Agenda

Minnetonka City Council
Economic Development Advisory Commission
Planning Commission
Park Board
2040 Comprehensive Guide Plan Steering Committee

Joint Study Session

Tuesday, Sept. 4, 2018

6:30 p.m.

Community Center Dining Room

1. Crisis response overview

2. 2040 Comprehensive Guide Plan Update

3. Adjournment

The purpose of a study session is to allow the city council to discuss matters informally and in greater detail than permitted at formal council meetings. While all meetings of the council are open to the public, study session discussions are generally limited to the council, staff and consultants.
Background

Periodically, city personnel receive training on what to do in the event of severe weather. Further, recent incidents across the country and in our region have highlighted the need for the city to update and enhance its crisis response plan for incidents that affect city facilities, staff, and the public. Over the past year, police staff have been updating and enhancing the current crisis response procedures. Additionally, they have conducted site surveys at city buildings and used elements from existing plans to develop an approach that identifies threats and subsequent opportunities for prevention, deterrence and mitigation.

Police staff will be providing detailed training regarding crisis response for all city personnel. This training will provide a general overview of the four types of response: Severe Weather, Evacuation, Shelter in Place and Run, Hide, Fight. The objective of the training is to educate personnel on how to react when each of the four types of crisis response tactics are necessary.

Summary

At the Sept. 4 joint study session, police staff will provide this training to elected and appointed officials.

Submitted through:
   Geralyn Barone, City Manager

Originated by:
   Scott Boerboom, Chief of Police
Brief Description 2040 Comprehensive Guide Plan Update

Recommendation Review the drafts and provide feedback

Background

Over the past many months, staff and consultant teams have prepared draft sections of the 2040 Comprehensive Plan. At Tuesday’s meeting, the following sections will be reviewed:

- Resiliency
- Housing / Economic Development
- Land Use
- Transportation
- Water Resources
- Parks and Trails

Remaining work continues on land use, transportation and infrastructure sections during September prior to public outreach meetings in October. Throughout each section themes of resiliency and sustainability will be included:

Principles for a resilient and sustainable community

1. Livable Built Environment: Ensure that all elements of the built environment—including land use, transportation, housing, energy, and infrastructure—work together to provide sustainable, green places for living, working, and recreating, with a high quality of life.

2. Harmony with Nature: Ensure that the contributions of natural resources to human well-being are explicitly recognized and valued and that maintaining their health is a primary objective.

3. Resilient Economy: Ensure that the community is prepared to deal with both positive and negative changes in its economic health and to initiate sustainable urban development and redevelopment strategies that foster green business growth and build reliance on local assets.

4. Interwoven Equity: Ensure fairness and equity in providing for the housing, services, health, safety, and livelihood needs of all citizens and groups.

5. Healthy Community: Ensure that public health needs are recognized and addressed through provisions for healthy foods, physical activity, access to recreation, health care, environmental justice, and safe neighborhoods.

6. Responsible Regionalism: Ensure that all local proposals account for, connect with, and support the plans of adjacent
Group exercise

There are two goals for Monday’s meeting. The first is to provide an overview of the drafts completed to date. Staff will provide a topical overview of the major themes and policies in each topic area.

The second goal is to receive feedback on the drafts. To facilitate feedback, each topic will have a discussion table. At the meeting, staff will assign table numbers to everyone, to then break out into groups. Each group will have approximately 15 minutes per table/topic to discuss and answer specific table questions. A staff or consultant team member will help facilitate the conversation, answer questions and take notes on feedback received. Specific questions for each topic table will be presented at the meeting.

In addition to meeting input, members can provide input to staff through the month of September.

Discussion Point:

- Provide feedback for each draft chapter at discussion tables.

Public Outreach and Formal Review Process

Public outreach to the community has occurred throughout the update process. Seeking broader public input on draft plan elements will be sought in the upcoming months. Like the outreach during the winter where staff solicited community input, a similar approach will be taken at some of those same venues during the month of October. Those venues that seemed to connect best with the community were morning coffees and on-the-go input sessions. Three of each, for a total of six outreach sessions would be held during the month. Prior to that outreach, plan drafts would be posted on the website. Social media would be used to advertise and promote these events again. In addition, an on-line “book club” for each chapter of the plan would be hosted during October with MinnetonkaMatters. The “in-person” and “virtual” outreach opportunities provide multiple format opportunities to connect with people where they are most comfortable. As with any project, staff contact information will be available for outreach alternatives as well.

After a wrap up of public input, formal review of the plan would commence in November. As required by law, the Planning Commission would conduct a public hearing. Tentatively, that date would be November 15th. Depending on the outcome of the Planning Commission review, the City Council could review the plan as early as December 3rd with a back up date as December 17th. The public outreach and formal review process is outlined below.
<table>
<thead>
<tr>
<th>Month</th>
<th>Process Step</th>
</tr>
</thead>
<tbody>
<tr>
<td>September</td>
<td>• City Council Study Session (Sept. 4)</td>
</tr>
<tr>
<td></td>
<td>• Revise Drafts as needed</td>
</tr>
<tr>
<td></td>
<td>• Drafts for Public Input/Review</td>
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<tr>
<td>October</td>
<td>• Public Outreach and Input</td>
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<tr>
<td></td>
<td>o Rise and Shine Coffees (3x)</td>
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<tr>
<td></td>
<td>o On-the-Go Input (3x)</td>
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<tr>
<td></td>
<td>o Book Club (online via MinnetonkaMatters)</td>
</tr>
<tr>
<td></td>
<td>• Comprehensive Plan Steering Committee meeting (Oct. 24)</td>
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<tr>
<td>November</td>
<td>• Planning Commission Public Hearing (Nov. 15)</td>
</tr>
<tr>
<td>December</td>
<td>• City Council Adoption (Dec. 3 with Dec. 17 as back up date)</td>
</tr>
<tr>
<td></td>
<td>• Prepare Plan for Metropolitan Council Submission</td>
</tr>
<tr>
<td></td>
<td>• Adjacent Community and Agency Review</td>
</tr>
<tr>
<td>July 2019</td>
<td>• Metropolitan Council Approval</td>
</tr>
</tbody>
</table>

Discussion Point:

- Does the group have any feedback on the proposed public input process?

Summary

Progress continues on preparation of the 2040 Comprehensive Guide Plan. The city council and its advisory boards are requested to provide input on draft chapters related to resiliency, housing/economic development, land use, transportation, water resources, and parks and trails. Next steps include a robust public input process this fall, followed by formal public hearings later this year.

Submitted through:
Geralyn Barone, City Manager
Julie Wischnack, AICP, Community Development Director

Originated by:
Loren Gordon, AICP, City Planner
2040 Comprehensive Plan – Housing Chapter

Staff Person(s):
Alisha Gray, EDFP, Economic Development and Housing Manager
Julie Wischnack, AICP, Community Development Director
Loren Gordon, AICP, City Planner

Consultant Report:
Marquette Advisors “Housing Market Assessment: City of Minnetonka”

Summary of Chapter Minimums:

Existing Housing Need
- Complete an existing housing assessment, including:
  - A table of existing local conditions (found on your Community Page), including the following information:
    - Total number of housing units.
    - Number of housing units affordable to households with incomes at or below 30% Area Median Income (AMI), between 31 and 50% AMI, and between 51 and 80% AMI. What these income ranges mean and how they translate to affordable housing costs.
    - Number of housing units that are owner occupied.
    - Number of housing units that are rental.
    - Number of single family homes.
    - Number of multi-family homes.
    - Number of publicly subsidized housing units by the following types: senior housing, housing for people with disabilities, and all other publicly subsidized units. Include expiration dates of affordability requirements when applicable.
    - Number of existing households that are experiencing housing cost burden with incomes at or below 30% Area Median Income (AMI), between 31 - 50% AMI, and 51 -80% AMI.
  - A map of owner-occupied housing units (found on your Community Page) identifying their assessed values. At a minimum, differentiate the values above and below $243,500. What is this number and how is it calculated?
  - A narrative analysis of existing housing needs. At a minimum address the components of the existing housing assessment within the local context of your community. Plans consistent with Council policy will clearly identify existing housing needs and priorities for the community.

Projected Housing Need

Minimum Requirements:
- Discuss how the land use plan addresses the future housing need for your forecasted growth.

For Those Communities With An Affordable Housing Need Allocation:
- Acknowledge your community’s allocation of the region’s need for affordable housing at three levels of affordability: <30% AMI, 31-50% AMI, and 51-80% AMI. How is this calculated?
• Guide residential land at densities sufficient to create opportunities for affordable housing using one of the following options:
  1. Option 1: Guide sufficient land at minimum residential densities of 8 units/acre to support your community’s total allocation of affordable housing need for 2021 – 2030. This option may be best for communities that find it difficult to support densities of 12 units/acre (per Option 2), or prefer simplicity over flexibility in their density minimums.
  2. Option 2: Guide sufficient land at minimum residential densities of:
     • 12 units/acre to address your community’s allocation of affordable housing need at <50% AMI. This combines your community’s allocation at <30% AMI and 31-50% AMI.
     • 6 units/acre to address your community’s allocation of affordable housing need at 51-80% AMI.

Option 2 may be best for communities that feel they can achieve affordable housing needs at 51-80% AMI with less than 8 units/acre. It also allows the affordable housing need to be addressed with less actual land, as is the case if communities choose to use even higher densities than are required. Furthermore, communities using Option 2 may guide land to meet their allocation of affordable housing need at 51-80% AMI using a minimum density range of 3-6 units/acre if they have demonstrated in the last 10 years the application of programs, ordinances, and/or local fiscal devices that led to the development of housing affordable at 51-80% AMI in their community. Examples include: density bonuses for affordable housing unit inclusion, local funding programs such as TIF, etc.

**Implementation Plan**

**Minimum Requirements:**

• A description of public programs, fiscal devices, and other specific actions that could be used to meet the existing and projected housing needs identified in the housing element. Include in what circumstances and in what sequence they would be used.

• Plans consistent with Council policy will clearly and directly link identified needs to available tools. Needs are identified within the three levels of affordability, and tools should therefore be addressed within the levels of affordability as well. See an example.

• Plans consistent with Council policy will consider all widely accepted tools to address their housing needs. A list of widely accepted tools is provided, however, this list is not exhaustive. Communities are strongly encouraged to include any additional tools at their disposal when identifying how they will address their housing needs.

**References utilized to draft chapter:**

• 8/1/1995 – Review Affordable Housing Definition and Packet and Review and discuss Housing Resources and options
• 9/13/1995– Review and Discuss Housing Resources and Options
• 9/13/1995 – Review and discuss options regarding affordable housing roles and Discuss Livable communities housing goals
• 10/17/1995 – Discuss Housing Goals related to Livable Communities
• 11/14/1995 – Housing Goals Agreement and Resolution to Participate in Livable Communities
- 12/12/1995 – Discuss Action Plan for the Livable Communities Act – Housing Element of the Comp Plan
- 1/9/1996 – Discuss Principles for the Housing Action Plan
- 2/13/1996 – Discussion regarding the Housing Action Plan
- 3/12/1996 – Discuss policy on presenting affordable housing options to developers
- 4/9/1996 – Discussion regarding the Housing Action Plan
- 4/30/1996 – Discussion regarding the Housing Action Plan
- 5/14/1996 – Discuss Draft of Housing Action Plan
- 6/11/1996 – Review and discuss the draft Housing Action Plan
- 9/2/1996 – Final Draft – City Assistance to Affordable Housing Developments
- 10/28/1996 – Report and Resolution to Participate in Livable Communities Act Local Housing Incentives Program
- 9/22/1998 – Draft Policy – City Assistance to Affordable Housing Developments (incorporated into comp plan and future TIF policy)
- 1999 – 2020 Comprehensive Plan
- 8/6/2001 – WHAHLT Business Plan/History
- 2/3/2004 – Economic Development Authority resolution supporting 10% to 20% of units in new housing developments as affordable housing.
- July 27, 2009 – ULI Opportunity City Pilot Program – report indicated the community’s demographic change and strategies to address.
- 2008 – 2030 Comprehensive Plan
- 2010- Minnetonka Housing Action Plan
- 2012 – 2019 Economic Improvement Programs
- 2017 - Housing Market Assessment: City of Minnetonka
  - Prepared by Marquette Advisors
- 2008-2030 Comprehensive Plan

Chapter Components:

1. Introduction
2. Current Trends
3. Summary Current Local Conditions (data)
4. Projection of Future Need
5. Implementation Plan
6. Tools/Resources
7. Maps
8. Appendices for Additional Reports

Chapter XX: Housing in Minnetonka

Introduction

A variety of housing choices is important for the vitality of Minnetonka. Beyond providing shelter, housing establishes the look and feel of the community; and its location affects other
land uses, access and location of the transportation systems, municipal service delivery and access to employment opportunities, and strength of the school system.

This chapter of the Minnetonka Comprehensive Guide Plan describes the City’s role to achieve its goals of:

- Strengthening neighborhoods by improving and preserving the existing housing stock;
- Promoting new affordable and market-rate rental and for-sale housing;
- Encouraging diversity in the types, sizes, and prices of housing units available in Minnetonka; and
- Creating partnerships with other agencies to ensure the longevity of affordable housing.

This chapter provides a brief overview of housing trends in Minnetonka and includes an analysis of existing housing conditions. Based upon the trends and analyses, a forecast of future housing needs is presented along with goals and actions for increasing affordable housing. The chapter concludes with a description of implementation strategies to be used by the city to achieve the goals and policies.

1. Local Perspective

Minnetonka is expected to reach a population of 61,500 by 2040, with nearly 28,300 households. The anticipated increase of nearly 7,637 new residents comprised of 4,698 new households over the next two decades will create the demand for a diverse range of housing options. This range of housing will be important to both the existing residents and for the attraction of new residents to the community.

The city of Minnetonka’s Economic Improvement Program (EIP) is the city’s long-term plan for housing, economic development, redevelopment, and transit programs that promote economic vitality for the citizens and businesses of Minnetonka. The EIP covers a broad range of community development activities, including housing, and identifies available funding sources for each activity. The EIP is updated every year and supports the goals and strategies identified in the comprehensive plan.

2. Regional Perspective

The Minneapolis-St. Paul metropolitan area is expected to grow an additional 273,000 households by 2040. Minnetonka, classified as a suburb, will be expected to accommodate 4,698 new households of this future regional growth over the coming years. The city welcomes and is fully committed to developing innovative new housing strategies and opportunities to address and collaboratively meet the needs of the region.

The METRO Green Line Extension Light Rail Transit (LRT) also known as the Southwest Light Rail Transit, is a planned LRT extension of the existing METRO Green Line that will extend from downtown Saint Paul through Minneapolis to Saint Louis Park, Hopkins, Minnetonka, and Eden Prairie with an anticipated revenue service date of 2023.

3. Overview of Housing Trends
A. Development Conditions

Minnetonka is a desirable community in which to live. Its natural environment, good schools, and homes on large lots contribute to the attraction of Minnetonka as a great place to live, work and play. As such, the demand for these community attributes has led to increased home values that have risen to the point that most single-family homes, despite their age, are not affordable to low and moderate income families. Additionally, land values continue to increase substantially, making it difficult for developers to build affordable and mid-priced single-family homes. Minnetonka is a fully developed city with little vacant or underdeveloped land available for new housing development. With the combination of increasing land values and little developable land, most of the affordable homes in the community are rental units and for-sale condominiums and townhomes. The city is experiencing an uptick in higher density redevelopment in response to housing demand for for-sale and rental product.

B. Aging of the Population

One of the biggest demographic shifts affecting Minnetonka is aging of the resident base, specifically adult households ages 55-64 in Minnetonka referred to as the “baby boomer generation” (the large generation of people born between 1946 and 1964). In Minnetonka, this group was comprised of an estimated 5,214 households in 2016 with a median income of $107,639. It is anticipated that many in this group will age into their “empty nester” and/or retirement years over the next 5-10 years. Based on the current trends, these households will continue to age in place, remaining in their single family homes. Others may consider senior housing alternatives such as condos, age restrictive senior cooperatives, or active senior rental housing opportunities. To prepare for the rapid increase in the senior population, the City will need to work with and encourage developers and housing providers to develop a variety of housing types at various costs and rents with features that cater to the diverse and changing desires and needs of its senior population. The shift in demographics will be most visible at the local level of government, where residents have the greatest ability to affect services, and where there is substantial contact with service providers.

