be made for new sod and seed for 30 days with a permit issued from the Public Works Department.
- Other exemptions will be children playing in a hose operated sprinkler or water toy.

This Restriction will always be Tier #1 unless ordered by the Director of Public Services/City Engineer after notification of the City Manager and the Mayor.

If Tier #2 is implemented, notice will be published in the City's official newspaper, on the City's electronic message board, on the City website site, and posted on City property.

III. Penalties for Violation

Penalties for violation of the Water Conservation Regulations of City Code will be:

1st violation	written warning
2nd violation	$25.00 fine
3rd violation	$50.00 fine
4th violation	$100.00 fine
5th violation	$200.00 fine
6th violation	turned over to the City Attorney for criminal prosecution of theft and / or termination of service

These administrative fines will be subject to annual revision based on the current adopted City Fee Schedule.

WATER
EMERGENCY

NO SPRINKLING

BAN
IN EFFECT

576-2700

www.ci.anoka.mn.us

MANDATORY

ODD-EVEN SPRINKLING BAN

IN EFFECT

NO SPRINKLING

FROM

10AM TO 7PM

576-2700

www.ci.anoka.mn.us

Appendix C

5-Year Capital Improvement Plan

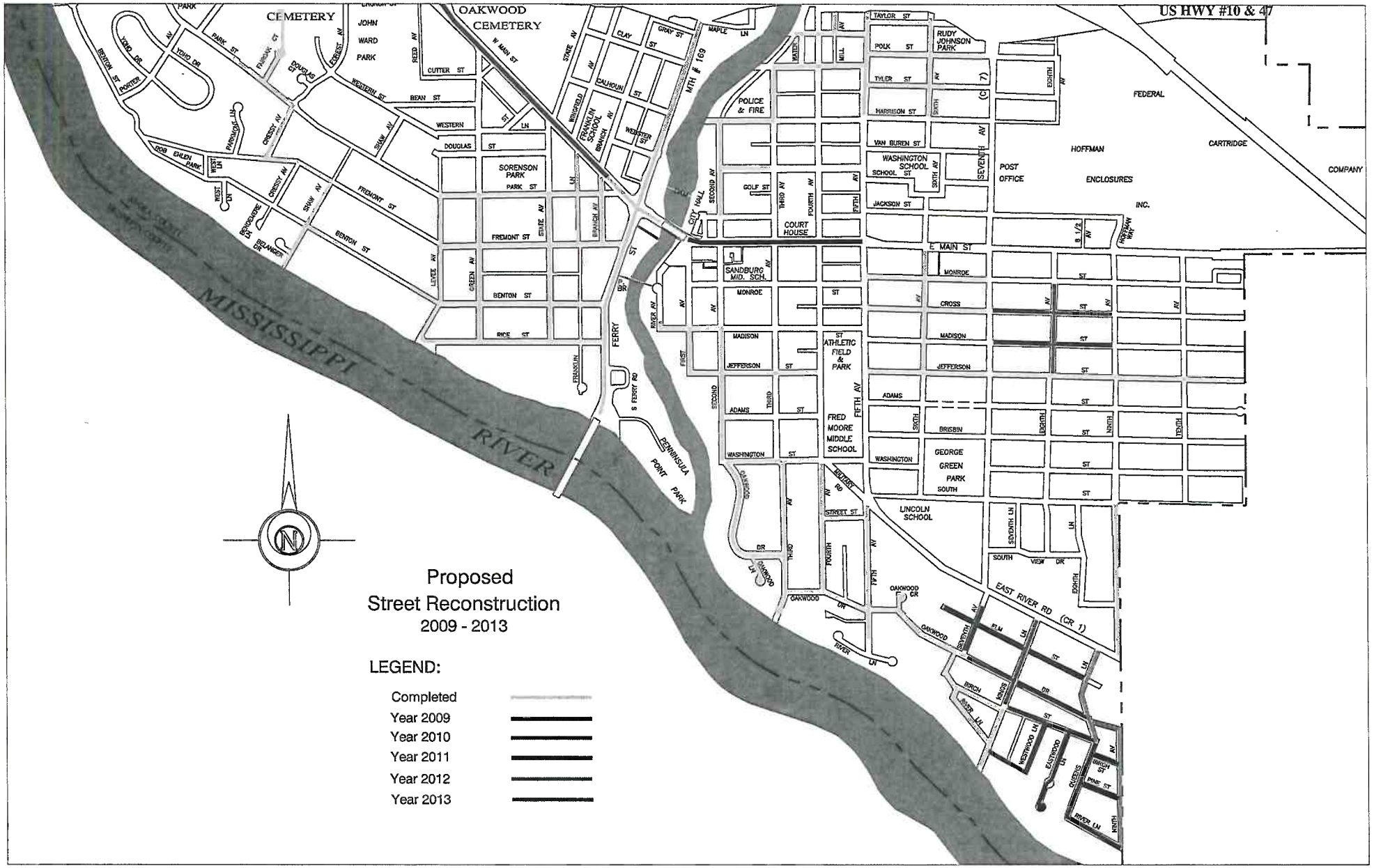
City of Anoka, Minnesota

Capital Improvement Plan

2009 thru 2013

PROJECTS BY YEAR

Project Name	Department	Project #	Priority	Project Cost
2009				
Evaluation of Water Treatment Plants 3 and 5	Water Utility	*WU-007*	3	30,000
Install Variable Frequency Drive on Well Pump	Water Utility	*WU-010*	n/a	15,000
Water Meters	Water Utility	*WU-016*	n/a	70,000
	Total for 2009			115,000
2010				
Treatment Plants & Well Houses-Security	Water Utility	*PWW-001*	n/a	18,000
Water Treatment Plant # 3 Exterior Repairs	Water Utility	*WU-003*	3	80,000
Plant Exterior Repairs at Wells 4&5	Water Utility	*WU-004*	2	40,000
Well Inspection and Repair	Water Utility	*WU-008*	3	50,000
Install Variable Frequency Drive on Well Pump	Water Utility	*WU-010*	n/a	15,000
Backhoe, Rubber Tire; 781	Water Utility	*WU-013*	n/a	110,000
Water Meters	Water Utility	*WU-016*	n/a	70,000
Bi-annual Water Conservation	Water Utility	*WU-022*	n/a	12,000
	Total for 2010			395,000
2011				
Install Variable Frequency Drive on Well Pump	Water Utility	*WU-010*	n/a	15,000
Water Meters	Water Utility	*WU-016*	n/a	70,000
	Total for 2011			85,000
2012				
Construction and Devlopment of Well	Water Utility	*WU-005*	2	175,000
Well Inspection and Repair	Water Utility	*WU-008*	3	50,000
Install Variable Frequency Drive on Well Pump	Water Utility	*WU-010*	n/a	25,000
Water Meters	Water Utility	*WU-016*	n/a	70,000
Install backwash wells 3, 4, 6, 8	Water Utility	*WU-020*	2	200,000
Bi-annual Water Conservation	Water Utility	*WU-022*	n/a	12,000
	Total for 2012			532,000
2013				
Water Meters	Water Utility	*WU-016*	n/a	70,000
Automate Wellhouse #5	Water Utility	*WU-018*	2	450,000
Install backwash wells 3, 4, 6, 8	Water Utility	*WU-020*	2	200,000
	Total for 2013			720,000
GRAND TOTAL				1,847,000


Proposed
Street Reconstruction
2009 - 2013
LEGEND:
Completed
Year 2009
Year 2010
Year 2011
Year 2012
Year 2013
MISSISSIPPI
RIVER
US HWY #10 & 47
OAKWOOD CEMETERY
CEMETERY
JOHN WARD PARK
SORENSON PARK
POLICE & FIRE
COURT HOUSE
CITY HALL
SANDBURG MID. SCH.
ATHLETIC FIELD & PARK
FRED MOORE MIDDLE SCHOOL
RUDY JOHNSON PARK
WASHINGTON SCHOOL
GEORGE GREEN PARK SOUTH
LINCOLN SCHOOL
POST OFFICE
HOFFMAN ENCLOSURES INC.
FEDERAL CARTRIDGE COMPANY
PENINSULA POINT PARK
FRANKLIN SCHOOL
E MAIN ST
EAST RIVER RD (CR 1)
S FERRY RD
FERRY
MTH # 169

CAPITAL PLAN 2009 *thru* 2013

City of Anoka, Minnesota

Project # **EN-09-01**

Project Name **2009 Street Renewal Project**

Update flag

Type Street Renewal
Useful Life 30 years
Category Street Reconstruction
Priority 3 Important
Contact Public Works Director
Department Engineering

Description

Complete reconstruction of the following City streets:

Oakwood Drive	(7th Ave to Kings Lane)
Seventh Ave	(E. River Rd to Oakwood Dr)
Elm Street	(7th Ave to Kings Lane)
Elm Street	(West of 7th Avenue)
Kings Lane	(E. River Rd to Birch St)

Total Length = 3370 LF

Justification

Streets and underground utilities are in poor condition and are in need of reconstruction

Project # **EN-09-03**

Project Name **Johnson St Reconstruction**

Update flag

Type Street Renewal
Useful Life 25 years
Category Street Reconstruction
Priority 2 Very Important
Contact Public Works Director
Department Engineering

Description

Reconstruct Johnson St from Fourth Av to Seventh Av

Justification

Johnson Street will be the primary access to the north lot of the Northstar Rail station.
This street presently serves M-2 and R-4 zoning and carries about 580 vehicles per day. It is part of the City's MSA system and is identified on the CRTV master plan as remaining in its current alignment.
While Johnson Street's existing condition and capacities are marginally acceptable under present circumstances, increases in traffic volume and public exposure due to the activities around the commuter rail station recommend this project for completion prior to the station's opening in late 2009.

Project # **EN-10-01**

Project Name **2010 Street Renewal Project**

Update flag

Type Street Renewal
Useful Life 30 years
Category Street Reconstruction
Priority 4 Less Important
Contact Public Works Director
Department Engineering

Description

Complete reconstruction of the following City streets:

Elm Street	(Kings Ln to Queens Ln)
Oakwood Drive	(Kings Ln to Queens Ln)
Birch Street	(Kings Lane to Westwood Ln)
Westwood Lane	(Birch St to River Lane)
River Lane	(Kings Lane to Westwood Lane)

Total Length = 3170 LF

Justification

Streets and underground utilities are in poor condition and are in need of reconstruction

Project # **EN-11-01**

Project Name **2011 Street Renewal Project**

Update flag

Type Street Renewal
Useful Life 30 years
Category Street Reconstruction
Priority 4 Less Important
Contact Public Works Director
Department Engineering

Description

Complete reconstruction of the following City streets:

Birch Street (Westwood Ln to Queens Ln)
Eastwood Lane (South of Birch St)
Queens Lane (Birch St to River Lane)
River Lane (Queens Ln to 9th Ave)
Pine Street (Queens Ln to 9th Ave)
Birch Street (Queens Ln to 9th Ave)

Total Length = 3690 LF

Justification

Streets and underground utilities are in poor condition and are in need of reconstruction

Project # **EN-12-01**

Project Name **2012 Street Renewal Project**

Update flag

Type Street Renewal
Useful Life 30 years
Category Street Reconstruction
Priority 3 Important
Contact Public Works Director
Department Engineering

Description

Complete reconstruction of the following City streets:

Queens Lane (East River Rd to Birch Street)
Oakwood Ln (Oakwood Ln to 9th Ave)
Elm Street (East of Queens Lane)
Ninth Avenue (Oakwood Drive to River Lane)

Total Length = 2760 LF

Justification

Streets and underground utilities are in poor condition and are in need of reconstruction

CAPITAL PLAN 2009 *thru* 2013

City of Anoka, Minnesota

Project # **EN-13-01**

Project Name **2013 Street Renewal Project**

Update flag

Type Street Renewal
Useful Life 30 years
Category Street Reconstruction
Priority 3 Important
Contact Public Works Director
Department Engineering

Description

Complete reconstruction of the following City streets:

Monroe Street (Seventh Ave to Ninth Ave)
Cross Street (Seventh Ave to Ninth Ave)
Eighth Avenue (Main St to Madison St)

Total Length = 3300 LF

Justification

Streets and underground utilities are in poor condition and are in need of reconstruction

Capital Improvement Plan

2014 *thru* 2018

City of Anoka, Minnesota

Contact	Public Works Director
Department	Water Utility
Type	Improvement
Useful Life	30 years
Category	Construction
Priority	5 Future Consideration
Total Project Cost	**$4,500,000**

Project # **WU-001**

Project Name **New Well & Treatment Plant # 9**

Update flag

Description

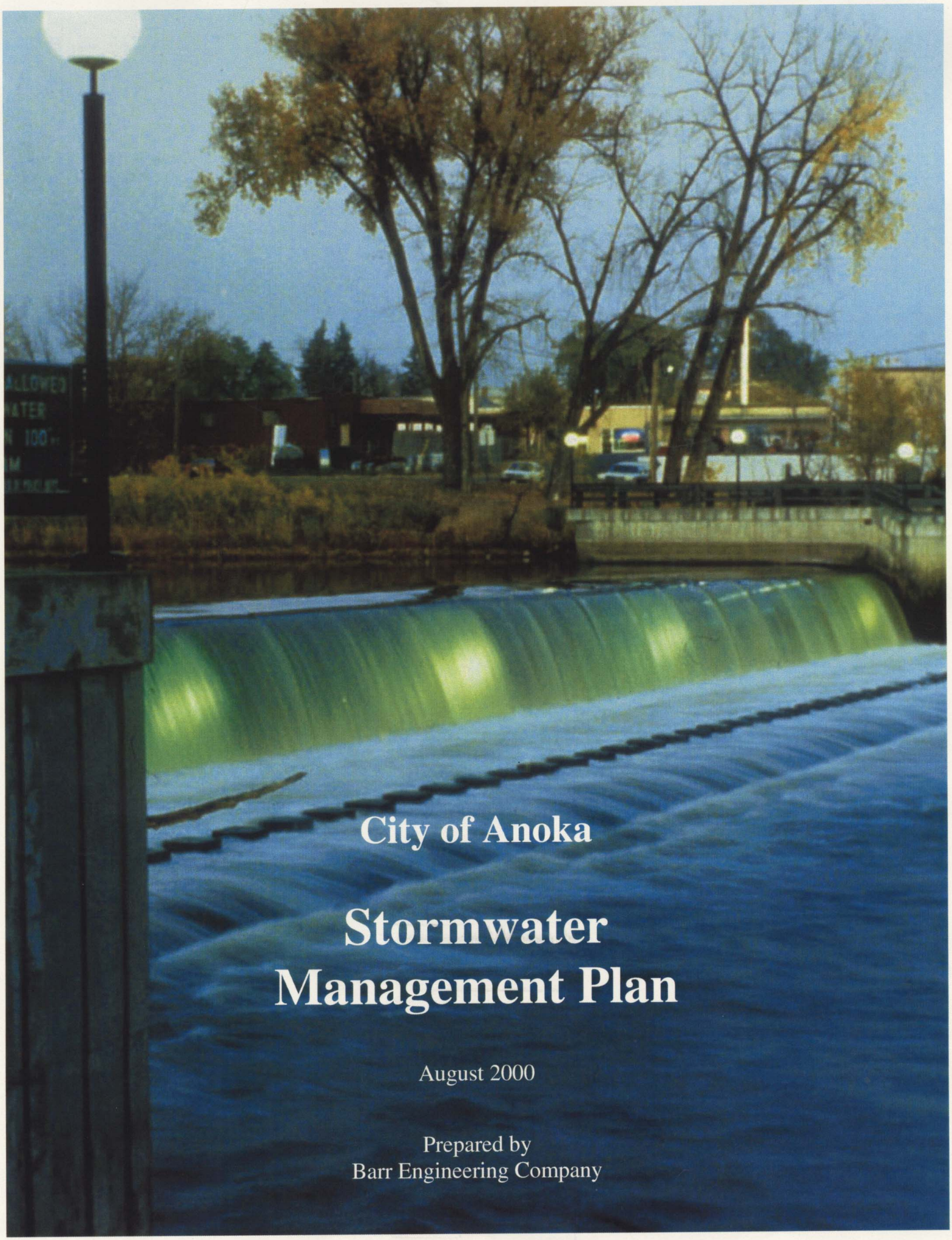
Develop a new deep well and construct a water treatment plant near water tower No.2 in the Enterprise Park.

Justification

City wells are run at near 100% capacity in June, July, and August each summer. A pump or other treatment failure would greatly reduce the City's ability to provide water for domestic use or fire protection.

Expenditures	2014	2015	2016	2017	2018	Total
Construction					4,500,000	4,500,000
Total					**4,500,000**	**4,500,000**

Funding Sources	2014	2015	2016	2017	2018	Total
Revenue Bonds					4,500,000	4,500,000
Total					**4,500,000**	**4,500,000**



City of Anoka

Stormwater Management Plan

August 2000

Prepared by
Barr Engineering Company

City of Anoka

Stormwater Management Plan

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1.0 Executive Summary

The *City of Anoka Stormwater Management Plan* is divided into the Executive Summary and fourteen additional sections, which are described as follows:

Section 2: Introduction—presents background information regarding the city, general watershed information, and plan purposes.

Section 3: Policies for Stormwater Planning—presents background information, goals, policies and design standards covering runoff management and flood control and water quality management, National Pollutant Discharge Elimination System (NPDES) considerations, funding mechanisms, and the city's proposed education program. Section 3.1.1 summarizes the stormwater management policies.

Sections 4 through 12 (Watershed Descriptions and Recommendations)—describes the general watershed area, drainage patterns, flood protection concerns, stormwater system analysis and results, and implementation recommendations for each of the following major watersheds in the city: Mississippi River East, Mississippi River West, Anoka Enterprise, Rum River Northeast, Rum River Northwest, Rum River Southeast , Rum River Southwest, U.S. Highway 169 and 10, and Coon Rapids Tributary. Section 1.1.2 provides a summary of the highlights for each watershed.

Section 13: Technical Methods and Assumptions—describes the data, methods and assumptions used for the stormwater analyses.

Section 14: System Maintenance—discusses the city's responsibilities with respect to maintenance of stormwater facilities and presents a stormwater system maintenance guide.

Section 15: Implementation Program—presents proposed projects, programs and initiatives which address issues identified in the other sections of the plan, in accordance with goals and policies stated in Section 3. This section also presents financial considerations and the procedure for revisions and amendments to the stormwater management plan. Section 1.1.3 provides a summary of the implementation program.

Section 16: Wetlands—Discusses the city's responsibilities with respect to wetland protection.

1.1 City of Anoka Goals, Problems, and Potential Solutions

1.1.1 Goals

Runoff Management and Flood Control (Section 3.1)

- No flow rate increases in already-overtaxed stormwater systems.
- Adopt and implement a stormwater management ordinance.
- Place high priority on providing 100-year level of protection for the city's stormwater system.
- Require 10-year level of service for new stormwater systems and for existing systems as opportunities arise.
- Manage waterways as potential natural resource areas.

This section also presents policies and design standards for minimum building elevations and stormwater management facilities, and policies for working with other units of government.

Water Quality Management (Section 3.2)

- Modify city review, permitting and enforcement processes for construction activities to ensure water quality goals are met.
- Heighten community awareness through education and training.
- Manage city water resources so that the beneficial uses of streams, wetlands, ponds, and lakes remain available to the community.
- Work with the counties, townships, and upstream landowners (outside the city's jurisdiction) to encourage upstream pollutant reduction in areas closer to the source of such pollutants.
- Use regional detention areas, where practical and physically possible, as opposed to individual on-site detention to reduce flooding, control discharge rates, and provide necessary storage volume.
- Implement a runoff water quality monitoring program, if required to do so (i.e. NPDES requirements).
- Promote stormwater retention through infiltration practices and demonstration projects, where soil conditions allow and where not detrimental to groundwater supplies.

- Erosion and sediment control operations and facilities must meet the standards and specifications given in the Minnesota Pollution Control Agency's handbook of Best Management Practices entitled *Protecting Water Quality in Urban Areas.*

- Extended detention basins will be constructed to provide water quality treatment just prior to discharge to the rivers.

This section also describes water quality management standards, as taken from the proposed stormwater management ordinance, stormwater management plan review and permitting standards, stormwater management plan approval standards and a checklist of best management practices (BMPs).

Funding Mechanisms (Section 3.4)

- The city will investigate whether to adopt and implement a stormwater utility, in addition to the current funding methods (ad valorem taxes and special assessments), to fund the implementation program.

1.1.2 Problems, Issues and Potential Solutions

This section summarizes the problems, issues and potential solutions identified in Sections 4 through 12 of the plan.

Mississippi River East Watershed (Section 4)

The plan recommends upgrading of storm sewer systems on 9th Avenue, Kings Lane, Fifth Avenue, Oakwood Drive, and Oakwood Lane, and the construction of one new stormwater detention basin.

To protect the water quality of the Mississippi River, the plan recommends the construction of three water quantity/quality detention basins at various locations in the watershed and/or the addition of appurtenances to the storm sewer where the construction of a basin is not practical or feasible.

Mississippi River West Watershed (Section 5)

The plan recommends the upgrading of storm sewer systems along Ferry Street, Franklin Lane, Levee Avenue, West Lane, Porter Avenue, and construction of a stormwater detention area within Sorensen Park.

To protect the water quality of the Mississippi River, the plan recommends the construction of four water quantity/quality detention basins at various locations in the watershed and/or the addition of appurtenances to the storm sewer where the construction of a basin is not practical or feasible.

Anoka Enterprise Watershed (Section 6)

No existing or future capacity problems were identified in this watershed. It is recommended that the city carefully review proposed storm sewer systems accompanying development plans to ensure no future capacity problems occur. A detailed survey of the existing storm water detention basins is necessary to determine if the existing basins need to be modified to provide the necessary storage.

To protect the water quality of the Mississippi River, the plan recommends the construction of an appurtenance to the storm sewer where the sewer system outlets to the river.

Rum River Northeast Watershed (Section 7)

The plan recommends the upgrading of storm sewer systems at Bryant Circle, Grant Circle, 9th Lane, Grant Street, Garfield Street, 7th Avenue, and 41st Street. A detailed survey of the four existing basins and storm water detention basins is necessary to determine if the existing basins need to be modified to provide the necessary storage.

To protect the water quality of the Rum River, the plan recommends the construction of one water quantity/quality detention basin off of Grant Street and/or the addition of appurtenances to the storm sewer where the construction of a basin is not practical or feasible.

Rum River Northwest Watershed (Section 8)

No existing or future capacity problems were identified in this watershed. It is recommended that the city carefully review proposed storm sewer systems accompanying development plans to ensure no future problems occur. A detailed survey of the two existing basins is necessary to determine if the existing basins need to be modified to provide the necessary storage.

To protect the water quality of the Rum River, the plan recommends the construction of appurtenances within the storm sewer where there is direct discharge into the river.

Rum River Southeast Watershed (Section 9)

The plan recommends the upgrading of storm sewer systems along Jefferson Street, Washington Street, 5th Avenue, Brisbin Street, 7th Avenue, 10th Avenue, Adams Street, Harrison Street, Taylor Street, and Polk Street. A detailed survey of the three existing storm water detention basins is necessary to determine if the existing basins need to be modified to provide the necessary storage.

To protect the water quality of the Rum River, the plan recommends the construction of five water quantity/quality detention basins at various locations in the watershed and/or the addition of appurtenances to the storm sewer where the construction of a basin is not practical or feasible.

Rum River Southwest Watershed (Section 10)

The plan recommends the upgrading of storm sewer systems along Benton Street and Webster Street.

To protect the water quality of Rum River, the plan recommends the construction of appurtenances to the storm sewer at the outlets to the river.

U.S. Highway 169 and 10 Watershed (Section 11)

The plan recommends the upgrading of storm sewer systems along Euclid Avenue, Fairoak Avenue, Western Street, State Avenue, Branch Avenue, and 8th Avenue. John Ward Park serves as a detention basin; however, construction of an outlet is required to connect the park with the highway system at West Main Street. A detailed survey of the four existing basins is required to determine if sufficient storage is provided.

To protect the water quality of Rum River, the plan recommends the construction of five water quantity/quality basins at various locations in the watershed and/or the addition of appurtenances within the storm sewer where construction of a basin is not practical or feasible.

Coon Rapids Tributary Watershed (Section 12)

No existing or future capacity problems were identified in this watershed. It is recommended that the city carefully review proposed storm sewer systems accompanying development plans to ensure no future problems occur.

The plan assumes that the water quality treatment is the responsibility of the city of Coon Rapids as the points of discharge into major water bodies is not within the Anoka city limits.

1.1.3 Implementation Program

Section 15 of the plan presents the city's implementation program, which can be divided into projects, programs, and special studies. In order of priority, corrective, preventive, and investigative work needs to be completed to implement this plan.

Table 15-1 includes programmatic activities, such as adoption and implementation of a stormwater management ordinance, implementation of a stormwater system maintenance program, and establishment and implementation of a stormwater utility.

2.0 Introduction

2.1 Study Area General Description and Watershed Nomenclature

The city of Anoka is bisected by the Rum River, and its southern limits are situated along the Mississippi River. Early-development occurred along the southern portion of the Rum River. The city has since expanded northward to the most recent development in the northwest corner.

The city's land use plan is shown on Figure 2-1. The majority of the city is developed except for the portion located north of Bunker Lake Road.

All of the land in the city of Anoka eventually drains to the Mississippi River. The northwest corner and southernmost regions of the city are directly tributary to the Mississippi, which flows southeasterly. The downtown and remaining portions of the city are directly tributary to the Rum River, which joins the Mississippi at the southern edge of the city.

This plan covers the following nine major watersheds in the city of Anoka:

1. Mississippi River East
2. Mississippi River West
3. Anoka Enterprise
4. Rum River Northeast
5. Rum River Northwest
6. Rum River Southeast
7. Rum River Southwest
8. U.S. Highway 169 and 10
9. Coon Rapids Tributary

These nine watersheds are shown on Figure 2-2. Sections 4 through 12 describe the stormwater management requirements and recommended system improvements for each of these watersheds. The nine major watersheds were subdivided into minor watersheds and subwatersheds. Watershed divides were determined using USGS quadrangle maps (10-foot contour interval) and field verified.

Minor watersheds in each of the major watersheds were designated according to the street or other location where the watershed outlets. For example, the Jefferson Street subwatersheds are labeled JF-1,2,3,...etc., the Porter Avenue watersheds are labeled PTR-1,2,3,... etc., and the Moore Middle School watersheds are labeled MMS-1,2,3,... etc.

2.2 Plan Purposes

This plan provides the city of Anoka with an overall comprehensive stormwater management plan. This plan was developed to address current and future stormwater issues, especially those related to future development and redevelopment. In particular, this plan responds to the following issues:

- The city needs to establish a stormwater utility to raise the funds needed to construct new storm sewer systems, retrofit old systems, establish water quality treatment facilities, and maintain the stormwater management system.
- The city needs overall stormwater management planning that recognizes the potential for the city to annex additional lands.
- The future MPCA requirements of the city of Anoka to obtain an NPDES permit as part of Phase II of the NPDES Stormwater Regulations.

Surface water management technology has changed significantly since the city first developed. Water quality and wetland preservation issues are now major concerns and land use assumptions have changed.

The first goal of this Stormwater Management Plan is to provide for flood control and natural resource management. In addition, the city realizes it could be affected by the provisions of several new legislative mandates, including:

1. Assisting property owners, developers, and contractors in complying with the requirements of the construction permitting portion of the National Pollutant Discharge Elimination System (NPDES) permit program under the Federal Clean Water Act (MPCA's NPDES construction stormwater permit).
2. Identifying all wetlands, floodplains, and floodway areas to assist the city in complying with the Minnesota Wetland Conservation Act of 1991 and the wetland permitting requirements of the Corps of Engineers under Section 404 of the Clean Water Act.
3. Municipalities with populations under 100,000 will likely be required to obtain a NPDES stormwater discharge permit as part of the reauthorization of the Clean Water Act. The cities

will need to address water quality management as part of the NPDES stormwater permit; this plan will provide the framework for the city to meet at least some of the likely permit requirements.

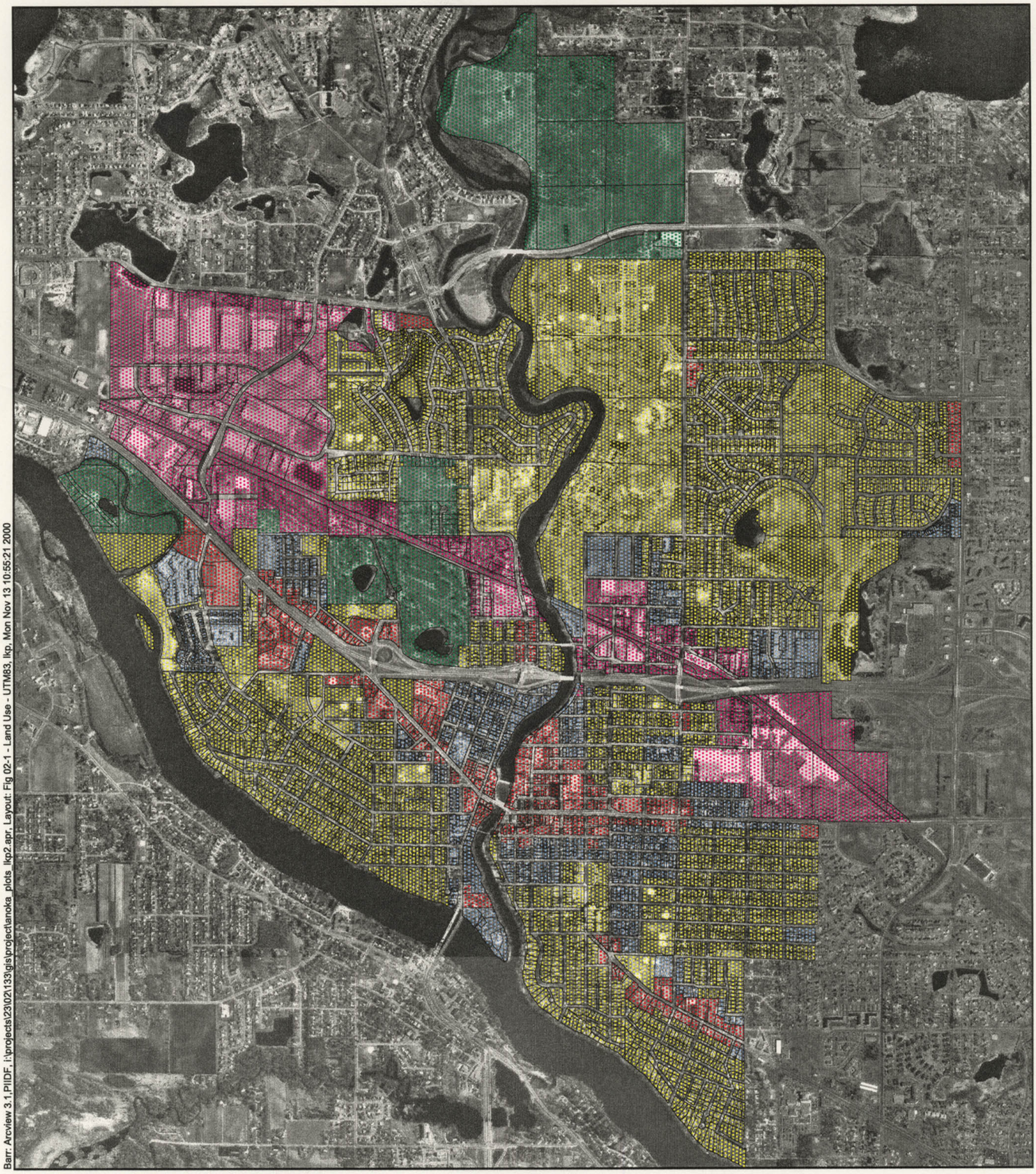
This plan will assist the city of Anoka in defining and implementing a comprehensive and environmentally sound system of surface water management. It is intended to be used as a tool to:

1. Plan for projects and other water management activities so as to correct existing problems and prevent foreseeable future problems from occurring.

2. Assist the city in considering water resource impacts resulting from variances to the city's long-range land use plan.

3. Enable the city to grow/redevelop in a systematic and orderly manner while protecting its vital water resources.

In order to accomplish these objectives, the plan considers a specific array of land uses within the city's legal boundary. If and when land uses change, this plan provides the means to (1) address the proposed changes; (2) determine the impact of the changes on the city's infrastructure, flooding, and natural resources; and (3) determine the actions needed within the proposed areas of land use change to prevent undesirable impacts.



LEGEND

Land Use
- Agricultural/Open
- Commercial
- Industrial
- Multiple Family Residence
- Single Family Residential

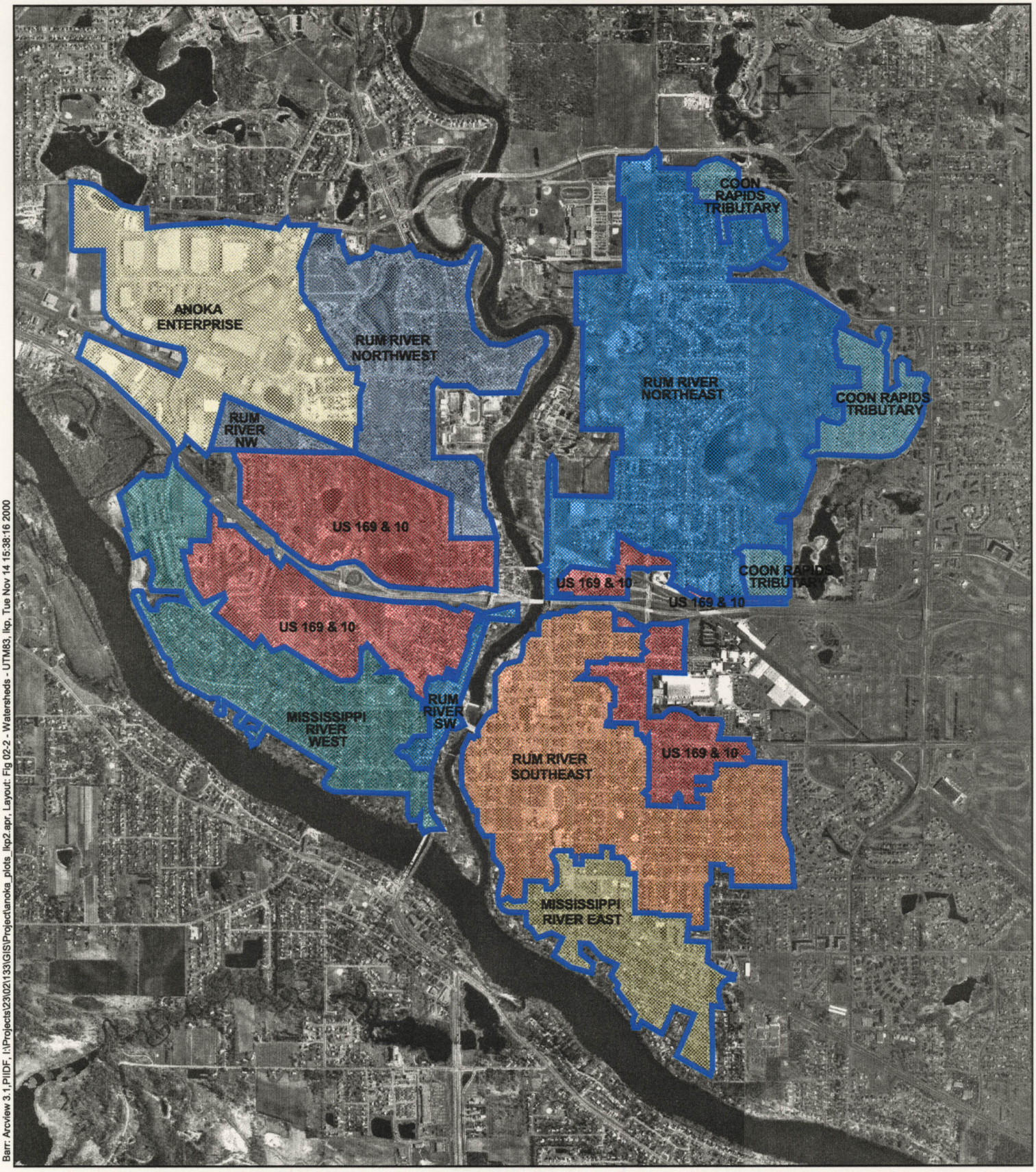
N
W E
S

1500 0 1500 3000 Feet

1000 0 1000 2000 3000 Feet

Figure 2-1

LAND USE
City of Anoka
Anoka, Minnesota



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N
W E
S

1500 0 1500 3000 Feet

1000 0 1000 2000 3000 Feet

Figure 2-2

MAJOR WATERSHEDS
City of Anoka
Anoka, Minnesota

3.0 Policies for Stormwater Planning

This section presents background information, policies and design standards covering runoff management and flood control, water quality management, wetland management, National Pollution Discharge Elimination System (NPDES) considerations, funding mechanisms, and the city's proposed education program.

3.1 Runoff Management and Flood Control

The city of Anoka's stormwater drainage system extends throughout the developed areas of the city. The drainage system includes a combination of storm sewers, culverts, roadway curb and gutter, flumes, spillways, overflow swales and ditches that discharge to the rivers, detention ponding basins, wetlands and lakes throughout the city. Storm sewers are typically designed to handle the flows from a 10-year frequency storm event, a storm that has a 10 percent chance of occurring in any given year. The other surface components are designed to manage flows the storm sewers cannot handle for events up to the 100-year frequency storm event, a storm that has a 1 percent chance of occurring in any given year. For most of the city's drainage systems, there is no additional capacity for added stormwater runoff from new developments and redevelopments. It is important that there be no flow rate increases in those systems that are already over capacity. As areas develop or redevelop, the effect of the proposed projects on the system will need to be determined.

It is important to understand the difference between **level of service** and **level of protection** when designing and analyzing stormwater systems.

- **Level of service** is defined as the system's capacity to convey runoff without unusual hardship or significant interference with routine public activities. Typically, this means flows remain in the storm sewer system and there is no street flooding.

- **Level of protection** is defined as the total system capacity required to avoid flooding of structures and to provide for public safety. Typically, the level of protection is the level at which street flooding, overflow swales, piping systems and basins work as a total system to prevent flooding of homes/businesses and to prevent dangerous flooding of streets.

A system's level of protection is determined by combining the capacity of the storm sewer and ponding system with the overland flow channels that carry water not carried by the storm sewer system. For example, if a storm larger than the storm sewer's design event occurs, some of the runoff will not be captured by the storm sewer, and will instead flow overland in gutters or natural swales.

In higher areas or in areas with well-defined overland flow patterns, this surface flow may not cause flooding. However, in low areas where an outlet is only provided by the storm sewer, the surface water may collect and flood adjacent property. In the first case, the overall drainage system provides a level of protection greater than the level of service provided by the storm sewer. In the latter case, the level of protection is essentially the same as the level of service.

In general practice, the design event used for level of service (storm sewer design event) corresponds to a return period of 10 years or less, while the design event used for level of protection (total system design event) corresponds to a return frequency of 100 years.

The 100-year and 10-year storms are defined as the critical 100-year or 10-year duration events that result in the greatest flood (water surface) elevations and peak discharges for any area to be protected (the level of protection). There are many 100-year storm and runoff events of varying duration that could be analyzed. Depending on the watershed characteristics, one of these events will present flow and flood conditions worse than the others. For this plan, the 10-year critical and the 100-year, 1-hour events were used for analysis. The 100-year, 1-hour storm was used to design and analyze ponding areas. The 10-year critical event, either ½-hour or 1 hour, was used to design and analyze storm sewer pipes.

Table 15-1 presents the design criteria for the proposed ponding basins within each major watershed throughout the city. Presently, there are many options for basin development. The information presented represents one possibility. It is the intent of the city and this plan to be flexible and allow for other designs proposed by developers or owners, as long as the design conforms to the overall intent of this plan. The most important basin design parameters to be met are the 100-year and 10-year peak discharges listed in each section, which should not be exceeded unless a reanalysis is completed. The basin design parameters are conceptual only and are subject to change. For example, watershed boundaries may change as a result of new topographic mapping and/or development, which would alter ponding requirements. Since the ponding recommendations are conceptual, final design of the basins must be undertaken prior to basin construction.

3.1.1 Runoff Management and Flood Control Policies

The following sections present the city of Anoka's policies and design standards that address runoff management and flood control, which are incorporated into the stormwater management regulations.

The city adopts the following general runoff management and flood control policies (Sections 3.1.1.1 and 3.1.1.2 provide specific policies and standards):

1. The city of Anoka will place a high priority on providing 100-year level of protection for the city's stormwater system. The city will require new stormwater systems to provide 100-year level of protection. Existing systems that currently do not provide 100-year level of protection will be modified to provide 100-year level of protection. Proposed additions and modifications to the stormwater system are shown in Table 15-1.