C. Jobs/Housing Balance

Minnetonka has a strong and expanding business community with businesses project to employ 63,200 employees by 2040. However, given the very limited production of new housing units in the community over several years, paired with low turnover rates in the existing housing stock with many seniors aging in place, much of the Minnetonka-based workforce resides elsewhere. This relates in part to housing affordability, certainly, as documented in this report. However, scarcity of housing is perhaps more the issue. While Minnetonka’s housing stock, its rentals specifically, is relatively affordable, the fact is they are at near full capacity, with vacancy rates at 2.0% or lower for much of the apartment stock. Meanwhile, there is limited supply of home purchase opportunities in Minnetonka due to rising values and low turnover rates. In addressing future housing plans, the City should work to improve this jobs / housing balance through infill construction, redevelopment at higher densities, and the provision of life-cycle housing products which are sensitive to the needs of the current and future resident and worker base.
4. Where We Have Been

Much of Minnetonka’s single-family housing stock was built between 1950 and 1970 while most multi-family housing was built in the 1970s and 1980s. As the housing stock continues to age, additional maintenance and repairs will be needed in order to keep homes in adequate condition and to preserve neighborhood character. Older homes may need to be updated in order to attract younger families to the community. Also, as both Minnetonka’s population and housing age, older residents may require increased support through funding and in-kind service programs that will help them to maintain and make necessary repairs to ensure that their homes are safe, accessible, energy efficient, and habitable. Additionally, while not all older homes are affordable, older homes tend to be the more affordable housing stock in Minnetonka. The preservation of these homes is critical to providing homeownership opportunities for those who could normally not afford to live in the community.

5. Where We are Today

5.1 Households and Housing Stock

Minnetonka had an estimated 23,825 housing units in 2015 that provided homes for over 22,000 households. Table 5.1 illustrates the housing units by type in Minnetonka in 2015. The housing stock is comprised primarily of single family units comprising 56 percent of the housing stock with multifamily comprising of 31 percent of the housing stock.

<table>
<thead>
<tr>
<th>Housing Units by Type</th>
<th>Units</th>
<th>Percent</th>
</tr>
</thead>
<tbody>
<tr>
<td>Single Family (one unit detached)</td>
<td>13,308</td>
<td>56%</td>
</tr>
<tr>
<td>Townhomes (single family attached)</td>
<td>2,535</td>
<td>10%</td>
</tr>
<tr>
<td>Duplex, Triplex and Quad</td>
<td>607</td>
<td>2%</td>
</tr>
<tr>
<td>Multifamily (5 -19 units)</td>
<td>502</td>
<td>2%</td>
</tr>
<tr>
<td>Multifamily (20 units or more)</td>
<td>6,818</td>
<td>29%</td>
</tr>
<tr>
<td>Mobile Home</td>
<td>41</td>
<td>&lt;1%</td>
</tr>
<tr>
<td>Other (Boat, RV, Van)</td>
<td>14</td>
<td>&lt;1%</td>
</tr>
<tr>
<td><strong>Total</strong></td>
<td><strong>23,285</strong></td>
<td><strong>100%</strong></td>
</tr>
</tbody>
</table>

Table 5.1. Source: (US Census/ACS Survey Data, 2015), City of Minnetonka

5.2 Age of Housing Stock

Table 5.2 illustrates the age of the existing housing stock in Minnetonka on 2015. Only 5.5% of the housing stock was built between 2000-2015, compared to 12.1% for the PMA and 14.6% for the metro area. Minnetonka’s housing features a large number of homes constructed in the 1970’ and 1980’s, including both single family homes and larger multi-unit buildings. A majority of the larger multifamily buildings were built in the 1980’s.
A summation of building permit activity for Minnetonka for 2000 through 2016, sourced from the Met Council Residential Building Permit Survey, Figure 5.2.B, demonstrates the considerable ramp-up on new construction apartments, as well as senior housing, in Minnetonka over the past 2+ years. This trend indicates both renters and buyers have demonstrated a strong positive response to these new developments, which have resulted in a quick lease up or sellout period.

Figure 5.2.B

<table>
<thead>
<tr>
<th>YEAR STRUCTURE BUILT</th>
<th>2015 Estimate</th>
<th>Percent</th>
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<tbody>
<tr>
<td>Total housing units</td>
<td>23,825</td>
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</tr>
<tr>
<td>Built 2014 or later</td>
<td>24</td>
<td>0.1%</td>
</tr>
<tr>
<td>Built 2010 to 2013</td>
<td>84</td>
<td>0.4%</td>
</tr>
<tr>
<td>Built 2000 to 2009</td>
<td>1,221</td>
<td>5.1%</td>
</tr>
<tr>
<td>Built 1980 to 1989</td>
<td>3,350</td>
<td>14.1%</td>
</tr>
<tr>
<td>Built 1980 to 1989</td>
<td>6,415</td>
<td>26.0%</td>
</tr>
<tr>
<td>Built 1970 to 1979</td>
<td>4,336</td>
<td>18.2%</td>
</tr>
<tr>
<td>Built 1960 to 1969</td>
<td>3,181</td>
<td>13.4%</td>
</tr>
<tr>
<td>Built 1950 to 1959</td>
<td>3,797</td>
<td>15.9%</td>
</tr>
<tr>
<td>Built 1940 to 1949</td>
<td>504</td>
<td>2.1%</td>
</tr>
<tr>
<td>Built 1930 or earlier</td>
<td>907</td>
<td>3.8%</td>
</tr>
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</table>

Table 5.2. Source: (US Census/ACS Survey Data, 2015), City of Minnetonka

5.3 Housing Values

A. Single Family Housing

Land values and new construction costs greatly influence the cost of production of new single family housing in Minnetonka. There have been relatively few new home sales in Minnetonka in recent years, with 20 recorded sales in 2016 and 23 recorded sales in 2015.
New construction of single family housing in Minnetonka is focused at the high end of the market. In 2016, the average price for a new construction home was $950,455 that sold for an average of $969,000. Additionally, the average size of a new construction home in 2016 was 4,320 square feet.

The average resale price of homes sold in Minnetonka has increased substantially since 2000. In 2000, 35 percent of single family homes sold were priced under $200,000. By 2006, only four homes sold for under $200,000. Between 2006 and the 2016, the average resale price of single family homes increased from $286,000 to $432,980, a 51 percent increase (Table 5.3.A). In 2017, only five homes sold for under $200,000, and there were 107 single family homes sold that were priced between $200,000-$300,000 (less than 1% of the single family housing units in the city).

Homes considered affordable by the Metropolitan Council are those affordable to families earning 80 percent of the metropolitan area’s median income and adjusted for household size. In 2017, the Area Median Income (AMI) was $85,800. Thus, a family of four, earning 80 percent of the AMI, would be able to afford a home sold at $235,000. Roughly, one percent of all single family home sales in 2016.

<table>
<thead>
<tr>
<th>Product Type</th>
<th>2012</th>
<th>2013</th>
<th>2014</th>
<th>2015</th>
<th>2016</th>
<th>2017 1st Half</th>
</tr>
</thead>
<tbody>
<tr>
<td>Single Family</td>
<td>$353,502</td>
<td>$401,291</td>
<td>$410,561</td>
<td>$421,192</td>
<td>$432,980</td>
<td>$467,691</td>
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<tr>
<td>Townhouse</td>
<td>$230,165</td>
<td>$254,095</td>
<td>$245,793</td>
<td>$262,017</td>
<td>$281,015</td>
<td>$265,649</td>
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<tr>
<td>Condo</td>
<td>$113,247</td>
<td>$132,251</td>
<td>$143,149</td>
<td>$154,647</td>
<td>$160,760</td>
<td>$176,102</td>
</tr>
<tr>
<td>Total</td>
<td>$297,719</td>
<td>$336,704</td>
<td>$329,675</td>
<td>$356,334</td>
<td>$395,574</td>
<td>$386,083</td>
</tr>
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</table>

Source: Mpls. Area Association of Realtors-Northstar MLS

Table 5.3.A. Source: MLS. Area Association of Realtors-Northstar MLS - 2017

B. Multi-family For Sale Housing

The average value of Minnetonka’s multi-family for-sale homes (i.e. condominiums and townhomes) in 2006 was $227,675. In 2016, the average sale price for a townhouse was $281,015 while condos sold for $160,760. Multi-family homes contribute to the bulk of the city’s affordable for-sale housing stock because they are generally more affordable than Minnetonka’s single-family detached homes. Multi-family for-sale homes are approximately $212,047 less than the average sales price for single-family detached homes. Older units (those built between 1960 and the 1990s) are the most affordable.
Very few new condos and townhomes have been constructed over the past 10 years. However, new production of condos is desired by older adults and active seniors seeking alternatives to single family homes. Young buyers (many single persons and couples) are seeking smaller and more affordable for sale product types. Table 5.3B illustrates the number of home sales by product type between 2012 and 2016.

| Number and % of Home Sales by Product Type, 2012 to date |
|---------------------------------|------|------|------|------|------|-------|
| City of Minnetonka              | 2012| 2013| 2014| 2015| 2016| 2017 1st Half |
| Single Family                   | 549 | 569 | 517 | 614 | 642 | 314    |
| Townhouse                       | 142 | 152 | 166 | 153 | 204 | 89     |
| Condo                           | 118 | 117 | 149 | 121 | 172 | 65     |
| Total                           | 809 | 838 | 832 | 888 | 1,018| 468    |
| SF                              | 67.9%| 67.9%| 62.1%| 69.1%| 63.1%| 67.1% |
| TH                              | 17.6%| 16.1%| 20.8%| 17.2%| 20.6%| 19.0% |
| Condo                           | 14.6%| 14.0%| 17.5%| 13.6%| 16.9%| 13.9% |
| Total                           | 100.0%| 100.0%| 100.0%| 100.0%| 100.0%| 100.0%|

Table 5.3.B. Source: MLS. Area Association of Realtors-Northstar MLS - 2017

There are approximately 188 contract-based-for-sale housing units in Minnetonka (within seven developments). These include indexed units with affordability requirements that were established as part of a development agreement.

### 5.4 Housing Tenure

In 2016, Minnetonka was home to an estimated 16,476 (72.5%) home owners and 6,241 (27.5%) renters. By comparison, an estimated 30.9% of metro area households rented their housing. Minnetonka was home to an estimated 1.7% of the metro area’s renter households in 2016, and 2.0% of the region’s homeowners (Table 5.4A)

<table>
<thead>
<tr>
<th>Housing Tenure Data</th>
<th>City of Minnetonka and Twin Cities Metro Area</th>
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</thead>
<tbody>
<tr>
<td><strong>Minnetonka</strong></td>
<td></td>
</tr>
<tr>
<td>Owner Occupied Units</td>
<td>16,076</td>
</tr>
<tr>
<td>Renter Occupied Units</td>
<td>5,825</td>
</tr>
<tr>
<td>Total Occupied Units</td>
<td>21,801</td>
</tr>
<tr>
<td><strong>Twin Cities Metro Area</strong></td>
<td></td>
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<tr>
<td>Owner Occupied Units</td>
<td>782,475</td>
</tr>
<tr>
<td>Renter Occupied Units</td>
<td>335,274</td>
</tr>
<tr>
<td>Total Occupied Units</td>
<td>1,117,749</td>
</tr>
</tbody>
</table>

Table 5.4.A. Sources: US Census, ESRI Business Information Solutions
The home ownership rate Minnetonka seniors is slightly greater than that for the Twin Cities metro area as a whole; especially among seniors under age 75. Table 5.4.B illustrates that an early 48% (10,462 households) of the Minnetonka household base in 2010 were ages 55+. An estimated 54% of the city’s home owners and 32% of its renters were age 55+. Home ownership rates typically decline as householder’s age. In Minnetonka, we note that about 87% of households aged 65 to 74 owned their homes (2,247 households) in 2010, compared to 70% of those age 75+ (2,111 households). This statistic from 2010 could be considered a pre-cursor of demand for independent senior housing concepts in Minnetonka.

Table 5.4.B

<table>
<thead>
<tr>
<th>Senior Tenure by Age of Householder - 2010</th>
<th>City of Minnetonka</th>
<th>Metro Area</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Own</td>
<td>Rent</td>
</tr>
<tr>
<td>Number of Households</td>
<td>4,267</td>
<td>602</td>
</tr>
<tr>
<td>Homeownership Rate</td>
<td>86%</td>
<td></td>
</tr>
<tr>
<td>55-64</td>
<td></td>
<td></td>
</tr>
<tr>
<td>65-74</td>
<td></td>
<td></td>
</tr>
<tr>
<td>75+</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Source: U.S. Census-2010</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

Table 5.4.B

5.5 Multifamily Housing

Minnetonka had approximately 7,100 total rental housing units in 2017. This includes the following product types:

- 4,406 market rate apartments (buildings w/10+ units)
- 686 age-restricted senior rental units
- 564 affordable apartment units (contract based affordable @<60% of AMI)
- 1,444 (approximately) rental units in small buildings of <10 units, including rented SF homes, townhomes, etc.

A. Market Rate Multifamily Housing

In today’s market, large numbers of households are choosing to rent, rather than buy. This is occurring for various reasons, both economic and lifestyle related. Generally, renting is less expensive than purchasing a home in Minnetonka. The average rent for a two bedroom apartment in 2016 was $1,292 and the average sales price for a home in Minnetonka was $355,000, which would result in a mortgage payment of roughly $2,100 plus taxes. Additionally, millennials experiencing high college debt have less saving available for a down-payment to
purchase a home and less monthly income to allocate to housing. Younger households tend to rent versus purchasing a home due to job mobility early on in their career.

There are a number of lifestyle factors that also make renting the preferred alternative for a diverse range of household groups. This includes:

- Maintenance Free Living
- Smaller Households
- Preference for New Housing Product
- Lifestyle Appeal of High Amenity Modern Apartments
- Preference for Dense, Walkable, Urban Locations

A recent study by Marquette advisors estimated potential demand for approximately 2,800 new general occupancy rental housing units over the next 20 years, or an average units a year to meet projected demand.

**B. Affordable Multifamily Housing**

Generally, there are two types of affordable housing in Minnetonka: “Naturally occurring affordable housing” (NOAH) available through the private market that is not publicly subsidized and housing that is affordable through receipt of public subsidy.

There are various definitions of “affordable” and housing costs are subject to change as a result of supply and demand. The general rule of thumb used by the U.S. Department of Housing and Urban Development (HUD) and other agencies defines housing as “affordable” when a household pays no more than 30 percent of its annual income on housing (including utilities). It is important to note that income definitions vary depending on the number of people in the household. A common metric used in defining affordability is a 4-person household. Because housing costs vary widely by region, affordability is often described relative to the local “Area Median Income” (AMI), which reflects the midpoint of the region's income distribution.

Household income thresholds for the three AMI categories in the Twin Cities are shown in Table 5.5.B.1.

<table>
<thead>
<tr>
<th>Income Category</th>
<th>AMI Range</th>
<th>Maximum Income Threshold</th>
<th>30% HH Income</th>
<th>Affordable Monthly Housing Costs</th>
</tr>
</thead>
<tbody>
<tr>
<td>Extremely Low Income</td>
<td>0%-30%</td>
<td>$27,100</td>
<td>$8,130</td>
<td>$675</td>
</tr>
<tr>
<td>Very Low Income</td>
<td>31%-50%</td>
<td>$45,200</td>
<td>$13,560</td>
<td>$1,130</td>
</tr>
<tr>
<td>Low Income</td>
<td>51%-80%</td>
<td>$68,000</td>
<td>$20,400</td>
<td>$1,700</td>
</tr>
</tbody>
</table>

Table 5.5.B-1 Source: US Department of Housing and Urban Development/Metropolitan Council

In 2016, the city had a total of 564 contract based units affordable at <60% AMI in subsidized apartment buildings in the city and a total of 4,950 NOAH units in market rate buildings which were affordable at <60% AMI as noted in table 5.5A. In 2016, more than 75% of the rental stock within the city was considered affordable at <80% AMI, with nearly 90% of the affordable housing categorized as naturally occurring (Table 5.5.B-2)
Demand for affordable housing remains steady as sustained low vacancy rates and strong demand is continues to impact rent in Minnetonka and the region.

5.5 Senior Housing

Senior Housing is typically defined as an age-restricted housing product specifically designed for seniors age 55 and greater. Over the past several years, the market has developed a wide variety of product types with varying levels of service that are provided. For seniors, the choice of product depends on level of care needed on a case-by-case situation, in addition to the household income levels and financial assets. The following senior housing products are in demand:

- Active Adult or Adult-Few Services Properties
- Independent Senior Living or “Congregate Senior Housing”
- Assisted Living
- Memory Care
- Residential Care Homes

Minnetonka features a total of 2,922 age-restricted senior housing units. This includes 694 owners units (condos and co-ops) and 2,228 rental units. Minnetonka’s senior housing is primarily market rate. The rental inventory includes a total of 114 contract based affordable senior units, including 42 units at Westridge, 62 units at Beacon Hill, and 10 units that were recently completed at Cherrywood Pointe. Additionally, there are nine contract based affordable ownership units at Applewood Pointe.

Current Supply of Senior Housing by Product Type:

<table>
<thead>
<tr>
<th>Product Type (ownership)</th>
<th>Number of units in 2017</th>
</tr>
</thead>
<tbody>
<tr>
<td>Adult/Few Services (Co/ops)</td>
<td>143</td>
</tr>
<tr>
<td>Adult/Few Services (Condos)</td>
<td>551</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Product Type (rental)</th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td>Adult/Few Services (condos/co-ops)</td>
<td>0</td>
</tr>
<tr>
<td>Independent Senior Housing</td>
<td>552</td>
</tr>
<tr>
<td>Assisted Living</td>
<td>329</td>
</tr>
</tbody>
</table>
A. For Sale Housing

In Minnetonka, 48% of the households (10,462) were ages 55 and greater in 2010. Additionally, this group was 54% of the city’s home owners and 32% of its renters in the community. This statistic from 2010 illustrates the increasing demand for independent senior housing in Minnetonka.

As seniors age, they may no longer desire, or be able or willing to maintain their single-family homes. Some prefer to move to housing that offers them greater freedom from maintenance and/or offers support services. Seniors and/or their caregivers or adult children typically begin to consider senior housing alternatives as they age into their 70’s - some earlier, some even later, depending on their health/mobility, care needs, and finances.

Additionally, a majority of seniors own their homes mortgage free and can use equity for downsizing to invest in a new ownership product that better meets their needs. However, recent trends also indicate that many seniors are “aging in place” which poses a challenge for prospective first time homebuyers looking to purchase an affordable home in the city.

B. Rental Housing

Minnetonka’s senior housing is primarily market rate rental housing, with approximately 2,228 units in 2017. Based on analysis by Marquette Advisors, there is a considerable demand for independent and adult-few services housing in comparison to memory care and assisted living. Projects show that there will likely be demand for 608 senior units in Minnetonka over the 2022-2027 timeframe as indicated in table 5.6B.

<table>
<thead>
<tr>
<th>Product Type/Service Level</th>
<th>Short Term Demand (1-5 yrs)</th>
<th>Long-Term Demand (5-10 yrs)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Adult/Few. Services &amp; Independent</td>
<td>370</td>
<td>320</td>
</tr>
<tr>
<td>Assisted Living</td>
<td>102</td>
<td>100</td>
</tr>
<tr>
<td>Memory Care</td>
<td>97</td>
<td>69</td>
</tr>
<tr>
<td>Total</td>
<td>659</td>
<td>608</td>
</tr>
</tbody>
</table>

Table 5.6.B

C. Cooperatives
Minnetonka has a total of 143 adult condo/co-op units, with two major developments that opened in 2017 (Applewood Pointe and Zvago). The market for this project remains strong as the two recent projects were fully occupied within months of opening. It is anticipated that interest in condos and co-ops will remain high as seniors look to reinvest equity from the sale of single family homes.

6. Future of Minnetonka

6.1 Population

Minnetonka was home to an estimated 51,752 residents in 2016, up from 48,734 in 2010. According to ESRI estimates, the city has grown by an average of 336 new residents per year since 2010, reflecting an annual growth rate of 0.7%. ESRI forecasts suggest that Minnetonka will grow by an average of 422 persons/year to 53,863 residents in 2021. Longer-term forecasts by the Met Council predict the population growth rate in Minnetonka will accelerate somewhat between 2021 and 2030, adding an average of 460 residents per year, and then slowing to 350 residents per year from 2030-2040. Minnetonka is forecast to account for 1.4% of metro area population growth between 2016-2021, increasing to 1.8% between 2021-2030, before falling back to 1.3% of regional growth from 2030-2040 (Table 6.1)

6.2 Households

Household growth is a particularly relevant gauge of an area’s housing needs because households, by definition, represent occupied dwelling units. In 2016, Minnetonka had an estimated 22,717 households, up from 21,901 in 2010. The city grew by an average of 136 households per year between 2010-2016, accounting for about 1.3% of metro area growth during this timeframe. Minnetonka is predicted experience an uptick in household growth. After averaging 136 households/year between 2010-2016, Minnetonka household growth is projected to increase to 177 per year between 2016-2021 and 322 per year from 2021-2030, before pulling back to 170 per year between 2030-2040. Minnetonka is forecast to account for 1.5% of metro area household growth between 2016-2021, increasing to 2.6% between 2021-2030, and then declining to 1.6% of regional growth from 2030-2040 (Table 6.1)

Table 6.1

<table>
<thead>
<tr>
<th></th>
<th>U.S. Census</th>
<th>ESRI</th>
<th>Met Council</th>
<th>U.S. Census</th>
<th>ESRI</th>
<th>Met Council</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Population</strong></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Minnetonka</td>
<td>51,102</td>
<td>49,734</td>
<td>53,752</td>
<td>53,063</td>
<td>58,000</td>
<td>61,560</td>
</tr>
<tr>
<td>Primary Market Area</td>
<td>340,757</td>
<td>353,033</td>
<td>373,990</td>
<td>390,617</td>
<td>429,150</td>
<td>432,630</td>
</tr>
<tr>
<td>Twin Cities Metro Area (7 Counties)</td>
<td>2,642,656</td>
<td>2,849,567</td>
<td>3,208,704</td>
<td>3,710,235</td>
<td>3,888,950</td>
<td>3,952,060</td>
</tr>
<tr>
<td><strong>Households</strong></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Minnetonka</td>
<td>21,267</td>
<td>21,001</td>
<td>22,717</td>
<td>23,602</td>
<td>26,600</td>
<td>26,300</td>
</tr>
<tr>
<td>Primary Market Area</td>
<td>141,650</td>
<td>150,119</td>
<td>157,633</td>
<td>164,777</td>
<td>178,650</td>
<td>180,050</td>
</tr>
<tr>
<td>Twin Cities Metro Area (7 Counties)</td>
<td>1,021,454</td>
<td>1,117,249</td>
<td>1,179,277</td>
<td>1,236,956</td>
<td>1,353,653</td>
<td>1,498,747</td>
</tr>
</tbody>
</table>

Sources: US Census Bureau; ESRI Business Information Solutions; Twin Cities Met Council
6.3 Household Size

In 2000, the average household in Minnetonka comprised 2.40 persons. This had declined to 2.27 persons per household in 2010, then held fairly steady through 2016. Going forward, the average household size in Minnetonka is forecast to decline to 2.18 persons in 2030, before leveling off Table 6.3). This trend relates in part to a variety of factors:

- Declining birth rates
- The aging of the current household base (i.e. Minnetonka residents “aging in place,” with more becoming “empty nesters”)
- Smaller households (on average) moving to Minnetonka – especially 1 and 2-person households

Table 6.3

<table>
<thead>
<tr>
<th></th>
<th>Avg. # of Persons per Household</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>2000</td>
</tr>
<tr>
<td>Minnetonka</td>
<td>2.40</td>
</tr>
<tr>
<td>Primary Market Area</td>
<td>2.42</td>
</tr>
<tr>
<td>Twin Cities Metro Area</td>
<td>2.59</td>
</tr>
</tbody>
</table>

Sources: US Census Bureau; ESRI Business Information Solutions; Twin Cities Met Council

6.4 Household Income

Minnetonka, on average, is an affluent community. The median household income for the Minnetonka resident base in 2016 was estimated at $86,559, compared to the metro area median income of $67,795. The median household income in Minnetonka is projected to increase to $99,801 in 2021, reflecting a 15% increase over five years. This compares to a similar increase of 16% for the Metro Area. Minnetonka has a concentration of upper-income households in Minnetonka. For example, 14.5% of Minnetonka households earned more than $200,000 in 2016, compared to 8.0% of metro area households (Figure 6.4A)

Figure 6.4A
6.5 Analysis of Affordable Housing Need

Affordable housing is an increasing scarce resource in Minnetonka. Many Minnetonka residents and city leaders have expressed a need to provide opportunities to encourage and ensure that there is affordable housing within the city. The following section of the Housing Chapter describes the importance of affordable housing in Minnetonka and city initiatives and strategies to increase opportunities for affordable homeownership and rental housing units for low- and moderate income households.

The U.S. Department of Housing and Urban Development (HUD) defines housing as affordable when a household spends no more than 30 percent of its annual income on its housing needs. Households that pay more than 30 percent of their income for housing are considered cost burdened and may have difficulty affording other necessities such as food, clothing, transportation and medical care. Additionally, HUD has defined “moderately cost-burdened” households as those paying 35% or more of their income for housing, and “severely” burdened households are paying more than 50% of their incomes on housing.

The Metropolitan Council has further defined affordable housing as:
- Rental housing that is affordable at incomes at or below 80 percent of the area’s median family income.
- Owner-occupied housing that is affordable at incomes at or below 80 percent of the area’s median family income.
- In 2017, the area median income (AMI) for a household of four is $86,000. Under these limits, a family of four can earn up to $71,900 to qualify for affordable housing.

According to the Metropolitan Council, Minnetonka had approximately 24,223 housing units (70% ownership and 30% rental) in 2016 that provided housing for 23,367 households. Approximately 39% of housing in Minnetonka was considered affordable to households with incomes below 80%. However, 42% of households earning less than 80% AMI were considered
cost burdened. Additionally, there were 555 publicly subsidized units in the community, of which 45 were reserved for seniors. (Table 6.5A).

### Table 1: Affordability in 2016

<table>
<thead>
<tr>
<th>Units affordable to households with income at or below 30% of AMI</th>
<th>Units affordable to households with income 31% to 50% of AMI</th>
<th>Units affordable to households with income 51% to 80% of AMI</th>
</tr>
</thead>
<tbody>
<tr>
<td>783</td>
<td>1,485</td>
<td>7,289</td>
</tr>
</tbody>
</table>

### Table 2: Tenure in 2016

<table>
<thead>
<tr>
<th>Ownership units</th>
<th>Rental units</th>
</tr>
</thead>
<tbody>
<tr>
<td>16,759</td>
<td>7,464</td>
</tr>
</tbody>
</table>

### Table 3: Housing Type in 2016

<table>
<thead>
<tr>
<th>Single-family units</th>
<th>Multifamily units</th>
<th>Manufactured homes</th>
<th>Other housing units</th>
</tr>
</thead>
<tbody>
<tr>
<td>16,268</td>
<td>7,921</td>
<td>0</td>
<td>14</td>
</tr>
</tbody>
</table>

### Table 4: Publicly Subsidized Units

<table>
<thead>
<tr>
<th>All publicly subsidized units</th>
<th>Publicly subsidized senior units</th>
<th>Publicly subsidized units for people with disabilities</th>
<th>Publicly subsidized units: All others</th>
</tr>
</thead>
<tbody>
<tr>
<td>555</td>
<td>45</td>
<td>0</td>
<td>510</td>
</tr>
</tbody>
</table>

### Table 5: Housing Cost-Burdened Households in 2016

<table>
<thead>
<tr>
<th>Income at or below 30% of AMI</th>
<th>Income 31% to 50% of AMI</th>
<th>Income 51% to 80% of AMI</th>
</tr>
</thead>
<tbody>
<tr>
<td>1,092</td>
<td>1,466</td>
<td>1,409</td>
</tr>
</tbody>
</table>

Table 6.5A: Source: Metropolitan Council 2016

In 2015, the Metropolitan Council estimated that 29% of all Minnetonka residents experienced an “excess housing cost burden”. This was up 22% from 2000. An estimated 10% of owners and 19% of renters had “severe housing cost burden” with housing costing more than 50% if their incomes (Table 6.5B)
Table 6.5B – Source: Metropolitan Council 2017

### 6.6 Affordable Housing Allocation

The Metropolitan Council has forecasted the region and each community’s need for affordable housing between 2021-2030. The region’s total need is 37,900 and Minnetonka’s portion of affordable units was determined to be 1,064 units. The Table 6.6A demonstrates the Affordable Housing Need Allocation:

<table>
<thead>
<tr>
<th>Affordable Housing Need Allocation (2021-2030)</th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td>At or Below 30% AMI</td>
<td>508 units</td>
</tr>
<tr>
<td>From 31% to 50% AMI</td>
<td>412 units</td>
</tr>
<tr>
<td>From 51% to 80% AMI</td>
<td>144 units</td>
</tr>
<tr>
<td>Total Units</td>
<td>1,064 units</td>
</tr>
</tbody>
</table>

Table 6.6A. Source: Metropolitan Council

### 6.7 Summary of Existing Housing Need (Appendix A - Existing Tools)

Based on the data and analysis above, the following housing needs are identified as priorities for the community. The implementation section includes discussion of the tools and strategies indentified to address these needs:

- Preservation of naturally occurring affordable housing with all bands of affordability
- Preservation of existing owner-occupied housing
- Link housing, jobs, transit, and support services
- Infill Development and Redevelopment
  - Production of mix of rental housing at all bands of affordability and market type
    - Active Adults “Baby Boomers”
    - Senior Housing with Services
    - Housing for Young Professionals “Millennials”
  - Production of new owner occupied housing types
    - Single Family
    - Townhomes
- Condos
- Cooperatives
- Land Use guided for increased density at TOD locations

6.8 Future Housing Need (Implementation Tools (Appendix B))

Minnetonka is expected to grow to 61,500 residents and 28,300 households by 2040. In response the city will need to address the future housing need through new high density residential zoning at 12 units/per acre in key village centers and TOD opportunity areas within the city, including:

- Opus Station Area - TOD
- Shady Oak Station - TOD
- Ridgedale
- I394/McGinty
- Cedar Lake
- Minnetonka Mills
- Minnetonka Blvd/CR 101
- Hwy 7/CR 101
- Glen Lake

(Reference Land Use Chapter Maps)

Add land use projections

A. Station Area Planning – Southwest Housing Gaps Analysis

The planned Green Line Extension light rail line and planned station areas have the most potential for change, including the potential for more housing and redevelopment. In 2014, Marquette Advisors conducted a housing study for the Green Line Extension corridor to detail current conditions and project housing needs once the line opens. The report recommended new residential development for the two LRT stations located in Minnetonka. In total, the study recommends 500 new housing units in the Shady Oak Station area and 500-600 new units in the Opus Station Area. Since the study was published, the city approved three new projects (The RiZe, Dominium Apartments, Mariner) that provide a total of 1,060 units (537 affordable at 60% AMI). It is anticipated that additional redevelopment will occur at the two station areas following the SWLRT full funding approval.

Shady Oak Station Area

The Shady Oak Station Area currently contains 285 units of housing (within ½ mile) which is affordable to households earning 30-60% AMI. Additionally, there are another 450 units between ½ to 2 mile south of the station that are affordable at 60-80% AMI. The SWLRT Housing Gaps Analysis (2014) identified the need for approximately 500 new units near the station over the next 10-15 years (Table 6.8A). Long term redevelopment potential exists due to the industrial character of the area, although redevelopment of this area is complicated and expensive due to existing uses.
Opus Station Area

The Opus Station area currently contains 402 units of housing (within a \( \frac{1}{2} \) mile) which is affordable to households earning 30-60% AMI, and another 365 units affordable at 60-100% AMI. The SWLRT Housing Gaps Analysis (2014) identified the need for approximately 500-600 new units near the station over the next 10-15 years (Table 6.8B). Long term redevelopment potential exists but development will depend on land availability and land use change of time.

Table 6.8B

<table>
<thead>
<tr>
<th>Product Type/Affordability Range</th>
<th>Short Term (3-5 Yrs)</th>
<th>Mid-Term (6-10 Yrs)</th>
<th>Long Term (10-15 Yrs)</th>
<th>Total</th>
<th>Pct</th>
</tr>
</thead>
<tbody>
<tr>
<td>Rental &lt;30% of AMI</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>0.0%</td>
</tr>
<tr>
<td>Rental 30-60% AMI</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>0.0%</td>
</tr>
<tr>
<td>Rental 60-80% AMI</td>
<td>0</td>
<td>0</td>
<td>75</td>
<td>75</td>
<td>15.0%</td>
</tr>
<tr>
<td>Rental 80-100% AMI</td>
<td>0</td>
<td>0</td>
<td>75</td>
<td>75</td>
<td>15.0%</td>
</tr>
<tr>
<td>Rental (90%-100% AMI)</td>
<td>200</td>
<td>0</td>
<td>150</td>
<td>350</td>
<td>70.0%</td>
</tr>
<tr>
<td>For-Sale (entry level)</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>0.0%</td>
</tr>
<tr>
<td>For-Sale (high-end)</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>0.0%</td>
</tr>
<tr>
<td>Total Units</td>
<td>200</td>
<td>0</td>
<td>300</td>
<td>500</td>
<td>100.0%</td>
</tr>
</tbody>
</table>

Source: Marquette Advisors

Table 6.8A – Source: Marquette Advisors

7. 2040 Housing Goals and Implementation Strategies

Goal 1 – Housing Preservation

- Preserve the city’s existing housing stock.

Strategies
• Continue the city’s Housing Rehabilitation Programs.

• Work with property owners to encourage the rehabilitation of rental properties.

• Enforce the city’s housing maintenance and building codes for single and multifamily housing to ensure long-term community vitality and safety.

• Encourage multi-family rental developments where affordable housing is currently being provided to extend their affordability contract, if it is expiring, in order to continue providing affordable rents.

• Develop additional strategies to ensure long-term housing affordability, such as tenant protection ordinances, nondiscrimination of rental subsidy, policies and programs, and other incentives.