2. The city will require new stormwater systems to provide 10-year level of service. Existing systems that currently do not provide 10-year level of service will be modified, as opportunities arise and as needed, to provide 10-year level of service.

3. The city will manage ravines, ditches, creeks and other waterways as potential natural resource areas to protect their natural characteristics as well as their stormwater conveyance capabilities. This will require the construction of basins. As development/redevelopment occurs, ponding basins must be constructed to detain stormwater runoff prior to its discharge into a ravine, ditch, stream, or other waterway.

3.1.1.1 Minimum Building Elevations

To prevent flooding of buildings, it is recommended that the city adopt the following policies/design standards:

1. All lowest floor elevations and other permanent fixtures including heating and air conditioning ventilation systems should meet the following:

   - Be a minimum of 2 feet above the 100-year flood elevation for basins with pipe outlets or waterways.

   - For landlocked basins, no piped outlet, the minimum building elevation should be the greater of either 2 feet above the level resulting from two concurrent 100-year, single event rainfall events or 2 feet above the 100-year 10-day snowmelt. In either case, the starting elevation of the basin/waterbody prior to the runoff event should be established by one of the following:

     (a) Existing Ordinary High Water level established by the Minnesota Department of Natural Resources;

     (b) Annual water balance calculation approved by the city of Anoka;

     (c) Local observation well records, as approved by the city of Anoka; or

(d) Mottled soil.

Note: The 100-year landlocked basin flood elevation may be lowered by excavating an overflow swale or constructing an outlet pipe at an overflow point.

2. The lowest entry elevations (i.e., windows, window wells, walkout elevations) for buildings adjacent to overflow swales and/or conveyance channels should be at least 2 feet above the 100-year flow elevation of the swale or channel at the point where the swale or channel is closest to the building.

3.1.1.2 Stormwater Management Facilities Design Standards

The city adopts the following policies/design standards for all new stormwater management facilities (i.e. basins, storm sewers, etc.):

1. All ponding basins and basin outlet pipes should be designed to collectively detain and convey the flows from the 100-year frequency storm (100-year level of protection). Detention basins should be designed to contain the flows from the 100-year frequency storm without overtopping.

2. All lateral storm sewer systems, including catch basin grates, and all city roadway curb and gutter facilities should be designed to convey flows from the 10-year frequency storm (10-year level of service).

3. All roadways adjacent to ponding basins or through which flows from drainage waterways, creeks, or other major flow conveyors are conveyed should be constructed or protected such that they are not overtopped by runoff from the 100-year frequency storm event (100-year level of protection).

4. Where practical and physically possible, regional detention areas, as opposed to individual on-site detention, should be used to reduce flooding, to control discharge rates, and to provide necessary storage volumes whenever possible. Where regional detention areas are not in place or existing systems are already over capacity, the city will require individual on-site detention at new developments to ensure the new developments do not worsen conditions for the existing systems under present watershed development conditions.

5. Promote stormwater retention through infiltration practices and demonstration projects, where soil conditions allow and where not detrimental to groundwater supplies.

6. All constructed slopes within the 100-year storage volume of a ponding basin should be 4 feet horizontal to 1 foot vertical (4H:1V) where possible, and in no case should they be steeper than 3H:1V.

7. All ponding basins should be provided with a protected emergency overflow structure to prevent undesired flooding resulting from extreme storms or plugged outlet conditions. The emergency overflow path should be protected with permanent, nondegrading erosion control materials (i.e. riprap or geosynthetics).

8. Each ponding basin should be provided with an all-weather access road for maintenance purposes.

3.2 Water Quality Management

This section of the city's plan sets forth background water quality information, the city's water quality management policies, and the city's design standards. This section also describes the city's review process and its specific requirements for construction activities within the city.

3.2.1 Background Water Quality Information

The rivers, streams, ponds, lakes, and wetlands in the city of Anoka are an important community asset. These resources supply aesthetic and recreational benefits, in addition to providing wildlife habitat and refuge. The city recognizes the need to assure adequate water quality in the water bodies within the city and will take steps to protect these resources. The city of Anoka will manage the city's water resources so that the beneficial uses of rivers, lakes, streams, ponds and wetlands remain available to the community. Such beneficial uses may include aesthetic appreciation, wildlife habitat protection, nature observation, and recreational activities.

When natural areas become urbanized, stormwater runoff from impervious areas such as new roads, highways, industries, commercial areas, and residential areas collects and conveys pollutants at above natural rates to adjacent water bodies. In addition to flooding concerns, numerous studies have documented the adverse or accelerated water quality impacts associated with converting land from its native, undisturbed state to urban and even agricultural land uses. Outflow from urbanized areas, especially, significantly accelerates the natural degradation of our lakes, streams and rivers.

As land urbanizes, the amount of impervious cover of the watershed increases. The results in higher phosphorus loads delivered from the watershed to the receiving water body. Consequently, the city considers areas that will be undergoing significant future development to be "hot spots" in terms of phosphorus loading.

At the same time, an increase in population density generally results in an increased appreciation for the many benefits of urban rivers, streams, ponds, lakes, and wetlands. This results in strong public

pressure to mitigate the impacts of urbanization, to reduce the effects of past water quality degradation, and to prevent the potential effects of future development.

Phosphorus and suspended sediments are recognized as being particularly detrimental to the health of lakes and streams. As a result, the city is promoting measures to reduce the influx of these pollutants to its water bodies. Many other pollutants are transported by the same processes that convey phosphorus. Therefore, phosphorus reduction measures for stormwater runoff may also reduce the flow of other pollutants to area resources.

The city's watershed management and land development policies are directed mainly at controlling the amount of phosphorus and sediment that is carried by runoff from the watershed. High phosphorus levels in streams and lakes lead to algal proliferation. Abundant algae reduces water clarity, may impair fish habitat, can cause scum and odor problems, and is generally considered unsightly. Water quality monitoring shows that controlling phosphorus levels is the key to controlling algal growth in most Minnesota water bodies.

Closely related to reducing phosphorus loads to water bodies is controlling suspended sediment inflows. Suspended sediment carried by stormwater runoff typically consists of fine particles of soil, dust, dirt, organic material, and undissolved fertilizer. Suspended sediment loads can also carry heavy metals, oils, and other pollutants. High volumes of suspended sediment can be the result of:

- Erosion from agricultural land.
- Runoff from city streets, buildings, parking lots, and other impervious areas, which washes accumulated sediment from those areas.
- Runoff from urban areas with higher flows and higher velocities, which in turn causes channel and swale erosion.
- Runoff from construction sites with poor erosion and sediment control or with poorly maintained sediment control facilities.

Sediment clouds streams and lakes, thereby disturbing or destroying aquatic life, other wildlife, and their habitats. Sediment is also a major source of phosphorus because dissolved phosphorus frequently attaches to small sediment particles. As a result, many of the city's standards are aimed at preventing or slowing the transport of fine soil, dust, and dirt particles into streams, waterways, and lakes.

The city intends to use regional water quality treatment facilities as its prime method to attain the city's water quality goals. However, in addition to regional facilities, implementation of best management practices will be necessary for specific areas and for construction sites throughout the city and its tributary watersheds. Table 3-1 presents an example BMP checklist and Table 3-2 provides a listing of BMPs. Such practices are particularly important in areas where regional facilities do not exist or are not feasible. Sections 3.2.3, 3.2.4, and 3.2.5 present the city's water quality-related design standards.

3.2.2 Water Quality Management Policies

The city adopts the following water quality policies:

1. The city of Anoka will include in its review permitting and enforcement processes for construction activity provisions to ensure that water quality goals are met.

2. The city will work to heighten community awareness of water quality management through education and training.

3. The city will manage its water resources so that the beneficial uses of streams, wetlands, ponds, and lakes remain available to the community.

4. The city of Anoka will work with the adjacent municipalities to encourage upstream pollutant reduction in areas closer to the source of such pollutants.

5. The city will use regional detention areas, where practical and physically possible, as opposed to individual on-site detention to reduce flooding, control discharge rates, and provide for water quality management.

6. The city will promote stormwater retention through infiltration practices and demonstration projects in locations where soil conditions permit and where groundwater supplies will not be impacted.

7. The design, testing, installation, and maintenance of erosion and sediment control operations and facilities must meet the standards and specifications given in the Minnesota Pollution Control Agency's handbook of best management practices entitled *Protecting Water Quality in Urban Areas*, as amended; and the requirements of the Lower Rum River Water Management Organization.

3.2.3 Water Quality Management Standards

One purpose of the city of Anoka's stormwater management regulations is to control or eliminate soil erosion and sedimentation within the city. The regulations establish standards and specifications to minimize soil erosion and sedimentation resulting from land alterations or development activity. The stormwater management regulations establish procedures for issuance, approval, administration, and enforcement of a permit regulating land alteration. The regulations require the submission of stormwater management plans that will provide the following information for areas altered of 1 acre or greater in size.

- **Existing site map.** A map of existing site conditions showing the site and areas immediately adjacent to the site.
- **Drainage computations.** For each subwatershed, computations must be provided showing the peak discharge rate and runoff volume for the 100-year rainfall storm event for existing and proposed site conditions and the 10-year post-development peak discharge rate. The drainage computations for the site must meet either the discharge requirements set by the city's stormwater management plan.
- **Site construction plan.** A map showing site conditions during construction, including an erosion control plan.
- **Plan of final site conditions.** A plan of final site conditions showing the site changes.

3.2.4 Stormwater Management Plan Review/Permitting Procedure

Permit applicants must submit stormwater management plans to the city of Anoka for review in accordance with the stormwater management regulations.

3.2.5 Stormwater Management Plan Approval Standards

The standards in this section apply to stormwater management plan approval by the city.

3.2.5.1 Site Dewatering

The regulations require that water pumped from a construction site must be treated through appropriate controls and that water may not be discharged in a manner that causes erosion or flooding of the site, off-site property, receiving channels or a wetland.

3.2.5.2 Sediment Tracking

The regulations require each construction site to have graveled roads, rocked access drives and parking areas of sufficient size to prevent tracking of sediment onto public or private roadways. Contractors must remove any sediment reaching a public or private road by street cleaning (not flushing) before the end of each workday.

3.2.5.3 Drain Inlet Protection

The regulations require protection of all storm drain inlets during construction until control measures are in place with a silt fence, straw bale, or equivalent barrier meeting accepted design criteria, standards and specifications contained in the most current version of the MPCA publication *Protecting Water Quality in Urban Areas.*

3.2.5.4 Site Erosion Control

The stormwater regulations require the following applicable criteria be met for construction activities that result in runoff leaving the site:

- All site activities must be conducted in a logical sequence to minimize the amount of bare soil exposed at any one time. If possible, grading operations that disturb existing vegetation or ground cover must be undertaken to minimize the area of bare soil exposed at any one time.

- Runoff from the entire disturbed area on the site must be controlled by meeting the conditions of either 1 and 2 or 1 and 3, described below.

    1. All disturbed ground left inactive for thirty (30) or more days must be stabilized by seeding and mulching or sodding. After September 15, the site must be stabilized by providing temporary cover (such as mulch) or other equivalent control measures until final vegetation can be established in the spring.

    2. For sites with more than 5 acres disturbed at one time the contractor must construct one or more temporary or permanent sedimentation basins. Each sedimentation basin must have: (1) a surface area of at least 1 percent of the area draining to the basin, and (2) at least 3 feet of depth (dead-storage), and (3) constructed in accordance with accepted design specifications. The contractor must regularly maintain the sedimentation basins and periodically remove sediment to maintain a depth of 3 feet. The basin discharge rate must also be sufficiently low to prevent erosion along the discharge channel or the receiving water.

3. For sites with less than 5 acres disturbed at one time, the city encourages, but does not require, construction of sedimentation basins. At a minimum, silt fences, straw bales, or equivalent control measures must be placed along all sideslope and downslope sides of the site. Silt fences placed in concentrated flow channels perpendicular to the flow direction must be reinforced by snow fence and support posts. The use of silt fences, straw bales, or equivalent control measures must include a maintenance and inspection schedule.

3.2.5.5 Stormwater Management Criteria for Permanent Facilities

- **General Requirements**

1. The stormwater management regulations require applicants to provide permanent stormwater detention facilities if regional facilities have not been constructed within the watershed of the proposed project. When required to provide such facilities, all necessary stormwater management facilities must be provided to store increased runoff from the 100-year storm peak discharge to a predevelopment rate. Upon construction of a regional stormwater detention facility in the watershed, the city may allow (but is not obligated to allow) some or all of these stormwater management facilities to be removed.

2. Applicants must give consideration to reducing the need for stormwater management facilities by incorporating the use of natural topography and land cover such as wetlands, ponds, natural swales and depressions as they exist before development to the degree that they can accommodate the additional flow of water without compromising the integrity or quality of the wetland or pond.

3. The following stormwater management practices must be investigated during development of the stormwater management plan, in the following descending order of preference:

   a. Natural infiltration of precipitation and runoff on-site.

   b. Flow attenuation by use of open vegetated swales, and natural depressions.

   c. Stormwater retention facilities.

   d. Stormwater detention facilities.

4. A combination of successive practices may be used to achieve the applicable minimum runoff rate control requirements specified in above. The applicant must provide justification for the method selected.

- **Design standards** (taken from the stormwater management regulations). Stormwater detention facilities required by the city of Anoka to incorporate water quality treatment features, must be designed according to the most current technology as reflected in the MPCA publication *Protecting Water Quality in Urban Areas* and Lower Rum River Water Management Organization criteria and must contain, at a minimum, the following design factors:

  1. A permanent pond surface area for wet detention basins, or wetted area for the extended detention in modified dry basins, equal to two percent of the impervious area draining to the pond or one percent of the entire area draining to the pond, whichever amount is greater.

  2. An average permanent pool depth of 4 to 10 feet for wet detention basins.

  3. Wet storage volume for wet basins, or the extended detention volume for modified dry basins, equal to or greater than the runoff from a 2-inch rainstorm event from the entire drainage area tributary to the basin and sediment storage adequate to hold at least 25 years of sediment accumulation.

  4. A permanent pool length-to-width ratio of 3:1 or greater.

  5. A minimum protective shelf extending ten feet into the permanent pool with a slope of 10H:1V, beyond which slopes should not exceed 4H:1V (5H:1V or flatter is preferred).

  6. A protective buffer strip of vegetation surrounding the permanent pool at a minimum width of 25 feet.

  7. All stormwater detention facilities must have a device ("skimmer") to prevent oil, grease, and other floatable materials from moving downstream as a result of normal operations.

  8. Stormwater detention facilities for new development must be sufficient to limit peak flows in each subwatershed to those that existed before the development for the 100-year storm event. All calculations and hydrologic models/information used in determining peak flows must be submitted to the city along with the stormwater management plan.

  9. All stormwater detention facilities must have a forebay to remove coarse-grained particles prior to discharge into a watercourse or storage basin.

  10. All overflow swales designed to pass runoff flows from part or all of the 100-year event that have a channel slope of 2 percent or steeper, or other 100-year discharge velocities that will exceed 4 feet per second must be armored with permanent, non-photo-degrading erosion control materials.

Although not required by the city's stormwater management regulations, the city suggests that the following design standards also be applied:

1. The distance between the major inlets and normal outlet should be maximized to provide the greatest flow distance for flow through the basin.

2. The design should include effective energy dissipation devices that reduce outlet velocities to 4 fps or less. These outlets should consist of stilling basins or other such devices that prevent erosion at all stormwater outfalls into the detention basin, and at the basin outlet.

3. Trash and floatable debris skimming devices should be placed at the outlet of all on-site detention basins to provide treatment up to the critical duration 5-year storm event.

3.2.5.6 Wetlands

- Runoff must not be discharged directly into wetlands without treatment of the runoff.

- A 25-foot wide protective buffer strip of natural vegetation surrounding all wetlands is recommended.

- Wetlands must not be drained or filled, wholly or partially, unless replaced by restoring or creating wetland areas of at least equal public value in accordance with the rules adopted by the Minnesota Board of Water and Soil Resources. Replacement must be guided by the following principles in descending order of priority:

    1. Avoiding the direct or indirect impact of the activity that may destroy or diminish the wetland;

    2. Minimizing the impact by limiting the degree or magnitude of the wetland activity and its implementation;

    3. Rectifying the impact by repairing, rehabilitating, or restoring the affected wetland environment;

    4. Reducing or eliminating the impact over time by preservation and maintenance operations during the life of the activity; and

    5. Compensating for the impact by replacing or providing substitute wetland resources or environments.

3.2.5.7 Manholes

All newly installed and rehabilitated manholes located immediately upstream of the discharge point to a waterbody must have a sump provided for the collection of coarse-grained material. Such basins should be cleaned when the sump areas are half filled with material.

3.2.5.8 Inspection and Maintenance

All stormwater management facilities must be designed to minimize maintenance needs and to provide maintenance access. The Anoka city engineer, or designated representative, will inspect all stormwater management facilities during construction, during the first year of operation, and at least once every 5 years thereafter. The inspection records will be kept on file in the engineering department. It is the applicant's responsibility to obtain any necessary easements or other property interests to allow access to the stormwater management facilities for inspection and maintenance purposes.

3.2.5.9 Models/Methodologies/Computations

Hydrologic models and design methodologies used for the determination of runoff and analysis of stormwater management structures must be approved by the city of Anoka. Plans, specification and computations for stormwater management facilities submitted for review must be signed by a registered professional engineer. All computations must be submitted with the proposed plans for review, unless otherwise approved by the Anoka city engineer.

3.3 NPDES Considerations

Under the federal 1987 Clean Water Act revision, discharges of pollutants into waters of the United States are prohibited without a permit under the National Pollutant Discharge Elimination System (NPDES) program. The purpose of the NPDES stormwater regulation is to reduce the water quality impact of stormwater drainage systems on receiving water bodies. Traditionally, this program concentrated on discharges from industries and publicly owned treatment plants. Under the current NPDES program rules, discharges associated with industrial activities, construction projects, and certain municipalities must be covered by an NPDES stormwater permit.

Currently, the city of Anoka is not required to be covered under a NPDES discharge permit for stormwater. Municipalities with populations under 100,000 were not included in the first round of municipal permitting by the United States Environmental Protection Agency (U.S. EPA). However,

municipalities with smaller populations (>10,000) are likely to be addressed in the reauthorization of the Clean Water Act. Final regulations for the reauthorization (Phase II regulations) are expected in the near future. Although the final Phase II regulations are not ready, it is likely the regulations will require the city to develop, implement and enforce a stormwater management program designed to reduce pollutants from the city's storm sewer system. The city's stormwater management program would be required to include the following strategies:

1. Public education and outreach on stormwater impacts.
2. Public involvement and public participation.
3. Elicit discharge detection and elimination.
4. Construction site stormwater runoff control.
5. Post-construction stormwater management in new development and redevelopment.
6. Pollution prevention and good housekeeping methods for municipal operations (i.e. public works garages).

Once the Phase II regulations are finalized, the Minnesota Pollution Control Agency (MPCA) will have three years to develop a procedure for complying/implementing with the regulations. The MPCA is considering a watershed-based strategy, not individual NPDES permits. The MPCA will likely issue a general NPDES permit to the city, based on the city's water quality goals, for its water bodies. The MPCA would then monitor the city's progress towards meeting its water quality goals. The city of Anoka may wish to wait to implement a comprehensive water quality management program until notified by the EPA or the MPCA about the permit requirements. However, there are several tasks that the city may undertake at this time which would assist the city in completing the permit application and complying with the future permit requirements. These tasks include:

1. Source Identification
2. Identification and Implementation of Best Management Practices
3. Simplified Water Quality Monitoring
4. Education Program (see Section 3.5)

3.3.1 Pollutant Source Identification

Identification of stormwater pollutant sources includes identification of illicit pollutant discharges and nonpoint sources throughout the city. An illicit pollutant discharge is defined as a nonpermitted point source of pollutants that discharges to the storm sewer system at a specific location.

Illicit discharges are often identified by observing the existing storm sewer systems during dry weather conditions. This work would include the review of storm sewer plans, field investigation of the major outfalls in the city and of the major creeks and waterways, and random sampling of manholes throughout the city. The guidance manual for Part 1 of the NPDES municipal permit application provides a detailed methodology for dry weather sampling of storm sewer systems. The city of Anoka could proceed with the identification of illicit discharges based on this methodology. This work would involve five tasks, including:

- Identification of dry weather sampling network and sampling protocol.
- Identification of methods for estimating discharges from illicit discharges.
- Identification of methods for locating illicit discharges.
- Implementation of dry weather sampling and illicit discharge source identification.
- Remedial action to correct any found illicit discharges.

The purpose of the this work is to determine: (1) if illicit discharges exist, (2) where these discharges originate, and (3) the water quality of the discharges. Ultimately, any illicit discharge identified would be removed from the system.

Nonpoint pollutant sources include concentrated areas of material storage, high impact land use activity, and areas of erosion and site specific problem areas throughout the city and in outlying watersheds that drain into the city. Traditionally, nonpoint source pollution is associated with land use activities such as agricultural, commercial, industrial, and construction activities. Identification of problem areas will provide the city with potential management alternatives required in Part 2 of the NPDES permit. Also, any construction project that is 5 acres or more requires an NPDES Construction Permit to be issued for the work, as well as strict compliance with the permit provisions.

3.3.2 Identification of Best Management Practices

The city of Anoka stormwater management policies and standards identify BMPs for construction site stormwater runoff control, and post-construction stormwater management in new and redeveloped areas.

Problem areas identified as a part of the source identification process may need to be retrofitted with stormwater BMPs before or as part of a future NPDES municipal permit process. The entire watershed contributing to storm sewers in the city should be considered for water quality management. Activities upstream of the city of Anoka may have a greater impact on the discharges to environmentally sensitive areas than stormwater runoff from the storm sewer system within the city. This determination may require coordination, negotiation, and participation with other city, county and state offices.

In preparation for future NPDES activities, the city can identify and develop management alternatives for site specific conditions and for general application throughout the city of Anoka. Based on the source identification portion of the proposed NPDES work, the city may prepare an implementation plan that includes:

Urban BMPs

- Detention Basins
- Constructed Water Quality Wetlands
- Grassed Swales
- Filter Strips
- Oil & Grit Separators
- Floatable Skimmers

Agricultural BMPs

- Nutrient and Pesticide Management
- Vegetative and Tillage Practices
- Structural Practices
- Animal Wastes Systems
- Livestock Control
- Stormwater Management Control
- Septic Systems

Construction BMPs

Section 3.2.5.4 describes the criteria for erosion control associated with construction activities.

Housekeeping BMPs

Fertilizer/Chemical Management
Litter Control
Street Sweeping
Illegal dumping

Several BMP manuals are available to help identify the most appropriate application for each site. In addition to site specific details, the pollutant removal efficiency of the different options needs to be considered in the implementation of BMPs. These details will need to be addressed in the BMP identification process.

3.3.3 Implementation of Best Management Practices

BMPs identified for the city of Anoka may be implemented by incorporation with other ongoing programs or by special projects. Four possible methods of BMP implementation include:

Surface Water Management Plan

The city of Anoka's stormwater management plan requires implementation of water quality BMPs as part of future development in the city. Additional structural water quality BMPs are presented in Section 4 through Section 12 of this plan.

Industrial NPDES

All industries within the city of Anoka should be operating under a NPDES Industrial Stormwater Permit and should have prepared a Stormwater Pollution Prevention Plan (SWPPP). The city should contact each industry about reviewing their SWPPP. The purpose of reviewing these plans is to determine the adequacy of each plan and to determine if BMPs could be added to each site as a part of the existing permit requirements.

City Ordinances

Certain BMPs, especially housekeeping BMPs, may be implemented through city ordinances. However, the inclusion of areas outside the city of Anoka in the NPDES activities may be accomplished by working with Anoka County, adjoining townships, the Lower Rum River Water Management Organization and/or the State of Minnesota to create ordinances or other approaches for areas outside the city limits.

Special Projects

If implementation of identified BMPs cannot be facilitated by the means above, special projects may be necessary to address specific areas. These projects will be similar in nature to other municipal development and maintenance projects.

3.3.4 Simplified Water Quality Monitoring

The most uncertain portion of future NPDES municipal permits is whether the city will be required to monitor stormwater runoff. If it becomes apparent that stormwater runoff monitoring will be required, the city of Anoka should begin a simplified water quality monitoring program. The purpose of the monitoring would be to characterize the condition of water quality in stormwater runoff from the city and determine the impact of the city's stormwater runoff on downstream water resources.

This work would include periodic collection of samples from the major outfalls and directly from selected water resources. A per storm event "grab sample" program is recommended for these major outfalls. The city may be able to coordinate a volunteer sampling program with other units of government or other groups to minimize the costs associated with such a program.

Each sampling site would be monitored for discharge and for a select list of water quality parameters. Generally, the parameter list would include total suspended solids, nutrients (nitrogen and phosphorus), biochemical oxygen demand, bacteria, oil and grease, and possibly certain metals. The purpose of the inflow monitoring is to determine the pollutant loading from the area tributary to the river. The purpose for monitoring the selected water resources is to determine the pollutant load from upstream of the city and to determine the impact of the city and the watersheds that drain through the city on downstream water quality.

3.4 Funding Mechanisms

Minnesota Statutes (M.S.) 429, 444, 462 and 473 are some of the statutes governing the methods municipalities can use to raise funds to finance various surface water management efforts. The following paragraphs describe many of the funding methods available by statute to cities.

3.4.1 Ad Valorem Taxes

The most common revenue source used to finance municipal services, including minor maintenance for drainage and water quality facilities is general taxation. Using property taxes has the effect of spreading the cost over the entire tax base of the community.

The State legislature has made this avenue very difficult with the levy limit requirements for municipalities. As a result, funding projects that exceed general tax limits requires a bond referendum to be passed. This process can be very time-consuming and expensive.

3.4.2 Special Assessment (M.S. 429)

Special assessments are used to finance special services in municipalities ranging from water quality treatment pond maintenance to construction of capital improvements. The assessments are levied against properties benefiting from the special services. The philosophy of this method is that the specially benefited properties pay in relation to special benefits received. In this case, the benefit is the increase in the market value of the properties.

Special assessments are used to finance special services ranging from maintenance to construction of improvement projects and are levied against properties benefiting from the special services. The philosophy of this method is that the benefited properties pay in relation to the benefits received. The city has used special assessments to pay for past projects. The disadvantages of using this method include the difficulty in determining and proving benefit; inability to assess runoff contributions; the rigid procedural requirements; and the hardship experienced by residents and other landowners to pay large special assessments. The city would prefer to use other methods to pay for projects, but may use special assessments in conjunction with the stormwater utility for some projects.

3.4.3 Building Permits, Land Development Fees, Land Exaction Fees, and Connection Charges (M.S. 462.358)

As land is developed or built upon, stormwater runoff and pollution loading increase. Administrative and capital costs can be recovered at the time the building permit is issued or when land development is approved. A city can charge a system connection fee, a land development fee and/or require dedication of land for ponding or drainage purposes. Where land is dedicated, the land must be part of the parcel being developed.

These fees usually address problems in new developments and not in existing developments, so they will not be effective in the already-developed portions of the city.

3.4.4 Stormwater Utility (M.S. 444.075)

A stormwater utility is set up in a similar manner to that used for sanitary sewer and water utilities. Under a utility system, a stormwater utility fee (typically billed quarterly) is charged against all parcels within the city. The fees are usually proportionate to the amount of runoff each parcel of land contributes to a drainage system. The fees can be used to finance drainage system projects, surface water quality improvements, infrastructure replacement, studies, operations and maintenance. The fees can be accumulated to pay for such activities, or can be established as the revenue stream to pay for bonds sold to initially pay for such activities. The utility system is sometimes argued as being "just another tax". Regardless, it allows municipalities a way to finance surface water management at far less cost than many of the other possible methods available to cities, and it is typically far easier for residents and businesses to pay small monthly fees than large special assessments. Many cities currently use this funding mechanism.

3.4.5 State Funding Sources

Other than stormwater utility fees, taxes and assessments, the city of Anoka could receive funding from various state sources, such as grant and loan programs. The city could use loans for projects instead of county-issued bonds. The following paragraphs list various state-funded sources, grouped according to the state agency that administers the various funding programs.

The Minnesota Board of Water and Soil Resources (BWSR) administers several grant programs, some of which could be applied to cities. Applicable BWSR grant programs include challenge grants (M.S. 103B.3369), cost-share grants, special projects "turn-back" monies, and the Reinvest in Minnesota (RIM) Reserve Program. With the exception of challenge grants, BWSR funding is offered to the public through the local SWCD.

The Minnesota Pollution Control Agency (MPCA) administers the Clean Water Partnership (CWP) grant and loan program, Watershed Resource Restoration grants (EPA-funded Section 319 program), and the Minnesota Water Pollution Control Revolving Loan Fund.

The Minnesota Department of Natural Resources (DNR) administers many grant programs which could be applicable to the city of Anoka, including the Flood Hazard Mitigation Grant Assistance

program, local grants program, trail grants program, cooperative water recreation program, and dam safety program. Funding for many of these programs changes after each legislative session. The DNR prepares individual fact sheets for each of the grant programs.

Other state funding programs include the Legislative Commission on Minnesota Resources (LCMR) funds for non-urgent demonstration and research projects, the Minnesota Department of Trade and Economic Development's Contaminant Cleanup Development Grant Program,, the Minnesota Department of Agriculture's Agriculture Best Management Practices (Ag BMP) Loan Program, Mn/DOT State Aid Funds, and ISTEA funds.

3.4.6 Federal Funding Sources

The city of Anoka could also receive funding from various federal sources, a few of which are discussed in the following paragraphs.

The U.S. Environmental Protection Agency (EPA) has Discretionary Funds available through each division and program area of the EPA, and administers the Clean Lakes Program (CLP) established by Section 314 of the Clean Water Act; the CLP is similar to the MPCA's CWP program. The EPA also administers the 604b Grant Program, targeting water quality improvements in urban areas; the 319 Grant Program, for implementing non-point source pollution projects; and the Environmental Education Grant, for financing local environmental education initiatives.

The U.S. Army Corps of Engineers administers the Planning Assistance to States (Section 22) program, the Project Cooperation Agreement (PCA) program, also known as the LCA (Local Cooperation Agreement) program for construction of flood control projects, the Section 14 bank protection program, the Flood Plain Management Services Program, the Aquatic Plant Control Program, and provides many GIS products through its GIS Center.

The U.S. Fish and Wildlife Service administers the North American Wetlands Conservation Fund, as part of the North American Wetlands Conservation Act (NAWCA).

The Natural Resource Conservation Service (NRCS) has funds available for technical assistance on various surface water projects, operations and maintenance, inspections and repairs. The NRCS also administers the Environmental Quality Incentives Program (EQIP) which was established through the 1996 Farm Bill Program.

The Federal Emergency Management Agency (FEMA) has funds available to restore areas (including water resources) damaged or destroyed by a disaster.

3.4.7 Private Funding Sources

The McKnight Foundation administers their Mississippi River Program, an environmental initiative for the 10-state Mississippi River watershed. The foundation's priorities are phosphorus reduction, nitrogen management, and river corridor protection. Most of the funding goes to nonprofit groups.

The Minnesota Environmental Initiative administers the Contaminant Cleanup Development Grant Program which was created by the state legislature to provide financial incentives. Ducks Unlimited and Pheasants Forever funds are available for projects which enhance, create, or protect waterfowl or pheasant habitat.

Individual entities needing to provide wetland mitigation in compliance with the Wetland Conservation Act (WCA) may have funds and/or technical resources available to restore or create wetland function and values lost or intended to be destroyed as part of a project.

Other private funding sources include service organizations (i.e., Lions Club and Elks), youth groups (i.e., Boy/Girl Scouts), Adopt-a-Highway/River cleanup groups, and sportsman clubs.

3.4.8 Current and Proposed City Funding Mechanisms

The city of Anoka currently uses ad valorem (general) taxes and special assessments to finance its surface water management efforts, along with land dedication and easement acquisition during the platting process. In addition to the current funding methods, the city will consider adopting a stormwater utility to fund the implementation program listed in this plan. See Section 15.3 for more information regarding financial considerations.

3.5 Education Program

The city of Anoka believes public education will be an important and effective method to control non-point source pollution since it emanates from broad reaches of the landscape. A public education program will raise citizen awareness regarding pollutant sources in everyday life from all types of property. The city will educate its residents, businesses, industries and staff concerning pollutant reduction, best management practices, the link between daily housekeeping activities and the condition of the city of Anoka's water resources, and awareness of natural resources in general.

The city will also seek to inform its residents, businesses, industries and staff of initiatives, projects, etc. completed by the community that address the city's education goals. The city held public meetings with developers and builders to discuss the draft watershed management plan and its implications.

Education and housekeeping practices are especially important within the city limits since there is limited land available to provide water quality treatment facilities. The city of Anoka will develop and distribute educational materials to the general public and targeted groups regarding:

- Natural resources within and adjacent to the city
- Importance of pollutant reduction in stormwater runoff
- City ordinances, policies and programs pertaining to water resources
- Reducing fertilizer/herbicide use
- Lawn care practices that prevent organic debris from reaching storm sewer systems
- Household and automobile hazardous waste disposal
- Problems with pet waste and proper disposal
- Litter control
- Recycling and trash disposal
- Composting, leaf collection, and grass clippings
- Residential stormwater drainage
- Native vegetation
- Public area maintenance
- Alternative landscaping methods
- Plantings in buffer zones along wetlands, lakes, rivers and streams
- Car washing

Information will be distributed via the city's newsletter, local newspapers, cable television and any other appropriate media.

Table 3-1 Example Checklist of Common Best Management Practices (BMPs) for Development or Redevelopment

Description Of BMP	Was BMP Used in Project?	Location Used or Basis for Nonusage:
1. Reduce area of impervious surface (pavement, roofs, etc.)		
2. French drains and other subsurface drains		
3. Infiltration trench and dry well		
4. Parking lot/rooftop runoff storage with outlet protection		
5. Detention basin with outlet protection		
6. Wetland treatment area		
7. Retention (infiltration) basin		
8. Parking lot oil/grease separators		
9. Storm drain inlet protection		
10. Riprap or other storm drain outlet protection		
11. Slope stabilization and erosion control measures		
12. Grit chambers/manholes		
13. Extended detention basin		
14. Other (describe):		

* Further descriptions of these and other BMPs can be found in "Protecting Water Quality in Urban Areas" (MPCA, 1989).

Table 3-2 Best Management Practices

Institutional Source Controls
No Littering Ordinance
Pet Waste Pet Litter "Pooper Scooper" Ordinance
Chemical Use/Storage Ordinance
Recycling Programs
Public Education Programs
Vacant Lot Cleanup Ordinance
Spill Prevention Ordinance
Nonstructural Source Controls
Program to Prevent Illicit Discharges
Street Sweeping
Cleaning of Storm Drains
Minor Structural Source Controls
Diversion Channels
Grass Swales
Natural Channels to Reduce Erosion
Vegetative Controls on Exposed Soils
Minor Structural Discharge Elimination Methods
Development and Maintenance of Recharge Areas
Development and Maintenance of Porous Pavement
Moderate Structural Controls for Floatables/oils Removal
Development and Maintenance of Parking Lot Oil/Grease Separators
Development and Maintenance of Parking Lot and Rooftop Runoff Storage with Outlet Protection
Major Structural Controls for Floatables/oils Removal
Detention Basin with Outlet Protection
Wetlands Treatment Area

4.0 Mississippi River East Watershed

4.1 General Watershed Description

The Mississippi River East Watershed and the subwatersheds that comprise it are shown in detail in Figure 4-1. This watershed consists of the land in the city of Anoka that drains directly to the Mississippi River on the east side of the Rum River.

The Mississippi River East Watershed includes the southernmost portion of the city. The area of this watershed is approximately 445 acres. The watershed is mostly developed, with land use consisting of single family residential, multiple family residential, and a small section of commercial land use.

4.1.1 Drainage Patterns

This watershed drains south via storm sewers to the Mississippi River. There are eight stormwater outfalls that discharge directly to the Mississippi River, east of Rum River. From east to west, the five storm sewer network minor watersheds modeled for this project are:

9th Avenue (9TH)

Kings Lane (KGS)

Oakwood Drive (OWD)

5th Avenue (5TH)

Oakwood Lane (OWL)

Each storm sewer system is named for the location of the minor watershed outlet. Subwatersheds within these minor watersheds were delineated, named and numbered according to the minor watershed. For example, the system draining to 5th Avenue is so named because the outlet for the stormwater system is on 5th Avenue. The nine subwatersheds are numbered consecutively from the outlet.

There are no existing stormwater detention basins within this subwatershed.

4.1.2 Flood Protection Concerns

Where the storm sewer system capacity is not sufficient, surface overflow will occur via the streets to the lowest point within the watershed. For the Mississippi River East Watershed, overflow occurs toward the river. If sufficient capacity for the critical 10-year storm at these outlet points is not maintained, it is possible ponding will occur in the street and yards at this storm frequency until surface overflow occurs. It appears that flooding of homes or businesses will not occur since the surface overflow is at an elevation below the lowest structure.

4.2 Stormwater System Analysis and Results

The 10-year and 100-year event flood analyses were performed for the Mississippi River East Watershed. Table 4-1 presents watershed information and the results of the 10-year and 100-year critical storm events.

4.3 Implementation Considerations

As a part of the surface water management planning process, the problem areas were investigated to determine possible mitigation alternatives. To solve the Mississippi River East Watershed's existing and future drainage problems while providing 10-year level of service and 100-year level of protection, an increase in storm sewer carrying capacity and provision of stormwater detention is required. Also, water quality management of surface runoff from the drainage basins prior to discharging to the Mississippi River is required. These issues are discussed in the following paragraphs.

4.3.1 Increased Storm Sewer Capacity Projects

An increase in pipe capacity for parts of this watershed is necessary to provide a 10-year level of service. Figure A (in Appendix B) summarizes the proposed and existing systems. Pipes shown in orange are existing pipes which provide the required level of service. The blue lines indicate existing pipes which do not meet the design criteria based on information available. Yellow lines indicate proposed locations of future systems. The preliminary pipe sizes required for the blue and yellow lines are shown in red. Peak runoff discharges along the conveyance system for the 10-year and 100-year frequency storm events are identified by the green and red circles, respectively. The 9th Avenue, Kings Lane, Oakwood Drive, 5th Avenue, and Oakwood Lane storm sewer upgrade projects listed in Table 15-1 are all within the Mississippi River East Watershed.

4.3.2 Construction of Additional Stormwater Basins

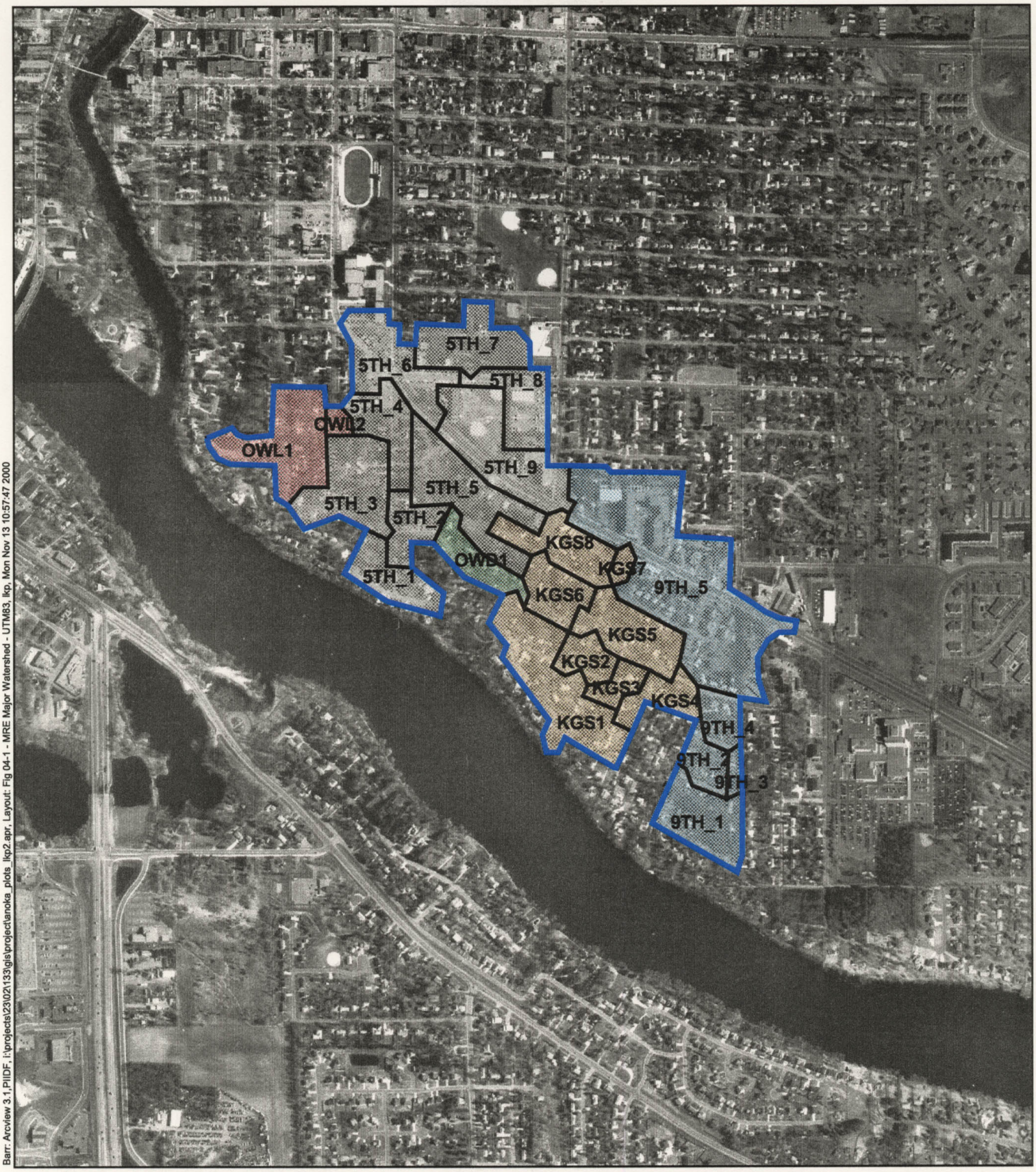
The construction of a stormwater basin located in subwatershed 9th_5 would allow for smaller pipe sizes to be used while also providing treatment to the runoff before it discharges into the river. Table 4-2 lists the necessary live storage for the basin.