• Explore additional strategies to support the preservation of Naturally Occurring Affordable Housing (NOAH).

Goal 2 – Affordable Housing Production

Strategies

• Continue working with developers to include affordable housing in their developments, where appropriate and possible.

• Continue to implement the EDA’s policy that 10 to 20 percent of new multi-family units should be affordable housing and ensure long-term affordability within new developments.

• Pursue policies, tools and programs to ensure long-term housing affordability for households at or below 30, 50, 60 and 80% of AMI.

• Work with affordable housing agencies and developers to add more affordable housing units in the city. Collaborate and support applications for grants or other funding sources for affordable housing. Provide information to these agencies on homes or areas of the city where affordable units could be located.

• Locate new affordable and senior housing near access to the transit system and village centers.

• Ensure affordable housing is distributed throughout the entire community to prevent concentration in one particular area of the city.

• Promote the use of —green technologies, sustainable building techniques and design, and energy efficient products in new construction and redevelopment projects.

• Support the implementation criteria for residential development, especially as it relates to affordable and mid-priced housing opportunities established in 2040 Land Use Chapter.
Goal 3 – Provide a Range of Housing Choices

Strategies

- Promote the development of a range of housing types to meet the needs of current and future residents near job centers, village centers, and TOD locations.

- Use infill and redevelopment opportunities to encourage a mix of housing choices in the community.

- Continue to promote Accessory Dwelling Units (ADU) in low density areas.

- Promote the use of “green” technologies, sustainable building techniques and design, and energy efficient products in new construction.

- Support opportunities for young and first time homebuyers through the HRA’s down-payment and closing cost assistance program, homebuyer education, and other assistance programs.

- Promote awareness of the Fair Housing Act
  - Continue to partner with Hennepin County and other local jurisdictions to reduce impediments to fair housing
  - Continue to refer landlord and tenant disputes to local agencies
  - Consider adoption of a Fair Housing Policy

- Collaborate with agencies that provide support services to educate residents of the services available to them.

Goal 4 – Increase Housing Options for Seniors

- Work to diversify housing choices available to seniors in order to fulfill the unmet senior housing needs in the community (homeownership, rental, active, and supportive).

- Identify potential areas for senior housing development and inform developers that may want to construct senior housing as to these sites.

- Continue to implement the EDA’s policy that 10 to 20 percent of new multi-family units should be affordable housing.

- Promote the use of ―green technologies, sustainable building techniques and design, and energy efficient products in new construction and redevelopment projects.

- Promote the use of Universal Design techniques in both new construction and redevelopment to ensure accessibility.
Attachments:

- Appendix A – Existing Housing Tools
- Appendix B – Future Housing Need Implementation Tools
- Appendix C – Map of Owner Occupied Housing Units
- Appendix D – Housing Study (Marquette)
Existing Tools and Implementation Efforts to Provide Affordable and Lifecycle Housing

Housing Assistance Programs

The purpose of housing assistance programs is to provide renters or homeowners help in obtaining a housing unit. These programs can be federal, state, or local programs. For the years 2011-2020, Minnetonka anticipates the following programs will be available to Minnetonka residents.

Section 8 Voucher Program
The Section 8 Voucher Program is funded by the U.S. Department of Housing and Urban Development (HUD), and administered by the Metro HRA on behalf of the city. The program provides vouchers to low income households wishing to rent existing housing units. The number of people anticipated to be served depends on the number of voucher holders wishing to locate in Minnetonka as well as the number of landlords wishing to accept the vouchers.

Shelter Plus Care
The Shelter Plus Care program is another federal program administered by the Metropolitan Council and sometimes the City of St. Louis Park. This program provides rental assistance and support services to those who are homeless with disabilities. There are a small number of these units (less than 10) in the city currently, and it is unlikely there will be any more added.

Minnesota Housing Finance Agency Programs
The Minnesota Housing Finance Agency (MHFA) offers the Minnesota Mortgage Program and the Homeownership Assistance Fund for people wishing to purchase a home in Minnetonka. The Minnesota Mortgage Program offers a below market rate home mortgage option, while the Homeownership Assistance Fund provides downpayment and closing cost assistance. It is unknown how many people are likely to use these services as it seems to depend on what the market conditions are.

Homes Within Reach
Homes Within Reach, the local non-profit community land trust, acquires both new construction and existing properties for their program to provide affordable housing in the city. Using a ground lease, it allows the land to be owned by Homes Within Reach and ensures long-term affordability. Additionally, if rehabilitation is needed on a home, Homes Within Reach will rehabilitate the home before selling the property to a qualified buyer (at or less than 80% area median income). It is anticipated that approximately three to five homes per year will be acquired in Minnetonka as part of this program.

City of Minnetonka First Time Homebuyer Assistance Program
In 2010, the city levied for funds to begin a first time homebuyer assistance program. The program is anticipated to begin in 2011. General program details include funds for downpayment and closing costs of up to $10,000, which would be structured as a 30 year deferred loan and available to those at incomes up to 115% of area median income or those that can afford up to a $300,000 loan. The number of households to be assisted depends on the amount of funding available for the program. Currently, this program is anticipated to be funded with HRA levy funds.

Employer Assisted Housing
Through employer assisted housing initiatives, Minnetonka employers can help provide their employees with affordable rental or home ownership opportunities. There are several options that employers can use to both increase the supply of affordable housing, as well as to provide their employees with direct assistance by:

- Providing direct down payment and closing cost assistance
- Providing secondary gap financing
- Providing rent subsidies

No employer assisted housing programs have been set up to date; however, it is a tool that the city has identified in the past as an opportunity for those who work in Minnetonka to live in Minnetonka.

**Housing Development Programs**

Housing development programs provide tools in the construction of new affordable housing units—both for owner-occupied units as well as rental units.

**Public Housing**

There are currently 10 public housing units, located in two rental communities, which offer affordable housing options for renters at incomes less than 30% of area median income. The Metropolitan Council and Minneapolis Public Housing Authority administer the public housing program on behalf of the city. It is not anticipated that more public housing units will be added to the city.

**HOME Program**

HOME funds are provided through Hennepin County through a competitive application process. The city regularly supports applications by private and non-profit developers that wish to apply for such funds. Homes Within Reach has been successful in the past in obtaining HOME funds for work in Minnetonka and suburban Hennepin County.

**Other Federal Programs**

The city does not submit applications for other federal funding programs such as Section 202 for the elderly or Section 811 for the handicapped. However, the city will provide a letter of support for applications to these programs.

**Minnesota Housing Finance Agency Programs**

The Minnesota Housing Finance Agency (MHFA) offers a variety of financing programs, mainly for the development of affordable rental housing. Similar to federal programs, the city does not usually submit applications directly to MHFA; however, it will provide letters of support for applications to the programs.

**Metropolitan Council Programs**

The Metropolitan Council, through participation in the LCA, offers the Local Housing Incentives Account and Livable Communities Demonstration Account programs to add to the city’s affordable housing stock. Over the past 15 years, the city has received nearly $2 million in funds from these programs, and will continue to seek funding for projects that fit into the criterion of the programs.

**Twin Cities Habitat for Humanity**

The Twin Cities Habitat for Humanity chapter has had a presence in Minnetonka in the past, completing four affordable housing units. At this time there are no projects planned for
Minnetonka, as land prices make it significantly challenging unless the land is donated. The city is willing to consider projects with Habitat for Humanity in the future to assist those with incomes at or below 50% of area median income.

**Tax Increment Financing**
Minnetonka has used tax increment financing (TIF) to offset costs to developers of providing affordable housing in their development projects. The city will continue to use TIF financing, as permitted by law, to encourage affordable housing opportunities. Unless the state statutes provide for a stricter income and rental limit, the city uses the Metropolitan Council’s definition of affordable for housing units.

**Housing Revenue Bonds**
The City has used housing revenue bonds for eight rental projects since 1985. Housing revenue bonds provide tax exempt financing for multi-family rental housing. The bond program requires that 20 percent of the units have affordable rents to low and moderate income persons. The city will continue to use housing revenue bonds for projects that meet housing goals and provide affordable units meeting the Metropolitan Council’s guidelines.

**Housing and Redevelopment Authority (HRA) Levy**
By law, the city’s Economic Development Authority (EDA) has both the powers of an economic development authority and a housing and redevelopment authority (HRA). It can use these powers to levy taxes to provide funding for HRA activities, including housing and redevelopment. The city first passed an HRA levy in 2009 to support Homes Within Reach, and now uses the funds to support its own housing rehabilitation and homeownership activities for those at 100-115% of area median income.

**Community Development Block Grant (CDBG) funds**
CDBG funds are allocated to the city by HUD each year. Based upon the needs, priorities, and benefits to the community, CDBG activities are developed and the division of funding is determined at a local level. CDBG funds are available to help fund affordable housing.

**Livable Communities Fund**
In 1997, special legislation was approved allowing the City to use funds remaining from Housing TIF District No. 1 for affordable housing and Livable Communities Act purposes. The city can use these funds to help achieve its affordable housing goals.

**Housing Maintenance and Rehabilitation**
As the city’s housing stock continues to age, a number of programs are already in place to help keep up the properties.

**Housing Improvement Areas (HIA’s)**
An HIA is a tool to assist with the preservation of the city’s existing townhome and condominium housing stock. An HIA is a defined area within a city where housing improvements are made and the cost of the improvements are paid in whole or in part from fees imposed on the properties within the area. The Association borrows low interest money from the city, improvements are completed and unit owners repay the loan through fees imposed on their properties and collected with property tax payments. To date, two HIA’s have been established within the city.

**Minnesota Housing Finance Agency Programs--Rental**
The Minnesota Housing Finance Agency (MHFA) offers a variety of financing programs, for the rehabilitation of affordable rental housing. The city does not submit applications for these programs as the city does not own any rental housing; however, it will provide letters of support for those wishing to apply.

Minnesota Fix-up Fund
The Minnesota Housing Fix-Up Fund allows homeowners to make energy efficiency, and accessibility improvements through a low-interest loan. Funded by MHFA, and administered by the Center for Energy and Environment, the program is available to those at about 100% of area median income.

Community Fix-up Fund
The Community Fix-Up Fund, offered through Minnesota Housing, is similar to the Fix-Up Fund, but eligibility is targeted with certain criteria. In the city, Community Fix-Up Fund loans are available to Homes Within Reach homeowners, since community land trust properties cannot access the Fix-Up Fund due to the ground lease associated with their property.

Home Energy Loan
The Center for Energy and Environment offer a home energy loan for any resident, regardless of income, wishing to make energy efficiency improvements on their home.

Emergency Repair Loan
Established in 2005, the City’s Emergency Repair Loan program provides a deferred loan without interest or monthly payments for qualifying households to make emergency repairs to their home. The amount of the loan is repaid only if the homeowner sells their home, transfers or conveys title, or moves from the property within 10 years of receiving the loan. After 10 years, the loan is completely forgiven. This loan is funded through the City’s federal Community Development Block Grant (CDBG) funds in order to preserve the more affordable single-family housing stock by providing needed maintenance and energy efficiency improvements. The program is available to households with incomes at or below 80% of area median income. On average, 10 to 15 loans are completed each year.

City of Minnetonka Home Renovation Program
In 2010, the city began levying for funds for a home renovation program. This program is similar to the existing federal community development block program (CDBG) rehabilitation program. Use of HRA funds, allows the City of Minnetonka’s Home Enhancement Program more flexibility to include households up to 115% AMI. The program is geared toward maintenance, green related investments and mechanical improvements. Low interest loans are offered up to $15,000 with a ten year term.

H.O.M.E. program
The H.O.M.E. program is a homemaker and maintenance program that is designed to assist the elderly. The H.O.M.E. program assists those who are age 60 and older, or those with disabilities with such services as: house cleaning, food preparation, grocery shopping, window washing, lawn care, and other maintenance and homemaker services. Anyone meeting the age limits can participate; however, fees are based on a sliding fee scale. Nearly 100 residents per year are served by this program.

Home Remodeling Fair
For the past 20+ years, the city has been a participant in a home remodeling fair with other local communities. All residents are invited to attend this one day event to talk to over 100 contractors
about their remodeling or rehabilitation needs. Additionally, each city has a booth to discuss various programs that are available for residents. Approximately 1,200 to 1,500 residents attend each year.

Local Official Controls and Approvals

The city recognizes that there are many land use and zoning tools that can be utilized to increase the supply of affordable housing and decrease development costs. However, with less than two percent of the land currently vacant in the city, most new projects will be in the form of redevelopment or development of under-utilized land. New infill development and redevelopment is typically categorized as a planned unit development (PUD), which is given great flexibility under the current zoning ordinance.

Density Bonus
Residential projects have the opportunity to be developed at the higher end of the density range within a given land use designation. For example, a developer proposing a market rate townhouse development for six units/acre on a site guided for mid-density (4.1-12 units/acre) could work with city staff to see if higher density housing, such as eight units/acre, would work just as well on the site as six units/acre. This is done on a case by case basis rather than as a mandatory requirement, based on individual site constraints.

Planned Unit Developments
The use of cluster-design site planning and zero-lot-line approaches, within a planned unit development, may enable more affordable townhome or single-family cluster developments to be built. Setback requirements, street width design, and parking requirements that allow for more dense development, without sacrificing the quality of the development or adversely impacting surrounding uses, can be considered when the development review process is underway.

Mixed Use
Mixed-use developments that include two or more different uses such as residential, commercial, office, and manufacturing or with residential uses of different densities provide potential for the inclusion of affordable housing opportunities.

Transit Oriented Development (TOD)
TOD can be used to build more compact development (residential and commercial) within easy walking distance (typically a half mile) of public transit stations and stops. TODs generally contain a mix of uses such as housing, retail, office, restaurants, and entertainment. TODs provides households of all ages and incomes with more affordable transportation and housing choices (such as townhomes, apartments, live-work spaces, and lofts) as well as convenience to goods and services.

Authority for Providing Housing Programs

The City of Minnetonka has the legal authority to implement housing-related programs, as set out by state law, through its Economic Development Authority (EDA). The EDA was formed in 1988; however, prior to that time, the city had a Housing and Redevelopment Authority (HRA).
### Appendices B:

**Future Housing Need – Implementation Tools**

<table>
<thead>
<tr>
<th>Identified Need</th>
<th>Tool</th>
<th>Circumstance and Sequence of Use</th>
</tr>
</thead>
<tbody>
<tr>
<td>Allocation of affordable housing need:</td>
<td>Land Use (multifamily and mixed use zoning), PUDs</td>
<td>Guide future land use to densities that support the development of affordable housing</td>
</tr>
<tr>
<td>At or below 30% AMI - 508</td>
<td></td>
<td></td>
</tr>
<tr>
<td>From 31%-50% AMI - 412</td>
<td></td>
<td></td>
</tr>
<tr>
<td>From 51%-80% AMI – 144</td>
<td></td>
<td></td>
</tr>
<tr>
<td><strong>Total – 1,064</strong></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Super RFP (Low Income Housing Tax Credits)</td>
<td>The City would strongly consider supporting or sponsoring an application to the Super RFP programs for housing at this affordability in the highest density locations on our future land use map.</td>
<td></td>
</tr>
<tr>
<td>Tax Increment Financing (TIF)</td>
<td>The City would consider TIF for proposals of this housing type in the locations guided at the appropriate densities and land use categories as shown on the future land use map.</td>
<td></td>
</tr>
<tr>
<td>TIF Pooling</td>
<td>The City would consider TIF Pooling for proposals of this housing type in the locations guided at the appropriate densities and land use categories as shown on the future land use map.</td>
<td></td>
</tr>
<tr>
<td>Housing Bonds</td>
<td>The City would consider issuing Housing Bonds to support this type of housing in the community.</td>
<td></td>
</tr>
<tr>
<td>Tax Abatement</td>
<td>The City would consider tax abatement for proposals of this housing type in the locations guided at the appropriate densities and land use categories as shown on our future land use map.</td>
<td></td>
</tr>
<tr>
<td>HRA Resources</td>
<td>The City will coordinate with the EDA to consider support for housing affordable under 80% AMI.</td>
<td></td>
</tr>
</tbody>
</table>
| Hennepin County Funds                        | The City would strongly consider sponsoring an
application to Hennepin County's HOME and AHIF funding programs to support development of housing at this income range.

<table>
<thead>
<tr>
<th>LCDA Funds</th>
<th>The City would strongly consider sponsoring a LCDA application to support for new housing affordable at or below 80% AMI.</th>
</tr>
</thead>
<tbody>
<tr>
<td>CDBG Resources</td>
<td>The City may consider using allocated CDBG funds for this type of housing specifically, but opportunities and projects seeking this funding would be considered on a case by case basis.</td>
</tr>
<tr>
<td>Site Assembly</td>
<td>The City would consider using awarded funds, from the programs described above, to assemble a site in the locations identified on our future land use map for this type of use.</td>
</tr>
</tbody>
</table>
2040 Comprehensive Plan – Economic Competitiveness

Staff Person(s):
Alisha Gray, EDFP, Economic Development and Housing Manager
Julie Wischnack, AICP, Community Development Director

Consultant Report:
Marquette Advisors “An Update on Commercial Real Estate Market Conditions: City of Minnetonka”

Summary of Chapter Minimums:
None

Recommended Chapter Elements:

Key Industries/Centers of Employment

- Consider an analysis of the number and character of jobs and industries within your community. The U.S. Cluster Mapping Project can be a useful tool for examining Traded and Local industry clusters down to a countywide level, while American Fact Finder provides 2012 Economic Census data to a place and zip code level (to be released by June 2016).
- Utilize your community’s Employment Forecasts to help characterize and guide the future development of employment areas in your community.
- Local plans can identify where, when, and how new employment areas will be guided to most effectively remain accessible to the regional workforce and leverage public and private investment in infrastructure.
- Many communities use the comprehensive plan to identify the proportion of housing opportunities that are accessible to employees in your community using a jobs-housing ratio.

See Exhibit A

Redevelopment

- Identify the presence of brownfield challenges in your community through mapping and characterizing these issues, and setting objectives and policies that position brownfield properties as an economic opportunity. MPCA’s “What's in My Neighborhood” application can be useful in locating perceived and confirmed brownfields.
- Municipalities and counties in Minnesota have the authority to enact several programs and strategies towards the redevelopment of declining properties and neighborhoods, and there are examples throughout the region of special authorities, districts, and financial tools that have been put in place to do just that. Identify those resources within your community and determine how local policies and programs can be directed to support those resources. Land that is underutilized and potentially contaminated contributes to blight, loss of property values and may adversely affect public health (Minnesota Healthy Planning: How-To Guide, page 47).

DRAFT
Education and workforce

- Investigate local data related to educational attainment, and match your strengths and weaknesses to economic goals, policies, issues, and opportunities.
- Integrate data and trends on employment and unemployment that help to reveal the need for policies and programs that can help to keep unemployment rates low.
- Strengthen your plan by integrating an assessment of your community’s workforce. Indicate program and resource opportunities for education and workforce development to provide insights into housing choice, public services, and other key considerations.
- Workforce productivity can be a telling indicator of the strength and quality of the workforce, as it measures the output (for example, gross metropolitan product) per a specific input measure (such as hours worked).
- In the context of the comprehensive plan, your community will benefit from a better understanding of the local workforce’s level of compensation.
- Identify programs that currently operate in your community and, where needed, support and strengthen the community’s workforce development network through local policy and goal-setting.

See Exhibit A

Business Development

- Gather and analyze information on the mix of businesses in the community.
- Identify and assess the effectiveness of your community’s existing Business Recruitment, Attraction, Retention, and Expansion efforts, and set goals and priorities for the efforts moving forward.
- Cultivate small business stability and growth by identifying resources, partnerships, networks, and programs that assist small businesses and entrepreneurs with issues such as management, accounting, financing, real estate, and marketing that the small business may not have the background or capacity to tackle without assistance.
- Assess existing incentive policies and programs in relation to your community’s current character and future growth, as well as to identify opportunities to create, revisit or restructure your community’s approach to business incentives.
- Identify appropriate areas where economic and land use conditions exist that might be strengthened through exploration of a special service district.
- Local food production and sales can improve community assets and provide fresh produce and healthy foods to nearby neighborhoods (Minnesota Healthy Planning: How-To Guide, page 72). For more information, please visit the Minnesota Department of Health Healthy Places website.

See further in report.

Economic Information, Monitoring and Strategic Initiatives:

- Identify the key indicators that are important to your community, and establish a methodology for tracking and reporting on that information.
• Prepare an Economic Development Strategic Plan that directly addresses the community’s short- and long-term economic development agenda. The Comprehensive Plan may help to set the framework for such an effort, and allow for the strategic plan to remain adaptable and attainable through the setting of strategic goals and actions for enhancing the local business climate.

See Economic Improvement Program Document starting at page 433

Overview:
Following is an outline of business development services that are currently available or could be utilized by the City of Minnetonka to enhance business development within the community. These services include a variety of tools, resources and activities that are being proposed to support Minnetonka’s business community and achieve the goals of the Economic Development Advisory Committee, Economic Development Authority and City Council.

Elements of the strategy include the Business Retention and Expansion Program, Marketing and Communications, Small Business Development Resources, Financing Programs, and Partnerships. The following is a summary of those elements:

Business Retention and Expansion Program (BR&E)
A BR&E program is a tool to help identify barriers local businesses face as they work to survive and grow. A successful BR&E Program develops and maintains strong relationships with local business leaders to assess business concerns, understand the structure of the local economy, set priorities, and implement programs or projects that will help make the business community thrive.

In the short-term, a BR&E Program can demonstrate community support for local businesses through enhanced communication and can help solve immediate business concerns. Long term goals of a BR&E Program include: Building community capacity to sustain business growth and development, increasing local businesses’ capacity to compete in the global economy, and establishing and implementing a strategic priorities to address businesses’ needs.

Business Retention and Expansion Outreach Recommended Approach:

2018-2019 Connect with partnership organizations to explore outreach opportunities

• Grow Minnesota! – MN Chamber of Commerce
• TwinWest Chamber of Commerce
• GreaterMSP
• Department of Employment and Economic Development
• Develop and maintain a comprehensive business list
• Facilitate communication with business community
• Identify key business leaders
• Harness community branding efforts to establish an economic development marketing plan to attract and retain residents and businesses
• Connect with Minnetonka Businesses
• Develop a template for an annual business newsletter to connect with the business community. Publication will highlight:
  • Investment updates

**Business Development Strategy**

• Available business development and financing opportunities
• Launch of a business survey with business visit opportunities
• Highlight single point of contact at the city for business inquiries

**2019-2021 Analysis and Implementation**

• Partner with TwinWest, Grow MN, GreaterMSP, and DEED to conduct business outreach visits
• Analyze business surveys for industry trends and business needs
• Develop proactive business development strategies to meet the needs of businesses

**Marketing and Communications**

Economic development marketing and communications are important tools in promoting a community as a promising destination for business expansion and relocation by increasing its visibility and demonstrating its benefits. Following are the examples of tools that can be utilized in marketing and communications efforts:

• **Business Centric Marketing:** Marketing aimed at positively positioning the community in the minds of the target audience of business executives, site selection firms, bankers, and commercial brokers.

• **Community Branded Economic Development Resources:** A comprehensive package of custom designed economic development resources will be utilized in a variety of applications. Such applications include the presentation of information at special events and meetings with business and development prospects. Tailored information relevant to each use is able to be included. Ie: Housing, Business Development, and Transit.

• **Web Presence:** A portion of the website will be dedicated to information about demographics, available land and buildings, financing opportunities, maps, utilities and workforce resources. This information corresponds to that identified by site selection firms and businesses as key data considered when conducting site searches.

• **Media Relations:** Public relations staff coordinate the distribution of press releases on important development projects and business-related programs and events.

• **Relationship Building:** Staff works to maximize participation in the area chambers of commerce and industry-specific trade organizations and professional associations in order to promote Minnetonka as a strong place to do business.
Business Financing Programs

To help support business expansions and relocations or equipment purchases, a number of general financing programs are available for businesses in Minnetonka. Staff works to establish and promote a range of financial resources to meet the changing needs of businesses. A number of these resources are available on a local, regional or state basis, including the following:

- The **Property Assessed Clean Energy (PACE) Program** allows local governments to fund the up-front cost of energy improvements on commercial and residential properties. The funding is paid back over time by the property owner which provides and incentive to invest in energy improvements that might otherwise be cost prohibitive.

- **Hennepin County Common Bond Fund** is a loan fund for growing manufacturing companies. Tax-exempt or taxable revenue bonds are issued on behalf of private borrowers to provide lower interest rates on long-term financing. Projects can include land acquisition, new facility construction, additions to existing facilities, purchase and renovation of existing structures, and production equipment purchase.

- **Hennepin County Economic Development Infrastructure Fund** is a grant available to support business recruitment and expansion through targeted investments in infrastructure upgrades and extraordinary costs associated with starting a business. Eligible uses include demolition, site clearance, relocating utilities, and replace aging or inadequate water and sanitary sewer systems.

- **The Minnesota Investment Fund** is a program through the Minnesota Department of Employment and Economic Development. The program's purpose is to provide low interest loans to create and retain high-quality jobs in industrial, manufacturing, and technology-related industries; increase the local and state tax base; and improve the economic vitality for the state. Eligible loan uses include land, buildings, infrastructure improvement, equipment, and training.

- **The Job Creation Fund** is a program through the Minnesota Department of Employment and Economic Development. The program provides financial incentives to new and expanding businesses that meet certain job creation and capital investment targets. Companies deemed eligible to participate may receive up to $1 million for creating or retaining high-paying jobs and for constructing or renovating facilities or making other property improvements.

- **The Economic Gardening Program** provides scholarships to owners of second stage growth business for business research combined with peer learning and business forums.
Small Business Development Resources

Supporting small business development is a continual focus of Community Development Department. Staff works to guide entrepreneurs through the process of establishing or growing their business in Minnetonka and publicize the availability of resources in Minnetonka. To help direct these small business entrepreneurs to the appropriate resources, staff has established relationships with partner organizations that can provide technical assistance and micro lending options. Following is a listing of some of the organizations:

- **Metropolitan Consortium of Community Developers** (MCCD) is an association of nonprofit community development organizations that promote entrepreneurship and small business development by offering access to capital and technical assistance. MCCD also offers more focused assistance to Minnetonka through monthly office hours at City Hall and is named “Open to Business”.

- **Small Business Development Centers** provide free consulting, offering assistance with strategic business plans, market research, financial planning and analysis, loan packaging and cash flow management.

- **Service Corp of Retired Executives** (SCORE) provides free one-on-one counseling and low-cost workshops in key subject areas critical to small business success.

- **Neighborhood Development Center** offers business training, financing, and ongoing support and business incubation to ensure that businesses participating in its programs succeed through the start-up and growth phases of their businesses.

- **University of Minnesota Office for Business and Community Development** (OBCED) is a social enterprise whose purpose is to leverage the assets and resources of the University to create programs and services that provide innovative solutions to real-world social-economic problems that impact urban communities.

Partnerships

- **GreaterMSP** is the regional economic development organization for the Minneapolis/St. Paul region. They partner to help provide a vision and agenda for regional economic development as well as brand and market the region. GreaterMSP offer services in business retention and expansion, data tools and research, and targeted industry assistance (manufacturing, small business, technology).

- **The Department of Employment and Economic Development** (DEED) is a state agency assisting in economic development through programs targeting business recruitment, expansion and retention; workforce development; and community development.

- **Twin West Chamber of Commerce** serves ten communities in the western and northwestern metro area, including Minnetonka. It offers relevant, timely programming as well as numerous networking opportunities for area business people. The chamber
supports local workforce and high school education through its philanthropic arm, the Twin West Foundation.

- The primary focus of Grow Minnesota! (Minnesota Chamber of Commerce) is to retain and grow Minnesota’s businesses. Grow Minnesota!’s business assistance resources include confidential one-on-one site visits with businesses to identify their specific expansion plans, workforce recruitment and development needs, exporting opportunities, and relevant business financing services.

- Hennepin County provides assistance to businesses and municipalities through a variety of programs designed to support businesses, promote economic development, create and retain jobs, and cultivate entrepreneurs.

- Metropolitan Council provides regional infrastructure, services, and amenities that serve as a foundation for economic growth to support economic development efforts. The Council provides grants to help clean up polluted sites for redevelopment, expand affordable housing opportunities and build pedestrian friendly transit-oriented developments.

**Administrative Resources**

- **Single Point of Contact**: Staff acts as a single point of contact by providing a reliable, responsive information source for questions related to business development in Minnetonka. In this role, staff acts as a liaison between various city departments, assists in the coordination of city approvals and researches answers to a wide range of questions. Staff also helps facilitate the creation of public/private partnerships with partner organizations such as the State of Minnesota and Hennepin County as appropriate.

- **Site Location Services**: Staff receives requests for information on site options on a regular basis. Requests can be as simple as the availability of a certain square footage of office space to lengthy, complex requests for large corporate users. Staff also provides a key service of promoting available office, retail and industrial locations in Minnetonka that may not be listed with a broker as well as redevelopment opportunities.

- **Development Policies**: A number of policies have been established to help guide the use of available resources within the community. These policies indicate development focuses such as targeted industries and redevelopment areas.

- **Property Monitoring**: Staff monitors the existing building market.

- **Workforce Development**: Staff will participate in workforce development discussions and will continue to stay informed of workforce development opportunities available to Minnetonka businesses.

- **Business List**: Staff will develop a comprehensive business list and map of businesses within the community that includes basic information such as
employment sector or specialty, to assist with visualizing the business climate and sectors within the city.

- **Development Policies**: A number of policies have been established to help guide the use of available resources within the community. These policies indicate development focuses such as targeted industries and redevelopment areas.

- **Property Monitoring**: Staff monitors the existing building market.

- **Workforce Development**: Staff will participate in workforce development discussions and will continue to stay informed of workforce development opportunities available to Minnetonka businesses.

- **Business List**: The city will develop a comprehensive business list and map of businesses within the community that includes basic information such as employment sector or specialty, to assist with visualizing the business climate and sectors within the city.
Land Use Plan

City Staff:  Julie Wischnack, AICP, Community Development Director
Loren Gordon, AICP, City Planner

The land use plan is an important component of the comprehensive plan as it serves to guide how land is used in the city. The previous 2040 land use plan incorporated a strategic land use policy approach that has served the city well over the past decade.

Residential Development

Early residential development within the city began in the late 1800s along the Minnehaha Creek corridor with a concentration of homes and commercial services in the Minnetonka Mills area. Development in the first half of the 20th century included lakeshore development along Lake Minnetonka with seasonal cottages and lakeshore homes and homesteads associated with hobby and truck farming agricultural activities, especially in the southern half of the city.

The evolution of neighborhoods within the city of Minnetonka started in the 1930s with the development of the Oak Knoll neighborhood in the CR 73/I-394 area of the city, the Groveland and Gray’s Bay/Libbs Lake areas near Gray’s Bay of eastern Lake Minnetonka, the Tonkawood Croft area south of Minnetonka Boulevard in central Minnetonka, and the Glen Lake area. These areas were generally characterized by modest single family homes located on one-third to one-half acre lots served by private sewage treatment systems and individual wells. In the Oak Knoll, Groveland and Glen Lake areas, small retail stores and service uses followed the development of the neighborhoods.

Large scale residential development began in the mid to late 1950s along the eastern portion of Minnetonka adjacent to the cities of St. Louis Park and Hopkins. In the central portion of the city, several multi-phase developments occurred in the 1960s, including Somerset Knolls, Forest Hills and Temple Village subdivisions along the north and south sides of TH 7. These large developments prompted the then Village of Minnetonka to begin developing municipal sewer and water services.

The overall development policies for the size of single family homes lots was established during the period of initial sewer and water installation in the 1960s. The policies, supported by the zoning ordinance and utility assessments, provided a minimum one-half acre lot size (one-third acre prior to 1965) for single family residential neighborhoods to be served by public sewer, water and public streets.

Up until the 1980s, there were few opportunities for multiple family housing choices within the city. The only multiple family developments that existed included the Archer Heights apartments in the southwest portion of the city, apartments to the west of Minnetonka High School and the Greenbrier development in the CR 73/Cedar Lake Road area.

In the last twenty-five years, there has been a concerted effort to increase the amount of multi-family housing within the city and provide more variety of housing choice and density within new residential developments. Today, the city’s residential land supply is nearly fully developed, although there remain some pockets of vacant or underdeveloped properties where additional development may still occur. The city has also initiated flexible standards for residential development to allow smaller lot sizes, if in keeping with the neighborhood character and not in conflict with valued natural resources.

Today, the appearance of residential land uses within the city is one of overall spaciousness. The high regard for natural resources has led the city to protect and incorporate environmental features into residential and other developments. The presence of natural resources, coupled with the low density of the city, tends to separate areas of development and disguise the urban nature of the community.
Commercial/Mixed Use Areas

Similar to residential development, the growth in commercial and mixed use areas has occurred at different periods and at varying development intensities within the city. The first commercial areas started out as neighborhood convenience centers. Some evolved into community centers, while others maintained their neighborhood function.

The historic planning efforts of the city have recognized the difficulty in establishing a single downtown area. As a result, the city has actively pursued policies aimed at supporting a hierarchy of commercial centers of the city. The commercial centers have evolved as established neighborhood, community and regional retail and service areas that vary in age, services and market area.

Business/Industrial Park

Non-commercial business development includes a complete range of office and industrial uses, primarily located in business parks. Since 1980, the expansion of business uses within the city has been significant and has resulted in a substantial increase of employment opportunities within the community.

The city has been host to numerous corporate headquarters. One of the earliest, the Cargill headquarters (established in the 1970s), set a precedent for desirable business development in the city: a campus environment, numerous environmental and aesthetic amenities, and significant buffering from surrounding residential neighborhoods.