4.3.3 Construction of Water Quality Basins

Figure B (in Appendix B) shows the locations where water quality basins would greatly reduce the amount of suspended solids and phosphorus load to the Mississippi River. Table 4-2 lists the necessary "dead storage" required to remove 90 percent of the suspended solids and 60 percent of the total phosphorus load. Where land is not available for basin construction, appurtenances within the storm sewer system, e.g. grit chambers, water quality treatment manholes, may be added to reduce the load. These appurtenances will not be as effective as a treatment basin and the removal efficiency will decrease. The basins proposed are preliminary design with more study needed to finalize the basin design. Table 15-1 includes the basin construction projects as implementation tasks.

4.3.4 Acceptance of Lower Level of Service

From the hydraulic model results, many of the city's storm sewer pipes cannot handle the runoff from a 10-year event. This may not be a serious problem, but more of an inconvenience because of inundation since this area of the city is fortunate enough to be sloped towards the river. In the areas of steep slopes, much of the excess stormwater runoff that cannot be managed in the existing pipes can flow downstream in the system of roads, curbs and gutters, and overflow swales. The areas where the overflow system may create problems are: (1) where the natural terrain is too flat, (2) where low areas exist and unwanted ponding occurs (i.e. at intersections and in developed parts of the city), and (3) when roads carrying the excess runoff make sharp turns.



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LEGEND

- Major Watershed
- Sub Watersheds.

Minor Watersheds

- 5TH
- 9TH
- KGS
- OWD
- OWL

N
W E
S

600 0 600 1200 Feet

200 0 200 400 Meters

Figure 4-1

MISSISSIPPI RIVER EAST WATERSHED
Citiy of Anoka
Anoka, Minnesota

Table 4-1: Results of the Mississippi River East Watershed 10 year and 100 year Critical Storm Events					
Minor Watershed	Subwatershed	Drainage Area (acres)	Impervious Percentage	Peak Runoff Rate (cfs) 10-yr storm	Peak Runoff Rate (cfs) 100-yr storm
5TH	1	5.3	20	9	19
5TH	2	4.3	20	9	17
5TH	3	8.6	20	13	27
5TH	4	5.9	30	11	21
5TH	5	10.9	40	26	45
5TH	6	9.0	44	18	32
5TH	7	7.2	34	17	32
5TH	8	6.0	38	11	19
5TH	9	11.8	42	23	41
9TH	1	7.3	20	11	23
9TH	2	3.2	20	7	14
9TH	3	1.2	20	3	6
9TH	4	2.0	20	4	8
9TH	5	30.8	46	35	63
KGS	1	12.4	20	15	31
KGS	2	3.0	20	8	15
KGS	3	2.2	20	5	11
KGS	4	4.3	20	6	12
KGS	5	7.3	20	11	21
KGS	6	4.3	20	8	16
KGS	7	1.0	45	3	6
KGS	8	6.3	33	13	24
OWL	1	10.1	20	13	26
OWL	2	0.9	20	2	5
OWD	1	5.0	20	9	18

Table 4-2: Results of 100 year Storm Event Basin Requirements for Mississippi River East Watershed						
Subwatershed	**Drainage Area acres**	**Dead Storage acre-ft**	**Live Storage acre-ft**	**Total Storage acre-ft**	**100yr Discharge cfs**	**Oultet Size**
Proposed Ponds						
9TH_5	30.8	2.0	4.8	6.8	3	12"
KGS1	40.8	1.6	0*	1.6		
5TH_1	57.4	2.6	0*	2.6		

* Note: These basins have been sized only for water quality purposes.
If constructed, live storage must be determined.

5.0 Mississippi River West Watershed

5.1 General Watershed Description

The Mississippi River West Watershed includes the southern portion of the city west of the Rum River, which drains directly into the Mississippi River. This watershed is approximately 287 acres. It is made up of mostly single-family residential with small sections of multiple-family residential and commercial land use. Figure 5-1 shows the watershed and subwatershed boundaries.

5.1.1 Drainage Patterns

Portions of the Mississippi River West Watershed are serviced by storm sewers. Subwatersheds within this watershed were delineated and named according to the location of the minor watershed outlet. For example, the Levee Avenue subwatershed is so named because the outlet for the stormwater system is on Levee Avenue. All of the subwatersheds ultimately discharge to the Mississippi River. This watershed has two existing stormwater basins in the private town home development.

There are eight stormwater outfalls that discharge directly to the Mississippi River, west of Rum River. From east to west, the storm sewer network minor watersheds modeled for this project are:

Mississippi West (MW)

Levee Avenue (LEV)

Shaw Avenue (SHAW)

West Lane (WEST)

Porter Avenue (PTR)

Benton Street (BEN)

Private Town Home Development (PV)

5.1.2 Flood Protection Concerns

Where the storm sewer system capacity is not sufficient, surface overflow will occur via the streets to the lowest point within the watershed. For the Mississippi River West Watershed, the water reaching the low points is conveyed via pipe to the Mississippi River. If sufficient capacity for the critical

10-year storm at these outlet points is not maintained, it is possible that ponding will occur in the streets and yards at this storm frequency until the surface overflow occurs. However, as with the Mississippi River East watershed, it appears that flooding of homes is not likely to occur as the land is sloped towards the Mississippi River and the surface overflow is at an elevation below the lowest structure.

5.2 Stormwater System Analysis and Results

The 10-year and 100-year event analyses were performed for the Mississippi River West Watershed. Table 5-1 presents watershed information and the results of the 10-year and 100-year flood analyses for each of the subwatersheds shown on Figure 5-1.

5.3 Implementation Considerations

To solve the Mississippi River West Watershed's existing and future drainage problems while providing 10-year level of service and 100-year level of protection, a combination of increased storm sewer capacity and stormwater detention is required. These are discussed in the following paragraphs.

5.3.1 Increased Storm Sewer Capacity Projects

An increase in pipe capacity is necessary in regions of this watershed to provide a 10-year level of service for its storm sewer system. Figure A summarizes the proposed and existing systems. Pipes shown in orange are existing pipes which provide the required level of service. The blue lines indicate existing pipes which do not meet the design criteria based on information available. Yellow lines indicate proposed locations of future systems. The preliminary pipe sizes required for the blue and yellow lines are shown in red. Peak runoff discharges along the conveyance system for the 10-year and 100-year frequency storm events are identified by the green and red circles, respectively. The new pipes shown are recommended to decrease the overland distance to the storm sewer inlets, minimize localized ponding, and provide capacity to meet the design criteria. The Ferry Street, Franklin Lane, Levee Avenue, West Lane and Porter Avenue storm sewer upgrade projects listed in Table 15-1 are all within the Mississippi River West Watershed.

5.3.2 Construction of Additional Stormwater Basins

Currently, Sorensen Park is sufficient for stormwater storage for the 100-year event if the recommended piped outlet is provided. Table 5-2 lists the necessary live storage for the 100-year

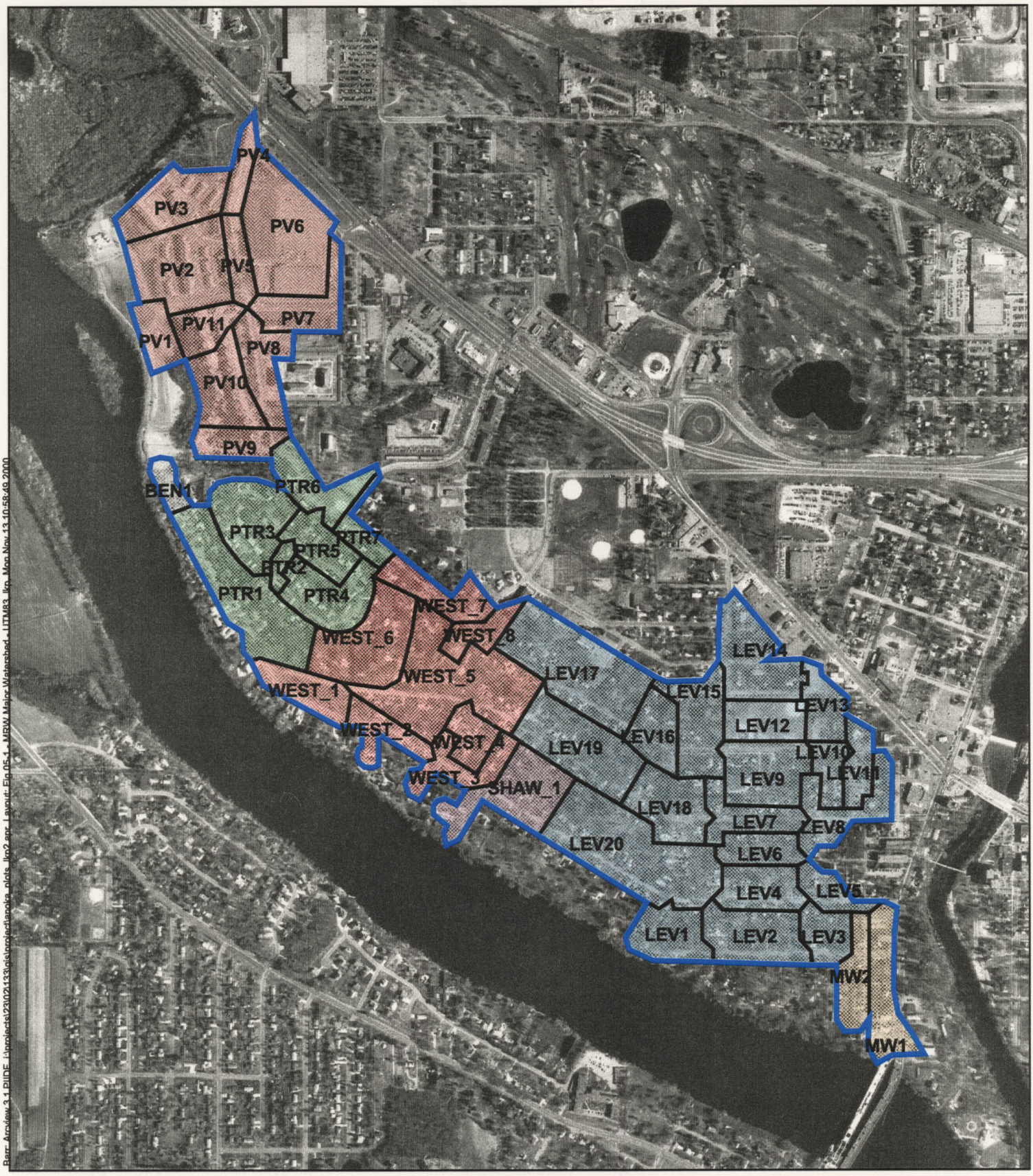
event. Construction of a basin at this location may reduce the recommended pipe upgrade sizes downstream while also providing water quality treatment.

5.3.3 Construction of Water Quality Basins

Figure B shows the locations where water quality basins would greatly reduce the amount of suspended solids and phosphorus load to the Mississippi River. Table 5-2 lists the necessary "dead storage" volume required to remove 90 percent of the suspended solids and 60 percent of the total phosphorus load. Where land is not available for basin construction, appurtenances within the storm sewer system, e.g. grit chambers, water quality treatment manholes, may be added to reduce the load. These appurtenances will not be as effective as a treatment basin and the removal efficiency will decrease. The basins proposed are preliminary with more study needed to finalize the basin design. Table 15-1 includes the basin construction projects as implementation tasks.

5.3.4 Acceptance of Lower Level of Service

From the hydraulic model results, many of the city's storm sewer pipes cannot handle the runoff from a 10-year event. This may not be a serious problem, but more of an inconvenience since this area of the city is fortunate enough to be sloped towards the river. In the areas of steep slopes, much of the excess stormwater runoff that cannot be managed in the existing pipes, can flow downstream in the system of roads, curbs and gutters, and overflow swales. The areas where the overflow system may create problems are: (1) where the natural terrain is too flat, (2) where low areas exist and unwanted ponding occurs (i.e. at intersections and in developed parts of the city), and (3) when roads carrying the excess runoff make sharp turns.



LEGEND

- Major Watershed
- Sub Watersheds

Minor Watersheds

- BEN
- LEV
- MW
- PTR
- PV
- SHAW
- WEST

N W E S

600 0 600 1200 Feet

200 0 200 400 Meters

Figure 5-1

MISSISSIPPI RIVER WEST WATERSHED
City of Anoka
Anoka, Minnesota

Table 5-1: Results of the Mississippi River West Watershed 10 year and 100 year Critical Storm Events					
Minor Watershed	Subwatershed	Drainage Area (acres)	Impervious Percentage	Peak Runoff Rate (cfs) 10-yr storm	Peak Runoff Rate (cfs) 100-yr storm
LEV	1	5.3	20	8	16
LEV	2	6.5	20	10	20
LEV	3	3.6	20	7	13
LEV	4	4.5	20	7	14
LEV	5	3.2	24	7	14
LEV	6	3.9	20	6	62
LEV	7	4.9	20	8	16
LEV	8	5.6	33	9	16
LEV	9	7.1	22	13	25
LEV	10	3.3	23	6	11
LEV	11	3.0	44	8	15
LEV	12	4.5	5	13	33
LEV	13	3.3	75	12	21
LEV	14	8.2	50	15	27
LEV	15	7.0	20	8	16
LEV	16	3.8	20	8	17
LEV	17	13.2	20	16	33
LEV	18	6.5	20	13	25
LEV	19	8.9	20	11	23
LEV	20	16.4	20	18	37
BEN	1	1.1	20	2	5
MW	1	6.6	52	12	22
MW	2	4.9	31	8	15
PTR	1	12.6	20	16	33
PTR	2	1.2	20	3	6
PTR	3	7.7	20	10	20
PTR	4	6.3	20	13	25
PTR	5	4.6	20	9	18
PTR	6	4.1	20	13	26
PTR	7	3.3	22	6	11
PV	1	3.6	25	12	23
PV	2	7.8	45	29	53
PV	3	7.8	43	30	54
PV	4	3.1	71	11	17
PV	5	3.1	58	7	13
PV	6	12.8	90	65	100
PV	7	5.3	45	10	17
PV	8	5.9	45	18	31

Table 5-1: Results of the Mississippi River West Watershed 10 year and 100 year Critical Storm Events					
Minor Watershed	Subwatershed	Drainage Area (acres)	Impervious Percentage	Peak Runoff Rate (cfs) 10-yr storm	Peak Runoff Rate (cfs) 100-yr storm
PV	9	2.6	45	7	12
PV	10	6.5	45	19	33
PV	11	4.4	45	13	24
SHAW	1	7.3	20	9	19
WEST	1	4.3	20	7	13
WEST	2	3.5	20	7	13
WEST	3	4.0	20	6	13
WEST	4	3.3	20	6	13
WEST	5	15.1	20	20	40
WEST	6	10.0	20	15	29
WEST	7	7.2	15	8	16
WEST	8	2.8	20	6	11

Table 5-2: Results of 100 year Storm Event Basin Requirements for Mississippi River West Watershed						
Subwatershed	**Drainage Area acres**	**Dead Storage acre-ft**	**Live Storage acre-ft**	**Total Storage acre-ft**	**100yr Discharge cfs**	**Oultet Size**
Existing Basins with Improvements						
PV3	18.7	1.6	0.8	2.4	20	
PV11	35.0	2.4	6.2	8.6	65	36"
Proposed Ponds						
LEV1	123.7	5.0	0*	5.0		
LEV12	37.5	1.0	15.4	16.4	5	
WEST1	48.3	2.0	0*	2.0		
PTR1	40.1	1.5	0*	1.5		

* Note: These basins have been sized only for water quality purposes.
If constructed, live storage must be determined.

6.0 Anoka Enterprise Watershed

6.1 General Watershed Description

Figure 6-1 shows the Anoka Enterprise Watershed and its subwatersheds. This region is located in the northwest corner of the city. It is routed to the Mississippi River through a significant storm sewer network.

This watershed includes the industrial park of the city and the Anoka-Hennepin Technical College. The 362-acre watershed includes a small area of single family residential with the remainder classified as industrial land use.

6.1.1 Drainage Patterns

The Anoka Enterprise watershed is served by the city's stormwater system. The stormwater system is comprised of storm sewers, ditches, and basins. Anoka Enterprise watershed is made up of one minor watershed that discharges to the Mississippi River near King's Island. The minor watershed is:

Anoka Enterprise (AEP)

There are four existing basins in this watershed which can be used for stormwater detention.

6.1.2 Flood Protection Concerns

Where the storm sewer system capacity is not sufficient, surface overflow will occur via the streets to the lowest point within the subwatershed. Unlike the other Mississippi River watersheds, the Anoka Enterprise Watershed will not overflow to the river, but rather to the existing basins. If the storage and outflow capacities of the basins in this watershed are not sufficient, the basins will overflow, which could impact existing structures adjacent to these ponding basins. Detailed survey information is required to determine the capacity of the existing basins.

6.2 Stormwater System Analysis and Results

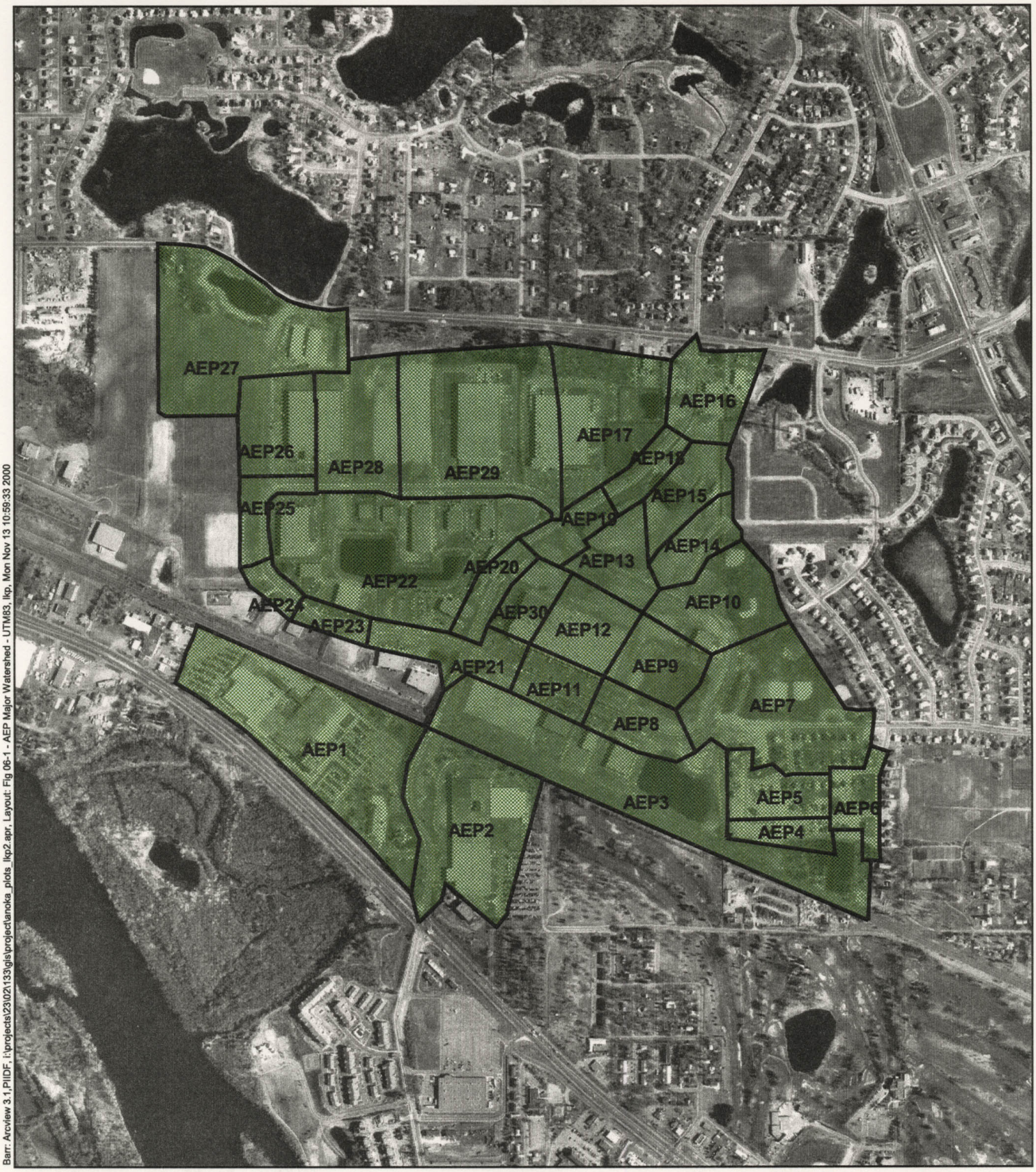
The 10-year and 100-year flood events were analyzed for the Anoka Enterprise Watershed. Table 6-1 presents watershed information and the results of the 10-year and 100-year analyses for each of the subwatersheds shown on Figure 6-1.

6.3 Implementation Considerations

This region of the city provides sufficient storm sewer capacity to meet the 10-year level of service and 100-year level of protection downstream of the basins. Topography of only the basin located in AEP22 was available. Both the basin storage capacity and outlet sizes are adequate. The other basins will be sufficient with the existing outlet if the necessary storage in Table 6-2 is provided.

6.3.1 Construction of Water Quality Basins

The existing basins will provide sufficient water quality treatment if the necessary "dead storage" volume as stated in Table 6-2 is provided. No new basins are required although the outlet to the Mississippi River should have an added appurtenance to reduce the sediment flow into the river from those watersheds downstream of the water quality basins. Table 6-2 lists the necessary "dead storage" required to remove 90 percent of the suspended solids and 60 percent of the total phosphorus load.



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LEGEND

Sub Watersheds
Minor Watersheds
AEP2

N
W E
S

600 0 600 1200 Feet

200 0 200 400 Meters

Figure 6-1

ANOKA ENTERPRISE WATERSHED
City of Anoka
Anoka, Minnesota

Table 6-1: Results of the Anoka Enterprise Watershed 10 year and 100 year Critical Storm Events					
Minor Watershed	Subwatershed	Drainage Area (acres)	Impervious Percentage	Peak Runoff Rate (cfs) 10-yr storm	Peak Runoff Rate (cfs) 100-yr storm
AEP	1	2.5	90	5	8
AEP	2	23.8	65	70	115
AEP	3	27.1	48	44	75
AEP	4	3.0	20	5	9
AEP	5	6.3	20	8	17
AEP	6	5.7	20	10	20
AEP	7	25.5	16	25	53
AEP	8	6.5	65	26	29
AEP	9	6.5	65	17	28
AEP	10	11.4	35	24	39
AEP	11	6.7	65	23	18
AEP	12	8.4	65	33	312
AEP	13	7.2	65	25	56
AEP	14	5.1	65	13	22
AEP	15	6.8	65	18	29
AEP	16	6.2	63	15	24
AEP	17	23.3	62	57	94
AEP	18	6.5	65	24	53
AEP	19	4.7	65	17	16
AEP	20	4.0	65	13	21
AEP	21	7.6	65	20	35
AEP	22	28.7	65	79	341
AEP	23	2.8	65	13	21
AEP	24	2.4	65	11	17
AEP	25	5.5	65	16	26
AEP	26	13.6	65	39	64
AEP	27	31.0	57	77	129
AEP	28	15.8	65	63	104
AEP	29	22.9	65	54	89
AEP	30	3.9	65	16	27

Table 6-2: Results of 100 year Storm Event Basin Requirements for Anoka Enterprise Watershed						
Subwatershed	**Drainage Area acres**	**Dead Storage acre-ft**	**Live Storage acre-ft**	**Total Storage acre-ft**	**100yr Discharge cfs**	**Oultet Size**
Existing Basins with Improvements						
AEP22	100.2	6.5	17.0	23.5	24	30"&24"
AEP17	23.3	3.0	3.1	6.1	12	
AEP27	31.0	2.4	5.2	7.6	6	24"
AEP3	131.9	7.0	18.2	25.2	32	36"

7.0 Rum River Northeast Watershed

7.1 General Watershed Description

Figure 7-1 shows the Rum River Northeast minor watersheds and subwatersheds. The region is located north of U.S. Highway 169 and 10 and east of the Rum River.

The Rum River Northeast Watershed is the largest with an area of 670 acres, approximately 1 square mile. The general land uses of this watershed include single family residential and multiple family residential. This drainage basin includes the new high school and library facilities.

7.1.1 Drainage Patterns

This entire watershed is serviced by the city's storm sewer. There are a series of basins which provide both quantity and quality control. Ultimately, surface water is conveyed via storm sewer west to the Rum River.

There are two stormwater outlets that discharge directly to the Rum River; however the watershed was divided into five minor watershed because of the complexity and large area of the systems. From north to south, the storm sewer minor watersheds modeled for this project are:

38th Lane (38TH)
Bryant Avenue (BRY)
Sunny Acres Pond (SA)
Grant Street (GRT)
4th Avenue (4AV)

Table 7-1 summarizes these results.

This watershed has four existing basins, two of which were designed as stormwater detention basins.

The Anoka High School and Anoka Metro Regional Treatment Center located immediately east of the Rum River were not analyzed. Both of these facilities drain directly to the Rum River. The high school storm sewer information was not provided, so its adequacy was not determined. However, the outlet to the Rum River will require an added appurtenance for water quality purposes. Because surface overflow of these areas will drain to the river, flooding of the structures is not a concern. If

future improvements are made to the existing system at these facilities, water quality treatment must be provided.

7.1.2 Flood Protection Concerns

Excess water that the existing storm sewer system cannot handle flows toward the basins within this watershed. If the storage and outflow capacities of the basins in this watershed are not sufficient, the basins will overflow, which could impact existing structures adjacent to these ponding basins. Detailed survey information is required to determine the capacity of the existing basins.

7.2 Stormwater System Analysis and Results

The 10-year and 100-year events were analyzed for the Rum River Northeast Watershed. Table 7-1 summarizes the results of the 10-year and 100-year analyses for each of the subwatersheds shown on Figure 7-1.

7.3 Implementation Considerations

Existing and future drainage problems within the watershed can be resolved with a combination of increased storm sewer capacity and storage volume within the existing basins. These are discussed in the following paragraphs.

7.3.1 Increased Storm Sewer Capacity Projects

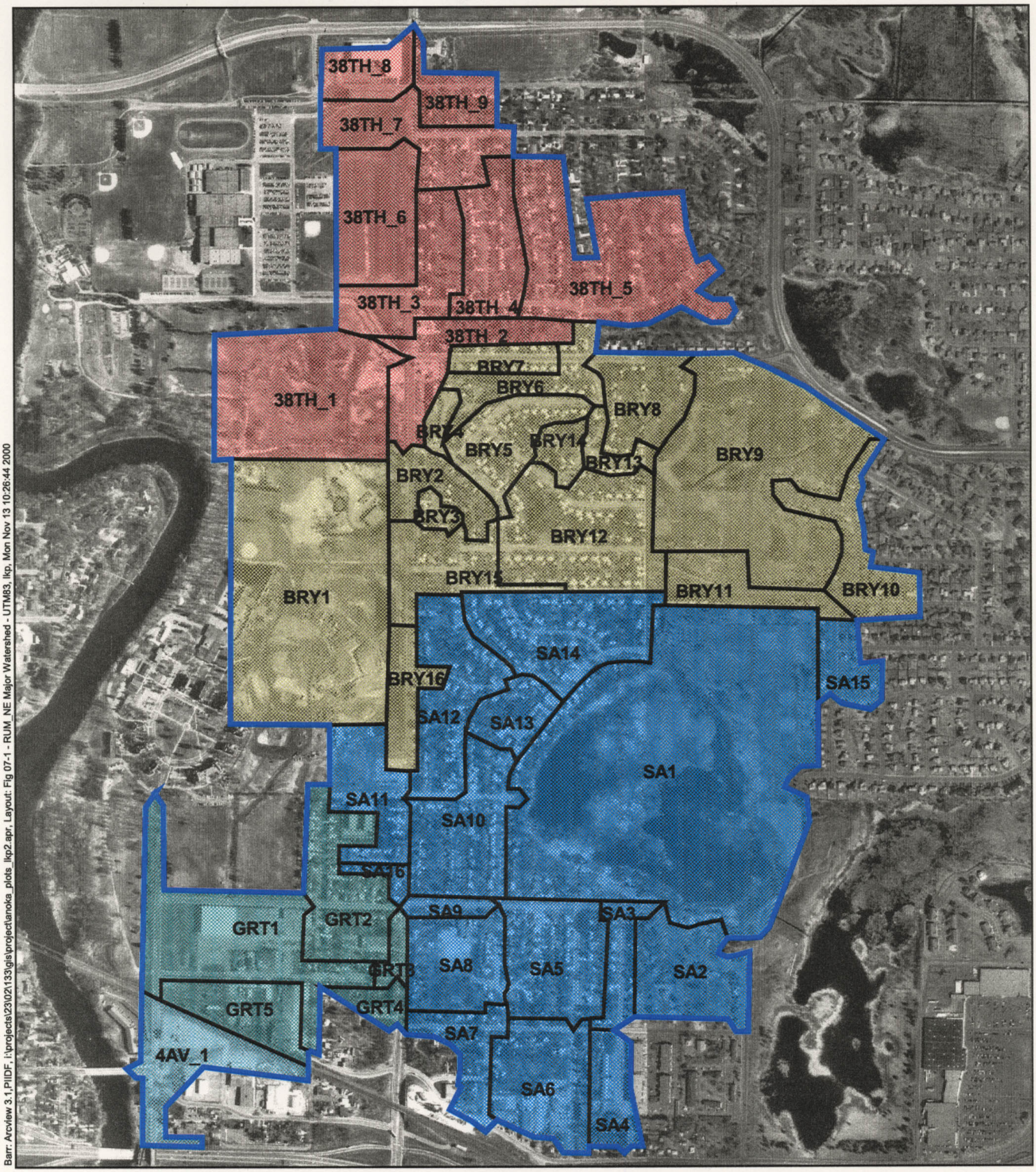
The city needs to increase pipe sizes in parts of this watershed to provide 10-year level of service. Figure A summarizes the proposed and existing systems. Pipes shown in orange are existing pipes which provide the required level of service. The blue lines indicate existing pipes which do not meet the design criteria based on information available. Yellow lines indicate proposed locations of future systems. The preliminary pipe sizes required for the blue and yellow lines are shown in red. Peak runoff discharges along the conveyance system for the 10-year and 100-year frequency storm events are identified by the green and red circles, respectively. Storm sewer upgrade projects for the Rum River Northeast Watershed are listed in Table 15-1.

7.3.2 Construction of Additional Stormwater Basins

New stormwater detention basins are not necessary if the existing basins provide the required amounts of storage. Table 7-2 lists the stormwater storage volumes necessary for 100-year storage.

7.3.3 Construction of Water Quality Basins

Figure B shows one new location where a water quality basin would greatly reduce the amount of suspended solids and phosphorus load to the Rum River. The existing basins will also provide treatment to runoff if the required volume of dead storage is provided. Table 7-2 lists the necessary "dead storage" to remove 90 percent of the suspended solids and 60 percent of the total phosphorus load. Where land is not available for basin construction, appurtenances within the storm sewer system, e.g. grit chambers, water quality treatment manholes, may be added to reduce the load. These appurtenances will not be as effective as a treatment basin and the removal efficiency will decrease.



LEGEND

- Major Watershed
- Sub Watersheds

Minor Watersheds

- 38TH
- 4AV
- BRY
- GRT
- SA

N
W E
S

600 0 600 1200 Feet

200 0 200 400 Meters

Figure 7-1

RUM RIVER NORTHEAST WATERSHED
City of Anoka
Anoka, Minnesota

Table 7-1: Results of the Rum River Northeast Watershed 10 year and 100 year Critical Storm Events					
Minor Watershed	Subwatershed	Drainage Area (acres)	Impervious Percentage	Peak Runoff Rate (cfs) 10-yr storm	Peak Runoff Rate (cfs) 100-yr storm
4AV	1	15.1	61	34	56
38TH	1	27.3	12	52	97
38TH	2	13.2	34	28	49
38TH	3	13.6	21	16	32
38TH	4	10.9	20	14	28
38TH	5	29.6	20	27	56
38TH	6	13.8	20	20	39
38TH	7	13.1	14	13	26
38TH	8	5.5	5	6	14
38TH	9	6.3	20	9	18
BRY	1	50.8	18	58	113
BRY	2	7.8	20	12	23
BRY	3	1.3	20	3	51
BRY	4	1.8	25	4	9
BRY	5	10.8	20	15	31
BRY	6	7.9	20	14	25
BRY	7	3.7	21	7	13
BRY	8	10.4	20	29	50
BRY	9	46.4	14	106	198
BRY	10	9.9	20	12	24
BRY	11	8.1	20	10	20
BRY	12	23.1	20	27	54
BRY	13	3.7	20	6	11
BRY	14	3.5	20	7	13
BRY	15	12.4	20	13	28
BRY	16	5.7	20	14	26
GRT	1	27.5	54	29	53
GRT	2	15.4	35	25	47
GRT	3	3.1	32	7	13
GRT	4	3.3	41	15	24
GRT	5	9.0	63	17	28
SA	1	97.7	11	225	401
SA	2	48.6	20	55	112
SA	3	5.5	20	7	14
SA	4	7.3	45	13	23
SA	5	39.7	20	50	101
SA	6	17.8	37	24	46
SA	7	7.5	36	14	26

Table 7-1: Results of the Rum River Northeast Watershed					
10 year and 100 year Critical Storm Events					
Minor Watershed	Subwatershed	Drainage Area (acres)	Impervious Percentage	Peak Runoff Rate (cfs) 10-yr storm	Peak Runoff Rate (cfs) 100-yr storm
SA	8	11.3	20	20	40
SA	9	3.1	20	5	11
SA	10	15.0	20	16	32
SA	11	9.2	15	13	27
SA	12	15.6	20	21	42
SA	13	5.3	20	9	18
SA	14	20.2	20	22	46
SA	15	5.2	20	6	12
SA	16	2.0	21	3	7

Table 7-2: Results of 100 year Storm Event Basin Requirements for Rum River Northeast Watershed						
Subwatershed	**Drainage Area acres**	**Dead Storage acre-ft**	**Live Storage acre-ft**	**Total Storage acre-ft**	**100yr Discharge cfs**	**Oultet Size**
Existing Basins with Improvements						
SA1	290.1	12.0	43.9	55.9	6	24"
38TH_1	133.2	4.8	33.0	37.8	3	
BRY9	86.3	3.0	23.8	26.8	5	
BRY1	50.8	1.8	31.7	33.5	3	
Proposed Ponds						
GRT1	60.4	4.0	0*	4.0		

* Note: Proposed basins have been sized only for water quality purposes.
If constructed, live storage must be determined.

8.0 Rum River Northwest Watershed

8.1 General Watershed Description

The Rum River Northwest Watershed is 276 acres. Figure 8-1 shows the Rum River Northwest minor watersheds modeled for this plan. The general land uses in this watershed include single family residential, industrial, and open/agricultural.

8.1.1 Drainage Patterns

From the industrial park limits, the runoff from the watershed flows east to the Rum River, which then flows south to the Mississippi River. The majority of the Rum River Northwest Watershed drains through storm sewer systems.

One extensive storm sewer network exists in this watershed, while the remainder is serviced by outlets which flow directly to the Rum River. Modeling was performed for these two minor watersheds:

McKinley Street (MK)
Rum Northwest (RNW)

The McKinley Street network includes two basins within its system.

8.1.2 Flood Protection Concerns

There are no known existing problems in this watershed. The subwatersheds that directly outfall into the river will not have any flooding problems as it appears the overflow will drain to the river. For the remaining watersheds, any excess water that the existing storm sewer system cannot handle flows toward the basins within this watershed. If the storage and outflow capacities are not sufficient, the basins will overflow, which could result in impacts to the existing structures. Detailed survey information is required to determine the capacity of the existing basins.

8.2 Stormwater System Analysis and Results

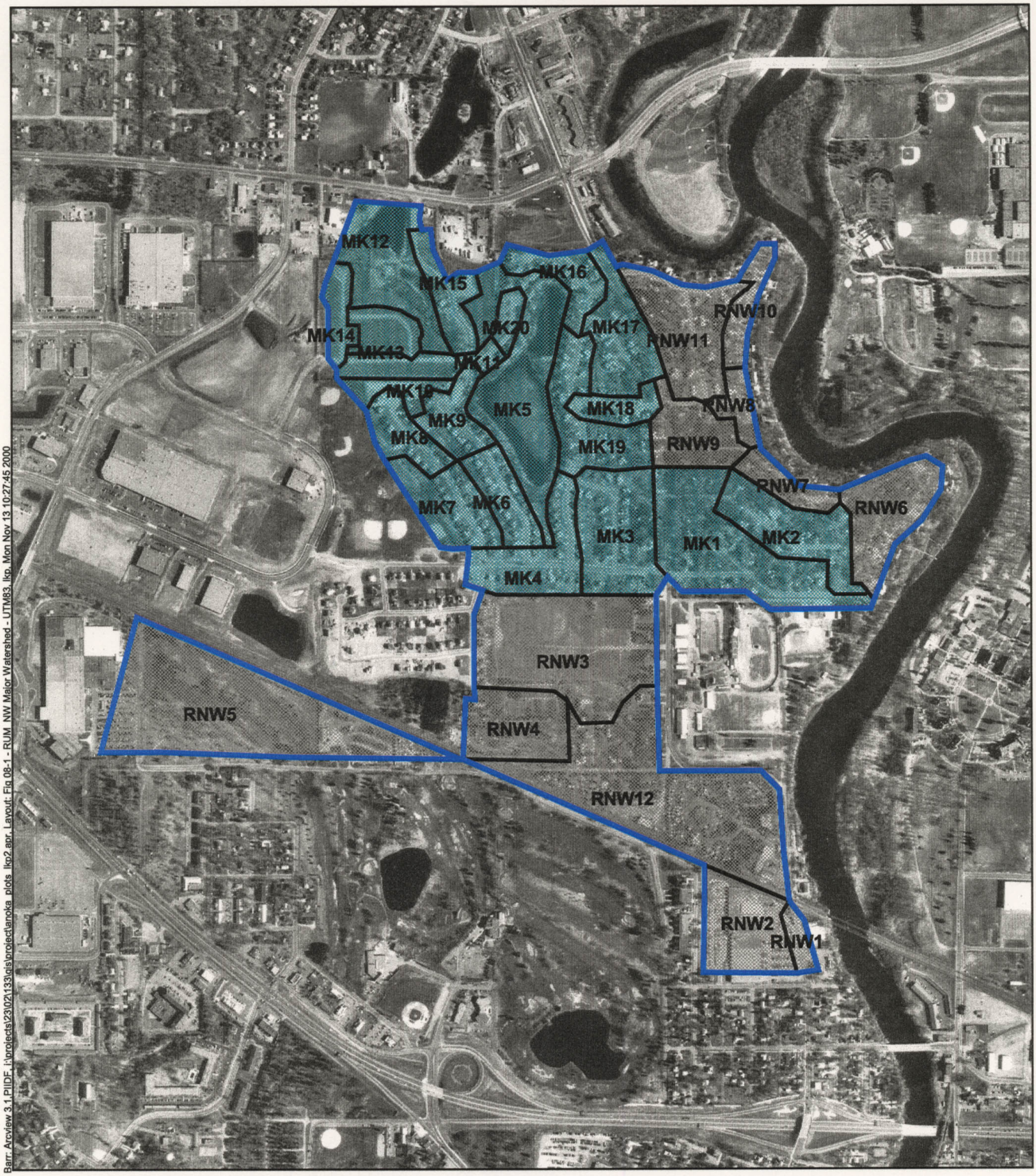
The 10-year and 100-year events were analyzed for the portions of the Rum River Northwest Watershed that are served by the city's storm sewer system. Table 8-1 summarizes the results of the 10-year and 100-year analyses for each of the subwatersheds shown on Figure 8-1.