Over the years, industrial uses in Minnetonka have evolved from heavy manufacturing to lighter industries that accommodate manufacturing, warehouse and showroom uses. The city is currently known as a center for medical and highly technical manufacturing facilities. Minnetonka contains the following business/industrial park areas: Opus Center, Carlson Center, Minnetonka Industrial Park, Shady Oak Industrial Park, Minnetonka Corporate Center and adjacent areas, Welsh Office Complex, and Greenbrier Industrial Park.

Historic Preservation

The Minnetonka History Commission (that are members of the Minnetonka Historical Society) serves as the advisory body to advise the city of sites and structures that should be preserved due to their historic, economic, cultural, architectural and social significance. The commission is currently compiling a survey of properties and documents that are over 50 years old. Additionally, the commission assists with the coordination of the Landmark Recognition Program. This program is designed to encourage homeowners to preserve historic properties and places.

The city has one structure that is listed on the National register of Historic Places. The Charles H. Burwell House, constructed in 1883, and associated cottages is located in the Minnetonka Mills area and is under public ownership. The Minnetonka Historical Society and Minnetonka History Commission in partnership with the city has restored the home and surrounding properties to its original context.

The city is committed to working with the local historic preservation groups, the Hennepin County Historical Society and the state to continue to preserve important historic properties and landmarks. The city has received several grants in the past to assist with preservation efforts, and plans to continue seeking grants to financially assist the city and others with the preservation of worthy properties.

Existing Land Use Acreage

The existing land use data has been compiled from Hennepin County parcel files (2007 data). It provides
a benchmark for the development of previous and future land use planning activities, and for the analysis of impacts on city services and facilities. The city’s current land uses are based upon past market conditions and forces, as well as the city’s land use decisions and development policies. A summary of the city’s existing land uses provides area calculations for each category.

**Existing Land Use (2018)**

<table>
<thead>
<tr>
<th>Land Use Category</th>
<th>Gross Acres</th>
<th>Percentage</th>
</tr>
</thead>
<tbody>
<tr>
<td>Low Density Residential (1 to 4 units/acre)</td>
<td>8450</td>
<td>46.8</td>
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<tr>
<td>Medium Density Residential (4.1 to 12 units/acre)</td>
<td>285</td>
<td>6.3</td>
</tr>
<tr>
<td>High Density Residential (over 12 units/acre)</td>
<td>448</td>
<td>2.5</td>
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<tr>
<td>Commercial</td>
<td>486</td>
<td>2.7</td>
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<tr>
<td>Office</td>
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<td>3.4</td>
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<tr>
<td>Industrial</td>
<td>506</td>
<td>2.8</td>
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<tr>
<td>Mixed Use</td>
<td>9.5</td>
<td>0.1</td>
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<td>Open Space (public/private)</td>
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<tr>
<td>Public</td>
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<td>Private</td>
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<tr>
<td>Park</td>
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<tr>
<td>Right of Way (including railroads, roads and Co. LRT trail)</td>
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<td>3.7</td>
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<tr>
<td>Vacant</td>
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<tr>
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</table>

Source: City of Minnetonka
Land Use and Growth Strategy Themes

The current overall land use pattern and intensity of development in Minnetonka is well-balanced and functions in a comprehensive manner. Minnetonka’s residential uses tend to be well maintained within spacious, well-vegetated neighborhoods, and newer residences have been planned to complement most of the city’s older residential areas. Natural and significant topographic areas have been preserved within Minnetonka’s neighborhoods, including wetlands, woodlands, undeveloped open space, and park facilities, resulting in a landscape that reflects community values.

The city hosts a wide variety of businesses, including retail, services, offices, and industry — uses that help to balance the city’s —land use portfolio and provide employment and services to residents. Other land uses play an equally important role in offering public and semi-public services and programs that residents require and enjoy, including schools, government functions, and religious facilities. Further, an integrated transportation system provides efficient access for motorists, pedestrians, bicyclists, and transit users, and serves to connect Minnetonka’s land uses.

There is a general sense that existing land uses are appropriately located and balanced. However, as a fully developed community, changes to increase density are incremental and will happen primarily through more intensified redevelopment of existing developed sites and higher density infill development. As such, Minnetonka will be faced with a new set of challenges as it anticipates future growth and redevelopment, including:

* incorporating additional households,
* providing new types of housing products that meet the full-range of life-cycle needs, and
* providing opportunities for the continued vitality of existing and new office, retail and industrial development in an increasingly competitive regional market.

Overall Growth Strategy Themes

It is important that future growth and redevelopment potential in Minnetonka capitalizes on and reinforces the development themes that have evolved as the city has undergone continual urbanization. The growth strategy for the 2040 land use plan builds upon the past development efforts of the city and incorporates the themes noted below.

Minnetonka’s growth strategy is based upon a framework of the following components:

1. Stability in Established Areas

The unique character of Minnetonka’s existing neighborhoods will be preserved, however, opportunities to broaden housing choice will be sought on appropriate vacant or underdeveloped properties, compatible with adjacent development. To preserve existing neighborhood areas and meet the evolving needs of current and future residents, higher density residential and mixed use development are focused in the village, regional and business areas where infrastructure and services are available to support additional development.
The following land use principles guide decisions for established areas:

- The low-density residential character of most of the city's established residential neighborhoods will be maintained as development and redevelopment occurs in Minnetonka.
- The integrity of existing single-family neighborhoods will be preserved through careful management of land use transitions and impacts between potential conflicting uses.
- Innovative new housing development that meets residential density requirements, complements future regional demographics, and broadens housing choice will be encouraged on appropriate properties in the city.
- Expanded and new strategies and programs to address the aging housing stock, preserve natural resources, and better define buffers and transitions between land uses will be evaluated and developed in the coming years.
- The city will continue to support projects that include site plan techniques that reduce conflicts between different land uses in order to manage land use transitions.

2. **Diversity in Household and Housing Types**

At the same time, it is recognized that additional housing opportunities are needed to accommodate an aging population and yet, continue to attract families to Minnetonka. Therefore, the city will:

- Support continued reinvestment in and revitalization of the city's neighborhoods (low-density residential, high-density residential, mixed-use high activity) to help retain existing and attract new families with children, young professionals, empty nesters and seniors.

3. **Increased Vitality in Neighborhood, Community and Special Purpose Village Areas**

Vitality is an essential component of Minnetonka's village centers. The purpose of the village concept is to provide development and redevelopment opportunities that encourage enhanced vitality within commercial areas by allowing well-planned mixed uses where additional higher density housing opportunities can coexist with retail and service uses.

Land use character and diversity in villages should create attractive destinations for shopping, services, and recreation in such concentrated centers of activity. The village concept that builds upon past comprehensive plan designations and recognizes the historic uses of neighborhood and community commercial areas will be utilized to guide development and redevelopment in certain business areas of the city.

The following land use principles guide decisions for the village areas:

- It is recognized that each village in the city is unique and distinctive, based on the individual scale and function of uses in each area.
- In certain village areas, a blend of uses and higher residential densities are planned to preserve economic vitality, and provide opportunities for more housing choices and convenience for residents within and near villages.
- Sustainable and cohesive design elements will be encouraged to define and enhance the individual character of certain villages.
As an implementation component of the 2030 Comprehensive Plan, the city prepare village center studies to guide future redevelopment and investments. The following village studies will guide future efforts:

- **Hwy 7 / County Road 101 Village Center Study**
- **Ridgedale: A Vision for 2035**
- **Shady Oak Station Area Redevelopment Strategy**
- **Glen Lake Village Center Study**
- **Opus Station Transitional Station Area Action Plan**

### 4. Support for Regional Centers and Corridors

Minnetonka’s major regional business centers include Ridgedale, Opus, and the I-394 and Crosstown regional business corridors. Higher redevelopment densities are planned to provide expanded housing and commercial opportunities, and to support transit and LRT (Opus) service. It is expected that the majority of future new housing opportunities in Minnetonka will occur in these regional centers.

The following land use principles guide decisions for regional centers and corridors:

- The city will support existing businesses, business retention and recruitment, and reasonable expansion to remain competitive in the region.
- Redevelopment will continue in order to build affordable housing, revitalize commercial center areas and introduce additional vitality to regional centers and areas such as the I-394 corridor and the Opus area.
- The city will encourage mixed uses and higher density residential uses in the regional centers and corridors.
- The city will continue to support (and update) plans and programs that encourage cohesive design standards, infrastructure management techniques (such as the I-394 Corridor Plan) and sustainable design techniques.

### 5. Connectivity to Improve Mobility

Throughout the 2040 Comprehensive Guide Plan chapters, various policies and strategies are established to increase connectivity throughout the city, particularly in the village areas and regional centers and corridors. Such connections may be transportation and recreational facilities, such as trails, roads and greenways, as well as linkages involving open space, environmental features and landscaping design elements.

The following land use principle will guide decisions for connectivity:

- Road, trail and sidewalk connections between neighborhoods, village areas, regional centers and major destinations such as parks, schools, government facilities and other activity areas will increase transportation choices and support the potential for more active living among residents.

### 6. Resource Protection and Sustainable Practices
A continuation of balanced preservation efforts is planned to protect Minnetonka’s highly valued water and woodland resources. Sustainability requirements are also incorporated, particularly those associated with improvements in stormwater quality.

The following land use principles guide decisions for resource protection and sustainability:

- Application of sustainable principles in land planning (such as transit oriented design, low impact development, and active living design standards) are expected to reflect priorities for redevelopment and development.
- Preservation of the views along established corridors, reflecting the character of existing development, natural system patterns, and the transportation network that connects them, will be maintained.

7. 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 their comprehensive plans. Solar access protection assures the availability of direct sunlight to solar energy systems. Solar energy is an alternative means to energy. It has much less impact on natural resources and the environment than the use of fossil fuels. Currently fossil fuels and nuclear power are needed to heat or cool our homes and businesses. Fossil fuels are also used for most modes of transportation. Increasing the use of solar energy would decrease reliance on fossil fuels and nuclear power. The purpose for including this section of the Update is to ensure that direct sunlight access to active and passive solar energy use is not subjected to shading from nearby trees, buildings, or other structures.

The following land use principles guide decisions for solar access protection:

- The City will consider appropriate amendments to exempt active and passive solar energy systems from lot coverage and setback provisions.
- The City will consider appropriate amendments to require swimming pools and hot tubs to be heated using solar or some other form of renewable energy resource, where possible.
- Within Planned Unit Developments, the City will consider varying setback requirements in residential zoning districts as a means of protecting solar access.

Regional Areas

There are three notable areas in Minnetonka that draw people from all over the region for work, shopping, services or entertainment: the I-394 Corridor, the Ridgedale area within the I-394 Corridor, and the Opus area. Since their initial development, these areas have continued to demonstrate economic success. The city is committed to maintaining and improving the economic strength, the cohesive design, and architectural quality of the business development in each of these three areas.

The critical land use strategy for the regional areas is to continue to support their vitality so that they remain desired destinations for employment, residential development and business. Adherence to specific development criteria will help ensure that land use character and activity accommodate a diversity of residents and businesses, and to ensure connectivity to the rest of the region.
It is envisioned that the regional areas will function as — complete communities, including places to live, work, shop and play. Specifically, mixed land uses and high density residential land uses are planned to attract new residents eager for the opportunity to downsize, reduce home maintenance obligations, or reduce transportation costs through pedestrian orientation within centers and proximity to transit facilities.

I-394 Regional Corridor

The I-394 corridor was the focus of a detailed land use/transportation analysis in the mid-1980s as the highway converted from TH 12 to I-394. The I-394 Corridor Study (adopted by the City Council in 1987) has served as a planning guide for future development within the I-394 corridor since that time. The primary goals of that study were to:

- Manage growth in a planned, responsible manner in the best interest of the city, residents of the community and corridor development interests.
- Encourage development to utilize a showcase concept to improve the image of the corridor and the city.
- Establish and promote neighborhood stability through rational land use planning and the establishment of spacing/buffering requirements between land uses of different intensity.

For the most part, many land use changes have occurred consistent with the study's recommendations. The Carlson Center development at the Carlson interchange with I-394 and the West Ridge Market and associated development around the I-394/CR 73 interchange provide examples of high quality developments that incorporate environmental preservation.

The area is supported by regional highways (I-394, I-494 and TH 169), major county roads (Plymouth Road and CR 73), and transit facilities that serve regional employment and service travel patterns. As traffic volumes continue to increase, the importance of this area as a provider of regional services increases.

Historically, concern has been expressed by the city and others about the capacity of the regional transportation system to serve area transportation needs in a manner that does not impact the surrounding neighborhoods and the local street pattern. Therefore, particular attention has been focused on the traffic impacts of new development upon the local and regional roadway system.

Development location and intensity has increased such that it now encompasses former isolated developments along the I-394 corridor. This concentration of density in the form of retail, service commercial and office development, as well as the traffic demand generated by this development, creates a busy, complex environment. It contains a full range of land uses, with the exception of industrial development. Multiple-family developments, office and institutional uses surround the more intense commercial areas and, together with natural amenities, provide transition to the low-density residential neighborhoods located north and south of the Ridgedale area.

The city wishes to encourage enhanced vitality along the I-394 corridor by:

- Increasing the mix of land uses, including residential.
- Providing opportunities for more gathering places.
• Promoting connectivity among uses within and outside the corridor, and transit connections.

A distinct physical identity and a sense of social activity are important to the future of the corridor, which has potential to support land use changes that may create broader appeal among younger residents.

Opportunities to better connect the north and south sides of I-394 are planned, including pedestrian connections. The highway currently divides the community so strongly that the two areas can feel like different cities, and areas that are geographically not far apart feel as though they are distant from and inaccessible to each other.

2040 Land Use Definitions

The land use districts should not be confused with the zoning designations of property. The land use districts describe general land uses and may include other criteria to be considered when development and redevelopment projects are reviewed by the city to ensure that the project meets the 2040 Comprehensive Guide Plan policies and the appropriate policies and strategies of other chapters of the plan. The corresponding zoning designation and associated performance standards describe specific criteria that must be met before development can occur on property.

The city’s land use definitions follow, according to the general land use category. Appendix IV-A of this chapter provides illustrative examples of the specific types of uses found within each land use category.

1. Residential Land Use Districts

Prior to 1979, the medium- and high-density residential definitions restricted densities to five to eight, and nine to 12 units per acre, respectively. The definitions were changed, as part of a comprehensive planning effort, to allow a greater density to provide more opportunities for housing choice (variety and cost), recognition of the rising cost of land in Minnetonka, and to bring the density standards more in conformance with other metropolitan area communities and Metropolitan Council policies.

The density definitions are expressed in terms of ranges to allow for development flexibility and compatibility with natural resource and other site specific characteristics of property. Therefore, an appropriate density for a particular use may be at the lower end of the density range rather than the higher end.

Further, the density definitions do not specify the type of housing; rather, the zoning ordinance specifies the type of housing and specific standards that must be met by a particular development. The decision regarding the specific density for a particular property is made during the development review process, where the following conditions are considered by the city:

- The existing environmental conditions of the property including wetlands, floodplains, steep slopes and the quality of existing vegetation;
- the specific site plan including the type of housing units proposed and requirements for development facilities such as stormwater ponding, municipal sewer and water, etc.;
- the existing and requested zoning classification for the property; and
- the surrounding neighborhood characteristics.
A. Low-density residential: development that ranges in density from two to four dwelling units per acre.

Most residential neighborhoods that contain existing single-family homes in the city are designated for low-density residential uses. Although low-density uses include detached single family housing types other residential housing types such as duplexes and attached townhomes are included provided that the overall density does not exceed four units per acre. This land use district is established to recognize the primary residential development pattern in the city and accommodate housing goals, including affordable and mid-priced housing.

B. Medium-density residential: residential density ranges from more than four to 12 units per acre.

Typically, this land use district includes attached housing types such as small-lot single family developments (zero lot line), duplexes, townhouses, quads, and low-rise multiple family buildings. This land use designation is used to:

- Encourage and allow the opportunity for residential project design techniques that incorporate natural resource protection and open space preservation techniques such as clustering.
- Create appropriate transitions between different and more intense land uses and low-density areas.
- Encourage opportunities for residential development near and within village and regional centers, employment centers or major transportation corridors.
- Broaden housing choice, especially with an increasingly aging population and accommodate housing goals, including affordable and mid-priced housing.

Development within medium-density residential areas should incorporate:

1. Design techniques that facilitate natural resource protection and open space preservation; and
2. Buffers and/or transitions between more intense land uses and low-density areas.

Environmental features such as wetlands, floodplains, steep slopes, and heavily vegetated areas should be used, as available, as buffers. Developments should incorporate appropriate transitions, such as landscaping and other land use or design features between non-residential and residential uses of a lower density.

C. High-density residential: residential developments with densities above 12 units per acre.

Typical high density residential development consists of apartment or condominium units in multistory buildings. The intent of this district is to provide the opportunities for residential developments that:

- serve a wide range of income group and changing lifestyles;
- are in close proximity to services, employment centers and transportation corridors, especially transit routes; and
- broaden housing choice, especially with an increasingly aging population and accommodate housing goals, including affordable and mid-priced housing.