8.3 Implementation Considerations

The city's existing storm sewer systems are adequate for this watershed. The necessary storage and outlet sizes were determined to provide adequate detention for the storm sewer network to function and are given in Table 8-2.

8.3.1 Construction of Water Quality Basins

Figure B shows the locations where appurtenances in the storm sewer or water quality basins would reduce the amount of suspended solids and phosphorus load to the Mississippi River. Appurtenances will not be as effective as a treatment basin and the removal efficiency will decrease. Table 8-2 lists the necessary "dead storage" needed to remove 90 percent of the total suspended solids and 60 percent of the total phosphorus load.



LEGEND

- Major Watershed
- Sub Watersheds

Minor Watersheds

- MK
- RNW

N
W E
S

600 0 600 1200 Feet

200 0 200 400 Meters

Figure 8-1

RUM RIVER NORTHWEST WATERSHED
City of Anoka
Anoka, Minnesota

Table 8-1: Results of the Rum River Northwest Watershed 10 year and 100 year Critical Storm Events					
Minor Watershed	Subwatershed	Drainage Area (acres)	Impervious Percentage	Peak Runoff Rate (cfs) 10-yr storm	Peak Runoff Rate (cfs) 100-yr storm
MK	1	18.2	20	19	39
MK	2	9.9	20	11	22
MK	3	11.1	20	14	28
MK	4	7.4	17	10	20
MK	5	23.5	13	62	112
MK	6	4.9	20	10	20
MK	7	6.9	15	10	21
MK	8	5.3	20	11	21
MK	9	4.5	20	8	15
MK	10	2.7	20	8	17
MK	11	4.2	20	6	11
MK	12	17.4	21	66	114
MK	13	2.6	20	6	11
MK	14	3.8	20	9	17
MK	15	4.5	29	7	14
MK	16	5.6	22	8	16
MK	17	9.9	20	16	31
MK	18	3.6	20	7	14
MK	19	10.3	20	13	27
MK	20	1.8	45	6	11
RNW	1	2.2	65	9	15
RNW	2	9.3	65	23	38
RNW	3	28.2	8	86	209
RNW	4	10.0	52	28	48
RNW	5	33.0	5	37	83
RNW	6	9.7	20	13	26
RNW	7	3.6	20	6	12.5
RNW	8	3.0	20	6	11
RNW	9	7.7	20	14	27
RNW	10	4.5	20	6	13
RNW	11	11.7	20	17	34
RNW	12	34.0	51	70	120

Table 8-2: Results of 100 year Storm Event Basin Requirements for Rum River Northwest Watershed						
Subwatershed	**Drainage Area acres**	**Dead Storage acre-ft**	**Live Storage acre-ft**	**Total Storage acre-ft**	**100yr Discharge cfs**	**Oultet Size**
Existing Basins with Improvements						
MK5	88.5	3.0	14.0	17.0	5	30"
MK12	22.7	1.0	3.3	4.3	5	

9.0 Rum River Southeast Watershed

9.1 General Watershed Description

Figure 9-1 shows the Rum River Southeast minor watershed and its subwatersheds. This region is located south of U.S. Highway 169 and 10 and east of the Rum River and it is the oldest part of the city.

This watershed includes Moore Middle School, Washington Elementary School, the city of Anoka offices, and the downtown area. General land uses in this watershed vary from single-family residential to multiple-family residential and commercial.

9.1.1 Drainage Patterns

The Rum River Southeast watershed is served by the city's storm sewer system. The stormwater system is complex because there are two trunk systems that carry the majority of the runoff. Rum River Southeast watershed is made up of 12 minor watersheds. From north to south the subwatersheds are:

Polk Street (POLK)
Tyler Street (TY)
Harrison Street (HAR)
Main Street (MAIN)
Monroe Street (MON)
Jefferson Street (JF)
Moore Middle School (MMS)
Adams Street (ADAMS)
Washington Street (WASH)
6th Avenue (6TH)
10th Avenue (10TH)
Brisbin Street (BRIS)

These are shown in Figure 9-1.

9.1.2 Flood Protection Concerns

Where the storm sewer system capacity is not sufficient, surface overflow will occur via the streets to the lowest point within the subwatershed. The Rum River Southeast Watershed has some areas which will not overflow to the river. The proposed and existing storage and outflow capacities are

necessary to prevent basin overflow and the flooding of existing structures. Detailed survey information is required to determine the capacity of the existing basins.

9.2 Stormwater System Analysis and Results

The 10-year and 100-year events were analyzed for the Rum River Southeast Watershed. Table 9-1 presents watershed information and the results of the 10-year and 100-year analyses for each of the subwatersheds shown on Figure 9-1.

9.3 Implementation Considerations

As a part of the surface water management planning process, the problem areas were investigated to determine possible mitigation alternatives. To solve the Rum River Southeast Watershed's existing and future drainage problems while providing 10-year level of service and 100-year level of protection, will require a combination of increased storm sewer capacity and provision of stormwater detention. These are discussed in the following paragraphs.

9.3.1 Increased Storm Sewer Capacity Projects

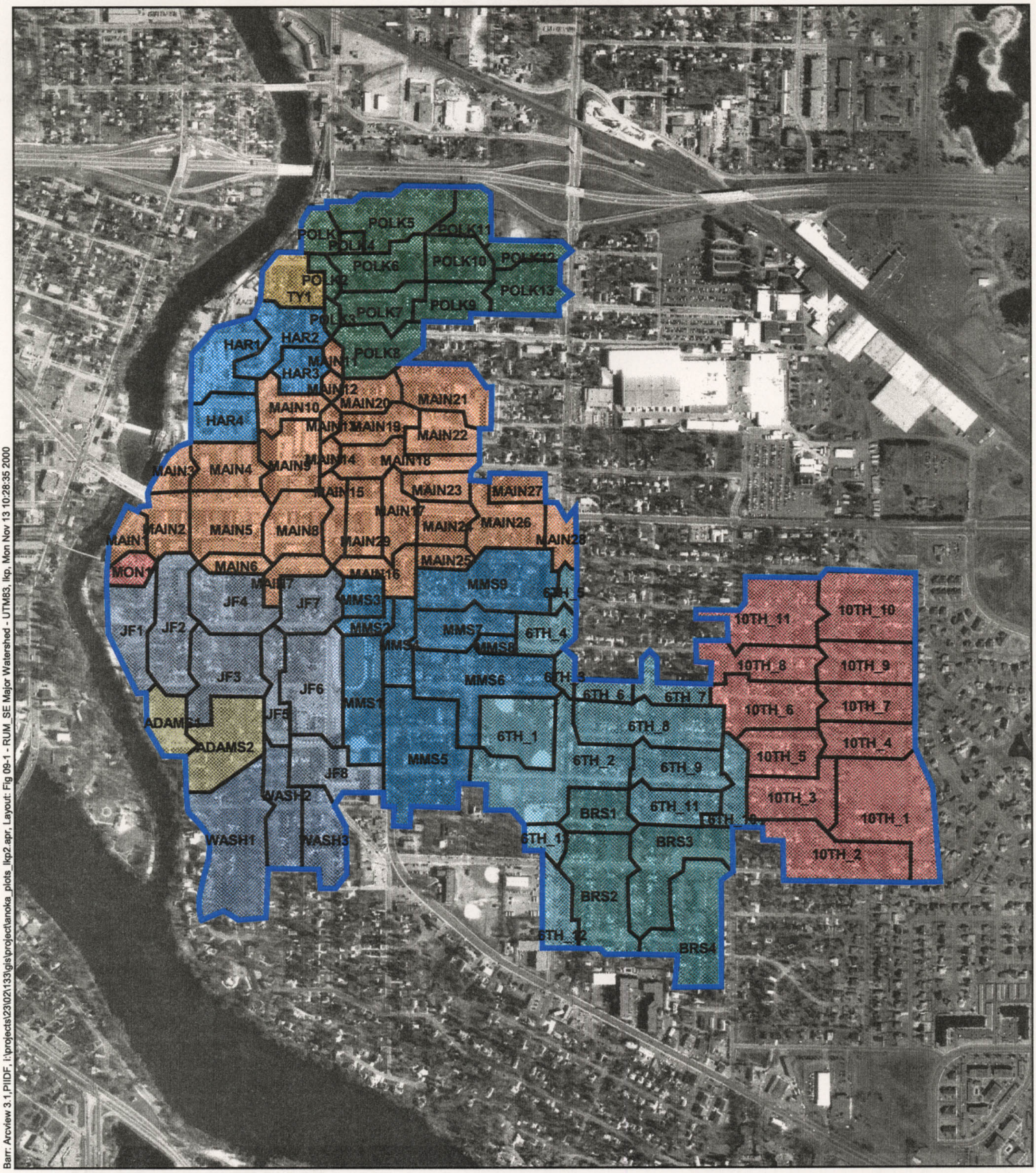
Pipe carrying capacity needs to be increased in parts of this watershed to provide 10-year level of service for the city's storm sewer system. Figure A summarizes the proposed and existing systems. Pipes shown in orange are existing pipes which provide the required level of service. The blue lines indicate existing pipes which do not meet the design criteria based on information available. Yellow lines indicate proposed locations of future systems. The preliminary pipe sizes required for the blue and yellow lines are shown in red. Peak runoff discharges along the conveyance system for the 10-year and 100-year frequency storm events are identified by the green and red circles, respectively. Modifications are necessary because the all of the watershed does not naturally flow to the Rum River. The limited capacity could result in flooding of homes and businesses. All of the minor watersheds require upgrades, which are listed in Table 15-1.

9.3.2 Construction of Additional Stormwater Basins

The city proposes to provide the necessary storage required for each of the existing basins as listed in Table 9-2 and as shown in Figure B. These basins will reduce the amount of increased storm sewer capacity required and prevent flooding from the 100-year storm.

9.3.3 Construction of Water Quality Basins

Figure B shows the new locations where water quality basins would greatly reduce the amount of suspended solids and phosphorus load to the Rum River. The existing basins will also provide treatment to runoff if the required volume of "dead storage" is provided. Table 9-2 lists the necessary "dead storage" to remove 90 percent of the suspended solids and 60 percent of the total phosphorus load. If land is not available for new basin construction, appurtenances within the storm sewer system, e.g. grit chambers, water quality treatment manholes, may be added to reduce the load. These appurtenances will not be as effective as a treatment basin and the removal efficiency will decrease.



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LEGEND

- Major Watershed
- Sub Watersheds

Minor Watersheds

- 10TH
- 6TH
- ADAMS
- BRS
- HAR
- JF
- MAIN
- MMS
- MON
- POLK
- TY
- WASH

N W E S

600 0 600 1200 Feet

200 0 200 400 Meters

Figure 9-1

RUM RIVER SOUTHEAST WATERSHED
City of Anoka
Anoka, Minnesota

Table 9-1: Results of the Rum River Southeast Watershed 10 year and 100 year Critical Storm Events					
Minor Watershed	Subwatershed	Drainage Area (acres)	Impervious Percentage	Peak Runoff Rate (cfs) 10-yr storm	Peak Runoff Rate (cfs) 100-yr storm
10TH	1	11.6	51	21	45
10TH	2	12.75	20	17	34
10TH	3	4.94	20	8	16
10TH	4	3.51	20	5	10
10TH	5	2.97	20	5	11
10TH	6	6.86	20	8	17
10TH	7	4.78	20	7	14
10TH	8	9.88	20	12	24
10TH	9	5.10	20	8	15
10TH	10	9.57	20	13	26
10TH	11	7.17	20	9	17
ADAMS	1	3.2	20	5	11
ADAMS	2	7.6	20	12	24
6TH	1	6.5	5	8	47
6TH	2	11.5	20	18	35
6TH	3	1.2	25	3	6
6TH	4	3.6	40	9	16
6TH	5	1.7	31	5	9
6TH	6	1.7	20	4	9
6TH	7	2.8	20	6	11
6TH	8	8.4	20	12	35
6TH	9	5.1	20	9	21
6TH	10	4.0	20	8	16
6TH	11	4.3	20	6	13
6TH	12	2.9	48	7	11
6TH	13	1.6	20	4	8
BRS	1	4.0	20	7	15
BRS	2	9.6	24	17	32
BRS	3	7.1	20	13	25
BRS	4	9.6	21	12	24
HAR	1	5.7	90	18	28
HAR	2	5.0	57	15	26
HAR	3	2.2	67	11	17
HAR	4	4.7	90	15	23
JF	1	5.1	39	9	9
JF	2	7.6	54	13	23
JF	3	6.4	37	13	24
JF	4	6.5	46	16	28

Table 9-1: Results of the Rum River Southeast Watershed 10 year and 100 year Critical Storm Events					
Minor Watershed	Subwatershed	Drainage Area (acres)	Impervious Percentage	Peak Runoff Rate (cfs) 10-yr storm	Peak Runoff Rate (cfs) 100-yr storm
JF	5	3.6	26	8	15
JF	6	7.7	20	14	27
JF	7	4.5	44	11	20
JF	8	5.9	20	10	21
MAIN	1	1.5	90	8	12
MAIN	2	3.5	90	14	21
MAIN	3	1.8	90	8	12
MAIN	4	4.3	90	16	25
MAIN	5	6.6	90	21	32
MAIN	6	2.1	68	7	11
MAIN	7	3.0	58	9	16
MAIN	8	5.4	90	19	30
MAIN	9	2.9	90	16	25
MAIN	10	4.3	90	18	27
MAIN	11	0.9	30	3	5
MAIN	12	0.9	47	3	6
MAIN	13	1.0	90	6	9
MAIN	14	0.9	90	5	8
MAIN	15	3.4	90	13	20
MAIN	16	3.7	59	13	22
MAIN	17	6.6	87	22	35
MAIN	18	4.7	71	15	24
MAIN	19	3.1	40	8	15
MAIN	20	2.9	22	6	12
MAIN	21	5.0	20	9	18
MAIN	22	4.1	20	9	18
MAIN	23	2.0	90	17	26
MAIN	24	2.7	82	12	19
MAIN	25	1.6	45	6	11
MAIN	26	5.7	76	18	28
MAIN	27	1.6	85	8	13
MAIN	28	2.5	67	10	17
MAIN	29	3.7	90	21	33
MMS	1	6.7	20	19	40
MMS	2	2.0	34	5	10
MMS	3	1.8	55	7	13
MMS	4	3.3	39	8	15
MMS	5	12.2	42	23	41

Table 9-1: Results of the Rum River Southeast Watershed 10 year and 100 year Critical Storm Events for the City of Anoka					
Minor Watershed	Subwatershed	Drainage Area (acres)	Impervious Percentage	Peak Runoff Rate (cfs) 10-yr storm	Peak Runoff Rate (cfs) 100-yr storm
MMS	6	9.6	35	19	36
MMS	7	4.0	45	9	16
MMS	8	1.2	45	4	8
MMS	9	9.5	45	21	37
MON	1	1.8	68	8	13
POLK	1	2.3	46	12	22
POLK	2	1.5	38	5	8
POLK	3	1.0	31	3	6
POLK	4	1.0	20	3	6
POLK	5	7.3	23	15	29
POLK	6	4.4	20	8	15
POLK	7	4.0	20	9	18
POLK	8	4.9	20	8	16
POLK	9	4.0	20	7	14
POLK	10	3.8	20	7	14
POLK	11	4.3	20	8	15
POLK	12	2.7	24	7	14
POLK	13	4.5	25	11	23
TY	1	3.6	47	8	14
WASH	1	11.5	20	14	29
WASH	2	6.3	20	12	23
WASH	3	4.8	20	8	16

Table 9-2: Results of 100 year Storm Event Basin Requirements for Rum River Southeast Watershed						
Subwatershed	**Drainage Area acres**	**Dead Storage acre-ft**	**Live Storage acre-ft**	**Total Storage acre-ft**	**100yr Discharge cfs**	**Oultet Size**
Existing Basins with Improvements						
6TH_1	73.7	2.0	8.4	10.4	30	36"
BRS2	33.0	1.2	4.0	5.2	3	15"
10TH_1	141.4	4.0	10.5	14.5	5	42"
Proposed Ponds						
HAR1	17.4	2.0	0*	2.0		
POLK1	45.8	1.8	0*	1.8		
MAIN1	86.9	8.3	0*	8.3		
JF1 (small)	5.1	0.3	0*	0.3		
JF1 (big)	101.1	4.88	0*	4.88		
TY1	3.5	0.22	0*	0.22		

* Note: Proposed basins have been sized only for water quality purposes.
If constructed, live storage must be determined.

10.0 Rum River Southwest Watershed

10.1 General Watershed Description

Figure 10-1 shows the Rum River Southwest Watershed and its subwatersheds. This region is located south of U.S. Highway 169 and 10 and west of the Rum River.

This watershed includes only a very small area and consists of single-family residential land use.

10.1.1 Drainage Patterns

The Rum River Southwest Watershed flows east directly into the Rum River either via storm sewer or overland flow.

10.1.2 Flood Protection Concerns

The low point on Franklin Avenue where it intersects with the alley does not have any means of discharge according to the information provided. This could be an area of flooding and a pipe is necessary to direct flows away from the homes surrounding the low point. This is discussed in the following sections. The remainder of the watershed overflows to the river.

10.2 Stormwater System Analysis and Results

The 10-year and 100-year storm events were analyzed for the portions of the Rum River Southwest Watershed that are served by the city's storm sewer system. Table 10-1 presents watershed information and the results of the 10-year and 100-year analyses for each of the subwatersheds shown on Figure 10-1. There are no existing basins in this watershed.

10.3 Implementation Considerations

10.3.1 Increased Storm Sewer Capacity Projects

The carrying capacity of the existing storm sewer system needs to be increased in parts of this watershed to provide 10-year level of service for the city's storm sewer system. Figure A summarizes the proposed and existing systems. Pipes shown in orange are existing pipes which provide the required level of service. The blue lines indicate existing pipes which do not meet the design criteria based on information available. Yellow lines indicate proposed locations of future systems. The preliminary pipe sizes required for the blue and yellow lines are shown in red. Peak runoff

discharges along the conveyance system for the 10-year and 100-year frequency storm events are identified by the green and red circles, respectively. The aforementioned intersection on Franklin Avenue requires a capacity for the 100-year flow rather than the 10-year, to protect the existing structure in the area. The Benton Street and Webster Street storm sewer upgrade projects listed in Table 15-1 are located within the Rum River Southwest Watershed.

10.3.2 Construction of Water Quality Basins

Figure B shows the locations where appurtenances within the storm sewer, e.g. grit chambers, water quality treatment manholes, would reduce the amount of suspended solids and phosphorus load to the Mississippi River. These appurtenances will not be as effective as a treatment basin and the removal efficiency will decrease; however, the runoff volumes in this watershed are small, and land is not available for basin construction.

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LEGEND

- Sub Watersheds
- Major Watershed
- Minor Watersheds
- RSW

N
W E
S

600 0 600 1200 Feet

200 0 200 400 Meters

Figure 10-1

RUM RIVER SOUTHWEST WATERSHED
City of Anoka
Anoka, Minnesota

Table 10-1: Results of the Rum River Southwest Watershed 10 year and 100 year Critical Storm Events					
Minor Watershed	Subwatershed	Drainage Area (acres)	Impervious Percentage	Peak Runoff Rate (cfs) 10-yr storm	Peak Runoff Rate (cfs) 100-yr storm
RSW	1	5.4	57	10	17
RSW	2	5.8	36	14	25
RSW	3	1.2	65	6	11
RSW	4	1.0	20	2	4
RSW	5	5.2	90	14	22
RSW	6	3.7	55	11	20
RSW	7	3.4	45	9	15
RSW	8	3.0	45	7	13

11.0 U.S. Highway 169 and 10 Watershed

11.1 General Watershed Description

Figure 11-1 shows the U.S. Highway 169 and 10 minor watersheds and its subwatersheds. This region includes the areas tributary to the storm sewer network maintained by the state for Highway 169 and 10 which extends through the entire city from east to west.

This watershed includes the golf course and cemeteries. General land uses in this watershed are varied, with a combination of commercial, open/agricultural, single family residential, and multiple family residential.

11.1.1 Drainage Patterns

The U.S. Highway 169 and 10 watershed was analyzed only for the portions of storm sewer maintained by the city of Anoka. The state's system for the highway was not evaluated and assumed adequate. Flows at the discharge locations into the highway system are given, and the networks upstream of the discharge points were analyzed. U.S. Highway 169 and 10 watershed is made up of nine minor watersheds that are serviced by city storm sewer systems that discharge into the highway system. From east to west the minor watersheds are:

Fairoak Avenue, south of Hwy 169 (FOS)
Fairoak Avenue, north of Hwy 169 (FON)
Church Street (CH)
Golf Course (GC)
State Avenue (STA)
Branch Avenue (BRC)
Highway 169 (US169)
7th Avenue (7TH)
8th Avenue (8TH)

11.1.2 Flood Protection Concerns

This watershed also has low points that may lead to flooding during the 100-year storm event. The subwatersheds where this is a concern are FON3 (intersection of Verndale and Jerome Street) and STA7 (alley section south of Clay and east of Branch Avenue). These areas do not have an overland flow route for runoff exceeding the 10-year storm event. Pipes with 100-year capacity are necessary

to direct flows away from the homes surrounding the low points. This is discussed in the following sections.

11.2 Stormwater System Analysis and Results

The 10-year and 100-year storm events were analyzed for the portions of the U.S. Highway 169 and 10 Watershed that are served by the city's storm sewer system. Table 11-1 presents watershed information and the results of the 10-year and 100-year flood analyses for each of the subwatersheds shown on Figure 11-1.

11.3 Implementation Considerations

This region of the city requires several upgrades to the existing system.

11.3.1 Increased Storm Sewer Capacity Projects

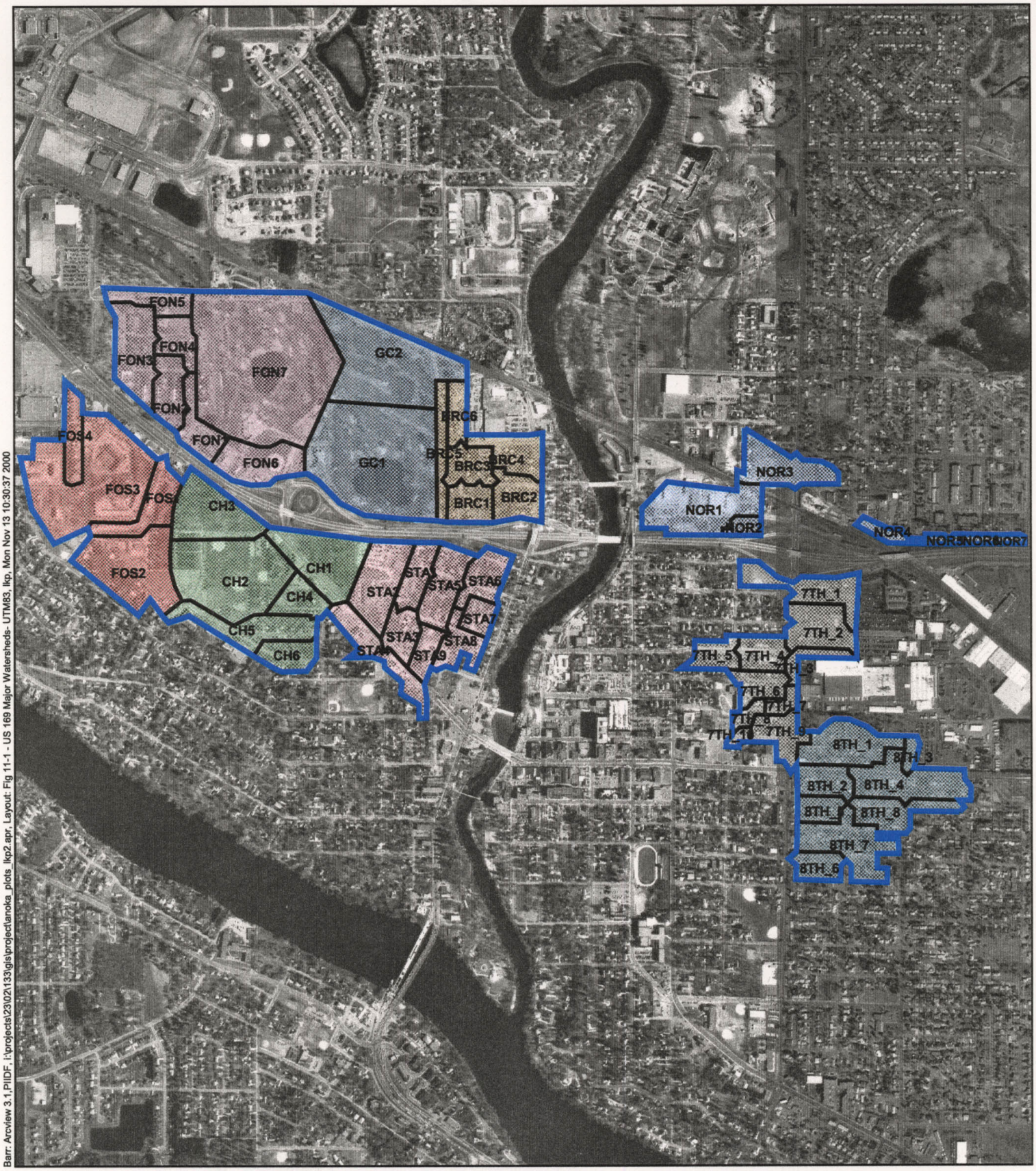
Pipe capacity needs to be increased in parts of this watershed to provide 10-year level of service for the city's storm sewer system. Figure A summarizes the proposed and existing systems. Pipes shown in orange are existing pipes which provide the required level of service. The blue lines indicate existing pipes which do not meet the design criteria based on information available. Yellow lines indicate proposed locations of future systems. The preliminary pipe sizes required for the blue and yellow lines are shown in red. Peak runoff discharges along the conveyance system for the 10-year and 100-year frequency storm events are identified by the green and red circles, respectively. The low points require pipes able to carry the 100-year flow rather than the 10-year, as there is no other relief for this area. The Fairoak Avenue, Church Street, Branch Avenue, and State Avenue storm sewer upgrade projects listed in Table 15-1 are all located within the U.S. Highway 169 and 10 Watershed.

11.3.2 Construction of Additional Stormwater Basins

The existing basins in this watershed will be sufficient if the necessary storage and outlet sizes are provided as given in Table 11-2. Further investigation of these basins is necessary to determine their actual storage capacity.

11.3.3 Construction of Water Quality Basins

The existing basins will provide treatment to runoff if the required volume of dead storage is provided. Table 11-2 lists the necessary "dead storage" needed to remove 90 percent of the suspended solids and 60 percent of the total phosphorus load before entering the highway storm sewer network. New basin locations are shown on Figure B where the runoff receives no treatment prior to entering the highway system. If land is not available for basin construction, appurtenances within the storm sewer system, e.g. grit chambers, water quality treatment manholes, may be added to reduce the load; however, the appurtenances provide a lower removal efficiency.



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LEGEND

- Major Watershed
- Sub Watersheds

Minor Watersheds

- 7TH
- 8TH
- BRC
- CH
- FO
- FON
- FOS
- GC
- NOR
- STA

N
W E
S

600 0 600 1200 Feet

200 0 200 400 Meters

Figure 11-1

US169 AND US 10 WATERSHED
City of Anoka
Anoka, Minnesota

Table 11-1: Results of the U.S. Highway 169 and 10 Watershed 10 year and 100 year Critical Storm Events					
Minor Watershed	Subwatershed	Drainage Area (acres)	Impervious Percentage	Peak Runoff Rate (cfs) 10-yr storm	Peak Runoff Rate (cfs) 100-yr storm
7TH	1	8.6	34	12	23
7TH	2	8.2	32	15	27
7TH	3	3.3	34	8	16
7TH	4	5.3	45	18	28
7TH	5	4.1	24	8	16
7TH	6	4.6	27	10	19
7TH	7	2.0	20	5	11
7TH	8	2.0	20	5	10
7TH	9	6.3	52	17	29
7TH	10	1.0	61	5	8
8TH	1	9.8	34	15	29
8TH	2	4.8	40	10	18
8TH	3	1.5	57	5	9
8TH	4	12.2	41	18	34
8TH	5	3.2	20	6	11
8TH	6	4.5	20	9	17
8TH	7	9.3	20	14	27
8TH	8	2.0	20	4	9
BRC	1	4.3	20	5	85
BRC	2	6.8	41	17	30
BRC	3	5.1	20	9	42
BRC	4	6.9	65	26	43
BRC	5	5.2	18	5	11
BRC	6	4.2	45	9	16
CH	1	19.8	75	45	73
CH	2	19.4	7	24	53
CH	3	12.1	5	13	30
CH	4	5.9	61	14	24
CH	5	10.4	21	11	23
CH	6	4.5	20	8	16
FON	1	5.9	50	15	26
FON	2	6.6	51	14	24
FON	3	10.5	45	24	42
FON	4	5.5	23	9	18
FON	5	5.9	18	9	20
FON	6	10.8	33	40	79
FON	7	59.5	5	88	185

Table 11-1: Results of the U.S. Highway 169 and 10 Watershed 10 year and 100 year Critical Storm Events					
Minor Watershed	Subwatershed	Drainage Area (acres)	Impervious Percentage	Peak Runoff Rate (cfs) 10-yr storm	Peak Runoff Rate (cfs) 100-yr storm
FOS	1	4.7	39	11	20
FOS	2	16.4	13	24	51
FOS	3	27.9	53	56	95
FOS	4	3.5	20	5	9
GC	1	36.7	4	60	121
GC	2	25.7	5	76	188
STA	1	4.9	45	15	26
STA	2	10.3	86	30	47
STA	3	5.0	52	12	20
STA	4	9.2	75	22	35
STA	5	5.6	45	12	20
STA	6	6.1	45	13	23
STA	7	3.0	45	11	19
STA	8	5.1	45	15	25
STA	9	5.6	45	13	23
NOR	1	13.8	61	28	47
NOR	2	2.0	45	6	11
NOR	3	8.3	58	20	33
NOR	4	2.5	65	6	10
NOR	5	1.4	45	5	8
NOR	6	0.8	45	3	5
NOR	7	1.2	45	4	7

Table 11-2: Results of 100 year Storm Event Basin Requirements for U.S. Highway 169 and 10 Watershed						
Subwatershed	**Drainage Area acres**	**Dead Storage acre-ft**	**Live Storage acre-ft**	**Total Storage acre-ft**	**100yr Discharge cfs**	**Oultet Size**
Existing Basins with Improvements						
GC1	148.7	6.0	24.0	30.0	20	44"
FOS3	30.1	3.1	4.4	7.5	14	30"
FON7	92.5	1.6	6.3	7.9	5	
Proposed Ponds						
7TH_1	99.7	4.6	0*	4.6		
8TH_1	54.2	1.2	8.0	9.2	5	
STA2	54.7	4.0	0*	4.0		
BRC1	34.9	2.0	0*	2.0		
CH2	46.5	0.6	5.4	6.0	3	

* Note: These basins have been sized only for water quality purposes.
If constructed, live storage must be determined.

12.0 Coon Rapids Tributary Watershed

12.1 General Watershed Description

Figure 12-1 shows the Coon Rapids Tributary minor watersheds and subwatersheds. This watershed is comprised of the sections of Anoka which drain into the storm sewer network of the city of Coon Rapids.

General land use in this watershed is single-family residential.

12.1.1 Drainage Patterns

There are portions of Anoka which ultimately flow into Coon Rapids, but have storm sewer in the city of Anoka extending to the city border. These regions continue into the neighboring city and enter its network. These regions were evaluated only for the sections within Anoka city limits. Downstream of the city limits, the adequacy of the system is unknown. From north to south the subwatersheds are:

41st Street (41ST)
Bunker Lake Road (BL)
Coon Rapids (CR)

12.1.2 Flood Protection Concerns

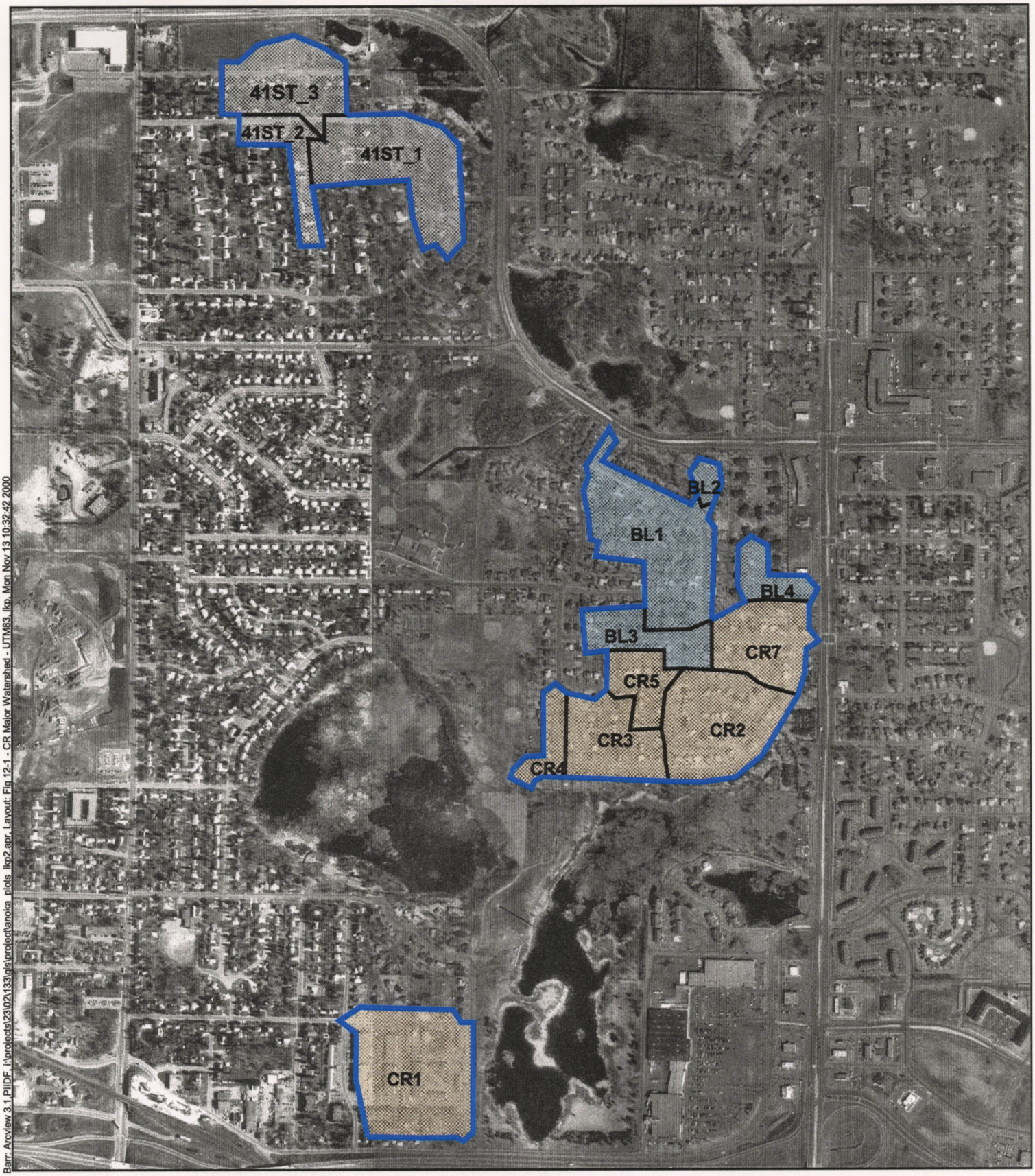
This watershed consists of areas that either flow into a bordering basin or into the Coon Rapids storm sewer system. Capacity of the basin located within Coon Rapids must be evaluated for adequacy to determine if flooding is a valid concern for the structures within the area.

12.2 Stormwater System Analysis and Results

The 10-year and 100-year flood events were analyzed for the portions of the Coon Rapids Tributary Watershed that are served by the city's storm sewer system. Table 12-1 presents watershed information and the results of the 10-year and 100-year flood analyses for each of the subwatersheds shown on Figure 12-1.

12.3 Implementation Considerations

This region of the city provides sufficient storm sewer capacity to meet the 10-year level of service upstream of the Coon Rapids system.



Barr: Arcview 3.1,PIDF, i:\projects\23\02\133\gis\project\anoka_plots_lkp2.apr, Layout: Fig 12-1 - CR Major Watershed - UTM83, lkp, Mon Nov 13 10:32:42 2000

LEGEND

- Major Watershed
- Sub Watersheds
- Minor Watersheds
  - 41ST
  - BL
  - CR

N W E S

600 0 600 1200 Feet

200 0 200 400 Meters

Figure 12-1

COON RAPIDS TRIBUTARY WATERSHED
City of Anoka
Anoka, Minnesota

Table 12-1: Results of the Coon Rapids Tributary Watershed 10 year and 100 year Critical Storm Events					
Minor Watershed	Subwatershed	Drainage Area (acres)	Impervious Percentage	Peak Runoff Rate (cfs) 10-yr storm	Peak Runoff Rate (cfs) 100-yr storm
BL	1	18.6	20	22	45
BL	2	1.2	20	3	7
BL	3	7.1	20	9	18
BL	4	3.6	37	11	21
CR	1	20.4	40	25	46
CR	2	14.8	24	21	41
CR	3	9.7	20	19	38
CR	4	5.2	20	11	23
CR	5	5.9	20	12	25
CR	6	9.6	25	18	34
41ST	1	18.2	20	18	37
41ST	2	6.6	20	9	18
41ST	3	18.0	20	25	51

13.0 Technical Methods and Assumptions

13.1 Mapping and Data

The geographic information system (GIS) software ArcView (version 3.1) was used to organize, store and present information. Applications included organizing the modeling data and storing maps (aerial photos) used in figures. Metropolitan Council aerial photographs reflect the area's conditions in 1997. The city provided the land use, road, wetland, and storm sewer data.

13.2 Watershed Modeling

13.2.1 Hydrologic Modeling

13.2.1.1 Hydrologic Model

The Barr Watershed Model was chosen as the hydrologic computer model for this study. This model is a practical urban runoff model, and it is based on methods used for the Barr Hydrograph Method developed in the late-1950s. The model works with each part of the rainfall-runoff process to estimate stormwater discharges and volumes. It requires the input of rainfall and watershed information.

13.2.1.2 Rainfall Information

Both the 10-year and 100-year frequency storms were evaluated for ten different durations to determine the critical storm event for each frequency. For both frequencies, the 1-hour and 1/2-hour storms were the most critical. The following data used for the study area were taken from NOAA Technical Memorandum NWS Hydro-35, and National Weather Service Technical Paper 40 (TP 40).

Storm Frequency	1/2-Hour Duration	1-Hour Duration
10-year Rainfall	1.65"	2.1"
100-year Rainfall	2.4"	3.1"

The hyetographs for short duration storms were developed from data in a paper entitled, "Relation of Hourly Mean Rainfall to Actual Intensities", published in Civil Engineering in May, 1940. The hyetograph is shaped similar to the storm pattern shown by C.J. Keifer and H.H. Chu in a paper entitled, "Synthetic Storm Pattern for Drainage Design", published in the Proceedings of the American Society of Civil Engineers, August, 1957. The hyetograph is also very similar to the

second quartel hyetograph discussed in a paper by F.A. Huff entitled, "Time Distribution of Rainfall in Heavy Storms", published in Water Resources Research, Fourth Quarter, 1967.

13.2.1.3 Watershed Runoff Characteristics

The amount of runoff from a watershed depends on numerous factors, including the total watershed area, pervious and impervious area in the watershed, the flow length through the watershed, the average velocity of flow, the slope of the land within the watershed, and losses through depression storage, infiltration, and interception. These parameters are described below.

Watershed Total Area: Barr performed the initial watershed delineation using USGS quadrangle topographic maps (7.5-minute series). After this initial delineation, divides were field verified and modified as needed to accurately model the watersheds. A total of 306 separate watersheds were delineated and modeled for the study. The watersheds in the downtown and developed areas are smaller to allow for more detailed evaluation.

Pervious and Impervious Areas: The 100-year and 10-year hydrologic/hydraulic analyses assumed ultimate development conditions in the watershed to better estimate long-term post-development drainage system needs. Projected future land use was estimated from the city of Anoka's land use maps. Five land use types were identified for the analyses: (1) agricultural/open space, (2) single-family residential, (3) multiple-family residential, (4) commercial, and (5) industrial. Land uses were translated into percent impervious areas according to the values in Table 13-1.

Flow Length: This parameter represents the longest path rainfall must follow before reaching the collection point of each subwatershed.

Average Flow Velocity: This is the rate at which rainfall passes through the subwatershed. For overland flow this was taken to be 0.9 feet/second.

Terrain Slope: The general slope of the land in the city of Anoka was modeled as a rolling terrain for pervious areas, which uses a slope-length factor of 0.003.

Depression Storage: The amount of depression storage represents the rainfall that never reaches a primary stormwater collection system, but gets intercepted by depressions along the way. Without accurate field measurements, the amount of depression storage is difficult to determine. For the

purposes of this modeling effort, 0.10 inch was used for impervious surfaces, and 0.2 inch for pervious surfaces.

Infiltration: Vegetative cover in urbanizing areas generally includes grassy open areas, residential lots, commercial-industrial areas, and wooded areas. As the land becomes urbanized, wooded areas tend to decrease and the largest soil cover becomes grassed areas with trees. The predominant soil type for the watersheds in this study, according to Anoka County Soils Survey, were Type B. Consequently, the initial and final rates of infiltration used in the model were 2.5 in/hr and 1.0 in/hr, respectively.

Interception: This is defined as the amount of rainfall captured by leaves, blades of grass, and other objects and returned to the atmosphere by evaporation. It is dependent on the type of vegetative cover; however, the significance of interception is generally considered to be minimal in urban storm drainage design. The values used for impervious and pervious interception are 0.05 and 0.15 inches, respectively.

Table 13-1 Percent Impervious Areas for Land Uses in the Study Area

Type of Land Use	Assumed Percent Impervious Area
Agricultural/ Open Space	5
Single Family	20
Multiple Family	45
Commercial	75-90
Industrial	65

13.3.1 Water Quality Modeling

13.3.1.1 Water Quality Model

The computer model P8 (Program for Predicting Polluting Particle Passage through Pits, Puddles and Ponds, IEP, Inc., 1990) was used to estimate both the water, suspended solids, and phosphorus loads introduced from the tributary area of each basin or outlet into the rivers. P8 is a useful diagnostic tool for evaluating and designing watershed improvements and best management practices (BMPs).

13.3.1.2 Rainfall and Temperature Information

The model requires hourly precipitation and temperature data; long-term data can be used so that watersheds and BMPs can be evaluated for varying hydrologic conditions. Hourly precipitation data was obtained from the Minneapolis-St. Paul International Airport for October 1994 through September 1995 (1995 water year, which represents average yearly precipitation). Average daily temperature data was obtained from the NWS site at the Minneapolis-St. Paul International Airport.

13.3.1.3 Basin Information

Stage-Area-Discharge information is required for each basin in the model. The city was only able to provide information on one of the basins so assumptions were made for the other existing basins. The surface area of each basin was determined from the aerial photo, and four feet of dead storage was assumed. Live storage was taken as recommended from the hydraulic analysis of the storm sewer system capacity. All the basins were modeled with the recommended outlet sizes from the hydraulic analysis.

13.3.1.4 Watershed Parameters

Several factors, including the total watershed area, the pervious Curve Number, land use, and direct and indirect impervious fractions are needed for each watershed. This data is used to determine two important numbers used in the model: direct impervious fraction, and the weighted Curve Number. The amount of runoff generated from a watershed is determined in the model using all of these parameters. A description of each follows.

Tributary Watershed Data: The area of the watershed tributary to each basin determined by the addition of all the subwatersheds draining to the specified basin or outlet to the river.

Pervious Curve Number: The Anoka County Soils Survey was consulted to determine the soil types within each tributary watershed and a pervious curve number was selected for each watershed. The majority of Anoka has soil Type B, so a Curve Number for the pervious section of 61 was used.

Land use: This data is the same as that used for the hydrologic modeling, and was provided by the city of Anoka.

Direct and Indirect Impervious Percentages: The direct or connected impervious percentage includes driveways and parking areas that are directly connected to the storm sewer system. The

indirect impervious percentage is that area which is not directly connected to any storm sewer system and must first travel over a pervious surface. Table 13-2 shows the Barr standard numbers used for these values.

Overall Watershed Direct Impervious Fraction: This value represents the total fraction of impervious area that is directly connected to the storm sewer system for the entire watershed.

Weighted Pervious Curve Number: This weighted SCS Curve Number is based on the pervious and impervious areas and curve numbers.

Table 13-2 Direct, Indirect and Total Impervious Fractions Based on Land Use

Type of Land Use	Direct Impervious	Indirect Impervious	Total Impervious
Agricultural/ Open Space	3%	2%	5%
Single-Family	15%	5%	20%
Multiple-Family	35%	10%	45%
Commercial	80%	5%	85%
Industrial	60%	5%	65%

Recommended storm sewer improvements are shown on Figure A.

14.0 System Maintenance

14.1 Maintenance of Stormwater Facilities

The city of Anoka stormwater system includes not only pipes and constructed basins, but also lakes, wetlands, ditches, swales, and other drainageways. In addition to more typical maintenance measures, maintenance of the stormwater system may also mean maintaining or restoring the ecological characteristics of the natural portions of the stormwater system. The city of Anoka recognizes that maintenance of the all of the city's stormwater facilities is an important part of stormwater management. Proper maintenance will ensure that the stormwater system provides the necessary flood control and water quality treatment.

14.1.1 Private Stormwater Facilities

Owners of private storm water facilities are responsible for maintaining the facilities in proper condition, consistent with the original performance design standards. Responsibilities include removal and proper disposal of all settled materials from basins, sumps, grit chambers, and other devices, including settled solids at a maximum of every 5 years. One (1)- to 5-year waivers from this requirement may be granted by the city engineer when the owner presents evidence that the facility has additional capacity to remove settled solids in accordance with the original design capacity. Owners of private stormwater facilities must provide the city with a maintenance plan that defines who will conduct the maintenance, the type of maintenance and the maintenance intervals.

14.1.2 Publicly Owned Stormwater Facilities

The city of Anoka is responsible for performing the maintenance of the stormwater facilities under city ownership. The Minnesota Department of Transportation is responsible for maintaining road ditches and culverts along U.S. Highway 169/10. Anoka County is responsible for maintaining road ditches and culverts along C.S.A.H. 1, C.S.A.H. 18, C.S.A.H. 21, C.R. 45, C.R. 46, C.R. 53, and C.S.A.H. 66. The city will also notify the owners of other publicly owned stormwater facilities if scheduled maintenance is needed according to periodic site inspections or maintenance plans on file.

The city will develop an inventory and maintain a database for all private and public storm water facilities within the city of Anoka to assist in determining maintenance requirements. The city is responsible for notifying owners of public and private stormwater facilities of the need to conduct maintenance at least every five years.

In addition to constructing the drainage and water quality improvements called for in this Plan, the city will regularly inspect and maintain key components of the system. Key components include storm sewer and culvert inlets, overflow drainage swales, stormwater ponding and water quality treatment basins, and riprap-protected banks, storm sewer and culvert outlets.

14.1.3 Maintenance of Storm Sewer and Culvert Inlets

For safety reasons and to prevent pipe plugging, trashracks are typically installed on storm sewer and culvert inlets. These trash racks prevent people from entering the pipes and keep large debris from becoming lodged in the pipes. If not inspected and maintained, the trash racks will become plugged with debris such as branches, leaves, corn stalks, and other materials carried by storm flows. Even if partially plugged, additional flooding can occur. The city recognizes the importance of periodic removal of collected debris from system trash racks and inlets.

14.1.4 Maintenance of Ponding Facilities

Stormwater ponding and water quality treatment facilities perform a desirable function by settling sediment out of the stormwater. However, if accumulated sediments are not periodically removed, such basins can experience a significant loss in necessary stormwater detention capacity and sediment storage volume. Also, if left unattended, these facilities can become overgrown with unwanted vegetation that could reduce their effectiveness and hinder access for periodic maintenance. Therefore, the city of Anoka will periodically inspect stormwater storage basins and water quality treatment facilities to look for excessive sediment build-up, collected debris and unwanted vegetation. If problems are noted, maintenance is then warranted. For sedimentation basins, it is estimated that approximately every 25 years the basins will need to be dredged to provide the originally-designed sediment storage volume. For planning purposes, it is often assumed that an inspection of the basin capacities should occur every 5 years.

Overflow swales can turn into steep eroding channels if an ongoing erosion problem is not stabilized and the area restored. Typical stabilization materials could include permanent (nonphoto-degrading) geotextile erosion control material or riprap accompanied by a properly designed filter material.

In general, vegetation in existing ponding facilities should be allowed to grow naturally on the side slopes of the basin and should not be mowed. This practice will allow ponding facilities to act like natural wetland areas by providing nearby upland wildlife habitat.

This plan identifies sites for future ponding facilities that may be existing wetland areas. Alteration of these areas by grading or filling operations will most likely require involvement of Anoka SWCD, the agency responsible (local government unit, or LGU) for administering the 1991 Wetland Conservation Act (WCA) in the city of Anoka and surrounding areas. In some cases, upland areas surrounding existing wetlands can be excavated to provide additional habitat, flood storage, water quality treatment, and more wetland areas if desired. However, if a wetland alteration falls under the jurisdiction of the WCA and the Army Corps of Engineers, alteration of wetland types (for example, from vegetated to open water) may require creating additional wetland area with the same wetland types to compensate for the wetland types lost during the alteration. Therefore, sediment collection areas in constructed basins should be excavated regularly, so that wetland vegetation does not grow in those areas and become considered a wetland type that would need to be replaced elsewhere. If possible, the LGU and Army Corps of Engineers (COE) should sign off on constructed basins, indicating that even if wetland vegetation and other wetland characteristics become dominant, the constructed basin does not fall within the jurisdiction of the LGU or COE.

14.1.5 Riprap Recommendations

Riprap areas along banks, in overflow swales, or around storm sewer or culvert outlets, frequently need maintenance due to poor riprap design, vandalism, natural degradation, or a combination thereof. Riprap is placed in those locations to prevent damage that would result from highly erosive flow velocities. If not periodically maintained, significant erosion will occur resulting in pipe damage, downstream sediment problems, and potential safety issues. The city will annually inspect riprap areas and perform the necessary maintenance.

14.1.6 Street Sweeping

The maintenance guide (Table 14-1) calls for the city to sweep streets and parking lots twice a year—once after snowmelt and again after leaf fall. The city will place a higher priority on sweeping streets directly tributary to sensitive resources.

Table 14-1 Maintenance Guide—City of Anoka

Practice	Frequency	Comments
Wetland and Stormwater Basin Inspections	Once every 5 years	Brief, on-site inspection and survey to record sediment buildup, skimmer and inlet/outlet structure conditions, erosion at inlet, outlet, and on slopes, debris, vegetation and visual water quality.
Ditch Inspections	As needed	Brief, on-site inspection to record sediment buildup, channel and sideslope erosion, debris, and vegetation.
Street and Parking Lot Sweeping	Twice a year (Downtown weekly)	Sweep streets once following snowmelt and again after leaf fall. Sweep areas directly tributary to sensitive water resources first. Sweep more frequently if need arises.
Storm Sewer Inlet/Catch Basin Repair and Cleaning	As needed, following major storm events	Repair deteriorated catch basins; clean storm sewer inlets and catch basins to prevent encroachment of sediment and debris above flow line of pipe.
Storm Sewer Discharge Point Inspections	Once a year, and following major storm events	Inspect direct discharge points into stormwater basins and wetlands to determine if discharge point is free of sediment and to observe the condition of any upstream treatment facility (if applicable).
Sediment Removal	As needed	Based on results of stormwater basin, wetland and ditch inspections/surveys, remove sediment from areas where it impedes stormwater flow, and from areas not designated for sediment removal
Outlet Structure and Skimmer Maintenance	As needed	Determine maintenance needs based on results of stormwater basin, wetland and ditch inspections.
Debris and Litter Control	Variable	Collect debris and litter as part of regular inspection program; control litter through public education efforts.
Alternative Road Deicing Chemicals	Encourage their use	Encourage use of alternative and experimental deicing chemicals that have less impact on water quality.
Televising, Jetting, and Repair of Storm Sewers and Culverts	As needed	Televising, jetting, and repair of storm sewers and culverts performed based on results of annual inspections of pipes with a known history of sedimentation problems.

Recommended basin water quantity and quality are shown on Figure B.

15.0 Implementation Program

15.1 Implementation Program Components

Table 15-1 is a comprehensive list of the projects and programs that comprise the city of Anoka's implementation program. This plan identified existing and potential problems (Section 4 through Section 12), developing goals and policies (Section 3), and assessing the need for projects. Table 15-1 summarizes the implementation program and projects presented for each study area within the city. The city will incorporate these program elements into its existing/proposed Capital Improvements Program (CIP).

15.2 Financial Considerations

The city of Anoka intends to fully evaluate the feasibility of financing its implementation program by developing and implementing a Stormwater Utility. Such a utility would fund maintenance, repairs, capital projects, studies, etc. pertaining to the city's stormwater system. Examples include storm sewer installation for new developments, storm sewer upgrades, construction of regional ponding basins, and basin retrofit projects. The city may also develop and implement a storm sewer connection charge for new developments; the monies collected would be deposited into the stormwater utility fund. One of the uses of the stormwater utility would be to fund necessary trunk system improvements to accommodate development. The connection charges could then be used to refund the stormwater utility.

If implemented, the proposed city stormwater utility rates would vary according to land use (i.e. single-family residential, multiple-family residential, commercial, industrial, and open/agricultural). Higher rates would be applied to land uses with higher amounts of impervious surface. The city would review the stormwater utility rates annually and adjust rates as needed.

The city may also use general taxes in conjunction with, or in place of, stormwater utility funds for the public education and information programs and other administrative programs. The city will explore all available, appropriate and cost-effective funding options to finance plan implementation. Examples include grant and loan programs, such as Minnesota Board of Water and Soil Resources Challenge Grants, Minnesota Department of Natural Resources grants, North American Wetlands Conservation Act grants, and McKnight Foundation grants.

15.3 Plan Revisions/Amendments

The Anoka city council adopted this plan in October of 2000. The Anoka Watershed Management Plan is based on information that was current at the time of plan preparation and is therefore subject to change. Changes in land use, zoning, watersheds, and drainage patterns, and revisions to governmental regulations/rules could affect all or part of this plan. As a result, the city may need to revise the plan to keep it current. The city expects that most revisions to the plan will be minor (i.e. changes to the implementation program), and not require a major revision to the plan. The city of Anoka may revise the plan at any time in response to city-identified needs.

Table 15-1. Proposed Implementation Program—City of Anoka

ID #	Planned Activity	Location	Comments
1	Adopt, implement and enforce stormwater management regulations as provision of zoning ordinance	City-wide	
2	Implement stormwater system maintenance program	City-wide	See Table 14-1. Includes all maintenance tasks except sediment removal.
3	Establish and implement stormwater utility	City-wide	
4	Develop and implement education and information program for general public and targeted groups	City-wide	See Section 3.5 for more information.
	Mississippi River East Watershed		
5	Improvements to existing basin as necessary.	9TH-5 Mississippi River East Watershed	Need 2.0 acre-feet dead storage, 4.8 acre-feet live storage
6	Construct 1.6 acre-foot extended detention basin	KGS-1 Mississippi River East Watershed	
7	Construct 2.60 acre-foot extended detention basin	5TH-1 Mississippi River East Watershed	
8	Storm sewer upgrade	Ninth Avenue Mississippi River East Watershed	Projects to be completed, in whole or in part, as opportunities arise, in conjunction with other infrastructure projects.
9	Storm sewer upgrade	King's Lane Mississippi River East Watershed	Projects to be completed, in whole or in part, as opportunities arise, in conjunction with other infrastructure projects.
10	Storm sewer upgrade	Oakwood Drive Mississippi River East Watershed	Projects to be completed, in whole or in part, as opportunities arise, in conjunction with other infrastructure projects.
11	Storm sewer upgrade	Fifth Avenue Mississippi River East Watershed	Projects to be completed, in whole or in part, as opportunities arise, in conjunction with other infrastructure projects.
12	Storm sewer upgrade	Oakwood Lane Mississippi River East Watershed	Projects to be completed, in whole or in part, as opportunities arise, in conjunction with other infrastructure projects.
13	Add appurtenances to river outlet pipes where necessary.		Projects to be completed, in whole or in part, as opportunities arise, in conjunction with other infrastructure projects.

Table 15-1 Proposed Implementation Program—City of Anoka Continued

ID #	Planned Activity	Location	Comments
	Mississippi River West Watershed		
14	Improvements to existing basin as necessary.	LEV-9 Mississippi River West Watershed	Need 1.0 acre-feet dead storage, 15.4 acre-feet live storage
15	Construct 5.0 acre-foot extended detention basin	LEV-1 Mississippi River West Watershed	
16	Construct 2.0 acre-foot extended detention basin	WEST-1 Mississippi River West Watershed	
17	Construct 1.5 acre-foot extended detention basin	PTR-1 Mississippi River West Watershed	
18	Storm sewer upgrade	Ferry Street Mississippi River West Watershed	Projects to be completed, in whole or in part, as opportunities arise, in conjunction with other infrastructure projects.
19	Storm sewer upgrade	Franklin Lane Mississippi River West Watershed	Projects to be completed, in whole or in part, as opportunities arise, in conjunction with other infrastructure projects.
20	Storm sewer upgrade	Levee Avenue Mississippi River West Watershed	Projects to be completed, in whole or in part, as opportunities arise, in conjunction with other infrastructure projects.
21	Storm sewer upgrade	West Lane Mississippi River West Watershed	Projects to be completed, in whole or in part, as opportunities arise, in conjunction with other infrastructure projects.
22	Storm sewer upgrade	Porter Avenue Mississippi River West Watershed	Projects to be completed, in whole or in part, as opportunities arise, in conjunction with other infrastructure projects.
23	Add appurtenances to river outlet pipes where necessary.		Projects to be completed, in whole or in part, as opportunities arise, in conjunction with other infrastructure projects.

Table 15-1 Proposed Implementation Program—City of Anoka Continued

ID #	Planned Activity	Location	Comments
	Anoka Enterprise Watershed		
24	Improvements to existing basin as necessary.	AEP-3 Anoka Enterprise Watershed	Need 7.0 acre-feet dead storage, 18.2 acre-feet live storage
25	Improvements to existing basin as necessary.	AEP-17 Anoka Enterprise Watershed	Need 3.0 acre-feet dead storage, 3.1 acre-feet live storage
26	Improvements to existing basin as necessary.	AEP-22 Anoka Enterprise Watershed	Need 6.5 acre-feet dead storage, 17.0 acre-feet live storage
27	Improvements to existing basin as necessary.	AEP-27 Anoka Enterprise Watershed	Need 2.4 acre-feet dead storage, 5.2 acre-feet live storage
28	Add appurtenances to river outlet pipes where necessary.		Projects to be completed, in whole or in part, as opportunities arise, in conjunction with other infrastructure projects.
	Rum River Northeast Watershed		
29	Improvements to existing basin as necessary.	SA-1 Rum River Northeast Watershed	Need 12.0 acre-feet dead storage, 43.9 acre-feet live storage
30	Improvements to existing basin as necessary.	38TH_1 Rum River Northeast Watershed	Need 4.8 acre-feet dead storage, 33.0 acre-feet live storage
31	Improvements to existing basin as necessary.	BRY-9 Rum River Northeast Watershed	Need 3.0 acre-feet dead storage, 23.8 acre-feet live storage
32	Improvements to existing basin as necessary.	BRY-1 Rum River Northeast Watershed	Need 1.8 acre-feet dead storage, 31.7 acre-feet live storage
33	Construct 4.0 acre-foot extended detention basin	GRT-1 Rum River Northeast Watershed	
34	Storm sewer upgrade	Bryant Circle Rum River Northeast Watershed	Projects to be completed, in whole or in part, as opportunities arise, in conjunction with other infrastructure projects.
35	Storm sewer upgrade	Grant Circle Rum River Northeast Watershed	Projects to be completed, in whole or in part, as opportunities arise, in conjunction with other infrastructure projects.
36	Storm sewer upgrade	Ninth Lane Rum River Northeast Watershed	Projects to be completed, in whole or in part, as opportunities arise, in conjunction with other infrastructure projects.

Table 15-1 Proposed Implementation Program—City of Anoka Continued

ID #	Planned Activity	Location	Comments
37	Storm sewer upgrade	Grant Street Rum River Northeast Watershed	Projects to be completed, in whole or in part, as opportunities arise, in conjunction with other infrastructure projects.
38	Storm sewer upgrade	Garfield Street Rum River Northeast Watershed	Projects to be completed, in whole or in part, as opportunities arise, in conjunction with other infrastructure projects.
39	Storm sewer upgrade	Seventh Avenue Rum River Northeast Watershed	Projects to be completed, in whole or in part, as opportunities arise, in conjunction with other infrastructure projects.
40	Storm sewer upgrade	41st Avenue Rum River Northeast Watershed	Projects to be completed, in whole or in part, as opportunities arise, in conjunction with other infrastructure projects.
41	Add appurtenances to river outlet pipes where necessary.		Projects to be completed, in whole or in part, as opportunities arise, in conjunction with other infrastructure projects.
	Rum River Northwest Watershed		
42	Improvements to existing basin as necessary.	MK-5 Rum River Northwest Watershed	Need 3.0 acre-feet dead storage, 14.0 acre-feet live storage
43	Improvements to existing basin as necessary.	MK-12 Rum River Northwest Watershed	Need 1.0 acre-feet dead storage, 3.0 acre-feet live storage
44	Storm sewer upgrade	St. Frances Bl. Rum River Northwest Watershed	Projects to be completed, in whole or in part, as opportunities arise, in conjunction with other infrastructure projects.
45	Add appurtenances to river outlet pipes where necessary.		Projects to be completed, in whole or in part, as opportunities arise, in conjunction with other infrastructure projects.
	Rum River Southeast Watershed		
46	Improvements to existing basin as necessary.	6TH_1 Rum River Southeast Watershed	Need 2.0 acre-feet dead storage, 8.4 acre-feet live storage
47	Improvements to existing basin as necessary.	BRS-2 Rum River Southeast Watershed	Need 1.2 acre-feet dead storage, 4.0 acre-feet live storage
48	Improvements to existing basin as necessary.	10TH_1 Rum River Southeast Watershed	Need 4.0 acre-feet dead storage, 10.5 acre-feet live storage

Table 15-1 Proposed Implementation Program—City of Anoka Continued

ID #	Planned Activity	Location	Comments
49	Construct 8.3 acre-foot extended detention basin	MAIN-1 Rum River Southeast Watershed	
50	Construct 4.9 acre-foot extended detention basin	JF-1 Rum River Southeast Watershed	
51	Construct 2.0 acre-foot extended detention basin	HAR-1 Rum River Southeast Watershed	
52	Construct 0.25 acre-foot extended detention basin	TY-1 Rum River Southeast Watershed	
53	Construct 1.8 acre-foot extended detention basin	POLK-1 Rum River Southeast Watershed	
54	Storm sewer upgrade	Tenth Avenue Rum River Southeast Watershed	Projects to be completed, in whole or in part, as opportunities arise, in conjunction with other infrastructure projects.
55	Storm sewer upgrade	Brisbin Street Rum River Southeast Watershed	Projects to be completed, in whole or in part, as opportunities arise, in conjunction with other infrastructure projects.
56	Storm sewer upgrade	Seventh Avenue Rum River Southeast Watershed	Projects to be completed, in whole or in part, as opportunities arise, in conjunction with other infrastructure projects.
57	Storm sewer upgrade	Jefferson Avenue Rum River Southeast Watershed	Projects to be completed, in whole or in part, as opportunities arise, in conjunction with other infrastructure projects.
58	Storm sewer upgrade	Fifth Avenue Rum River Southeast Watershed	Projects to be completed, in whole or in part, as opportunities arise, in conjunction with other infrastructure projects.
59	Storm sewer upgrade	Washington Street Rum River Southeast Watershed	Projects to be completed, in whole or in part, as opportunities arise, in conjunction with other infrastructure projects.
60	Storm sewer upgrade	Adams Street Rum River Southeast Watershed	Projects to be completed, in whole or in part, as opportunities arise, in conjunction with other infrastructure projects.
61	Storm sewer upgrade	Harrison Street Rum River Southeast Watershed	Projects to be completed, in whole or in part, as opportunities arise, in conjunction with other infrastructure projects.

Table 15-1 Proposed Implementation Program—City of Anoka Continued

ID #	Planned Activity	Location	Comments
62	Storm sewer upgrade	Taylor Street Rum River Southeast Watershed	Projects to be completed, in whole or in part, as opportunities arise, in conjunction with other infrastructure projects.
63	Storm sewer upgrade	Polk Street Rum River Southeast Watershed	Projects to be completed, in whole or in part, as opportunities arise, in conjunction with other infrastructure projects.
64	Storm sewer upgrade	5th Avenue Rum River Southeast Watershed	Projects to be completed, in whole or in part, as opportunities arise, in conjunction with other infrastructure projects.
65	Add appurtenances to river outlet pipes where necessary.		Projects to be completed, in whole or in part, as opportunities arise, in conjunction with other infrastructure projects.
	Rum River Southwest Watershed		
66	Storm sewer upgrade	Benton Street Rum River Southwest Watershed	Projects to be completed, in whole or in part, as opportunities arise, in conjunction with other infrastructure projects.
67	Storm sewer upgrade	Webster Street Rum River Southwest Watershed	Projects to be completed, in whole or in part, as opportunities arise, in conjunction with other infrastructure projects.
68	Add appurtenances to river outlet pipes where necessary.		Projects to be completed, in whole or in part, as opportunities arise, in conjunction with other infrastructure projects.
	US 169 & 10 Watershed		
69	Improvements to existing basin as necessary.	GC-1 US 169 & 10 Watershed	Need 6.0 acre-feet dead storage, 24.0 acre-feet live storage
70	Improvements to existing basin as necessary.	CH-2 US 169 & 10 Watershed	Need 0.6 acre-feet dead storage, 5.4 acre-feet live storage
71	Improvements to existing basin as necessary.	FOS-3 US 169 & 10 Watershed	Need 3.1 acre-feet dead storage, 4.4 acre-feet live storage
72	Improvements to existing basin as necessary.	FON-7 US 169 & 10 Watershed	Need 1.6 acre-feet dead storage, 6.3 acre-feet live storage
73	Construct stormwater basin with 1.2 acre-feet of dead storage and 8.0 acre-feet live storage.	8TH_1 US 169 & 10 Watershed	

Table 15-1 Proposed Implementation Program—City of Anoka Continued

ID #	Planned Activity	Location	Comments
74	Construct 4.0 acre-foot extended detention basin	STA-2 US 169 & 10 Watershed	
75	Construct 2.0 acre-foot extended detention basin	BRC-1 US 169 & 10 Watershed	
76	Construct 9.2 acre-foot stormwater and extended detention basin	8TH-1 US 169 & 10 Watershed	
77	Construct 4.6 acre-foot extended detention basin	7TH-1 US 169 & 10 Watershed	
78	Storm sewer upgrade	Euclid Avenue US 169 & 10 Watershed	Projects to be completed, in whole or in part, as opportunities arise, in conjunction with other infrastructure projects.
79	Storm sewer upgrade	Fairoak Avenue US 169 & 10 Watershed	Projects to be completed, in whole or in part, as opportunities arise, in conjunction with other infrastructure projects.
80	Storm sewer upgrade	Western Street US 169 & 10 Watershed	Projects to be completed, in whole or in part, as opportunities arise, in conjunction with other infrastructure projects.
81	Storm sewer upgrade	State Avenue US 169 & 10 Watershed	Projects to be completed, in whole or in part, as opportunities arise, in conjunction with other infrastructure projects.
82	Storm sewer upgrade	Branch Avenue US 169 & 10 Watershed	Projects to be completed, in whole or in part, as opportunities arise, in conjunction with other infrastructure projects.
83	Storm sewer upgrade	Eighth Avenue US 169 & 10 Watershed	Projects to be completed, in whole or in part, as opportunities arise, in conjunction with other infrastructure projects.
84	Add appurtenances to river outlet pipes where necessary.		Projects to be completed, in whole or in part, as opportunities arise, in conjunction with other infrastructure projects.

Table 15-1 Proposed Implementation Program—City of Anoka Continued

ID #	Planned Activity	Location	Comments
	City-wide		
85	Basin maintenance— sediment removal	City-wide	Accumulated sediment will need to be dredged from basins approx. every 5 years. Assuming about 30 basins, this means 6 basins/year will require dredging.
86	Purchase street sweeper/vacuum	City-wide	Coordinate with city's Capital Equipment Program (CEP)
87	Partner with county, adjacent townships and upstream landowners outside city's jurisdiction to reduce pollutant /sediment loadings.	City-wide	This task includes projects, meetings, and/or agreements.
88	Develop and implement runoff water quality monitoring program.	City-wide, at targeted locations	Implement only if required to do so by NPDES or other regulations.
89	Promote stormwater retention through infiltration practices and demonstration projects	City-wide	Promotion of stormwater retention could be achieved by providing incentives to developers.

16.0 Wetlands

16.1 Regulatory Controls

The protection and preservation of wetland is an integral part of stormwater management. There are federal, state, regional, and local regulations pertaining to wetland management. Federal regulatory programs include the following:

- **Section 10 of the Rivers and Harbors Act**—The Corps of Engineers (COE) is the responsible agency for this program, which regulates the placement of structures and/or work in, or affecting, navigable waters of the United States.

- **Section 404 of the Clean Water Act**—The COE has primary responsibility for administering the program, but the Environmental Protection Agency (EPA) can appeal to a higher COE authority or veto a COE decision. This program regulates excavation of wetlands and the discharge of dredged or fill material into waters of the United States, which includes wetlands. There are basically two types of **Section** 404 permits: (1) regional and nationwide general permits; and (2) individual permits.

- **Section 401 of the Clean Water Act**—The Environmental Protection Agency delegated responsibility for this program to the MPCA. Activities which require a Section 10, Section 404, or Federal Energy Regulatory Commission permit must first obtain **Section** 401 water quality certification from the MPCA stating that the activity conforms to state water quality standards.

- **Food Security Act of 1985, "Swampbuster"**—The U.S. Department of Agriculture, through the Farm Service Agency and the Natural Resources Conservation Service, handles administrative and technical requirements. The program regulates the alteration of wetlands for agricultural use and prohibits farmers who receive federal subsidies from draining wetlands. Alteration of a wetland results in ineligibility for all government price and income support programs.

State regulatory programs include the following:

- **Protected Waters and Wetlands program, Minnesota Statutes 103G**—The DNR is the responsible agency for administering this program.

- **Wetland Conservation Act of 1991 (WCA)**—Local Government Units (LGUs) are responsible for administering the rules. The intent of the WCA is to promote no net loss of wetlands. The WCA rules regulate draining and filling activities in all wetlands, except DNR-protected waters and wetlands. The WCA rules (Minnesota Rules 8420) require that drained and filled wetlands be replaced at a minimum replacement ratio of 2:1 in non-

agricultural areas. Local units of government may have stricter wetland regulations. Amendments to WCA in 1994 allow for the preparation of wetland management plans by local units of government that may give them more flexibility through a more regional wetland analysis. The DNR is involved in enforcement of the WCA and is responsible for identification, protection and management of calcareous fens. The Minnesota Legislature significantly amended the WCA three times, mostly to accommodate the varying needs of the different geographic areas of the state.

Other state rules include:

- **State Water Quality Standards, Minnesota Rules 7050**—The MPCA is the responsible agency. The rules include water use classifications and water quality standards for wetlands that are narrative rather than numerical. The rules include a mitigative process to protect wetlands from significant adverse impacts and to maintain nondegradation of wetland designated uses.

As part of administering the WCA rules, the designated LGUs are responsible for delineating wetlands and determining wetland functions and values. The Lower Rum River Water Management Organization (LRRWMO) is the LGU responsible for administering the WCA in the city of Anoka. Since the city anticipates little development and it does not have the staff capabilities to address wetland impacts, the city of Anoka believes the water management organization best handles the wetland issues.

Although not prohibited, the MPCA discourages the use of wetlands for stormwater treatment. LRRWMO encourages presettlement of stormwater runoff prior to discharge to wetlands, to help prevent sedimentation of wetlands.

Figure 16-1 show the wetlands located within the city of Anoka (more information on the wetland inventory is presented at the end of this section). There may be additional wetlands smaller than 0.1 acre in the city that are not shown on the map.

In general, the Metropolitan Council encourages cities to determine wetland functions and values, and include criteria for wetland buffer strips in their local water management plans. Specific to city of Anoka, the Metropolitan Council encourages the city of focus on redevelopment issues and public education regarding wetland protection and the importance of vegetative buffers.

The LRRWMO requires a Wetland Alteration Permit for any activity that may affect the size, shape or character of a wetland. Proposals for wetland alterations must include:

- Narrative describing purpose of project and efforts taken to avoid or minimize wetland impacts.
- Grading and sediment-erosion control plan showing existing and proposed elevations for wetland and spoil disposal areas.
- Wetland delineation and support documentation in accordance with WCA rules.
- Wetland Replacement Plan application for projects involving fill or drainage.

16.2 Public Waters

The DNR's Protected Waters and Wetlands Permit Program (Minnesota Statutes 103G) requires a DNR-protected waters permit for any work below the Ordinary High Water elevation (OHW) or any work that will alter or diminish the course, current, or cross-section of any protected water, including lakes, wetlands, and streams. For lakes and wetlands, the DNR's jurisdiction extends to designated U.S. Fish and Wildlife Service Circular #39 Types 3, 4, and 5 wetlands which are 10 acres or more in size in unincorporated areas, or 2.5 acres or more in size in incorporated areas. The program prohibits the filling of protected waters and wetlands for the purpose of creating upland areas.

16.3 Management Objectives

16.3.1 Goal

The goal of the City is to achieve no net loss of wetlands, including acreage, functions, and values. Where practicable, improve the functions, values, biological diversity, and acreage of existing wetlands will be improved.

16.3.2. Policies

1. Wetland alteration is discouraged. Use the city's wetland inventory to identify where proposed projects may impact wetlands. Unavoidable wetland alterations must be mitigated in conformance with the Wetland Conservation Act (WCA) requirements. In addition, wetland alterations need to comply with other LRRWMO constraints.
2. Cooperate with LRRWMO's administration of their wetland alteration rules.
3. Determine wetland functions and values on an individual basis, as needed, using either the wetland type index system or the Minnesota Routine Assessment Method (MnRAM).

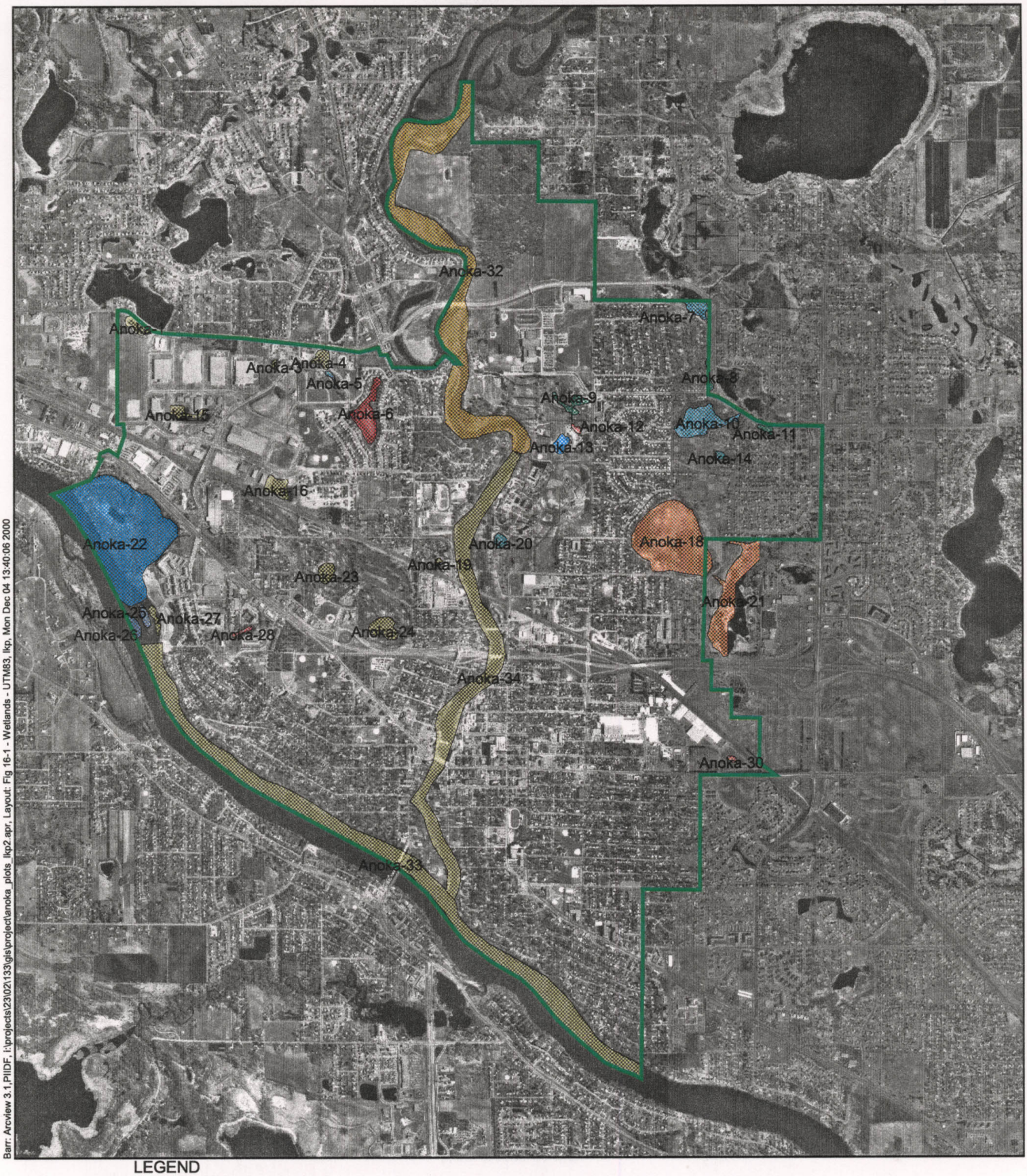
4. Seek to restore previously existing wetlands and enhance existing wetlands.

5. Involve the appropriate regulatory agencies (LRRWMO, U.S. Army Corps of Engineers, and the DNR) in the planning of any proposed water quality or flood control facilities identified in this plan that may be located within a wetland.

6. Where feasible, provide buffer zones of native vegetation around basins and wetlands to provide habitat. Educate the public regarding wetland protection and the importance of creating and maintaining vegetative buffers. Land use and property ownership may limit the ability to provide buffer zones.

7. Where feasible, minimize water level fluctuations (bounce) in wetlands or detention basins to prevent adverse habitat changes.

The Modified Routine Assessment Method for Evaluating Wetland Functions and Values as summarized in Appendix A was used to identify the functional value of wetlands within the city of Anoka. This is a simplified version of the Minnesota Routine Assessment Method for Evaluating Wetland Functions (MnRAM). This modified version has been reviewed and accepted byt the Minnesota Board of Water and Soil Resources. This is consistent with the requirements of the LRRWMO. The assessment of each wetland is listed on Table 16-1 and Table 16-1A.