As is the case with medium-density residential development, development within high-
density residential areas should incorporate:

1. Design techniques that facilitate natural resource protection and open space preservation, and buffers and/or transitions between more intense land uses and low-density areas.

2. Buffers and/or transitions between more intense land uses and lower density areas. Environmental features such as wetlands, floodplains, steep slopes, and heavily vegetated areas should be incorporated, as available, within buffers. Developments should incorporate appropriate transitions, such as landscaping and other land use or design features between non-residential and lower density residential uses.

High-density residential development projects should occur in a planned manner, with specific consideration given to all uses within an area and also to impacts on adjacent developments, services and transportation. Development will not be encouraged to occur until appropriate services and infrastructure are available or programmed.

2. Business Land Use Districts

Business land uses typically include categories of uses that are measured by the intensity of development and off-site impacts. These uses are found in the village areas, regional areas and corridors of the city. Additionally, business land use districts apply to several planned corporate campuses such as the Cargill and Welsh developments in the city.

The following describe the categories of business uses in the city.

A. Office

The office land use district provides locations for administrative, executive, professional or other offices and related service uses, such as financial institutions, lodging, day care and similar uses. It is not intended for retail uses that serve the general public. The office designation can be used, if designed appropriately, as a transitional use between residential and more intense commercial districts.

B. Service commercial

The service commercial land use district is a land use district used in the I-394 Corridor and other specific areas. It is considered a tool that increases flexibility in siting uses that are typically associated with regional centers and within business concentration areas. Typical developments include hotels, health clubs, religious institutions and similar service uses.

Uses are typically characterized by lower peak hour traffic generation characteristics, making them suitable for high-volume interchange areas. Certain service commercial areas serve as transitions between residential areas and retail uses.

C. Commercial

The commercial district is broad and includes retail, entertainment, service and office uses that typically occur in the village and regional areas.

D. Industrial

A range of —light‖ industrial uses including warehouse, showroom, manufacturing and limited office, retail and service uses fall within the industrial district. Many other industrial uses are part of mixed-use areas. These include business parks, where master plans govern more specific uses and development criteria, such as Opus and Carlson Center, as well as other
areas close to TH 62 and I-494.

3. Mixed Use Areas

Areas include locations where one or more uses can be accommodated within a single building or within a planned multi-building area. This designation has been established to allow flexibility in land use and creative site design, especially in the village and regional areas. Generally, most mixed use areas should be designed to allow the incorporation of appropriate natural resource protection and/or enhancement techniques.

The general land uses determined appropriate for the mixed land use area are shown on the 2040 land use plan map. For most mixed-use areas or buildings, the use and design of property is governed by a master plan that defines specific land uses, relationships between uses and overall design.

The following describes the mixed use areas in the city:

A. Mixed Use Areas with Residential

Areas planned for a mix of residential and commercial/retail uses should be designed to include a residential character, within specific mixed use buildings or within a compact village area. Buffering and transitions, as well as careful consideration of noise and light impacts, are important to the viability of such mixed use areas, since they include higher density and more activity than exclusive medium or high density neighborhoods.

Site design and access to pedestrian friendly open space and parks is important in mixed use areas that include a residential component. Accessibility and convenient parking as well as streetscape enhancements in public and private areas are valued features for residents choosing to live in mixed use areas. A range of densities and building heights is anticipated, depending on the specific location and site conditions.

B. Non-Residential Mixed Use Areas

Areas with a mix of commercial (office, service commercial, or retail) and industrial uses rely on mobility and access to transportation systems as key to business operations (e.g., loading and deliveries). Other urban design treatments should be included in the overall site design such as cohesive signage and landscaping that contribute to the character of the area.

C. Mixed Uses Where a Single Land Use May Ultimately Be Developed

These locations are where more than one land use is considered appropriate and feasible, but only a single land use will ultimately be developed. Decisions regarding the ultimate land use will depend upon a specific development’s ability to meet certain criteria defined in this plan. For example, an area may be designated for either office or high-density residential purposes. Ultimately, however, office uses may only be allowed if commensurate transportation improvements are made to a nearby roadway.

4. Public and Semi-Public Land Uses

A. Institutional

This district accommodates public and semi-public land uses including schools, religious institutions, government buildings, and multi-purpose complexes like the Civic Center.

B. Parks and open space
Parks and open space are designated separately to distinguish between the city’s officially designated parks and those protected open space areas that are not included in them, although they may be city-owned. The open space district includes protected open space by public ownership, easement or other protection method.

C. Roadway rights-of-way

Includes public or private vehicular, transit and/or pedestrian rights-of-way. These areas may be reserved for future use as a transportation route, and thus undeveloped.

D. Utility

Includes land devoted to public or private land occupied by a substation, electric transmission line, oil or gas pipeline, water tower, municipal well, reservoir, pumping station, water treatment facility, communications tower, or similar use.

E. Railroad

Public or private freight or passenger rail activities.

5. Water Resources

A. Lakes

Includes actual water bodies greater than six feet in depth (such as Gray’s Bay and smaller lakes), and creeks.

B. Wetlands

Includes areas designated by the city’s wetland protection program and maps. The actual areas have been field mapped but must be delineated as part of the development review process.

C. Floodplains

Includes locations delineated on the city’s and FEMA maps and sometimes overlap water bodies and wetlands. Similar to wetlands, actual field delineation is required for development projects.
Overall Development Review Criteria

It is expected that there will be continued pressure to develop the small amount of vacant land remaining in the city and allow new opportunities for redevelopment projects. As development and redevelopment projects are submitted to the city for review, it is imperative that the 2040 Comprehensive Guide Plan be consulted to determine the projects consistency with the policies and implementation tools established in each chapter of the plan.

The determination of consistency with the comprehensive plan, meaningful public engagement and adherence to city regulatory requirements generally results in successful projects that benefit the project proposer and the public. The following review criteria are designed to provide guidance and assist in the review of development projects by the city.

1. All Development

A. Determine consistency of the project with the appropriate overall policies.

B. Utilize resource protection measures included in the zoning and subdivision ordinances to:
   - encourage clustering of buildings and uses to preserve woodland preservation areas, high priority and significant trees, and other resource areas on properties, and
   - obtain conservation easements, where appropriate, as part of the development review process to protect important natural resource features.

C. Continue to use the Planned Unit Development (PUD) zoning technique in appropriate locations to encourage:
   - flexible land development and redevelopment,
   - a diversified housing supply,
   - energy conservation and sustainability through building design, siting and clustering of land uses,
   - the preservation of natural site characteristics such as open space, steep slopes, water and vegetation resources and sensitive transitional areas,
   - efficient and effective use of land, open space and public facilities,
   - high quality design compatible with surrounding uses, and
   - development consistent with the 2040 Comprehensive Guide Plan.

2. Residential Development

Although the city will continue to maintain the ½ acre minimum lot size in established single family neighborhoods, several initiatives are included in the 2040 land use plan to encourage alternative and creative types of housing development that appeal to different age groups yet, is reasonable in price.

Currently, it is difficult to provide a variety of housing types in Minnetonka due to the lack of available vacant land and the cost of land. To encourage development of new housing types and residential living environments, the city needs new strategies to implement housing and
residential land use policies included within this comprehensive plan. The initiatives and strategies included within this section of the land use chapter are designed to encourage innovative land use approaches with flexible zoning guidance to encourage quality housing development that is:

- attractive to young families, young professionals and middle class wage earners,
- provides new housing opportunities for Minnetonka residents that no longer desire the traditional detached single family home; and
- designed to —fit— the needs of both the resident and the context of the surrounding neighborhood.

1. Plan Amendments

The 2040 Comprehensive Guide Plan map and text will be amended periodically as circumstances warrant. Those features of the plan that are most fundamental, such as the overall policies and growth strategies, should be the least subject to change. The more detailed aspects of the plan, such as the 2040 land use plan map, should be considered the most flexible, and therefore subject to change based on specific criteria.

The following steps are required to maintain the integrity of the 2040 Comprehensive Guide Plan until it is updated in ten years:

A. The planning commission, in conjunction with other advisory commissions and city staff, should conduct periodic reviews of the entire comprehensive plan to determine if any sections need revision.

B. If the overall Community Values and 2040 Strategic Vision and Goals change in intent, the comprehensive plan should be reviewed and adjusted, accordingly, by the city.

C. If a comprehensive plan change is requested for a particular property(ies), the city may allow sufficient time, to the extent allowed by state law, to develop review criteria for the property(ies) and any affected adjacent property(ies) prior to consideration of the comprehensive plan amendment by the planning commission and city council.

D. The following criteria will be used for review of requests to change the 2040 land use map or any of the text of the comprehensive plan chapters.

1. The change would be consistent with the policies, strategies, or other elements of the 2040 Comprehensive Guide Plan and the city’s Strategic Framework, including those for certain long term planning areas noted in this chapter

2. The change would not create an adverse impact on public facilities and services that could not be mitigated with proposed improvements. Public facilities and services include roads, sewers, water supply, drainage, schools and parks.

3. Development resulting from the change would not create an undue impact to surrounding properties.
   a.) Such development would be consistent with the physical character of the surrounding neighborhood or would upgrade and improve its viability.
   b.) Physical character includes land use type, building height and size, relationship to the street, roof lines, and landscaping.
c.) Viability includes stabilization or enhancement of property values or removing blighting influences.

d.) An effective and reasonable buffer may be established and maintained on a continual basis in locations where the land use change is to a non-residential use such as commercial and is adjacent to an established residential neighborhood. The buffer may be established by utilizing the following techniques:

- extraordinary setbacks to residential properties from hardsurface areas (buildings, driving lanes, parking areas, etc.) and other areas or features of development that result in impacts to residential properties, such as lighting,
- sufficient berming of a height and design to screen non-residential activities,
- use of structures such as non-accessible building walls or other effective barriers,
- use and incorporation of existing topography and vegetation into the overall development,
- new landscaping materials, of sufficient height and size to provide a year-round screen, or
- a combination of the above features and techniques.

4. The change would allow a more viable transition to the planned uses on adjacent properties than the current land use.

5. The change would not have an adverse impact on the natural environment, including trees, slopes and wetlands, or the impact could be mitigated by improvements on the site or in the same vicinity.

6. There has been a change in city policies or neighborhood characteristics since the city adopted the original plan that would justify a change.

7. The change would correct an error made in the original plan.

8. There is a community or regional need identified in the comprehensive plan for the proposed use or service.

9. The change would help the city meet its housing goals.

10. The change would not adversely impact any landmarks or other historically significant structures or properties unless mitigated through relocation, commemoration or dedication.

11. In the event a land use change includes numerous properties, such as a neighborhood area, the following factors should be considered:

- a.) Determination of changed conditions on the properties or within the area surrounding the properties.

- b.) The condition of the buildings on the property,

- c.) If residential, the need to preserve the housing stock to meet city housing goals, or if non-residential, the ability of the proposed new land use(s) to meet city housing goals.

- d.) The ability of the assembled properties to allow for a unified development that meets the appropriate development criteria for the area in which it is located, and
e.) The timing of intended development allows for any necessary roadway or other public infrastructure improvements to accommodate traffic from the proposed development.

The following property land use changes from the 2030 to 2040 land use plan are identified on the map and table (to be inserted).
Land Use Plan Change Areas
2030 - 2040

2040 Land Use Plan - DRAFT

Existing Land Use
LandUse_2040

- Low Density Residential
- Medium Density Residential
- High Density Residential
- Commercial
- Service Commercial
- Office
- Mixed Use
- Industrial
- Institutional
- Open Space
- Parks
- Water

City of Minnetonka

DRAFT

#1 - Twelve Oaks
Commercial to High Density Residential

#2 - Fairfield Rd. W.
Low Density Residential to High Density Residential

#3 - Correns Dr. Neighborhood
Medium Density Residential to High Density Residential

#4 - Wayzata Blvd.
Service Commercial to Mixed Use

#5 - Wayzata Blvd.
Service Commercial to Mixed Use

#6 - Wayzata Blvd.
Commercial to Mixed Use

#7 - Cartway Ln.
Commercial to Mixed Use

#8 - Plymouth Rd.
Office to Mixed Use

#9 - Cedar Lake Rd.
Commercial to Mixed Use

#10 - Highwood Dr.
Low Density Residential to Medium Density Residential

#11 - Hwy 7
Commercial to Mixed Use

#12 - Shady Oak Station
Commercial and Industrial to Mixed Use

#13 - Glen Lake
Commercial to Mixed Use

0 0.25 0.5 0.75 1 1.25 1.5 1.75 2
Miles

Compass

N
S
# Land Use Category Comparison to Zoning Ordinance Districts

## Existing Zoning Map

### Existing Zoning Districts

<table>
<thead>
<tr>
<th>Zoning District</th>
<th>Purpose</th>
<th>Key District Standards</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>R-1</strong>&lt;br&gt;Low Density Residential District</td>
<td>Single family detached dwellings in areas where such development is consistent with the low density residential designation of the comprehensive plan and compatible with surrounding land use characteristics. Development shall occur at densities not exceeding 4 dwelling units per acre.</td>
<td>Lot Area Minimum: 22,000 square feet</td>
</tr>
<tr>
<td><strong>R-2</strong>&lt;br&gt;Low Density Residential District</td>
<td>Single family and two family dwellings in those areas where such development is consistent with the low density residential designation of the comprehensive plan and compatible with surrounding land uses. Development shall occur at densities not exceeding 4 dwelling units per acre.</td>
<td>Single family Lot Area Minimum: 15,000 square feet&lt;br&gt;Two family Lot Area Minimum: 12,500 square feet</td>
</tr>
<tr>
<td><strong>R-3</strong>&lt;br&gt;Low or Medium Density Residential District</td>
<td>Attached residential dwelling units in those areas where such development is consistent with the low or medium density residential designation of the comprehensive plan and compatible with the development pattern of the surrounding area. Clustering of buildings to permit more orderly development is encouraged within the district. Development densities shall not exceed 12 dwelling units per acre.</td>
<td>Low density lot area minimum: 10,000 square feet per dwelling&lt;br&gt;Medium density lot area minimum: 3,630 square feet</td>
</tr>
<tr>
<td><strong>R-4</strong>&lt;br&gt;Medium Density Residential District</td>
<td>Attached and multiple family dwellings in those areas designated for medium density residential development in the comprehensive plan. Development densities shall occur at least 4 but not exceed 12 dwelling units per acre.</td>
<td>Floor to Area Ratio: 0.5&lt;br&gt;max Height: regulated by the FAR</td>
</tr>
<tr>
<td>District</td>
<td>Description</td>
<td>Floor to Area Ratio</td>
</tr>
<tr>
<td>-------------------</td>
<td>----------------------------------------------------------------------------------------------</td>
<td>---------------------</td>
</tr>
<tr>
<td>R-5 High Density Residential District</td>
<td>Multiple family dwellings designated for high density residential development in the comprehensive plan. Development densities shall occur at least 12 dwelling units per acre.</td>
<td>1.0</td>
</tr>
<tr>
<td>B-1 Office Business District</td>
<td>Office and accessory services uses but excludes general retail and service uses.</td>
<td>1.0 max</td>
</tr>
<tr>
<td>B-2 Limited Business District</td>
<td>Low intensity, service oriented commercial uses in areas designated as neighborhood or community centers in the comprehensive plan.</td>
<td>0.8 max</td>
</tr>
<tr>
<td>B-3 General Business District</td>
<td>General commercial development in areas so designated in the comprehensive plan.</td>
<td>1.5 max</td>
</tr>
<tr>
<td>I-1 Industrial District</td>
<td>Low intensity, service oriented commercial uses in areas designated as neighborhood or community centers in the comprehensive plan.</td>
<td>0.8 max</td>
</tr>
<tr>
<td>Planned Unit Development District</td>
<td>Uses permitted in all districts are allowed</td>
<td></td>
</tr>
</tbody>
</table>
## Land Use Category Compared to Zoning Ordinance