Barr: Arcview 3.1,PIIDF, I:\projects\23\02\133\gis\project\anoka_plots_lkp2.apr, Layout: Fig 16-1 - Wetlands - UTM83, lkp, Mon Dec 04 13:40:06 2000

LEGEND

Anoka Municipal Boudary

Wetlands

- Type 2
- Type 3
- Type 5
- Types 1 & 2
- Types 2 & 3
- Types 2 & 7
- Types 2, 3 & 6
- Types 2, 5, & 6
- Types 3 & 5
- Types 3 & 6
- Types 3, 5, & 6
- Types 6 & 7

N W E S

3000 0 3000 6000 Feet

500 0 500 1000 1500 Meters

Figure 16-1

WETLANDS
City of Anoka
Anoka, Minnesota

Table 16-1 City of Anoka Wetland Classifications

ID Number	Circular 39	National Wetlands Inventory Code (NWI)	DNR #	Modified Routine Assessment									Sensitivity*
				Date	Hydrology	Vegetation	Wildlife	Fisheries	Attenuation	Quality	Shore Protection	Aesthetics	
Anoka-1	Type 5	PEMC & PUBG	N/A	10/9/98	2	2	2	2	3	3	0	2	Moderate
Anoka-3	Type 5	PUBF	N/A	10/9/98	1	1	1	0	3	3	0	1	Least
Anoka-4	Type 5	PEMF, PUBF, & PEMC	N/A	10/9/98	2	3	2	0	2	3	0	3	Moderate
Anoka-5	Type 3	PEMC & PSS1C	N/A	10/9/98	1	3	2	0	2	4	0	2	Moderate
Anoka-6	Types 3 & 5	PEMF & PUBF	119W	10/9/98	1	3	3	0	2	4	0	3	Moderate
Anoka-7	Type 3	PSS6Cd & PEMCd	610W	10/22/98	1	1	1	0	4	4	0	2	Least
Anoka-8	Types 3 & 6	No information available	N/A	10/22/98	1	1	1	0	2	4	0	2	Least
Anoka-9	Types 3 & 6	PEMCd	N/A	10/22/98	1	1	1	0	2	1	1	2	Least
Anoka-10	Type 3	PEMC, PFO1C, PEMF, PUBFx, & PEMCd	N/A	10/22/98	1	2	2	0	2	4	0	3	Moderate
Anoka-11	Types 3 & 6	PEMC	N/A	10/22/98	1	1	2	0	3	3	0	3	Least
Anoka-12	Type 2	PEMCd	N/A	10/22/98	1	1	2	0	2	3	0	2	Least
Anoka-13	Types 2 & 3	PEMCd	N/A	10/22/98	1	1	1	0	3	3	0	2	Least
Anoka-14	Types 1 & 2	PEMU	N/A	10/22/98	1	1	2	0	3	3	0	2	Least
Anoka-15	Type 5	No information available	N/A	10/9/98	1	1	1	0	3	2	0	2	Least
Anoka-16	Type 5	No information available	N/A	10/9/98	1	2	2	0	4	2	0	2	Moderate
Anoka-18	Types 2, 3 & 6	PEMC, PFO1B, PEMF, & PUBF	630W	10/22/98	2	2	3	0	3	4	3	3	Moderate
Anoka-19	Type 5	PEMC	N/A	10/20/98	1	1	1	0	2	1	0	1	Least
Anoka-20	Types 1 & 2	PSS1B	N/A	10/20/98	2	1	1	0	2	3	0	3	Least
Anoka-21	Types 2, 3 & 6	PSS6C, PEMC, PEMF, PFO6C & PSS1C	711W	10/22/98	1	1	1	0	2	3	0	2	Least
Anoka-22	Types 2, 5& 6	PFO1Ch, PSS1C, PUBFh, PUBF, & L1UBHh	N/A	10/15/98	1	3	3	2	4	3	3	3	Moderate
Anoka-23	Type 5	PUBG	107W	10/9/98	1	1	1	0	3	2	2	2	Least
Anoka-24	Type 5	PUBG	108W	10/9/98	1	1	1	0	3	2	2	2	Least
Anoka-25	Types 2 & 7	PFO1C	N/A	10/20/98	1	1	2	1	2	3	0	2	Least
Anoka-26	Types 6 & 7	PFO1C	N/A	10/15/98	3	2	2	4	1	1	3	3	Moderate
Anoka-27	Type 5	PSS1C	N/A	10/20/98	1	2	2	0	2	3	0	2	Moderate
Anoka-28	Types 3 & 5	PSS1C	N/A	10/20/98	1	1	2	0	3	3	0	2	Least
Anoka-30	Type 2	PEMC	N/A	10/20/98	2	1	2	0	2	3	0	2	Moderate
Anoka-32	Types 3, 5& 6	No information available	N/A	10/15/98	2	3	3	3	1	3	2	3	Moderate
Anoka-33	Type 5	No information available	N/A	10/15/98	1	1	2	2	1	2	2	2	Least
Anoka-34	Type 5	No information available	N/A	10/15/98	1	1	2	2	1	1	2	1	Least

*See Table 16-1A

Key:
0 = N/A
1 = Low
2 = Medium
3 = High
4 = Exceptional

Table 16-1A: City of Anoka Wetland Classifications: Sensitivity Evaluation

High	Moderate	Least
Special consideration must be given to avoid altering these wetland types. Inundation must be avoided. Water chemistry due to alteration by stormwater impacts can also cause adverse impacts.	These wetlands can tolerate only moderate alterations in hydrology. They have very good wildlife habitat value and a relatively diverse plant community. They will tolerate an additional 6 inches of inundation, but will be adversely impacted by sediment and/or nutrient loading and prolonged high water levels.	These wetlands are usually so degraded that input of urban stormwater may not have adverse impacts.
Maintain the existing **Storm Water Bounce** or degree of water level fluctuation.	Maintain the existing **Storm Water Bounce** or degree of water level fluctuation. Limit the maximum addition of water to 6 inches.	No limit for **Storm Water Bounce** or degree of water level fluctuation.
Maintain the existing **Discharge Rate.**	Maintain the existing **Discharge Rate.**	Maintain or decrease the existing **Discharge Rate**.
For 1 & 2 year storm events, maintain existing **Inundation periods**.	For 1 & 2 year storm events maintain existing **Inundation periods**. Limit maximum innundation to one additional day.	For 1 & 2 year storm events, maintain existing **Inundation periods**. Limit maximum innundation to an additional 7 days.
For 10 year storm events and greater, maintain existing **Inundation periods**.	For 10 year storm events and greater maintain existing **Inundation periods**. Limit maximum inundation to an additional 7 days.	For 10 year storm events and greater, maintain existing **Inundation periods**. Limit maximum innundation to an additional 21 days.
Do not change the **outlet control elevation**.	Do not change the **outlet control elevation**.	May raise **outlet control elevation** up to 4 feet above existing outlet elevation.
For landlocked wetlands, keep the **Run-out** control elevations above the delineated wetland edge.	For landlocked wetlands, keep the **Run-out** control elevations above the delineated wetland edge.	For landlocked wetlands, keep the **Run-out** control elevations above the delineated wetland edge.
Recommendation: If not already implemented, a preservation program should be initiated. Active protection from invasive plant species should begin. Purple Loosestrife, reed canary grass, and hybrid cattail should be eradicated from these wetlands.	Recommendation: These wetlands have good potential to restore native plant communities. It is well worth the effort to control invasive species (especially purple loosestrife) in these wetlands.	Recommendation: These wetlands could be altered to improve stormwater storage and to improve water quality and not severely impact the wetland quality.
Sedge Meadows, Open Bogs, Coniferous Bogs, Calcareous Fens, Low Praries, Coniferous Swamps, Lowland Hardwood Swamps, Seasonally Flooded Basins	Shrub-carrs, Alder Thickets, Fresh (Wet) Meadows, Shallow Marshes, Deep Marshes	Gravel Pits, Cultivated Hydric Soils, Dredged Material/Fill Material Disposal Sites

Note:

These management levels are based on the criteria set forth inthe "Storm-water and Wetlands: Planning and Evaluation Guidelines for Addressing Potential Impacts of Urban Storm-Water and Snow-melt Runoff on Wetlands" prepared by the State of Minnesota Storm-Water Advisory Group, published June 1997.

Appendix A

MINNESOTA ROUTINE ASSESSMENT METHOD (MnRAM) FOR EVALUATING WETLAND FUNCTIONS - Version 2.0

USER ADVISORIES:

Prerequisites

This primary purpose of this qualitative method is to provide an organized and consistent procedure to document observations and conclusions about wetland processes. It may be modified to fit special circumstances provided justification for the modifications is developed as part of the evaluation. This method requires training and experience in wetland science before it can be accurately applied. Professional judgement incorporated into the evaluation is intended to affect the outcome.

This method is intended for routine applications; for very complex or controversial sites a more elaborate method may be required. When possible (and especially for difficult or controversial sites) it is recommended that a diverse team of trained and experienced wetland professionals conduct the evaluation together. As with any method relying on professional judgement, the results will improve with training, practice and experience.

Several of the assessment items will be easier to complete with less field time if a preliminary office review of references such as the USGS topographic maps, stormwater management maps and plans, the county soil survey, NWI maps, aerial photography, and other off-site resources are checked to establish the history and setting of the wetland under evaluation. An evaluation for a small wetland (<10 acres) with normal circumstances in an area familiar to the evaluator(s) can be usually be completed in about 2 to 3 hours.

Size and Scale

If all other factors are the same, a wetland's total functional capacity is proportional to its size -- thus, size must be a consideration in the evaluation and any subsequent comparisons. Evaluations based on a unit size (e.g., per acre) may allow for a more direct comparison of wetlands of different sizes. However, there is importance in dispersion of wetlands as a wetland can only perform a function where it is located. Cumulatively then, smaller wetlands may provide functional benefits on a broader basis than larger wetlands. Thus, it is important to complete the evaluation with both landscape scale and site specific perspectives in mind.

Reference Standard Wetlands

A REFERENCE STANDARD WETLAND is a wetland judged to have the highest level of overall sustainable functional capacity for its type -- based on a classification system such as Circular 39, the Cowardin/National Wetland Inventory system or the Hydrogeomorphic system (HGM) -- within the Wetland Comparison Domain (see page 4 for definition). Reference Standard Wetlands will be the least disturbed/altered wetlands within the Wetland Comparison Domain. NOTE: In rare circumstances where the Wetland Comparison Domain is too small to include a high quality wetland, Reference Standard Wetlands may be identified in similar areas adjacent to the Wetland Comparison Domain. Functional evaluation of wetlands requires that Reference Standard Wetlands be designated prior to the evaluation to establish a common base of comparison. Ideally, Reference Standard Wetlands of each wetland type should be established in each Wetland Comparison Domain. However, for purposes of expediency, evaluations without Reference Standard Wetland sites may be conducted if the characteristics of Reference Standard Wetlands can be established and agreed to based on previous experience and familiarity with the wetlands in a particular Wetland Comparison Domain.

Functions vs. Values

A wetland function is a physical, chemical, or biological process or attribute of a wetland -- simply something a wetland does. For example, the process of retaining surface water is a commonly cited wetland function. A wetland value is the extent to which a wetland function is perceived as beneficial to an individual or society. Reduced flood damages to downstream properties is a value generally associated with the function of surface water retention.

While it's important to understand the distinction between functions and values, land use decisions involving wetlands typically involve consideration of both. Therefore, in the interest of practicality and to provide more useful information for making decisions about wetlands, this assessment method addresses a variety of wetland functions along with some of the related values. An attempt was made to separate the evaluations of functions and values, to provide the user a more clear understanding of how a proposed activity may affect a wetland's ability to perform a particular function, as compared to the function's relative importance (or value) resulting from its location on the landscape or socio-economic influences. This was not always possible, however. Some of the assessment parameters are difficult to assign as functions or values, and are thus combined in the same section. For instance, the assessment of water quality protection includes some purely functional aspects (geomorphological features of the wetland) and some value-related aspects (presence/absence of recreational waterbodies downstream). Other points to remember in conducting and applying the results of this assessment are:

- Wetland functions are closely linked to the long-term sustainability of the assessment wetland as a viable ecosystem.

- Generally, wetland functions can be measured more objectively than values, which are culturally derived. The wetland values included in this wetland assessment method are those that are more easily evaluated and generally thought to be positive.

- There are values associated with all of the assessed functions; some of them are just not explicitly evaluated by this method. In applying the results of this method, decision-makers must consider the relative value of each of the functions and the potential trade-offs involved. The results of this method are intended to provide objective information to aid the decision making process.

Wetland Ranking

A commonly asked question is: "If MnRAM does not use a numerical rank or rating system, who will decide which combination of functions is/are the most important? How can you compare wetlands?" The answer to the first question is the same as always -- people will decide. Functional assessment methods cannot make such decisions. By treating the various functions separately, MnRAM gives decision makers a more complete understanding of the tradeoffs associated with their land use decisions involving wetlands. The results are that MnRAM provides people with much better information for comparing wetlands than methods that somehow integrate all wetland functions into a single number. Such methods obfuscate, rather than illuminate the role that wetlands play in the landscape.

While a need for wetland functional analysis exists, it can lead to the perception of a wetland as a bundle of functions that can be teased apart and scattered around, rather than an integrated ecological system. There is also the risk that, having performed a functional assessment, we think we know all there is to know about a particular wetland, when in fact our understanding may be limited.

Value judgements about which wetland functions are to be given the greatest emphasis are left to the entity conducting or sponsoring the assessment and are best applied in the context of a comprehensive wetland protection and management plan so that decisions about wetlands are made on a landscape, watershed or community basis before an action or proposal necessitates a judgement about use priorities on a case-by-case basis. *Rankings or ratings cannot be used to compare wetlands in different Wetland Comparison Domains.* Before assigning numerical rankings or qualitative ratings, it is necessary to establish Reference Standard Wetland sites for each wetland type in the Wetland Comparison Domain.

Definitions

Major watershed = 81 major watershed units as defined by the U.S. Geological Survey and listed in MN Rule Chapter 8420.0110.

Local watershed = subwatershed area within major watershed.

Immediate Watershed = direct surface drainage area into the wetland.

References

"Wisconsin Department of Natural Resources Rapid Assessment Methodology for Evaluating Functional Values" (David R. Seibert, November 1992).

"A Hydrogeomorphic Classification for Wetlands" (US Army Corps of Engineers, Report WRP-DE-4, Mark Brinson, August 1993).

"A Conceptual Framework for Assessing the Functions of Wetlands" (US Army Corps of Engineers, Report WRP-DE-3, Daniel Smith, August 1993).

"Wetland Plants and Plant Communities of MN and WI", 2nd Ed.; (USACOE - St. Paul District; Eggers & Reed).

"City of Plymouth Wetland Inventory and Ordinance Project"; developed by Peterson Environmental Consulting, Inc.

"City of Bloomington Wetland Inventory Project" as developed by Shelly Peterson and Scott Thureen, City of Bloomington, MN.

"Hydrology of Wisconsin Wetlands. Information Circular 40, U.S. Geological Survey"; Novitski, R.P., 1982.

Developed by Minnesota Interagency Wetlands Group

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Department of Natural Resources: Erv Berglund, Bruce Gerbig, Doug Norris, Bill Penning
Department of Transportation: Sarma Straumanis, Nick Tiedeken, Brad Kovach
Pollution Control Agency: Mark Gernes, Judy Helgen, Larry Zdon
U.S. Army Corps of Engineers: Steve Eggers, Tim Fell, Paul Richert
USDA-Natural Resources Conservation Service: Mark Oja, Sid Cornelius
U.S. Fish and Wildlife Service: Nick Rowse, Loyd Mitchell, Jack Arnold
St. Louis County Highway Department: Tom Tri

For more information or to receive a copy contact John Jaschke at the Minnesota Board of Water and Soil Resources at (651)296-3767.

M:\MNRAM\MNRAM2.JJ September 11, 1998

Modified Routine Assessment Methodology for Evaluating Wetland Functions and Values

Wetland Number: _____ Name of Wetland: _____

Location: _____

Watershed: _____ Ownership: _____

Date: _____ Evaluator(s): _____

Cowardin Classification: _____

Circular 39 Classification: _____

Is field inspection significantly different to aerial photo? **Y or N**

Estimated Size in acres: _____

Connected waters and wetlands:

Summary of Function and Value Assessment:

Function	Value	Reason
Hydrology		
Vegetation Diversity		
Wildlife Habitat		
Fishery Habitat		
Flood/Stormwater Attenuation		
Water Quality Protection		
Shoreline Protection		
Aesthetics/Recreation/Education		

Hydrology	Vegetation Diversity	Wildlife Habitat	Fishery Habitat	Flood/Stormwater Attenuation	Water Quality Protection	Shoreline Protection	Aesthetics/Recreation/Education

Key:
0 = N/A
1 = Low
2 = Medium
3 = High
4 = Exceptional

Function/Value Classification Code: _____

Hydrology and Surrounding Land Use

1. Hydrogeomorphology: (riverine, lacustrine, palustrine, floodplain, constructed)
2. Hydrology source: (groundwater, storm sewer, flow through wetland, unknown)
3. Has hydrology been substantially altered: **Y or N** If yes please explain:

4. Does wetland have discernable inlets and outlets? **Y or N** If yes please describe:

5. Standing water: **Y or N** If yes, maximum depth: _____
6. Percent inundated: _____%
7. Wetland's watershed in acres: _____ Describe the surrounding land uses:

Vegetation

1. Record the percent of the site occupied by vegetation communities for each stratum and record the dominant species present.

% open water
% floating leafed community dominated by:
% emergent community dominated by:
% herbaceous community dominated by:
% shrub community dominated by:
% tree community dominated by:

2. Invasive and Exotic species:

	percent of area
	percent of area
	percent of area

3. Plant community types and quality:

Plant community #1:	Quality level:
Plant community #2:	Quality level:
Plant community #3:	Quality level:

4. Is the wetland plant community scarce or rare within the local matrix? **Y or N**

Wildlife Habitat

1.

Y	**N**	Is the wetland used by locally rare species or listed species of U.S. or Minnesota?
Y	**N**	Is the area surrounding the wetland undeveloped and uncultivated?
Y	**N**	Does wildlife have uninhibited access to the wetland?
Y	**N**	Is wetland part of a corridor or corridor system?
Y	**N**	Compared to the matrix, is this wetland type rare or declining significantly?
Y	**N**	Is the wetland a provider for seasonal or intermittent habitat?

2. Observed wildlife at visit:

Fish Habitat

1. **Y or N** Is the wetland contiguous with a permanent waterbody or watercourse such that it provides spawning/nursery habitat for gamefish?

Flood and Stormwater Storage/Attenuation

1. **H M L** Functional level of the outlet in providing flood and stormwater storage/attenuation. (H – No outlet. M – Constricted or managed outlet. L – Excavated or enlarged outlet.)
2. **H M L** Functional level of retarding rate of flow through the wetland. (H – No channels present. M – Channels present, but not connected. L – Channels connecting inlet to outlet.)
3. **H M L** What is the flood/stormwater management level of the wetland. (H – Receives directed stormwater and water level managed to maximize flood/stormwater retention.
   M – Receives directed stormwater and water level unmanaged for flood/stormwater retention.
   L – Receives no directed stormwater and water level unmanaged for flood/stormwater retention.)
4. Describe the location of the wetland within the watershed. Upper Mid Lower

Water Quality Protection

1.

Y	**N**	Does the wetland receive direct discharge of managed water?
Y	**N**	Does the surrounding area potentially deliver significant nutrient and/or sediment loads to the wetland?
Y	**N**	Does the wetland configuration allow adequate residence time so that sediments are able to settle?
Y	**N**	**N/A** For non-isolated wetlands, does the wetland have significant vegetative density to decrease water energy and allow settling of suspended material?
Y	**N**	Does the wetland have significant vegetative material to potentially increase uptake of dissolved nutrients?
Y	**N**	Are there signs of excess nutrient loading to the wetland? Algae bloom, reed canary grass, hybrid cattails

2. **Y or N** Does the wetland have a upland vegetative buffer area on upland adjacent to its boundary which slows and filters overland flow? If yes, note buffer characteristics within 100 ft. of wetlands edge.

3. Note average percent slope within 200 ft. of wetlands edge:_____
4. **Y or N** Are there problems with eroding shorelines, or at structures within wetland? If yes, please explain:

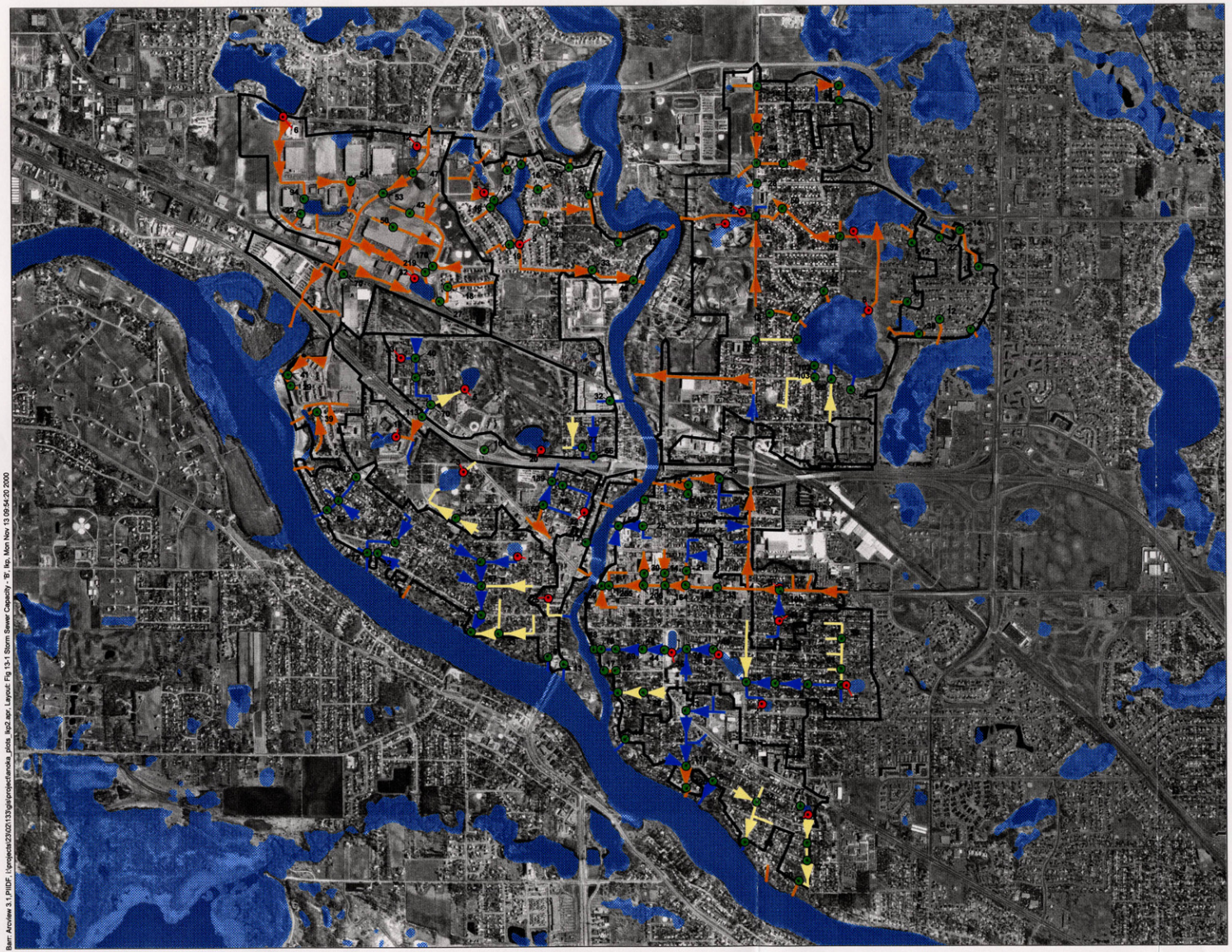
Shoreline Protection

Y	**N**	Is the wetland a fringe area of a lake or watercourse? If no, skip to next section.
Y	**N**	If yes, is the shoreline exposed to frequent wave action?
Y	**N**	Is the shoreline wetland vegetated with submerged of emergent vegetation or perennial wetland species in the wash zone?
Y	**N**	Is the stream/lake bank prone to erosion?

Aesthetics/Recreation/Education and Science

1. Note recreational, educational, and aesthetic values at this wetland and note possibilities:

Appendix B



N

0 2000 4000 Feet

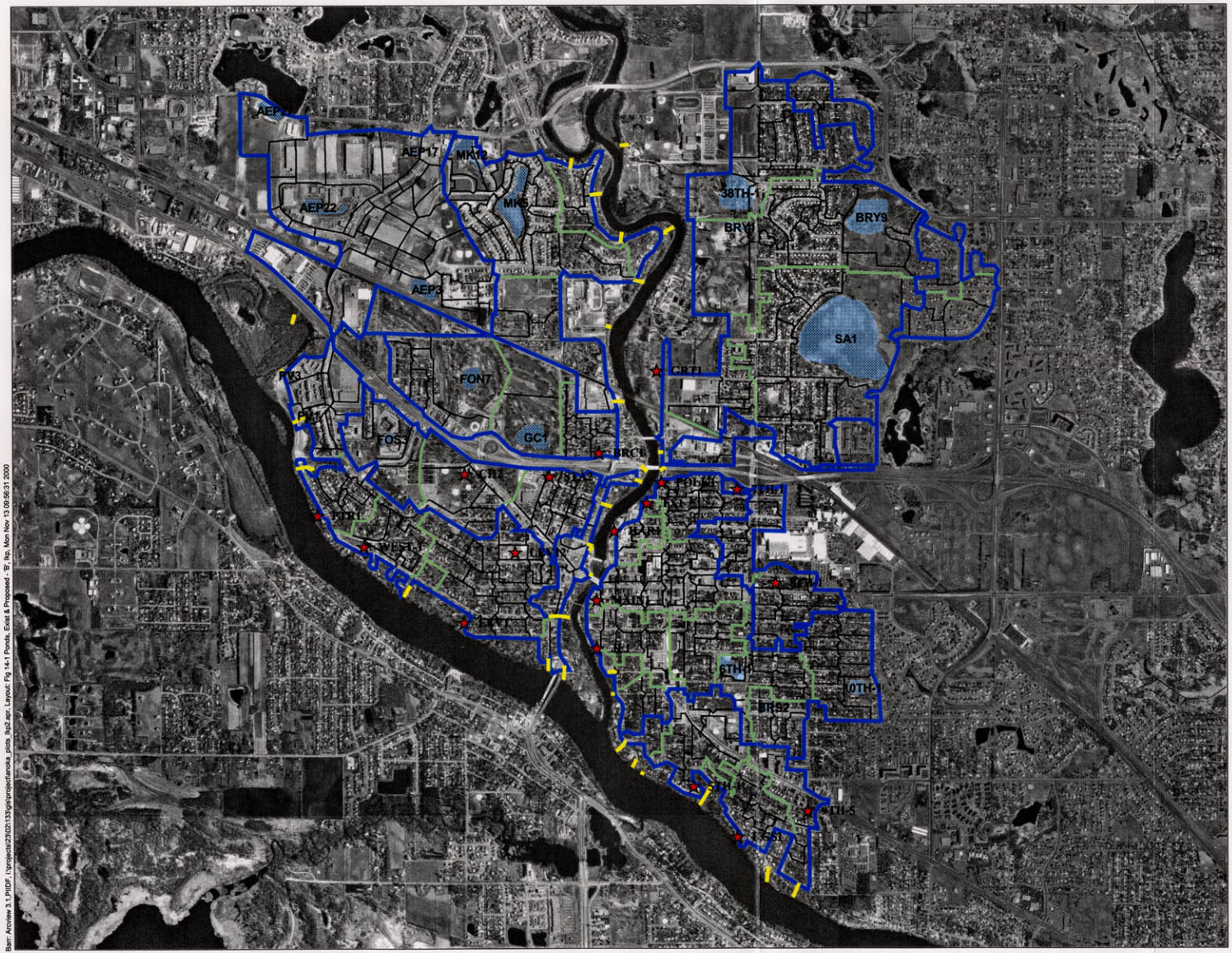
LEGEND

Discharge Values
- 10 Year
- 100 Year

Storm Sewers
- Replacement of Existing Systems to Meet Design Criteria
- Future/Proposed Systems
- Existing Systems that Meet Design Criteria
- Major Watershed Divide
- Water in Anoka

Figure A

PROPOSED STORM SEWER UPGRADE RECOMMENDATIONS
City of Anoka
Minnesota



Barr: Arcview 3.1 PIDF, I:\projects\23\0213\3\gis\projects\anoka_pots_lpc2.apr, Layout: Fig 14-1 Ponds, Exist & Proposed - 'B', llo, Mon Nov 13 09:59:31 2000

Figure B

WATER QUANTITY AND QUALITY
BASIN RECOMMENDATIONS
City of Anoka
Minnesota

CHAPTER 38; ENVIRONMENTAL

ARTICLE V. Surface Water Management

Section 38-173. Purpose and Findings.

These regulations are adopted for the following purposes:

(a) To promote the public health, safety and general welfare of the citizens of Anoka without preventing the reasonable development of land;

(b) To encourage site development on public and private land including clearing, excavation, and filling in such a manner as to minimize hazards to life, health and property;

(c) To preserve and enhance the City's physical and aesthetic character by preventing untimely and indiscriminate removal or destruction of trees and ground cover;

(d) To minimize surface water runoff and diversion which may contribute to flooding;

(e) To reduce siltation in the City's rivers, ponds, storm sewer systems, and public roadside improvements;

(f) To promote building and site planning practices that are consistent with the City's natural topography, soils, and vegetative features while at the same time recognizing that certain factors such as disease, danger of fallings, proximity to existing and proposed structures and improvements, interference with utility services, protection of scenic views, and the realization of a reasonable enjoyment of property may require the removal of certain ground trees and ground cover;

(g) To ensure prompt development, restoration and replanting and effective erosion control of property after clearing and grading; and

(h) To implement the goals and policies of the City's Surface Water Management Plan and the City's National Pollution Discharge Elimination System (NPDES) permit.

Section 38-174. Statutory Authority.

This Chapter is adopted pursuant to Minnesota Statutes 462.351, as amended.

Section 38-175. Definitions.

The following definitions of words, terms, and phrases apply in this Chapter of the Code. References hereinafter to "Section" are, unless otherwise specified, references to sections of this Chapter.

Applicant means any person who wishes to conduct land disturbing activities.

Clearing means any activity, which removes the vegetative cover and/or trees, including, but not limited to, root mat material and/or topsoil removal.

Earth Material means any rock and/or natural soil exclusive of any decomposable material.

Earthwork means excavation, filling, compaction and grading.

Erosion means the wearing away of the ground surface as a result of movement of wind, water, and/or ice.

Excavation means the removal by any means whatsoever of soil, rocks, minerals, mineral substances, or organic substances, other than vegetation, from water or land, on or beneath the surface thereof, or beneath the land surface, whether exposed or submerged.

Fill or backfill means a depositing or stockpiling of earth material.

Finish or final grade means the final elevation of the ground level after development.

Grade means the vertical location of the ground surface to a predetermined elevation datum (feet above sea level).

Grading means any stripping, cutting, filling, or stockpiling of earth or land, including the land in its cut or filled condition, to create new grades.

Ground cover means trees less than six inches in diameter, measured four and ½ feet above the ground (DBH – diameter at breast height) and other grasses or other plants and landscaping grown to keep soil from being blown or washed away.

Land disturbing activity means any land change, including but not limited to, clearing, grading, excavating, transporting and filling of land, which may result in soil erosion from water or wind and the movement of sediments into waters or onto adjacent properties.

Person means any individual, partnership, firm, association, joint venture, public or private corporation, trust, estate, commission, board, public or private institution, utility, cooperative or any other legal entity.

Rough grade means the stage of construction at which the grade approximately conforms to the approved plan.

Sediment means deposited silt that is being or has been moved by water or ice, wind, gravity, or other means of erosion.

Significant Tree means any existing, healthy, living tree eight (8) inches DBH (diameter at breast height) or greater in size.

Site means a specific location on which land disturbing activities are being conducted.

Subdivision means the division of a lot, tract, or parcel of land into two or more lots, tracts, parcels, or other divisions of land.

Structure means anything manufactured, constructed or erected which is normally attached to or positioned on land, including portable structures, earthen structures, roads, parking lots, and paved storage areas.

Surface water or storm water means that portion of precipitation (rain falling or snow melting) that flows across a surface to the storm water system or receiving waters.

Tree means any self supporting woody plant characterized by one main stem or trunk of at least six inches in diameter or a multi-stemmed trunk system with a definite crown, maturing at a height of at least six feet above ground level.

Wetlands means lands that are transitional between terrestrial and aquatic systems where the water table is usually at or near the surface of the land or is covered by shallow water. For purposes of this Ordinance, wetlands must have the following three attributes:

(a) Have a predominance of hydric soils;

(b) Are inundated or saturated by surface or groundwater at a frequency and duration sufficient to support a prevalence of hydrophytic vegetation typically adapted for life in saturated soil conditions; and

(c) Under normal circumstances, support a prevalence of such vegetation.

Section 38-176. Applicability.

This Chapter applies to all land, public or private, located within the City of Anoka.

Section 38-177. Land Disturbance Permit (LDP) and Land Disturbance and Erosion Control Plan (LDECP).

(a) *Land Disturbance Permit.*

(1) *Permit required.* A Land Disturbance Permit (LDP) shall be required before any land disturbing activity occurs in connection with any of the following:

a. Projects with land disturbance of 10,000 square feet or more in size;

b. Any land disturbing activity that changes the existing or natural contour of the land which affects drainage or natural resources, such as slopes, trees or water bodies; and

c. Any alteration of land that changes the elevation by more than five (5) feet from the existing contour of the ground on any contiguous one thousand (1,000) or more square feet of ground.

(2) *Exemptions.*

a. The following shall be exempt from the provisions of this Chapter:

b. Minimal land disturbing activities such as house gardens and individual home landscaping, repairs, maintenance work and other related activities;

c. Excavation or grading for agricultural purposes located no closer than three hundred feet (300') from any edge or delineated boundary of any water body;

d. Below finished grade elevations for basements and footings of a building, retaining wall, or other structure authorized by a valid building permit;

e. Excavations for wells, tunnels or utilities;

f. Exploratory excavations under the direction of soil engineers or engineering geologists;

g. Individual service connections;

h. Installation of posts or poles;

i. Emergency work and emergency repairs;

j. Land disturbing activities that require approval from the Watershed Management Organization shall not be required to submit a Land Disturbance and Erosion Control Plan or apply for a Land Disturbance Permit.

(3) *Approval Standards.*

a. *Surface Water Management Plan.* All construction, land disturbing activity and development shall comply with the City's Surface Water Management Plan. All persons performing any grading operations shall put into effect all safety precautions which are necessary in the opinion of the Public Works Director and provide adequate erosion control as per the NPDES Program, including anti-erosion and/or drainage devices, debris basins, or other safety devices to protect the life, limb, health, and welfare and private and public property of others from damage of any kind.

b. *Compliance with Minnesota Wetland Conservation Act.* No approval to allow wetland-disturbing activities shall be issued until approval of a wetland replacement plan or a certificate of exemption has been obtained in compliance with the provisions of this Chapter and the Minnesota Wetland Conservation Act of 1999. The Minnesota Wetland Conservation Act of 1991, as amended from time to time, is hereby incorporated into this Chapter by reference.

c. *Erosion Control Standards.* Every applicant for a LDP must adhere to erosion control measure standards and specifications contained in the MPCA publication "Protecting Water Quality in Urban Areas" or as approved by the City of Anoka.

d. *Tree Preservation.* Removal or loss of significant trees shall be in accordance with a City approved Land Disturbance and Erosion Control Plan and the arboricultural specifications and standards in the City's Master Street Tree Plan.

e. *City Plans and Ordinances.* Every applicant for a LDP shall comply with all applicable adopted City plans and ordinances.

(4) *Permit Application.* The application for a LDP permit shall be made in writing to the City on such form as the City may, from time to time, designate. The application shall include three (3) copies of the submittal materials.

(5) *Fees.* The processing and approval fee shall be established from time to time by the City Council. In addition, the applicant will be responsible for all reasonable costs incurred by the City in review of the proposed plan. Fees may vary based on the complexity of the plan review process.

(6) *Submittal.* Any application for a Land Disturbance Permit (LDP) shall be submitted to the City with required fees. All applications shall also include the following information:

a. A *Land Disturbance and Erosion Control Plan* (LDECP) which indicates compliance with this Chapter, including:

1. *Erosion and Sedimentation Controls.*

   i. Identification and use of the "best management practices" for temporary erosion and sedimentation control as recommended by the MPCA in its publication "Protecting Water Quality in Urban Areas," (2000), or as amended, including but not limited to: Perimeter erosion control devices, including but not limited to silt fencing; phased grading; temporary seeding; rock construction entrance; storm drain inlet protection devices; removal of all debris, dirt and soil from impervious ground surfaces including abutting public or private roadways and sidewalks in connection with the subject property; sediment basins and flow diversions; and any other erosion control and sedimentation device deemed necessary by the City.

   ii. Identification of all permanent erosion control measures and a completion schedule.

2. *Tree Preservation.*

   i. An accurate inventory of significant trees on the subject property, including identification of the size, species, condition, and location of each significant tree.

   ii. Identification of all significant trees on the subject property proposed to be removed or that will be lost as a result of the land disturbing activity.

   iii. Identification of measures to be utilized to protect and preserve the significant trees proposed to be preserved.

3. *Drainage and Grading.*

   i. Identification of all measures to protect water bodies and wetland areas.

   ii. If applicable, the plans must be consistent with any approved subdivision grading plan.

   iii. Methods of controlling dust.

   iv. Plans for controlling site runoff.

   v. The plan shall not adversely impact neighboring properties.

vi. The plan shall minimize any irreparable adverse impacts to natural resources upon the subject property.

vii. The plan shall provide for and include any of the following temporary safety requirements if the City determines that all, or a combination thereof, of the following requirements are necessary for the protection of public safety, health and welfare:

aa. Any slope of 3:1 or greater that is adjacent to a project property line and which is deemed dangerous by the City must be properly fenced;

bb. Banks, fill, or any depression or mound must be sloped or leveled off or otherwise placed in such condition at any time as not to be dangerous because of sliding or caving banks, and so as to minimize or stop erosion or dust during or after the grading operation; and

cc. Any graded or ungraded area must be properly drained, filled, or leveled off so as to make the same safe and healthful, unless otherwise approved by the City.

b. General Information, including a site plan that includes the following:

1. The names, addresses, telephone numbers, and fax numbers of the applicant, owner, developer, engineer and contact person.

2. The section, township and range, north point, date and scale of drawing, and number of sheets.

3. Plat names and block, lot, and outlot boundaries for adjacent platted properties and full property identification numbers for adjacent unplatted properties.

4. Delineation of the subject property and the location of existing and proposed buildings, structures and impervious surfaces on the subject property.

5. Location and indication of demolition, relocation or abandonment of existing structures, driveways, septic systems and wells.

6. Existing underground and overhead utilities, easements and rights-of-way.

7. Topographical data, including existing (dashed) and proposed (solid) contours at vertical intervals of not more

than two (2) feet, except that contour lines shall be no more than one hundred (100) feet apart.

8. The location and size of all existing sanitary sewer, water or storm sewer, and services on or adjacent to the property.

9. Identification of all water bodies located on or within thirty (30) feet of the subject property's boundaries, including the Normal Water Level (NWL), the High Water Level (HWL), and the Ordinary High Water (OHW) elevations.

10. The location and direction of natural drainage patterns on and immediately adjacent to the site.

11. A description of the soils at the site.

12. If applicable, the location of the ten (10) year and one hundred (100) year flood plains, flood fringes, and flood ways.

13. Delineation of all areas to be graded or excavated, and the limits of land disturbing activity.

14. Identification of the location of dirt or soil storage or stockpile area to be utilized on the subject property.

15. The estimated time required to complete the proposed work and the amount of material to be moved on the site and the amount to be removed from the site.

16. A landscape plan, drawn to appropriate scale, including dimensions and distances, and the location, type, size, and description of all proposed landscape materials that will be added as part of the development.

17. Location and dimensions of permanent erosion control measures.

18. Location of any proposed septic system.

19. Any other information pertinent to the particular project which in the opinion of the applicant or the City is necessary for the review of the project.

(7) *Plan and Permit Review Procedure.*

a. *Process.* Review of the submitted plan and permit will be coordinated with other necessary approvals.

b. *Plan and Permit Approval.* Projects that are regulated by this Chapter shall be approved administratively by City staff, unless City staff presents it to the City Council for its review and approval. Upon finding that the requirements of this Chapter have been met and after approval of the Land Disturbance and Erosion Control

Plan, the City will issue a permit in accordance with the provisions of this Chapter.

c. *Conditions of Approval.* In granting any land disturbance permit, the Public Works Director may attach such conditions as may be reasonably necessary to prevent creation of a nuisance or hazard to public or private property. Such conditions may include, but are not limited to:

1. Requirements for fencing of excavations.

2. Improvements of any existing site condition for compliance with the standards of this chapter.

3. Requirements to slope banks and keep the excavation in such condition as not to be dangerous from caving or sliding banks.

4. Requirements to properly drain, fill or level the excavation, after it has been created, to make the excavation safe.

5. Requirements to remove excavated/graded material from the excavation away from the premises upon and along such highways, streets, or other public way as directed by the City.

6. Requirements to retain and store top soil from the subject site and to utilize such material in restoration of the site.

7. Requirements to limit the hours of operation.

(8) *Security.* The City shall require either the applicant or the owner for which the land disturbance permit is issued to post a security in such form and sum as determined by the Public Works Director. The amount of the security shall be sufficient to cover the City's extraordinary cost and expense of repairing, from time to time, any highways, streets, or other public ways where such repair work is made necessary by the special burden resulting from hauling and travel in transporting fill or excavated material. The amount of the security shall also be sufficient to ensure compliance with all requirements of this Chapter, and the particular permit, and to pay the expense the City may incur as a result of the permit.

(9) *Expiration of Permit and Plan.* Any Land Disturbance Permit issued pursuant to the requirements of this Chapter shall expire two (2) years from the date of approval if significant progress of the work covered by the Permit is not accomplished, unless an extension of the permit is requested by the applicant and approved by the City Council.

(10) *Revocation of Permit.* Failure to comply with the approved terms and conditions of a Land Disturbance and Erosion Control Plan shall be grounds for revocation of the Land Disturbance Permit, or other permit or approval issued in lieu thereof, by the City Council following a public hearing. Written notice of the public hearing shall be mailed at least ten (10) days prior to said hearing to the current holder of the Permit. Such notice shall outline the violation(s) considered by the City to be grounds for revocation

and inform the current holder of the permit of the opportunity to be heard at such public hearing.

(11) *Other permit or approval in lieu of Land Disturbance Permit.* When a building permit is issued in connection with a project, or a new development project is approved by the City as required by the City Code, the building permit or other new development approval may be in lieu of the land disturbance permit required hereunder, provided the applicant shall comply with all other regulations herein, including but not limited to compliance with a Land Disturbance and Erosion Control Plan.

(12) *Appeal of Decisions.* Except the decision to revoke a land disturbance permit under Section 42.05, subsection 10, the applicant may appeal any requirement, decision or determination by the City in connection with any provision of this Section pursuant to the procedures as set forth in the City Code under zoning regulations as related to the Board of Appeals and Adjustments.

(13) *Compliance with Plan.* The applicant shall implement and comply with a City-approved Land Disturbance and Erosion Control Plan (LDECP) prior to and during any construction or land disturbing activity under the Land Disturbance Permit (LDP). All erosion and sedimentation control and tree preservation measures required under the Plan shall be properly installed and remain in place until all grading and construction activity is completed or until a written request for removal of the protection measures is made to and approved by the City. No construction or land disturbing activity to which this Chapter applies or removal of any significant trees may occur until the LDECP is approved by the City and except in accordance with the approved LDECP. Failure to comply with the approved terms and conditions of the LDECP shall constitute a violation of this Chapter.

a. *Determination of Compliance.* The City shall have the right to enter and inspect the subject property in order to determine compliance with the approved LDECP. The City shall have the right to order the suspension of any grading or construction activity on the subject property until compliance with the LDECP has occurred.

b. *Finding of Noncompliance.* Upon a finding of noncompliance, the City shall use the following procedure with respect to notification and corrective measures:

1. The City shall personally serve upon the project manager, or other responsible person, and by certified U. S mail upon the property owner, if different than the project manager, a written notification of the violation of the approved LDECP.

2. If remedial work is not completed and compliance with the LDECP has not occurred within forty-eight (48) hours of service of the violation notification, the City may complete remedial or corrective work and any costs incurred in connection with taking remedial action or installing corrective measures may be recovered from the applicant. The City may recover costs by certifying them for

collection with real estate property taxes. In the alternative, the City may revoke a construction-related permit and order the termination of all construction activity on the subject property until the subject site is in compliance with the LDECP.

(14) *Emergency Corrective Actions.* In the event circumstances exist that noncompliance poses an immediate danger to the public health, safety and welfare, as determined by the City, the City may take emergency corrective action to prevent such danger. The City shall take reasonable action to contact and direct the owner of the subject property to take any necessary action. Any costs incurred by the City in connection with any emergency action may be recovered from the applicant. The City may elect to recover costs by certifying them for collection with real estate property taxes.

Section 38-178. Conflict with Other Laws.

If the requirements of this Chapter are in conflict with any other federal, state or local law, the stricter requirements shall be enforced.

Section 38-179. Heritage Preservation.

No land disturbing activities shall be performed on any significant historic site in any manner that affects the historic value of the site prior to preparation of an inventory and analysis of the site being prepared by a professional historian or archeologist. The inventory and analysis shall be deposited with the Minnesota Historical Society or other suitable repository approved by the City Council.

Section 38-180. Enforcement.

It shall be the duty of the Public Works Director, or his designee, to enforce the provisions of this Chapter. Land Disturbance Permits may be issued by the City Building Official following approval of the Land Disturbance and Erosion Control Plan by the Public Works Director. Issuance of a Land Disturbance Permit does not represent approval of a final plat, site plan, or other required permit or approval of the City, and all land disturbance permits are subject to amendment based on future approvals or permits.

Section 38-181. Violations and Penalties.

(a) Any person who violates any of the provisions of this Chapter shall be guilty of a misdemeanor. Each day of violation shall constitute a separate offense.

(b) In the event of a violation of this Chapter, the City may institute appropriate proceedings, including bringing criminal charges, or seeking civil or injunctive relief, to prevent, restrain, correct, or abate such violations. The City, in any court of competent jurisdiction, may recover all costs incurred for corrective action. Any violator of this Ordinance shall be responsible for the City's cost of prosecution, including attorney's fees.

Section 38-182. Severability.

If any section, subsection, sentence, clause, phrase or portion of this Chapter is, for any reason, held to be invalid or unconstitutional by any court or administrative agency of competent jurisdiction, such portion shall be deemed a separate, distinct, and independent provision and such holding shall not affect the validity of the remaining portions thereof.

CHAPTER 38; ENVIRONMENTAL

ARTICLE III. Individual Septic Treatment Systems (ISTS)*

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*State law references--Individual sewage treatment systems, Minn. Stats. § 115.55 et seq.; local ordinances regulating individual sewage treatment systems, Minn. Stats. § 115.55, subd. 2.

Section 38-91. Purpose.

The purpose of this article is to:

(a) Provide minimum standards for regulation of individual septic treatment systems (ISTS) and septage disposal including the proper location, design, construction, operation, maintenance and repair;

(b) Protect surface water and ground water from contamination by human sewage and waterborne household and commercial waste;

(c) Protect the public's health and safety; and

(d) Eliminate or prevent the development of public nuisances pursuant to the authority granted under Minn. Stats. chs. 115 and 145A and Minnesota Rules Chapter 7080 that may pertain to sewage and wastewater treatment.

Section 38-92. Administration.

This article shall be administered by the public works department.

Section 38-93. Standards adopted by reference.

The City hereby adopts, by reference, Minnesota Rules Parts 7080.0010 to 7080.0315, and 7080.0910, as now constituted and as amended from time to time.

Section 38-94. Permits.

No person shall install, alter, repair, or extend any individual septic treatment system in the city without first applying for and obtaining a permit from the building official and paying the fee as established by the city council. Such permit shall be valid for a period of 12 months.

State law reference--Time limits to approve or deny written requests relating to septic system, MS. § 15.99.

Section 38-95. License requirements.

No person shall engage in the evaluation, inspection, design, installation, alteration, extension, repair, maintenance, or pumping of on-site individual septic treatment systems without first obtaining a license to perform such tasks from the state pollution control agency, except as provided under Minnesota Rules 7080.0700, subpart I.
State law reference--Licensing of septic tank contractors, Minn. Stats. § 115.56.

Section 38-96. Failing septic systems.

A notice of non-compliance shall be issued by a certified inspector, and copies provided to the property owner and the city within 30 days, under the following conditions:

(a) *A failing system.* A failing individual septic treatment system shall be upgraded, replaced, or its use discontinued within six months. The building official may give consideration to weather conditions in establishing compliance dates.

(b) *Imminent threat.* An individual septic treatment system posing an imminent threat to public health or safety shall be upgraded, replaced, or repaired, or its use discontinued within an appropriate time but no greater than three months.

State law reference--Notice of noncompliance, Minn. Stats. § 115.55, subd. 5b.

Section 38-97. Bi-annual inspection required.

Every individual privy, vault, septic tank, and cesspool in the city shall be cleaned by a licensed cleaner to dispose of any contents at least once every two years or the privy, vault, septic tank, or cesspool shall be inspected by a licensed cleaner to verify that cleaning of the system is not necessary. A copy of the receipt for cleaning or a copy of the inspection report shall be sent to the city for recording.

State law reference--Inspections, Minn. Stats. § 115.55, subd. 5.

Section 38-98. Additional soil treatment area requirements.

On all lots created after January 1, 1999, the system design shall include at least one designated additional soil treatment area, which can support a standard soil treatment system.

Section 38-99. Enforcement.

Any person who violates any of the provisions of this article or who makes any false statement on a certificate of compliance, shall be guilty of a misdemeanor.

Section 38-100 through 38-129. Reserved.

City of Anoka, Minnesota

Permit Application and SWPPP

for Coverage Under the

GENERAL PERMIT
AUTHORIZATION TO DISCHARGE STORM WATER
ASSOCIATED WITH MUNICIPAL SEPARATE STORM SEWER SYSTEMS
UNDER THE NATIONAL POLLUTANT DISCHARGE ELIMINATION
SYSTEM/STATE DISPOSAL SYSTEM PERMIT PROGRAM

Permit No. MN R 040000

June 1, 2006

June 1, 2006

RE: Anoka, Minnesota,
Permit Application and SWPPP
NPDES/SDS Storm Water Phase II
Permit No. MN R 040000

Storm Water Management Unit
Storm Water Section
Municipal Division
Minnesota Pollution Control Agency
520 Lafayette Road North
St. Paul, MN 55155-4194

To whom it may concern:

In accordance with the National Pollutant Discharge Elimination System (NPDES)/State Disposal System (SDS) Storm Water Phase II Permit Program administered by the Minnesota Pollution Control Agency (MPCA), the City of Anoka is hereby submitting the enclosed Permit Application and summary of our Storm Water Pollution Prevention Program (SWPPP) for coverage under General Permit No. MN R 040000.

If you have any questions regarding our NOI or SWPPP, please contact me at 952.895.4544.

Sincerely,

CITY OF ANOKA

Craig Gray, PE
Director of Public Works/City Engineer

Enclosure

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City of Anoka, Minnesota

I. PERMIT APPLICATION

General Stormwater Permit (MN R 040000) Application for Small Municipal Separate Storm Sewer Systems (MS4s)

Minnesota Pollution Control Agency

RETURN THIS APPLICATION TO:

Minnesota Pollution Control Agency
520 Lafayette Road North
St. Paul, MN 55155-4194

NO FEE

Application deadline: **June 1, 2006**

PLEASE READ: **As you complete this form, read the instructions carefully. Use your keyboard's "Tab" key to move through the fields of this form. Select check-boxes and enter text as indicated. Save, and print.**

I. MS4 Information

A. Application Type

☐ **New applicant (this MS4 has no previous application for MS4 coverage on file at MPCA)**

☒ **Application for re-issuance of coverage (this MS4 applied in 2003)**

B. MS4 Owner General Contact (the community, municipality, agency or other party having ownership or operation control of the MS4)

City of Anoka, Minnesota			
Community, municipality, agency or other party having ownership or operational control of the MS4			
2015 First Avenue			
Mailing Address			
Anoka		MN	55303
City		*State*	*Zip Code*
Anoka			
County			
41-6004936	8020214		
Federal Tax ID	*State Tax ID*		

C. General Contact (official, staff member, consultant or other) for all general correspondence about Permit compliance issues between the MPCA and your MS4

Zastrow	Russ	Sr. Tech.	
Last Name	*First Name*	*Title*	
2015 First Avenue			
Mailing Address			
Anoka		MN	55303
City		*State*	*Zip Code*
763.576.2782		rzastrow@ci.anoka.mn.us	
Telephone (include area code)		*E-mail Address*	

II. Certification of the Storm Water Pollution Prevention Program (SWPPP)

A. Have you developed a Storm Water Pollution Prevention Program for your MS4? ☒Yes

Municipalities must demonstrate how their Storm Water Pollution Prevention Program will be implemented and enforced over the term of the five-year Permit. SWPPPs must incorporate appropriate educational components, all required BMPs and the measurable goals associated with each. Storm Water Pollution Prevention Programs must address the specific requirements contained in Part V. G. of the Permit. SWPPPs must outline how the six minimum control measures will be addressed, the contact person, department in charge, timeline and measures that will be implemented to meet the schedules required by the Permit. Attach a BMP Summary Sheet to this application for *each* BMP in your SWPPP.

B. Does your SWPPP address all of the six Minimum Control Measures as outlined in the Permit? ☒Yes

The General Permit requires that you incorporate all six of the defined Minimum Control Measures in your Stormwater Pollution Prevention Program. You are required to implement mandatory BMPs which are directly associated to each of the Six Minimum Control Measures.

C. Have you attached the included BMP Summary Sheets, one for each of the Best Management Practices required by the Permit? ☒Yes

There are 34 required BMPs all of which require that the provided BMP Summary Sheet be filled out completely and included with your Storm Water Pollution Prevention Program. If any of these required sheets are missing, your application will not be considered complete and will be returned to you.

III. Reporting and Recordkeeping

I have read and understand Part VI *Evaluating, Recordkeeping, and Reporting* of the MS4 General Permit and certify that we intend to comply with the applicable requirements of those sections as well as the Permit as a whole. ☒Yes

B. Where will your SWPPP be available to the public for review?

Anoka City Hall, Public Works / Engineering	www.ci.anoka.mn.us
Name of Location	*If your SWPPP is available electronically, indicate location*
2015 First Avenue	
Street Address	

Anoka	MN	55303
City	*State*	*ZIP Code*
Kim Hoff	763.576.2780	
Contact Name	*Contact Phone Number*	
9:00 am – 4:30 pm, M-F		
Hours of Availability		

IV. Limitations of Coverage

A. Part II Limitations on Coverage and Appendix C

I have read and understand Part II *Coverage Under This Permit* and Appendix C *Limitations on Coverage* of the MS4 General Permit and certify that we intend to comply with the applicable requirements of those sections as well as the Permit as a whole. ☒Yes

B. Outstanding Resource Value Waters (ORVWs)

Please refer to the *Guidance Manual for Small Municipal Separate Storm Sewer Systems (MS4s)* to complete this section. An interactive map is available on the MPCA Web site that identifies Special Waters: http://pca-gis04.pca.state.mn.us

1. Prohibited Waters

Does the MS4 discharge into **Prohibited Waters** as defined in Minn. R. 7050.0180, subp. 3, 4, and 5? See Attachment Four of the *Guidance Manual for Small Municipal Separate Storm Sewer Systems (MS4s)* for further information. ☐Yes ☒No

2. Restricted Discharge

Does the MS4 discharge into waters with a **Restricted Discharge** as defined in Minn. R. 7050.0180, subp. 6, 6a, and 6b? If yes, please list below and comply with Part IX, Appendix C, Item B. See Attachment Four of the *Guidance Manual for Small Municipal Separate Storm Sewer Systems (MS4s)* for further information. ☒Yes ☐No

3. Prohibited or Restricted Waters

If you answered "yes" to either Question 1 or 2, have you included a map that outlines, at a minimum, the DNR minor sub-watersheds in your jurisdiction with ANY discharges to Prohibited or Restricted Waters? You are required by the Permit to provide this map along with your application. **[IX.B.2.b]** ☒Yes ☐No

Identify all discharges to Outstanding Resource Value Waters (ORVWs) from your MS4:

Name of Water Body	Type (lake, stream, river)
Rum	River

4. If you answered "yes" to either Question 1 or 2, who is the person responsible for ensuring compliance with this Permit condition?

Name: Craig Gray *Position:* Public Works Director *Phone:* 763.576.2781

C. Special Waters

1. Trout Waters

Does the MS4 discharge into **Trout Waters** as defined in Minn. R. 6264.0050 subp. 2 & 4? If yes, please list below and comply with Part IX, Appendix C, Item C. See Attachments Two and Three of the *Guidance Manual for Small Municipal Separate Storm Sewer Systems (MS4s)* for further information. ☐**Yes** ☒**No**

2. Wetlands

Does the MS4 discharge into **Wetlands** as defined in Minn. R. 7050.0130, subp. F? ☒**Yes** ☐**No**

3. Environmental Review

Does the MS4 have a process to assure coordination with appropriate Agencies and to evaluate discharges that require applicable **Environmental Review** as required by State or federal laws? See Part IX of the *Guidance Manual for Small Municipal Separate Storm Sewer Systems (MS4s)* for further information. ☒**Yes** ☐**No**

Who is the person responsible for ensuring compliance with this Permit condition?

Name: Carolyn Braun, AICP *Position:* Planning Director *Phone:* 763.576.2722

4. Endangered or Threatened Species

Does the MS4 have a process to assure coordination with appropriate Agencies and to evaluate discharges whose direct, indirect, interrelated, interconnected, or independent impacts may jeopardize a listed **Endangered or Threatened Species** or adversely modify a designated critical habitat? See Part IX of the *Guidance Manual for Small Municipal Separate Storm Sewer Systems (MS4s)* for further information. ☒**Yes** ☐**No**

Who is the person responsible for ensuring compliance with this Permit condition?

Name: Carolyn Braun, AICP *Position:* Planning Director *Phone:* 763.576.2722

5. Historic Places and Archeological Sites

Does the MS4 have a process to assure coordination with appropriate Agencies and to evaluate discharges which may adversely affect properties listed or eligible for listing in the National Register of **Historic Places** or affecting known or discovered **archeological sites**? See Part IX of the *Guidance Manual for Small Municipal Separate Storm Sewer Systems (MS4s)* for further information. ☒**Yes** ☐**No**

Who is the person responsible for ensuring compliance with this Permit condition?

Name: Carolyn Braun, AICP *Position:* Planning Director *Phone:* 763.576.2722

6. Drinking Water Sources

Does the MS4 have any discharges that may affect Source Water Protection as defined in part **IX.H** of the General Permit? ☐**Yes** ☒**No**

If "yes," does the MS4 have BMPs incorporated into the SWPPP to protect drinking water sources that the MS4 discharge may affect? ☐**Yes** ☐**No**

V. Owner or Operator Certification

The person with overall, MS4 legal responsibility must sign the application. This person shall be duly authorized to sign the application and may be either a principal executive officer or ranking elected official. (see Minn. R. 7001.0060).

I certify under penalty of law that this document and all attachments were prepared under my direction or supervision in accordance with a system designed to assure that qualified personnel properly gathered and evaluated the information submitted. Based on my inquiry of the person or persons, who manage the system, or those persons directly responsible for gathering the information, the information submitted is, to the best of my knowledge and belief, true, accurate, and complete (Minn. R. 7001.0070).

I also certify under penalty of law that I have read, understood, and accepted all terms and conditions of the National Pollutant Discharge Elimination System (NPDES) General Storm Water Permit for MS4s that authorizes storm water discharges identified in this application form.

I understand that as a Permittee, I am legally accountable under the Clean Water Act to ensure compliance with the terms and conditions of the NPDES General Storm Water Permit for MS4s.

I also understand that MPCA enforcement actions (pursuant to Minn. Stat. §115.07, 116.072, and Section 309 of the Clean Water Act) may be taken against me or the MS4 if the terms and conditions of the NPDES General Storm Water Permit for MS4s are not met.

C. General Contact (official, staff member, consultant or other) for all general correspondence about Permit compliance issues between the MPCA and your MS4

X

Authorized Signature		*Date*	
Gray	*Craig*	*Director of Public Works/City Engineer*	
Last Name	*First Name*	*Title*	
2015 First Avenue			
Mailing Address			
Anoka		*MN*	*55303*
City		*State*	*ZIP Code*
763.576.2781		*cgray@ci.anoka.mn.us*	
Telephone (include area code)		*E-mail Address*	

City of Anoka, Minnesota

II. STORM WATER PROGRAM SUMMARY

II. STORM WATER PROGRAM SUMMARY

Background

Background

The City of Anoka (City) is located northwest of the Minneapolis-St. Paul Metropolitan area, in the west-central portion of Anoka County. Anoka shares borders with Coon Rapids to the east, Andover to the northeast, Ramsey to the west and Champlin (in Hennepin County) along the Mississippi River to the southwest. The City covers approximately 4880 acres (7.6 square miles) of land consisting of a mix of residential, light and heavy manufacturing, commercial, industrial, right-of-way, open space and park lands.

This summary includes a description of the receiving waters within the City, the City's existing storm water management program, and a listing of the Best Management Practices (BMPs) incorporated into the City's SWPPP.

Receiving Waters

As stated in the City's Comprehensive Storm Water Management Plan (August 2000), almost all of the storm water runoff from the City is discharged through the City and eventually into the Rum River or the Mississippi River.

The list below identifies the waters in Anoka where storm sewer system outfalls are or may be located. Known outfalls to these waters are identified in the City's Outfall Map and will be verified and updated on an annual basis.

Rum River
Mississippi River

Existing Storm Water Management Program

The City's organizational structure includes staff resources available for storm water management activities. Key City staff for SWPPP implementation activities report to the Director of Public Works, and are primarily part of the Engineering or Street Maintenance Departments. The City has approximately six lead staff that has responsibilities under the SWPPP. This staff is currently involved in storm water-related activities ranging from development plan review and construction site inspections to street/storm water practice maintenance.

The City currently follows a Storm Water Management Plan (August 2000) to address water resource related issues within the City. In addition, the City follows the requirements of the Lower Rum River Watershed Management Organization Plan (May 1998) which has jurisdiction throughout the City. The City is in the process of developing a storm water utility to provide

dedicated funding for implementation activities. One of the City's BMPs sets a measurable goal to complete a feasibility study and evaluate implementation of a utility.

BMPs for the Six Minimum Control Measures

BMPs that form the City's SWPPP are provided in the summary sheets in Section III. Section IV of this submittal contains a description of the waters in Anoka listed waters with restricted discharges. BMP summary sheets for how the City is addressing Permit provisions relating to these waters are also provided.

City of Anoka, Minnesota

III. SWPPP BMP SUMMARY SHEETS

BMP Summary For

Minimum Control Measure 1: PUBLIC EDUCATION AND OUTREACH

Key to Unique BMP ID Numbers	Required BMP Title	Permit Reference
1a-1	Distribute Educational Materials	V.G.1.a
1b-1	Implement an Education Program	V.G.1.b
1c-1	Education Program: Public Education and Outreach	V.G.1.c
1c-2	Education Program: Public Participation	V.G.1.c
1c-3	Education Program: Illicit Discharge Detection and Elimination	V.G.1.c
1c-4	Education Program: Construction Site Run-off Control	V.G.1.c
1c-5	Education Program: Post-Construction Stormwater Management in New Development and Redevelopment	V.G.1.c
1c-6	Education Program: Pollution Prevention/Good Housekeeping for Municipal Operations	V.G.1.c
1d-1	Coordination of Education Program	V.G.1.d
1d-2	Water Quality Monitoring / Citizen Assisted Monitoring Program (CAMP) Coordination	NA
1e-1	Annual Public Meeting	V.G.1.e

BMP Summary Sheet

MS4 Name: City of Anoka, Minnesota

Minimum Control Measure: 1-PUBLIC EDUCATION AND OUTREACH

Unique BMP Identification Number: 1a-1

***BMP Title:** Distribute Educational Materials

***BMP Description:**

The City will publish a series of articles in the City newsletter that is mailed to City residents and made available at City offices. The City will also continue to produce and maintain a website that will communicate water resource activities and projects and post a copy of the City's WRMP at http//www.ci.anoka.mn.us/

The City will obtain and/or develop a series of informational handouts that will be made available at City facilities. These handouts (flyers) will also be distributed at times in direct mailings to reach businesses and residents regarding general storm water issues. For example, the City currently has flyers related to phosphorus runoff that can be distributed through direct mailing as new restrictions are implemented.

***Measurable Goals:**

1. Maintain City web page for water resources information.
2. Update education materials, as needed, and make available at City offices.
3. Publish articles for each MCM (or combined article) in Anoka Bulletin.

***Timeline/Implementation Schedule:**

1. Ongoing/Annually
2. Ongoing/Annually
3. Ongoing/Annually

Specific Components and Notes:

Audience or audiences: All City residents; community groups and visitors to Anoka facilities.
Increased awareness: The flyers will educate the target audiences by giving them a good understanding of a variety of water quality topics and how citizens can make a difference.

***Responsible Party for this BMP:**

Name: Sr. Engr Tech
Department: Public Works / Engineering
Phone: 763.576.2782
E-mail: rzastrow@ci.anoka.mn.us

**Indicates a REQUIRED field. Failure to complete any required field will result in rejection of the ication due to incompleteness.*

BMP Summary Sheet

MS4 Name: City of Anoka, Minnesota

Minimum Control Measure: PUBLIC EDUCATION AND OUTREACH

Unique BMP Identification Number: 1b-1

***BMP Title:** Implement an Education Program

***BMP Description:**

The City's education program consists of a wide range of activities as described in the BMP summary sheets in MCM 1 and 2, including newspaper articles, mailings, public meetings, resident participation programs and web-based information access.

***Measurable Goals:**

1. Distribute storm water-related literature to developers and contractors.
2. Distribute literature to neighborhood groups, churches, schools, City staff, businesses.
3. Maintain a list of available information.

***Timeline/Implementation Schedule:**

1. Ongoing/Annually
2. Ongoing/Annually
3. Ongoing/Annually

Specific Components and Notes:

***Responsible Party for this BMP:**

Name: Sr. Engr Tech

Department: Public Works / Engineering

Phone: 763.576.2782

E-mail: rzastrow@ci.anoka.mn.us

**Indicates a REQUIRED field. Failure to complete any required field will result in rejection of the application due to incompleteness.*

BMP Summary Sheet

MS4 Name: City of Anoka, Minnesota

Minimum Control Measure: PUBLIC EDUCATION AND OUTREACH

Unique BMP Identification Number: 1c-1

***BMP Title:** Education Program: Public Education and Outreach

***Audience(s) Involved:**

All City residents, business owners, City Council and committees, developers, contractors, watershed organizations and others.

***Educational Goals for Each Audience:**

Increased awareness: BMPs have been selected to increase awareness by making positive impressions on individuals that will help to change attitudes and behaviors towards storm water issues. The desired end result is improvements in the water quality of City lakes and water resources.

***Activities Used to Reach Educational Goals:**

1. Distribution of educational and informational flyers.
2. Maintain web site postings of storm water program information – including the City's Water Resources Management Plan.
3. Post opportunities for public participation on the water resources web page.

***Activity Implementation Plan:**

1. Ongoing/Annually
2. Ongoing/Annually
3. Ongoing/Annually

***Performance Measures:**

1. Quantity of flyers distributed.
2. Web site traffic on storm water management pages.
3. Participation levels for public events.

***Responsible Party for this BMP:**

Name: Sr. Engr Tech

Department: Public Works / Engineering

Phone: 763.576.2782

E-mail: rzastrow@ci.anoka.mn.us

**Indicates a REQUIRED field. Failure to complete any required field will result in rejection of the application due to incompleteness.*

BMP Summary Sheet

MS4 Name: City of Anoka, Minnesota

Minimum Control Measure: PUBLIC EDUCATION AND OUTREACH

Unique BMP Identification Number: 1c-2

***BMP Title:** Education Program: Public Participation

***Audience(s) Involved:**

Residents, developers, businesses, volunteers, youth groups, local clubs, visitors to the City.

***Educational Goals for Each Audience:**

Increased awareness: The program will make known the importance of storm water issues and how people can make an impact on a larger scale. Storm drain stenciling projects offer an excellent opportunity to educate the public about the link between the storm drain system and drinking water quality. In addition to the labeled storm drains, media coverage of the program or stenciling event can increase public awareness of storm water issues. Volunteer groups can provide additional benefits by picking up trash near the stenciled storm drains and by noting where maintenance is needed.

***Activities Used to Reach Educational Goals:**

1. Meet with and help organize interested school and volunteer groups to encourage their participation.
2. Complete the storm drain stenciling program.

***Activity Implementation Plan:**

1. Annually organize and track participation.
2. Annually complete Storm Drain Stenciling program.

***Performance Measures:**

1. Track the number of participants
2. Annually record the number of storm drains stenciled and identify stenciled storm drains on City map.

***Responsible Party for this BMP:**

Name: Superintendent of Public Works

Department: Public Works

Phone: 763.576.2921

E-mail: manderson@ci.anoka.mn.us

**Indicates a REQUIRED field. Failure to complete any required field will result in rejection of the application due to incompleteness.*

BMP Summary Sheet

MS4 Name: City of Anoka, Minnesota

Minimum Control Measure: PUBLIC EDUCATION AND OUTREACH

Unique BMP Identification Number: 1c-3

***BMP Title:** Education Program: Illicit Discharge Detection and Elimination

***Audience(s) Involved:**

Residents, developers, businesses, volunteers, visitors to the City, City staff.

***Educational Goals for Each Audience:**

The program will make known the importance of storm water issues and how people can make an impact on a larger scale. The City will establish a complaint hotline and publish the number in the City newsletter. The hotline is one method residents can use to notify the City of potential illicit discharges.

***Activities Used to Reach Educational Goals:**

1. Maintain Complaint Hotline to collect notices of potential illicit discharges.
2. Post at least one article on the City website relating to Minimum Control Measure #3.
3. Publish at least 1 article in the City newsletter relating to MCM #3.

***Activity Implementation Plan:**

1. Ongoing/Annually
2. Annually
3. Annually

***Performance Measures:**

1. Number of calls to hotline relating to potential illicit discharges.
2. Article posted.
3. Article published.

***Responsible Party for this BMP:**

Name: Street/Storm Sewer Supervisor

Department: Public Works/Streets

Phone: 763.576.2922

E-mail: jholmes@ci.anoka.mn.us

**Indicates a REQUIRED field. Failure to complete any required field will result in rejection of the application due to incompleteness.*

BMP Summary Sheet

MS4 Name: City of Anoka, Minnesota

Minimum Control Measure: PUBLIC EDUCATION AND OUTREACH

Unique BMP Identification Number: 1c-4

***BMP Title:** Education Program: Construction Site Run-off Control

***Audience(s) Involved:**

Residents, developers, businesses, volunteers, visitors to the City.

***Educational Goals for Each Audience:**

The program will make known the importance of storm water issues and how people can make an impact on a larger scale.

***Activities Used to Reach Educational Goals:**

1. Post at least one article on the City website relating to Minimum Control Measure #4.
2. Publish at least 1 article in the City newsletter relating to MCM #4.
3. Distribute and make available MnDOT standards guidance document to developers as initial contacts are made.

***Activity Implementation Plan:**

1. Annually
2. Annually
3. Ongoing/Annually

***Performance Measures:**

1. Article posted.
2. Article published
3. Quantity of material/number of developers sent erosion control guidance materials.

***Responsible Party for this BMP:**

Name: Sr. Engr Tech

Department: Public Works / Engineering

Phone: 763.576.2782

E-mail: rzastrow@ci.anoka.mn.us

**Indicates a REQUIRED field. Failure to complete any required field will result in rejection of the application due to incompleteness.*

BMP Summary Sheet

MS4 Name: City of Anoka, Minnesota

Minimum Control Measure: PUBLIC EDUCATION AND OUTREACH

Unique BMP Identification Number: 1c-5

***BMP Title:** Education Program: Post-Construction Stormwater Management in New Development and Redevelopment

***Audience(s) Involved:**

Residents, developers, businesses, volunteers, visitors to the City.

***Educational Goals for Each Audience:**

The program will make known the importance of storm water issues and how people can make an impact on a larger scale.

***Activities Used to Reach Educational Goals:**

1. Post at least one article on the City website relating to Minimum Control Measure #5.
2. Publish at least 1 article in the City newsletter relating to MCM #5.
3. Distribute and make available treatment system standards and guidance documents to developers as initial contacts are made

***Activity Implementation Plan:**

1. Annually
2. Annually
3. Ongoing/Annually

***Performance Measures:**

1. Article posted.
2. Article published.
3. Quantity of material/number of developers sent water quality BMP guidance materials.

***Responsible Party for this BMP:**

Name: Sr. Engr Tech

Department: Public Works / Engineering

Phone: 763.576.2782

E-mail: rzastrow@ci.anoka.mn.us

**Indicates a REQUIRED field. Failure to complete any required field will result in rejection of the application due to incompleteness.*

BMP Summary Sheet

MS4 Name: City of Anoka, Minnesota

Minimum Control Measure: PUBLIC EDUCATION AND OUTREACH

Unique BMP Identification Number: 1c-6

***BMP Title:** Education Program: Pollution Prevention/Good Housekeeping for Municipal Operations

***Audience(s) Involved:**

Residents, developers, businesses, volunteers, visitors to the City, City staff.

***Educational Goals for Each Audience:**

The program will make known the importance of storm water issues and how people and city staff can make an impact on a larger scale. This information will also let residents know what the City is doing on a regular basis to actively improve water quality throughout the City.

***Activities Used to Reach Educational Goals:**

1. Post at least one article on the City website relating to Minimum Control Measure #5.
2. Publish at least 1 article in the City newsletter relating to MCM #5.
3. Conduct annual internal staff training event on municipal operations and make information available to staff.

***Activity Implementation Plan:**

1. Annually
2. Annually
3. Annually

***Performance Measures:**

1. Article posted.
2. Article published.
3. Number of staff trained, topics/water resource material covered.

***Responsible Party for this BMP:**

Name: Sr. Engr Tech

Department: Public Works / Engineering

Phone: 763.576.2782

E-mail: rzastrow@ci.anoka.mn.us

**Indicates a REQUIRED field. Failure to complete any required field will result in rejection of the application due to incompleteness.*

BMP Summary Sheet

MS4 Name: City of Anoka, Minnesota

Minimum Control Measure: PUBLIC EDUCATION AND OUTREACH

Unique BMP Identification Number: 1d-1

***BMP Title:** Coordination of Education Program

***BMP Description:**

The City will work with the Lower Rum River Watershed Management Organization (LRRWMO) and Anoka County to distribute general information on non-point source pollution, water resource impacts and needs for and benefits of reduction. The City also currently has efforts ongoing with the Anoka County Soil and Water Conservation District (SWCD) to promote and install low-impact development practices in suitable areas. The most efficient method of coordinating these programs is by maintaining links to related programs on the various website.

***Measurable Goals:**

1. Maintain a link to County and SWCD web pages for water resources information.
2. Provide web link/access to material available from MPCA.
3. Provide web link/access to material available from Anoka County, and the LRRWMO.

***Timeline/Implementation Schedule:**

1. Annually check access and update, as needed.
2. Annually check access and update, as needed.
3. Annually check access and update, as needed.

Specific Components and Notes:

***Responsible Party for this BMP:**

Name: Sr. Engr Tech

Department: Public Works / Engineering

Phone: 763.576.2782

E-mail: rzastrow@ci.anoka.mn.us

**Indicates a REQUIRED field. Failure to complete any required field will result in rejection of the application due to incompleteness.*

BMP Summary Sheet

MS4 Name: City of Anoka, Minnesota

Minimum Control Measure: PUBLIC EDUCATION AND OUTREACH

Unique BMP Identification Number: 1e-1

***BMP Title:** Annual Public Meeting

***BMP Description:**

The City will hold an annual public meeting at a Council meeting prior to the permit's anniversary date of year to present progress to date on the City's SWPPP for the current year and required activities for the wing year. The City will follow applicable public notice requirements and solicit public opinion about the acy of the SWPPP. The City will consider both written and oral public comments. Anoka will also cast the annual informational meeting on community cable programming.

***Measurable Goals:**

1. Prepare a notice of public meeting at least 30 days prior to the meeting. Specify format and timing eeting to ensure full and fair consideration of all views.
2. Hold public meeting and reserve time in meeting agenda for public comment. Review written ials prior to and at the public meeting.
3. Prepare draft annual report for presentation at the public meeting.
4. Analyze the public comments and adjust the SWPPP where appropriate. Summarize comments hanges in the final annual report.

***Timeline/Implementation Schedule:**

1. December of each year start preparing notice and distribute 30 days prior to meeting.
2. Review written and oral comments prior to completion of annual report.
3. Have draft annual report available at public meeting.
4. Complete edits to draft report and finalize by June 30.

Specific Components and Notes:

See also BMP 2a-1, 2b-1, 2c-1

***Responsible Party for this BMP:**

Name: Public Works Director

Department: Public Works

Phone: 763.576.2781

E-mail: cgray@ci.anoka.mn.us

**Indicates a REQUIRED field. Failure to complete any required field will result in rejection of the cation due to incompleteness.*

BMP Summary For

Minimum Control Measure 2: PUBLIC PARTICIPATION/INVOLVEMENT

Key to Unique BMP ID Numbers	Required BMP Title	Permit Reference
2a-1	Comply with Public Notice Requirements	V.G.2.a
2b-1	Solicit Public Input and opinion on the Adequacy of the SWPPP	V.G.2.b
2c-1	Consider Public Input	V.G.2.c

BMP Summary Sheet

MS4 Name: City of Anoka, Minnesota

Minimum Control Measure: 2-PUBLIC PARTICIPATION/INVOLVEMENT

Unique BMP Identification Number: 2a-1

***BMP Title:** Comply with Public Notice Requirements

***BMP Description:**

As noted in 1e-1 above, public notice of the annual meeting will be published 30 days prior in the City's official newspaper, "The Anoka County Union". A meeting reminder will be displayed at least one week prior on the City's message board at City Hall.

***Measurable Goals:**

1. Prepare and notice the public meeting in the official local paper.
2. Specify format and timing of meeting to ensure full and fair consideration of all views.

***Timeline/Implementation Schedule:**

1. Notice at least 30 days prior to the scheduled meeting.
2. Annually with notice posted at least 30 days prior to meeting.

Specific Components and Notes:

See also BMP 1e-1, 2b-1, 2c-1

***Responsible Party for this BMP:**

Name: Public Works Director

Department: Public Works

Phone: 763.576.2781

E-mail: cgray@ci.anoka.mn.us

**Indicates a REQUIRED field. Failure to complete any required field will result in rejection of the application due to incompleteness.*

BMP Summary Sheet

MS4 Name: City of Anoka, Minnesota

Minimum Control Measure: 2-PUBLIC PARTICIPATION/INVOLVEMENT

Unique BMP Identification Number: 2b-1

***BMP Title:** Solicit Public Input and opinion on the Adequacy of the SWPPP

***BMP Description:**

As noted in 1e-1 above, an opportunity will be presented at the annual meeting for the receipt of both written and oral comments about the City's SWPPP.

***Measurable Goals:**

1. Provide an opportunity for public input in written or oral format.
2. Have draft annual report available at public meeting.

***Timeline/Implementation Schedule:**

1. Annually, prior to the meeting, at the meeting or by data specified in the notice.
2. Annually

Specific Components and Notes:

***Responsible Party for this BMP:**

Name: Public Works Director

Department: Public Works

Phone: 763.576.2781

E-mail: cgray@ci.anoka.mn.us

**Indicates a REQUIRED field. Failure to complete any required field will result in rejection of the application due to incompleteness.*

BMP Summary Sheet

MS4 Name: City of Anoka, Minnesota

Minimum Control Measure: 2-PUBLIC PARTICIPATION/INVOLVEMENT

Unique BMP Identification Number: 2c-1

***BMP Title:** Consider Public Input

***BMP Description:**

The City will hold an annual public meeting at a Council meeting prior to the permit's anniversary date of each year to present progress to date on the City's SWPPP for the current year and required activities for the following year. The City will follow applicable public notice requirements and solicit public opinion about the adequacy of the SWPPP. The City will consider both written and oral public comments. Anoka will also broadcast the annual informational meeting on community cable programming.

***Measurable Goals:**

1. Summarize comments and analyze needs for adjustments to the SWPPP where appropriate.
2. Incorporate any significant changes identified by the input into the annual report and SWPPP revisions.

***Timeline/Implementation Schedule:**

1. Annually (prior to June 30)
2. Annually.

Specific Components and Notes:

***Responsible Party for this BMP:**

Name: Public Works Director

Department: Public Works

Phone: 763.576.2781

E-mail: cgray@ci.anoka.mn.us

**Indicates a REQUIRED field. Failure to complete any required field will result in rejection of the application due to incompleteness.*

BMP Summary For

Minimum Control Measure 3: ILLICIT DISCHARGE DETECTION AND ELIMINATION

Key to Unique BMP ID Numbers	Required BMP Title	Permit Reference
3a-1	Storm Sewer System Map	V.G.3.a
3b-1	Regulatory Control Program	V.G.3.b
3c-1	Illicit Discharge Detection and Elimination Plan	V.G.3.c
3d-1	Public and Employee Illicit Discharge Information Program	V.G.3.d
3e-1	Identification of Non Stormwater Discharges and Flows	V.G.3.e

BMP Summary Sheet

MS4 Name: City of Anoka, Minnesota

Minimum Control Measure: 3-ILLICIT DISCHARGE DETECTION AND ELIMINATION

Unique BMP Identification Number: 3a-1

***BMP Title:** Storm Sewer System Map

***BMP Description:**

The City has prepared a map that shows the location of appropriate storm sewer system and treatment facility components and receiving water bodies. The map currently facilitates management of the overall illicit discharge detection and elimination program and the BMP maintenance program. The map is currently drafted and is updated annually. The map will also help coordinate management activities to remove illicit connections and track storm system inspections and maintenance.

***Measurable Goals:**

1. Incorporate new BMPs and storm system created by new and redevelopment projects.
2. Incorporate storm system information collected as part of the inspection program.
3. Complete the MS4 map.

***Timeline/Implementation Schedule:**

1. Ongoing/Annually (corresponding to completion of record drawings).
2. Annually (as identified by inspections/maintenance staff)
3. June 30, 2008.

Specific Components and Notes:

***Responsible Party for this BMP:**

Name: Sr Engr Tech.

Department: Public Works/Engineering

Phone: 763.576.2782

E-mail: rzastrow@ci.anoka.mn.us

**Indicates a REQUIRED field. Failure to complete any required field will result in rejection of the application due to incompleteness.*

BMP Summary Sheet

MS4 Name: City of Anoka, Minnesota

Minimum Control Measure: 3-ILLICIT DISCHARGE DETECTION AND ELIMINATION

Unique BMP Identification Number: 3b-1

***BMP Title:** Regulatory Control Program

***BMP Description:**

The City's regulatory mechanism to prohibit non-storm water discharges into the storm sewer system is contained in several sections of City code. The City currently has an ISTS ordinance, Property Maintenance Code, Health Nuisances, and Construction Site Erosion Control that address activities associated with illicit discharges. The City will continue to enforce these codes and review them to determine if changes or additions are needed to prohibit illicit discharges from other sources. State law covers the use of commercial fertilizer and lawn fertilizer applications. Ordinances and codes provide authority to inspect systems and facilities, prevent illicit connections and discharges, and allow for punitive measures. Regulatory programs also allow the City to require control measures such as testing and monitoring plans. The City can also use the program for informing employees, businesses and residents of potential hazards

***Measurable Goals:**

1. Review ordinances to determine if adequately meeting the illicit discharge requirements.
2. Complete updates, as needed, through formal ordinance review and modification process.

***Timeline/Implementation Schedule:**

1. Annually
2. Annually (as needed)

Specific Components and Notes:

The City will continue to participate in the Metro County Hazardous Waste and Recycling Program which collects: adhesives, aerosol spray products, automotive products, fluorescent lamps, furniture refinishing products, household cleaners, paint, stain, pool chemicals, pesticides, herbicides, insecticides. More information can be found at: http://www.co.Anoka.mn.us/environ/index.htm.

***Responsible Party for this BMP:**

Name: Public Works Director

Department: Public Works

Phone: 763.576.2781

E-mail: cgray@ci.anoka.mn.us

**Indicates a REQUIRED field. Failure to complete any required field will result in rejection of the application due to incompleteness.*

BMP Summary Sheet

MS4 Name: City of Anoka, Minnesota

Minimum Control Measure: 3-ILLICIT DISCHARGE DETECTION AND ELIMINATION

Unique BMP Identification Number: 3c-1

***BMP Title:** Illicit Discharge Detection and Elimination Plan

***BMP Description:**

The City has explored opportunities to expand existing inspection programs to address illicit connections and illegal dumping detection and elimination. The City has coordinated current activities with the complaint response program and related inspection and monitoring activities. This will be one of the methods by which the City monitors for illicit discharges into and from their system.

Measurable Goal number three will be coordinated between the Street/Storm Sewer Supervisor and the Senior Engineering Technician as data is made available.

***Measurable Goals:**

1. Respond to complaints or information relating to potential illicit discharges and illegal dumping.
2. Implement inspection program of the City storm system and development projects.
3. Evaluate annual monitoring data collected at key outfalls and surface waters.

***Timeline/Implementation Schedule:**

1. Ongoing/Annually
2. Ongoing/Annually
3. Annually

Specific Components and Notes:

A range of potentially polluting activities occurs throughout the City (e.g., construction projects, hazardous materials handling, used oil and pesticide disposal, etc.) that can be identified and better addressed through this program. Monitoring and inspecting of outfalls will be one step in tracking down illicit discharges or other potential water quality hazards that may impact the MS4 system.

***Responsible Party for this BMP:**

Name: Street/Storm Sewer Supervisor

Department: Public Works/Streets

Phone: 763.576.2922

E-mail: jholmes@ci.anoka.mn.us

**Indicates a REQUIRED field. Failure to complete any required field will result in rejection of the application due to incompleteness.*

BMP Summary Sheet

MS4 Name: City of Anoka, Minnesota

Minimum Control Measure: 3-ILLICIT DISCHARGE DETECTION AND ELIMINATION

Unique BMP Identification Number: 3d-1

***BMP Title:** Public and Employee Illicit Discharge Information Program

***BMP Description:**

The City currently includes articles on the City water resources web page and links to Anoka County's web page relating to the illicit discharge program. The City also holds an internal annual staff meeting early in each year for the grounds and landscape staff to inform them of a wide range of water resource issues including illicit discharges. The program will be continued on an annual basis.

The public is informed through the posted information on the web pages and in various mailings distributed by the City or County. Another aspect of this program relates to the City's River walk clean up program and the storm drain stenciling program.

***Measurable Goals:**

1. Distribute information on illicit discharges in conjunction with BMP 1c-2.
2. Conduct annual staff training in conjunction with BMP 6a-1.

***Timeline/Implementation Schedule:**

1. Ongoing/Annually
2. Annually

Specific Components and Notes:

***Responsible Party for this BMP:**

Name: Public Works Superintendent

Department: Public Works

Phone: 763.576.2921

E-mail: manderson@ci.anoka.mn.us

**Indicates a REQUIRED field. Failure to complete any required field will result in rejection of the application due to incompleteness.*

BMP Summary Sheet

MS4 Name: City of Anoka, Minnesota

Minimum Control Measure: 3-ILLICIT DISCHARGE DETECTION AND ELIMINATION

Unique BMP Identification Number: 3e-1

***BMP Title:** Identification of Non Stormwater Discharges and Flows

***BMP Description:**

The City has reviewed the following categories of **non-storm water discharges or flows** (i.e., illicit discharges) and has determined that none identified in the list are known to be significant contributors of pollutants to our system at this time.

Category	Significant Contributor?	
	Yes	No
Water line flushing		√
Landscape irrigation		√
Diverted stream flows		√
Rising ground waters		√
Uncontaminated ground water		√
Uncontaminated pumped ground water		√
Discharges from potable water sources		√
Foundation drains		√
Air conditioning condensation		√
Irrigation water		√
Springs		√
Water from crawl space pumps		√
Footing drains		√
Lawn watering		√
Individual residential car washing		√
Flows from riparian habitats and wetlands		√
Dechlorinated swimming pool discharges		√
And street wash water		√
Discharges or flows from fire fighting activities		√

***Measurable Goals:**

1. Review non-storm water discharge list annually to evaluate significance of each potential source.

***Timeline/Implementation Schedule:**

1. Annually

Specific Components and Notes:

***Responsible Party for this BMP:**

Name: Public Works Director

Department: Public Works

Phone: 763.576.2781

E-mail: cgray@ci.anoka.mn.us

**Indicates a REQUIRED field. Failure to complete any required field will result in rejection of the application due to incompleteness.*

BMP Summary For

Minimum Control Measure 4: CONSTRUCTION SITE STORMWATER RUNOFF CONTROL

Key to Unique BMP ID Numbers	Required BMP Title	Permit Reference
4a-1	Ordinance or other Regulatory Mechanism	V.G.4.a
4b-1	Construction Site Implementation of Erosion and Sediment Control BMPs	V.G.4.b
4c-1	Waste Controls for Construction Site Operators	V.G.4.c
4d-1	Procedure for Site Plan Review	V.G.4.d
4e-1	Establishment of Procedures for the Receipt and Consideration of Reports of Stormwater Noncompliance	V.G.4.e
4f-1	Establishment of Procedures for Site Inspections and Enforcement	V.G.4.f

BMP Summary Sheet

MS4 Name: City of Anoka, Minnesota

Minimum Control Measure: 4-CONSTRUCTION SITE STORMWATER RUNOFF CONTROL

Unique BMP Identification Number: 4a-1

***BMP Title:** Ordinance or other Regulatory Mechanism

***BMP Description:**

The City has an existing City Ordinance that addresses construction site erosion and sediment control. The City will continue to work with the Lower Rum River Watershed Management Organization to ensure compliance with the design and site erosion control requirements. In addition, the City reviews plans for post construction runoff controls and will continue to promote the BMPs described in the Lower Rum River Watershed Management Organization Plan. Following the completion of construction, the City requires as-built plans from developers to determine if the site (e.g., ponds, etc.) were built as proposed.

***Measurable Goals:**

1. Review erosion and sediment control ordinance sections to maintain adequate controls.
2. Complete updates, as needed, through formal ordinance review and modification process.

***Timeline/Implementation Schedule:**

1. Annually
2. Annually, as needed.

Specific Components and Notes:

Review all development plans for all sites for which a building permit is required and applied for. This includes sites less than 1-acre.

For discharges to the Rum River above Rice and Madison Streets the City will require demonstration that an increase in loading of one or more pollutants does not result from development or redevelopment projects.

***Responsible Party for this BMP:**

Name: Sr Engr Tech

Department: Public Works/Engineering

Phone: 763.576.2782

E-mail: rzastrow@ci.anoka.mn.us

**Indicates a REQUIRED field. Failure to complete any required field will result in rejection of the application due to incompleteness.*

BMP Summary Sheet

MS4 Name: City of Anoka, Minnesota

Minimum Control Measure: 4-CONSTRUCTION SITE STORMWATER RUNOFF CONTROL

Unique BMP Identification Number: 4b-1

***BMP Title:** Construction Site Implementation of Erosion and Sediment Control BMPs

***BMP Description:**

The City currently inspects all construction sites to review compliance with code and permit requirements. The City requires an escrow from development projects that is available to pay for turf and erosion control improvements, if the contractor or developer fails to comply. When needed, the inspector orders street sweeping by the City to remove sediment from streets near the project. The City generally has excellent response form requests. The inspector may also require removal of debris and other material that may cause adverse water quality impacts.

See also BMPs 4d-1 and 4f-1.

***Measurable Goals:**

1. Conduct plan review of proposed erosion control practices.
2. Conduct inspections of construction sites.

***Timeline/Implementation Schedule:**

1. Ongoing/Annually
2. Ongoing/Annually

Specific Components and Notes:

The City reviewed various erosion control and sediment control guide manuals and determined that the MnDOT manual and other online resources were adequate to make available to developers and contractors working in the City. The previous program BMP 4-03 was completed and thus removed from the program.

***Responsible Party for this BMP:**

Name: Sr Engr Tech

Department: Public Works/Engineering

Phone: 763.576.27823

E-mail: rzastrow@ci.anoka.mn.us

**Indicates a REQUIRED field. Failure to complete any required field will result in rejection of the application due to incompleteness.*

BMP Summary Sheet

MS4 Name: City of Anoka, Minnesota

Minimum Control Measure: 4-CONSTRUCTION SITE STORMWATER RUNOFF CONTROL

Unique BMP Identification Number: 4c-1

***BMP Title:** Waste Controls for Construction Site Operators

***BMP Description:**

The City's regulatory mechanism to control construction site waste is contained in several sections of City code including Property Maintenance Code, and Health Nuisances. The City will continue to enforce these codes and review them to determine if changes or additions are needed.

***Measurable Goals:**

1. Based on inspections, record the number of non-compliant sites.
2. Record the number of sites where City clean-up is needed.

***Timeline/Implementation Schedule:**

1. Ongoing/Annually (as part of construction site inspection program)
2. Ongoing/Annually.

Specific Components and Notes:

***Responsible Party for this BMP:**

Name: Property Maintenance Coordinator

Department: Planning

Phone: 763.576.2715

E-mail: etessman@ci.anoka.mn.us

**Indicates a REQUIRED field. Failure to complete any required field will result in rejection of the application due to incompleteness.*

BMP Summary Sheet

MS4 Name: City of Anoka, Minnesota

Minimum Control Measure: 4-CONSTRUCTION SITE STORMWATER RUNOFF CONTROL

Unique BMP Identification Number: 4d-1

***BMP Title:** Procedure for Site Plan Review

***BMP Description:**

The City will continue to work with the Lower Rum River Watershed Management Organization to ensure compliance with the design and site erosion control requirements. In addition, the City reviews plans for post construction runoff controls and will continue to promote the BMPs described in the Lower Rum River Watershed Management Organization Plan. Following the completion of construction, the City requires as-built plans from developers to determine if the site (e.g., ponds, etc.) were built as proposed.

Small construction sites have been shown to contribute as much sediment as large sites on a per acre basis. This review process allows early contact with owners or developers to address erosion and sediment control plan requirements and related programs from the LRRWMO and MPCA NPDES Construction Site Phase II permit as they apply to given project. This is a required BMP in permit part V.G.4.d. and is a critical component of how the City will address discharges to the Rum River above Rice and Madison Streets for the requirements of Appendix C.

***Measurable Goals:**

1. Review development plans for all sites for which a building permit is required.
2. Record the number of sites/projects reviewed and commented on annually.
3. Identify the watershed and/or special standards area that the project is located in the Rum River basin.
4. Record the number and type of BMPs proposed that go beyond the minimum code requirements.

***Timeline/Implementation Schedule:**

1. Ongoing/Annually
2. Ongoing/Annually
3. Ongoing/Annually
4. Ongoing/Annually

Specific Components and Notes:

***Responsible Party for this BMP:**

Name: Sr Engr Tech

Department: Public Works/Engineering

Phone: 763.576.2782

E-mail: rzastrow@ci.anoka.mn.us

**Indicates a REQUIRED field. Failure to complete any required field will result in rejection of the application due to incompleteness.*

BMP Summary Sheet

MS4 Name: City of Anoka, Minnesota

Minimum Control Measure: 4-CONSTRUCTION SITE STORMWATER RUNOFF CONTROL

Unique BMP Identification Number: 4e-1

***BMP Title:** Establishment of Procedures for the Receipt and Consideration of Reports of Stormwater Noncompliance

***BMP Description:**

The City has developed a more formal complaint response program to address construction site storm water complaints and to support the illicit discharge detection program. The City will respond to calls on construction site storm water related concerns and will post the call number(s) on the City's webpage. Residents of the City are able to use the call line to report illicit discharges and report construction site erosion or sedimentation concerns.

***Measurable Goals:**

1. Maintain complaint hotline on website.
2. Record the number of calls and the nature of the complaint/call.
3. Record the number of staff inspections resulting form the call line.
4. Record/track follow-up actions initiated from calls and complaints received.

***Timeline/Implementation Schedule:**

1. Ongoing/Annually
2. Ongoing/Annually
3. Ongoing/Annually
4. Ongoing/Annually

Specific Components and Notes:

***Responsible Party for this BMP:**

Name: Public Works Director

Department: Public Works

Phone: 763.576.2781

E-mail: cgray@ci.anoka.mn.us

**Indicates a REQUIRED field. Failure to complete any required field will result in rejection of the application due to incompleteness.*

BMP Summary Sheet

MS4 Name: City of Anoka, Minnesota

Minimum Control Measure: 4-CONSTRUCTION SITE STORMWATER RUNOFF CONTROL

Unique BMP Identification Number: 4f-1

***BMP Title:** Establishment of Procedures for Site Inspections and Enforcement

***BMP Description:**

The City currently inspects all construction sites to review compliance with code and permit requirements. The City requires an escrow from development projects that is available to pay for turf and erosion control improvements, if the contractor or developer fails to comply. When needed, the inspector orders street sweeping by the City to remove sediment from streets near the project. The City generally has excellent response form requests. The inspector may also require removal of debris and other material that may cause adverse water quality impacts.

The inspection process provides an opportunity to further educate owners and developers on the need for erosion and sediment control practices and obtain benefits in ensuring timely removal of sediment deposited on streets and roads form construction activities. The inspection process provides an opportunity to further educate owners and developers on the need for erosion and sediment control practices and obtain benefits in ensuring timely removal of sediment deposited on streets and roads form construction activities.

See also BMP 4b-1

***Measurable Goals:**

1. Record the number of sites inspected annually.
2. Record the number of non-compliant sites.
3. Record the number of sites where City clean-up is needed.

***Timeline/Implementation Schedule:**

1. Ongoing/Annually
2. Ongoing/Annually
3. Ongoing/Annually

Specific Components and Notes:

Related to effort and program activities in BMP 4b-1.

***Responsible Party for this BMP:**

Name: Sr Engr Tech

Department: Public Works/Engineering

Phone: 763.576.2782

E-mail: rzastrow@ci.anoka.mn.us

**Indicates a REQUIRED field. Failure to complete any required field will result in rejection of the application due to incompleteness.*

BMP Summary For

Minimum Control Measure 5: POST-CONSTRUCTION STORMWATER MANAGEMENT IN NEW DEVELOPMENT AND REDEVELOPMENT

Key to Unique BMP ID Numbers	Required BMP Title	Permit Reference
5a-1	Development and Implementation of Structural and/or Non-structural BMPs	V.G.5.a
5b-1	Regulatory Mechanism to Address Post Construction Runoff from New Development and Redevelopment	V.G.5.b
5c-1	Long-term Operation and Maintenance of BMPs	V.G.5.c

BMP Summary Sheet

MS4 Name: City of Anoka, Minnesota

Minimum Control Measure: 5-POST-CONSTRUCTION STORMWATER MANAGEMENT IN NEW DEVELOPMENT AND REDEVELOPMENT

Unique BMP Identification Number: 5a-1

***BMP Title:** Development and Implementation of Structural and/or Non-structural BMPs

***BMP Description:**

The City encourages structural and non-structural alternative treatment systems (e.g., surmountable curb sections, grassed swales, infiltration, filtration, sump manholes, etc.) in the development and redevelopment project review process. These practices are often very effective and an innovative way of handling storm water runoff. By keeping as much rainwater as possible close to where it falls through infiltration or other practices, the negative impacts on the rivers that receive runoff from the City can be reduced.

Structural and non-structural alternative BMPs such as infiltration practices and other low-impact development (LID) practices can significantly reduce the volume of storm water runoff leaving the immediate area. In addition to volume controls and water quality improvement, many LID practices can improve the aesthetics of storm water treatment practices. This is a required BMP in Permit Part V.G.5.a. and is also a critical component of addressing the restricted discharges to the Rum River above Rice and Madison Streets.

***Measurable Goals:**

1. Record the number and type of structural and non-structural BMPs installed annually (e.g., NURP ponds, rain gardens, infiltration basins, sump manholes, grit chambers, bioretention areas, etc.).
2. Incorporate new facilities in BMP database and map for City-installed alternative practices and private systems.

***Timeline/Implementation Schedule:**

1. Ongoing/Annually
2. Ongoing/Annually

Specific Components and Notes:

See also BMPs 3a-1 and 4b-1.

***Responsible Party for this BMP:**

Name: Sr Engr Tech

Department: Public Works/Engineering

Phone: 763.576.28-782

E-mail: rzastrow@ci.anoka.mn.us

**Indicates a REQUIRED field. Failure to complete any required field will result in rejection of the application due to incompleteness.*

BMP Summary Sheet

MS4 Name: City of Anoka, Minnesota

Minimum Control Measure: 5-POST-CONSTRUCTION STORMWATER MANAGEMENT IN NEW DEVELOPMENT AND REDEVELOPMENT

Unique BMP Identification Number: 5b-1

***BMP Title:** Regulatory Mechanism to Address Post Construction Runoff from New Development and Redevelopment

***BMP Description:**

The City is part of the Lower Rum River WMO (Joint Powers Agreement, 1985) that has established design and construction requirements for post construction runoff controls (pond design, grading and erosion control measures) at sites where land disturbing activities are occurring. The City will review these requirements with other cities in the Joint Powers Agreement to determine if changes are needed to comply with the NPDES MS4 permit. More specifically, the City will review design standards for areas draining to the segment of the Rum River listed as a restricted discharge water (above Rice and Madison Streets) in Minn. R. 7050.0180, Subp. 6a, and as addressed in Appendix C of this SWPPP summary.

***Measurable Goals:**

1. Review of standards in the Water Resources Management Plan and City Code.

***Timeline/Implementation Schedule:**

1. Three year basis (e.g., 2006, 2009, etc.) or as needed to comply with watershed or state program changes.

Specific Components and Notes:

***Responsible Party for this BMP:**

Name: Public Works Director

Department: Public Works

Phone: 763.576.2781

E-mail: cgray@ci.anoka.mn.us

**Indicates a REQUIRED field. Failure to complete any required field will result in rejection of the application due to incompleteness.*

BMP Summary Sheet

MS4 Name: City of Anoka, Minnesota

Minimum Control Measure: 5-POST-CONSTRUCTION STORMWATER MANAGEMENT IN NEW DEVELOPMENT AND REDEVELOPMENT

Unique BMP Identification Number: 5c-1

***BMP Title:** Long-term Operation and Maintenance of BMPs

***BMP Description:**

Anoka will begin a program to maintain the Best Management Practices within the MS4. Of specific concern is the maintenance of storm water ponds within the MS4 to maintain their effectiveness There are many structural controls located throughout the municipality that are owned and operated by both public and private entities. Before a comprehensive maintenance plan can be implemented to address all of the practices, a complete list of BMPs and their locations and site conditions should be compiled. An inspection and maintenance schedule can be developed to maximize efficiency and minimize labor requirements. The system can be expanded to include other types of MS4 maintenance, including street sweeping, catch basin cleaning, storm drain flushing, etc. This is a required BMP in Permit Part V.G.5.c.

***Measurable Goals:**

1. Review other city plans and methods for maintenance of BMPs by March 2007.
2. Research the extent and type of structural BMPs that are not owned and operated by the City by March 2008
3. Identification of privately owned BMPs in the City that have, and do not have, maintenance agreements by March 2007.
4. Track the number of contacts to site owners to initiate repair or maintenance of the BMP as necessary (annually).

***Timeline/Implementation Schedule:**

1. Ongoing/Annually
2. Ongoing/Annually
3. Ongoing/Annually

Specific Components and Notes:

***Responsible Party for this BMP:**

Name: Superintendent of Public Works

Department: Public Works

Phone: 763.576.2921

E-mail: manderson@ci.anoka.mn.us

**Indicates a REQUIRED field. Failure to complete any required field will result in rejection of the application due to incompleteness.*

BMP Summary For

Minimum Control Measure 6: POLLUTION PREVENTION/GOOD HOUSEKEEPING

Key to Unique BMP ID Numbers	Required BMP Title	Permit Reference
6a-1	Municipal Operations and Maintenance Program	V.G.6.a
6a-2	Street Sweeping**	
6b-2	Annual Inspection of All Structural Pollution Control Devices	V.G.6.b.2
6b-3	Inspection of a Minimum of 20 percent of the MS4 Outfalls, Sediment Basins and Ponds Each Year on a Rotating Basis	V.G.6.b.3
6b-4	Annual Inspection of All Exposed Stockpile, Storage and Material Handling Areas	V.G.6.b.4
6b-5	Inspection Follow-up Including the Determination of Whether Repair, Replacement, or Maintenance Measures are Necessary and the Implementation of the Corrective Measures	V.G.6.b.5
6b-6	Record Reporting and Retention of all Inspections and Responses to the Inspections	V.G.6.b.6
6b-7	Evaluation of Inspection Frequency	V.G.6.b.7

BMP Summary Sheet

MS4 Name: City of Anoka, Minnesota

Minimum Control Measure: 6-POLLUTION PREVENTION/GOOD HOUSEKEEPING

Unique BMP Identification Number: 6a-1

***BMP Title:** Municipal Operations and Maintenance Program

***BMP Description:**

The City conducts a pollution prevention workshop/training program for City grounds and landscaping staff, fleet and building maintenance staff, street maintenance staff and storm water system staff. The City has the annual meeting generally early in the year and conducts coordination meetings for lead staff involved in the storm water program to summarize the previous year's activities and identify key issue and activities for the coming year.

***Measurable Goals:**

1. Conduct a staff training event at least annually to discuss the topics relating to water resources programs.
2. Record number of staff attending the annual training event and meeting and the topics covered.
3. Conduct meetings, as needed, of key storm water team leads to discuss storm water related operational priorities and activities.

***Timeline/Implementation Schedule:**

1. Annually
2. Annually
3. Ongoing (Annually, or greater frequency, as needed)

Specific Components and Notes:

***Responsible Party for this BMP:**

Name: Superintendent of Public Works

Department: Public Works

Phone: 763.576.2921

E-mail: manderson@ci.anoka.mn.us

**Indicates a REQUIRED field. Failure to complete any required field will result in rejection of the application due to incompleteness.*

BMP Summary Sheet

MS4 Name: City of Anoka, Minnesota

Minimum Control Measure: 6-POLLUTION PREVENTION/GOOD HOUSEKEEPING

Unique BMP Identification Number: 6a-2

***BMP Title:** Street Sweeping**

***BMP Description:**

The City will continue a practice of street sweeping for vehicle safety, pedestrian safety and water quality and environmental reasons. Street sweeping will be done as weather permits (late March to early April) through the first snowfall.

The City has both a regenerative air vacuum sweeper and a mechanical pick up type sweeper, which enhances the street sweeping program.

Street sweeping is practices in most urban areas, often as an aesthetic practice to remove sediment buildup and large debris from curb and gutters. In colder climates such as Minnesota, street sweeping is used to reduce the pollutant loads from road salt and sand and reduce the amount of sediment delivered to waters and water quality treatment systems.

***Measurable Goals:**

1. Sweep at least once in the spring of each year.
2. Sweep priority/targeted areas as needed in the summer.
3. Sweep once in the fall as weather permits.
4. Spot sweep in priority/targeted areas.
5. Count and record the approximate number of miles swept annually.
6. Count and record the dates of sweeping, man-hours and general areas swept.
7. Estimate the amount (volume or weight) of debris collected

***Timeline/Implementation Schedule:**

1. Annually
2. Annually
3. Ongoing/Annually
4. Ongoing/Annually

5-7. Report annually

Specific Components and Notes:

As part of the street maintenance program, the City has evaluated the snow and ice control program with an emphasis on reducing sand use and alternatives to salt.

***Responsible Party for this BMP:**

Name: Street/Storm Sewer Supervisor

Department: Public Works/Streets

Phone: 763.576.2922

E-mail: jholmes@ci.anoka.mn.us

**Indicates a REQUIRED field. Failure to complete any required field will result in rejection of the application due to incompleteness.*

BMP Summary Sheet

MS4 Name: City of Anoka, Minnesota

Minimum Control Measure: 6-POLLUTION PREVENTION/GOOD HOUSEKEEPING

Unique BMP Identification Number: 6b-2

***BMP Title:** Annual Inspection of All Structural Pollution Control Devices

***BMP Description:**

The City currently operates a program of cleaning structural BMPs including catch basins, storm water ponds and system outfalls. City staff inspects system components to look for sediment and debris buildup and proper functioning of the system and illicit discharges. The City will continue this program and look for opportunities to improve the tracking of inspection results and program efficiency. The inspection program will be coordinated with the BMP and Outfall mapping updates.

***Measurable Goals:**

1. Inspect 100% of the pollution control devices such as trap manholes, grit chambers, sumps, floatable skimmers, separators and other small settling or filtering devices each year.
2. Record and track follow-up actions needed, assign a priority level and a timeline for addressing the problem.
3. Record inspection date, weather conditions and results for each component inspected.
4. Record and track the dates of completing major maintenance activities.

***Timeline/Implementation Schedule:**

1. Annually
2. Ongoing/Annually
3. Ongoing/Annually
4. Ongoing/Annually

Specific Components and Notes:

***Responsible Party for this BMP:**

Name: Street/Storm Sewer Supervisor

Department: Public Works/Streets

Phone: 763.576.2922

E-mail: jholmes@ci.anoka.mn.us

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BMP Summary Sheet

MS4 Name: City of Anoka, Minnesota

Minimum Control Measure: 6-POLLUTION PREVENTION/GOOD HOUSEKEEPING

Unique BMP Identification Number: 6b-3

***BMP Title:** Inspection of a Minimum of 20 percent of the MS4 Outfalls, Sediment Basins and Ponds Each Year on a Rotating Basis

***BMP Description:**

The City currently operates a program of cleaning structural BMPs including catch basins, storm water ponds and system outfalls. City staff inspects system components to look for sediment and debris buildup and proper functioning of the system and illicit discharges. The City will continue this program and look for opportunities to improve the tracking of inspection results and program efficiency. The inspection program will be coordinated with the BMP and Outfall mapping updates.

***Measurable Goals:**

1. Inspect at least 20% of system outfalls, sediment basins and ponds each year.
2. Record and track follow-up actions needed, assign a priority level and a timeline for addressing the problem.
3. Record inspection date, weather conditions and results for each component inspected.
4. Record and track the dates of completing major maintenance activities.

***Timeline/Implementation Schedule:**

1. Annually
2. Ongoing/Annually
3. Ongoing/Annually
4. Ongoing/Annually

Specific Components and Notes:

***Responsible Party for this BMP:**

Name: Street/Storm Sewer Supervisor

Department: Public Works/Streets

Phone: 763.576.2922

E-mail: jholmes@ci.anoka.mn.us

**Indicates a REQUIRED field. Failure to complete any required field will result in rejection of the application due to incompleteness.*

BMP Summary Sheet

MS4 Name: City of Anoka, Minnesota

Minimum Control Measure: 6-POLLUTION PREVENTION/GOOD HOUSEKEEPING

Unique BMP Identification Number: 6b-4

***BMP Title:** Annual Inspection of All Exposed Stockpile, Storage and Material Handling Areas

***BMP Description:**

The City currently operates material stockpiles and handling areas at several locations within the City. The City inspects these areas at least annually and conducts maintenance as needed as part of the overall storm system maintenance program. The City will continue this program and look for opportunities to improve the tracking of inspection results and program efficiency. The inspection program will be coordinated with the BMP and outfall mapping updates.

***Measurable Goals:**

1. Inspect material stockpile and handling areas each year.
2. Record and track follow-up actions needed, assign a priority level and a timeline for addressing problems.
3. Record inspection date, weather conditions and results for each component inspected.
4. Record and track the dates of completing major maintenance activities.

***Timeline/Implementation Schedule:**

1. Annually
2. Ongoing/Annually
3. Ongoing/Annually
4. Ongoing/Annually

.

Specific Components and Notes:

***Responsible Party for this BMP:**

Name: Street/Storm Sewer Supervisor

Department: Public Works/Streets

Phone: 763.576.2922

E-mail: jholmes@ci.anoka.mn.us

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BMP Summary Sheet

MS4 Name: City of Anoka, Minnesota

Minimum Control Measure: 6-POLLUTION PREVENTION/GOOD HOUSEKEEPING

Unique BMP Identification Number: 6b-5

***BMP Title:** Inspection Follow-up Including the Determination of Whether Repair, Replacement, or Maintenance Measures are Necessary and the Implementation of the Corrective Measures

***BMP Description:**

The City will continue to update the inventory of structural runoff controls and continue current BMP maintenance and pond cleanout programs and record data to integrate the location of these controls with schedules for regular inspection and maintenance. The program will result in timely maintenance of the City's storm system components.

***Measurable Goals:**

1. Inspect and maintain system components according to priority system established by the City.
2. Track the number of system components maintained and the general condition of the system.
3. Track and major maintenance completed on the system.

***Timeline/Implementation Schedule:**

1. Ongoing/Annually
2. Ongoing/Annually
3. Ongoing/Annually

Specific Components and Notes:

***Responsible Party for this BMP:**

Name: Street/Storm Sewer Supervisor

Department: Public Works/Streets

Phone: 763.576.2922

E-mail: jholmes@ci.anoka.mn.us

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BMP Summary Sheet

MS4 Name: City of Anoka, Minnesota

Minimum Control Measure: 6-POLLUTION PREVENTION/GOOD HOUSEKEEPING

Unique BMP Identification Number: 6b-6

***BMP Title:** Record Reporting and Retention of All Inspections and Responses to the Inspections

***BMP Description:**

The City is currently creating a GIS-based storm sewer system map and inspection tracking system. This BMP is intended to start with the GIS data and create a database that can be expanded to include information on a range of BMPs (rainwater gardens, storm-ceptors, ponds, sump manholes, infiltration areas, etc.) located in and operated by the City. The database helps the City in tracking the condition of system components, scheduling and tracking inspections under related BMPs in the City's MS4 permit, and in completion of the annual reporting requirements. Ultimately, the database will allow more efficient use of City resources to comply with NPDES program requirements and there in protecting and improving water resources in the City.

***Measurable Goals:**

1. Maintain and update the database with system inspection records.

***Timeline/Implementation Schedule:**

1. Ongoing/Annually

Specific Components and Notes:

***Responsible Party for this BMP:**

Name: Sr Engr Tech

Department: Public Works/ Engineering

Phone: 763.576.2782

E-mail: rzastrow@ci.anoka.mn.us

**Indicates a REQUIRED field. Failure to complete any required field will result in rejection of the application due to incompleteness.*

BMP Summary Sheet

MS4 Name: City of Anoka, Minnesota

Minimum Control Measure: 6-POLLUTION PREVENTION/GOOD HOUSEKEEPING

Unique BMP Identification Number: 6b-7

***BMP Title:** Evaluation of Inspection Frequency

***BMP Description:**

The City currently operates a program of cleaning structural BMPs including catch basins, storm water ponds and system outfalls. City staff inspects system components to look for sediment and debris buildup and proper functioning of the system and illicit discharges. The City will create a GIS-based BMP and storm sewer system database that is used to track inspection activities and initiate maintenance work orders. The City will continue this program and look for opportunities to improve the tracking of inspection results and program efficiency. The inspection program will be coordinated with the BMP and Outfall mapping updates.

***Measurable Goals:**

1. Reevaluate inspection schedule and frequencies following annual reporting results.
2. Increase or decrease frequency if prior year conditions warranted more or less frequent cleaning or maintenance.

***Timeline/Implementation Schedule:**

1. Ongoing/Annually
2. Ongoing/Annually

Specific Components and Notes:

***Responsible Party for this BMP:**

Name: Sr Engr Tech

Department: Public Works/ Engineering

Phone: 763.576.2782

E-mail: rzastrow@ci.anoka.mn.us

**Indicates a REQUIRED field. Failure to complete any required field will result in rejection of the application due to incompleteness.*

City of Anoka, Minnesota

IV. WATERS WITH RESTRICTED DISCHARGES

Waters with Restricted Discharges (*Rum River above Rice and Madison Streets)*

PART IX – APPENDIX C - SPECIAL WATERS
PROHIBITED AND RESTRICTED DISCHARGE WATERS AND TROUT WATERS

The following paragraphs summarize the requirements of Appendix C relating to limitations on coverage and how the City of Anoka is currently addressing these limitations. *Italicized text is repeated from the permit: Part IX. Appendix C: Limitations on Coverage.*

This part describes more stringent requirements for discharges that meet the specified criteria. Whenever two or more requirements, restrictions, or prohibitions apply, the requirements for both or all must be met. Whenever two or more requirements, restrictions, or prohibitions conflict, the more restrictive conditions are applicable.

Discharges to Waters with Restricted Discharges. The permit does not authorize new or expanded discharges to waters where the water quality standards restrict new or expanded discharges, unless such discharges are in accordance with Minn. R. 7050.0180 subpart 6, 6a and 6.b or other applicable rules. For MS4s that have discharges to "Outstanding Resource Value Waters" listed in (Minn. R.7050.0180, Subp. 6, 6a or 6b, (listed waters, or Waters With Restricted Discharges) the MPCA makes a rebuttable presumption that all MS4s discharging to listed waters have or will create a new or expanded discharge to a listed water. The following requirements create a schedule to bring discharges to listed waters into compliance.

In order to allow a new or expanded discharge, the MPCA must determine that there are no prudent and feasible alternatives to the new or expanded discharge. The determination will be based on your demonstration. This demonstration should include, but is not limited to developing a plan to address prudent and feasible alternatives to the discharge to listed waters. If you believe there are no prudent and feasible alternatives to the discharge to listed waters, you must develop a plan to restrict the discharge to the extent necessary to preserve the existing high quality, or to preserve the wilderness, scientific, recreational, or other special characteristics that make the listed water an outstanding resource value water.

The following items summarize the City of Anoka's plan for addressing discharges to the listed portion of the Rum River and correspond to the requirements of Permit Part IX, Appendix C, Item B, Subitems 1-5:

1. The Rum River upstream from Rice and Madison Streets is an "Outstanding Resource Value Water" as listed in Minn. R.7050.0180, Subp. 6a, Item G.

2. The City has developed a City-wide watershed map, Figure 2.2 in the City's Stormwater Management Plan (SWMP), dated August 2000.

   Based on Figure 2.1, "Land Use" in the City's SWMP and assuming a typical percent imperviousness for land uses based on standard NRCS methodology, the City has an **estimated impervious surface coverage of 40 percent**. The City is comprised of a large portion of single family residential homes, along with a combination of multiple family residences, industrial, commercial and open land.

   The City anticipates **no significant changes in the imperious surface coverage over the five-year term of this permit**. At this time, the City intends to implement the SWPPP as stated in this NOI submittal to address new and expanded discharges to this segment of the Rum River (see BMPs 4-03-R, 5-02-R and 5-04-R). If the City determines that changes are required to further address new and expanded discharges to listed waters, they will be submitted with the first annual report (see BMP C-01-R which follows this summary).

3. The City's SWPPP as described in this submittal contains prudent and feasible alternatives to new or expanded discharges as described in Subitem 2 above for the projects anticipated over the five-year term of this permit. However, if through application of the standards and processes in BMPs 4-03-R, 5-02-R and 5-04-R, the City determines that there are no prudent and feasible alternatives to a new or expanded discharge (that results in an increase in loading of one or more pollutants) the City will initiate implementation of BMP C-01-R.

4. The City's proposed plan and schedule for addressing new or expanded discharges to the Rum River above Rice and Madison Streets is summarized in Subitems 2 and 3 above. If the City initiates development of a plan as described in Subitem 3, the proposed plan will be submitted for MPCA review and approval, with our third annual report in March 2006. We understand that the plan will be reviewed by the MPCA Commissioner, who will provide opportunity for public input and hearing prior to denial or approval of our proposed plan.

5. The City intends to implement our current plan as of March 10, 2003. If the City must implement BMP C-01-R, our approved plan will be implemented during the 4th year of your permit. The plan will be included as part of our SWPPP; and our 4th and 5th year annual reports will provide applicable implementation information for public comment and a summary with our annual reports.

BMP Summary Sheet

MS4 Name: City of Anoka, Minnesota

Minimum Control Measure: IX - DISCHARGES TO RESTRICTED WATERS

Unique BMP Identification Number: IX - 01

***BMP Title:** Revised Plan for New and Expanded Discharges to the Rum River (if needed)

***BMP Description:**

If through application of the standards and processes in BMPs 4f-1, 5a-1 and 5b-1, the City determines that there are no prudent and feasible alternatives to a new or expanded discharge (that results in an increase in loading of one more pollutants) the City will initiate implementation of this BMP. The City will prepare a plan, which includes whether they believe they have prudent and feasible alternatives to any new or expanded discharges to the Rum River above Rice and Madison Streets.

It is essential to protect the Rum River above Rice and Madison Streets by preserving the existing high water quality, the wilderness, scientific, recreational or other special characteristics that make it an outstanding resource value water. This segment of the Rum River is listed in Minn. R. 7050.0180, Subp. 6a and this is a required BMP under Permit Part IX, Appendix C, Item B, Subitem 4.

***Measurable Goals:**

1. The City intends to implement our current plan to address new and expanded discharges as described in BMPs 4f-1, 5a-1 and 5b-1 as of March 10, 2003.
2. If the City must initiate development of a revised plan, the proposed plan will be submitted for MPCA review and approval, with our third annual report in March 2006, and measurable goals 2 and 3 will be addressed.
3. The City's MPCA-approved plan will be implemented during the 4th year of your permit.
4. The plan will be part of our SWPPP and our 4th and 5th year annual reports will provide applicable implementation information for public comment and a summary with our annual reports.

***Timeline/Implementation Schedule:**

1. Ongoing implementation of BMPs 4f-1, 5a-1 and 5b-1.
2. If needed, submit the revise/proposed plan with the third annual report.
3. Implement the revised and MPCA-approved plan by March 10, 2007.

Specific Components and Notes:

***Responsible Party for this BMP:**

Name: Public Works Director

Department: Public Works

Phone: 763.576.2781

E-mail: cgray@ci.anoka.mn.us

**Indicates a REQUIRED field. Failure to complete any required field will result in rejection of the application due to incompleteness.*