<table>
<thead>
<tr>
<th>Land Use Category</th>
<th>Zoning District (or Permitted Use within Specified Base District)</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Low-Density Residential</strong></td>
<td></td>
</tr>
<tr>
<td>R-1 Low Density Residential</td>
<td></td>
</tr>
<tr>
<td>R-1a Low Density Residential</td>
<td></td>
</tr>
<tr>
<td>R-2 Low or Medium Density Residential</td>
<td></td>
</tr>
<tr>
<td>R-3 Low or Medium Density Residential</td>
<td></td>
</tr>
<tr>
<td>B-1 Office (a)</td>
<td></td>
</tr>
<tr>
<td>B-2 Limited Business (a)</td>
<td></td>
</tr>
<tr>
<td>B-3 General Business (a)</td>
<td></td>
</tr>
<tr>
<td>Planned Unit Development District</td>
<td></td>
</tr>
<tr>
<td><strong>Medium-Density Residential</strong></td>
<td></td>
</tr>
<tr>
<td>R-2 Low or Medium Density Residential</td>
<td></td>
</tr>
<tr>
<td>R-3 Low or Medium Density Residential</td>
<td></td>
</tr>
<tr>
<td>R-4 Medium Density Residential</td>
<td></td>
</tr>
<tr>
<td>Planned I-394 District</td>
<td></td>
</tr>
<tr>
<td>B-1 Office (a)</td>
<td></td>
</tr>
<tr>
<td>B-2 Limited Business (a)</td>
<td></td>
</tr>
<tr>
<td>B-3 General Business (a)</td>
<td></td>
</tr>
<tr>
<td>Planned Unit Development District</td>
<td></td>
</tr>
<tr>
<td>Planned I-394 District</td>
<td></td>
</tr>
<tr>
<td><strong>High-Density Residential</strong></td>
<td></td>
</tr>
<tr>
<td>R-5 High Density Residential</td>
<td></td>
</tr>
<tr>
<td>Planned I-394 District</td>
<td></td>
</tr>
<tr>
<td>B-1 Office (a)</td>
<td></td>
</tr>
<tr>
<td>B-2 Limited Business (a)</td>
<td></td>
</tr>
<tr>
<td>B-3 General Business (a)</td>
<td></td>
</tr>
<tr>
<td>Planned Unit Development District</td>
<td></td>
</tr>
<tr>
<td>Planned I-394 District</td>
<td></td>
</tr>
</tbody>
</table>

(a) Indicates a non-conforming use.
<table>
<thead>
<tr>
<th>Land Use</th>
<th>B-3 General Business (a)</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Planned Unit Development District</td>
</tr>
<tr>
<td></td>
<td>Planned I-394 District</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Commercial Uses</th>
</tr>
</thead>
</table>

<table>
<thead>
<tr>
<th>Office</th>
<th>B-1 Office</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>B-2 Limited Business</td>
</tr>
<tr>
<td></td>
<td>B-3 General Business</td>
</tr>
<tr>
<td></td>
<td>I-1 Industrial</td>
</tr>
<tr>
<td></td>
<td>Planned I-394 District</td>
</tr>
<tr>
<td></td>
<td>Planned Unit Development District</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Commercial/Retail</th>
<th>B-2 Limited Business</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>B-3 General Business</td>
</tr>
<tr>
<td></td>
<td>Planned I-394 District</td>
</tr>
<tr>
<td></td>
<td>I-1 Industrial (a)</td>
</tr>
<tr>
<td></td>
<td>Planned Unit Development District</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Service Commercial</th>
<th>B-2 Limited Business</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>B-3 General Business</td>
</tr>
<tr>
<td></td>
<td>I-1 Industrial (a)</td>
</tr>
<tr>
<td></td>
<td>Planned I-394 District</td>
</tr>
<tr>
<td></td>
<td>Planned Unit Development District</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Industrial</th>
<th>I-1 Industrial</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Planned I-394 District (light) (a)</td>
</tr>
<tr>
<td></td>
<td>B-1 Office (light) (a)</td>
</tr>
<tr>
<td></td>
<td>Planned Unit Development District</td>
</tr>
</tbody>
</table>

<p>| Institutional                   | R-1 Low Density Residential (a) |
|---------------------------------| R-2 Low Density Residential (a) |
|                                 | R-3 Low or Medium Density Residential (a) |
|                                 | R-4 Medium Density Residential (a) |
|                                 | R-5 High Density Residential (a) |
|                                 | B-1 Office (a) |
|                                 | B-2 Limited Business (a) |</p>
<table>
<thead>
<tr>
<th>Parks and Open Space</th>
<th>R-1 Low Density Residential</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>R-2 Low Density Residential</td>
</tr>
<tr>
<td></td>
<td>R-3 Low or Medium Density Residential</td>
</tr>
<tr>
<td></td>
<td>R-4 Medium Density Residential</td>
</tr>
<tr>
<td></td>
<td>R-5 High Density Residential</td>
</tr>
<tr>
<td></td>
<td>Planned Unit Development District</td>
</tr>
</tbody>
</table>

| Transportation and Utilities | Permitted in all Zoning Districts        |

(a) May be permitted as a Conditional Use
Transportation Plan

Staff Person(s):
Loren Gordon, AICP, City Planner

Consultant Report:
SRF Consulting Group

Transportation Goals and Policies

Summary of Regional Transportation Goals
Guidance for the development of the Transportation Plan is provided by the Metropolitan Council’s 2040 Transportation Policy Plan (TPP). The Metropolitan Council’s TPP includes six major themes that address regional transportation:

Transportation System Stewardship. Provide sustainable investments in the transportation system which are protected by strategically preserving, maintaining, and operating system assets.

Safety and Security. Ensure the regional transportation system is safe and secure for all users.

Access to Destinations. Allow people and businesses to prosper by using a reliable, affordable, and efficient multimodal transportation system that connects them to destinations throughout the region and beyond.

Competitive Economy. Ensure the regional transportation system supports the economic competitiveness, vitality, and prosperity of the region and state.

Healthy Environments. Confirm the regional transportation system advances equity and contributes to communities’ livability and sustainability while protecting the natural, cultural, and developed environments.

Levering Transportation Investments to Guide Land Use. Leverage the region’s transportation investments to guide land use and development patterns that advance the regional vision of stewardship, prosperity, livability, equity, and sustainability.

Minnetonka Goals and Policies
To respond to the above themes as well as to serve economic activities and improve the quality of life within Minnetonka, the city has adopted transportation goals and policies. These were developed in concert with the overall comprehensive plan goals and policies and include:

Goal 1. Provide a safe, convenient, effective, and integrated transportation system.

Policy 1.1 Treat all modes of transportation and related facilities as one integrated system to be coordinated and developed with other partners and stakeholders.
Policy 1.2 Provide and improve facilities for all users, encouraging safe design and mitigating accidents, especially with pedestrians and bicyclists, who are the most vulnerable users of the transportation system.

Policy 1.3 Consider traffic control improvements where appropriate to accommodate roadway capacity and reduce delay.

Policy 1.4 Collaborate with other agencies for local and regional transportation improvements and programs to lessen the impacts of congestion and provide the most effective transportation system for the city.

Policy 1.5 Prioritize investments in A-minor arterials that build, manage, or improve the system’s ability to supplement the capacity of the principal arterial system.

Goal 2. Encourage appropriate “traffic calming” techniques within and near residential neighborhoods that are impacted by congestion and excessive traffic volumes and/or speeds.

Policy 2.1 Consider traffic-calming measures to discourage through traffic on local streets.

Policy 2.2 Encourage design of all local residential streets to prevent penetration by through traffic, and properly direct traffic to collector or arterial streets.

Policy 2.3 Support regional roadway improvements to reduce local roadway traffic levels, which otherwise belong on the regional system.

Policy 2.4 Manage the impact of new development upon the local transportation system and encourage the use of Transportation Demand Management (TDM) and other traffic management techniques.

Goal 3. Encourage, with other government agencies, the expansion of multimodal and transit services in the city to support resident and business transportation needs.

Policy 3.1 Promote public transit that serves all residents and provides special transit services for commuters and diverse populations.

Policy 3.2 Support regional transit initiatives such as Bus Rapid Transit (BRT), Light Rail Transit (LRT) and Commuter Rail.

Policy 3.3 Create ways to improve connections within Minnetonka by providing an interconnected transit system and ways for those without a car to move around Minnetonka freely and easily.

Policy 3.4 Promote telecommuting and flex scheduling to reduce traffic.

Policy 3.5 Identify or develop additional park-and-ride lots throughout the city to encourage transit ridership.
Policy 3.6 Utilize sound land use planning to promote multimodal travel alternatives to single-occupant vehicles, with a focus on strategic job, activity and industrial and manufacturing concentrations location on congested highway corridors served by the regional transit service.

Goal 4. Plan for trails and pedestrian ways as a transportation mode and provide a network of trails and pathway connections to schools, commercial areas, parks, activity centers, and access to transit services.

Policy 4.2 Maintain safe road crossings in high traffic areas and promote safe pathways for pedestrians and bicyclists in parking lots and internal traffic circulation areas.

Policy 4.3 Identify pedestrian/bike trails to connect with adjacent surrounding communities.

Policy 4.4 Focus bicycle and trail connections on activity centers within the community and in neighboring communities.

Goal 5. Recognize the interrelationship of land use and transportation, and anticipate impacts of the location and intensity of planned land uses on the transportation system.

Policy 5.1 Plan transportation facilities to function in a manner compatible with adjacent land uses.

Policy 5.2 Require pedestrian connections between complementary land uses.

Policy 5.3 Encourage compact and pedestrian-friendly mixed use developments that offer the type of retail and convenience services that will minimize peak hour traffic demand.

Policy 5.4 Implement land use policies that support future growth around transit stations and high-frequency service areas, and commit to development strategies that support successful transit in these areas.

Goal 6. Provide a transportation system that supports the economic vitality and prosperity of the city and the region.

Policy 6.1 Provide and protect efficient connections from major freight facilities to the regional highway system.

Policy 6.2 Identify and improve suitable truck routes while minimizing impacts; such as, noise and traffic to sensitive land uses.

Goal 7. Ensure the Minnetonka transportation system is resilient and built to accommodate changes in transportation infrastructure, safeguarding investments for many years to come.

Policy 7.1 Consider opportunities to improve the city’s intelligent transportation system (ITS) infrastructure to be prepared to potentially support autonomous vehicles (AVs) and connected vehicles (CVs) in the future.
Policy 7.2 Mitigate impacts to the natural environment and cultural resources when planning, constructing and operating transportation systems.

Policy 7.3 Minimize the effect of air quality impacts on the natural environments with proposed transportation improvements.

Policy 7.4 Promote rideshare opportunities, such as Uber and Lyft, within the City of Minnetonka to help individuals achieve first and last-mile connections from transit and other modes of transportation.
**Existing and Anticipated Roadway Capacity**

Congestion on the roadway system is judged to exist when the ratio of traffic volume to roadway capacity \((v/c)\) approaches or exceeds 1.0. The ratio of volume to capacity provides a measure of congestion along a stretch of roadway and can help determine where roadway improvements, access management, transit services, or demand management strategies need to be implemented. It does not, however, provide a basis for determining the need for specific intersection improvements.

Table X provides a method to evaluate roadway capacity. For each facility type, the typical planning-level annual average daily traffic (AADT) capacity ranges and maximum AADT volume ranges are listed. These volume ranges are based upon guidance from the Highway Capacity Manual, discussions with the Metropolitan Council and professional engineering judgment. A range is used since the maximum capacity of any roadway design \((v/c = 1)\) is a theoretical measure that can be affected by its functional classification, traffic peaking characteristics, access spacing, speed, and other roadway characteristics. Further, to define a facility’s “daily capacity,” it is recommended that the top of each facility type’s volume range be used. This allows for capacity improvements that can be achieved by roadway performance enhancements.

**Table X: Planning Level Roadway Capacities by Facility Type**

<table>
<thead>
<tr>
<th>Facility Type</th>
<th>Planning Level Daily Capacity Ranges (AADT)</th>
<th>Under Capacity</th>
<th>Approaching Capacity</th>
<th>Over Capacity</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td></td>
<td>LOS 0.2</td>
<td>0.4</td>
<td>0.6</td>
</tr>
<tr>
<td>Two-lane undivided urban</td>
<td>8,000 – 10,000</td>
<td>2,000</td>
<td>4,000</td>
<td>6,000</td>
</tr>
<tr>
<td>Two-lane undivided rural</td>
<td>14,000 – 15,000</td>
<td>3,000</td>
<td>6,000</td>
<td>9,000</td>
</tr>
<tr>
<td>Two-lane divided urban</td>
<td>14,000 – 17,000</td>
<td>3,400</td>
<td>6,800</td>
<td>10,200</td>
</tr>
<tr>
<td>(Three-lane)</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Four-lane undivided urban</td>
<td>18,000 – 22,000</td>
<td>4,400</td>
<td>8,800</td>
<td>13,200</td>
</tr>
<tr>
<td>Four-lane undivided rural</td>
<td>24,000 – 28,000</td>
<td>5,600</td>
<td>11,200</td>
<td>16,800</td>
</tr>
<tr>
<td>Four-lane divided urban</td>
<td>28,000 – 32,000</td>
<td>6,400</td>
<td>12,800</td>
<td>19,200</td>
</tr>
<tr>
<td>(Five-lane)</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Four-lane divided rural</td>
<td>35,000 – 38,000</td>
<td>7,600</td>
<td>15,200</td>
<td>22,800</td>
</tr>
<tr>
<td>Four-lane expressway rural</td>
<td>45,000</td>
<td>9,000</td>
<td>18,000</td>
<td>27,000</td>
</tr>
<tr>
<td>Four-lane freeway</td>
<td>60,000 – 80,000</td>
<td>16,000</td>
<td>32,000</td>
<td>48,000</td>
</tr>
<tr>
<td>Six-lane freeway</td>
<td>90,000 – 120,000</td>
<td>24,000</td>
<td>48,000</td>
<td>72,000</td>
</tr>
</tbody>
</table>
Level of Service (LOS)

Level of Service (LOS), as related to highways and local roadways, categorizes the different operating conditions that occur on a lane or roadway when accommodating various traffic volumes. It is a qualitative measure of the effect of traffic flow factors, such as speed and travel time, interruption, freedom to maneuver, driver comfort and convenience, and indirectly, safety and operating costs. It is expressed as levels of service “A” through “F.” Level “A” is a condition of free traffic flow where there is little or no restriction in speed or maneuverability caused by presence of other vehicles. Level “F” is forced-flow operation at low speed with many stoppages, with the highway acting as a storage area. The following section describes LOS and further relates the correlation between LOS and planning-level roadway capacities, helping Minnetonka better understand the operations and capacity level on existing roadways.

Table X: Level of Service Definitions

<table>
<thead>
<tr>
<th>Level of Service (LOS)</th>
<th>Traffic Flow</th>
<th>Vehicle/Capacity Ratio</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>A</td>
<td>Free Flow Below Capacity</td>
<td>0.20</td>
<td>Low volumes and no delays</td>
</tr>
<tr>
<td>B</td>
<td>Stable Flow Below Capacity</td>
<td>0.40</td>
<td>Low volumes and speed dictated by travel conditions</td>
</tr>
<tr>
<td>C</td>
<td>Stable Flow Below Capacity</td>
<td>0.60</td>
<td>Speeds and maneuverability closely controlled due to higher volumes</td>
</tr>
<tr>
<td>D</td>
<td>Restricted Flow Near Capacity</td>
<td>0.85</td>
<td>Higher density traffic restricts maneuverability and volumes approaching capacity</td>
</tr>
<tr>
<td>E</td>
<td>Unstable Flow Approaching Capacity</td>
<td>1.0</td>
<td>Low speeds, considerable delays, and volumes at or slightly over capacity</td>
</tr>
<tr>
<td>F</td>
<td>Forced Flow Over Capacity</td>
<td>&gt;1.0</td>
<td>Very low speeds, volumes exceed capacity, and long delays with stop-and-go traffic</td>
</tr>
</tbody>
</table>
Transit System Plan

The transportation needs of Minnetonka residents cannot be met by a comprehensive, well maintained roadway system alone. A complete transportation system supports a variety of transportation modes to meet the varied needs of residents, workers, and visitors.

Transit is an important element in the transportation network because it:

− Provides vulnerable populations access to housing, employment, and services in the area, including those who cannot afford a personal vehicle, people who cannot drive, and senior citizens.
− Provides opportunities for people who prefer an alternative to automobile travel.
− Removes a portion of existing and future automobile traffic from the roadway, reducing travel time and congestion for everyone on the roadway.

The City of Minnetonka is committed to supporting and preserving existing transit services and facilities in the city and seeking ways to complement the transit system as new service begins. Although the city does not have direct responsibility for the operation of services or the provision of facilities, the city can advocate for better service by promoting transit supportive land use patterns as sections of the city redevelop and building a complete sidewalk network that facilitates access to transit service areas.

This chapter identifies the existing transit services, facilities, and programs within the City of Minnetonka, suggests improvements, and discusses the city’s role in supporting the transit system.

Existing Transit Services and Facilities

The Metropolitan Council 2040 Transportation Policy Plan identified five existing transit market service areas for all communities within the Twin Cities metropolitan area. The market service areas were defined by:

− Population density
− Employment concentration and job density
− Intersection density
− Transit dependent segments of the population

Minnetonka falls completely within the Metropolitan Transit Taxing District and is served by Metro Transit. A small section of the Opus Campus is located within Transit Market area II, portions of the city are located within Transit Market Area III while others are located within Transit Market Area IV. Employers in the Opus Campus, located in the eastern portion of the city, have a comparatively high level of transit service, with frequent local and express service offered 12-20 hours a day, seven days a week. Most of the western half of the city is located within Transit Market Area IV and service is limited to peak-only express and commuter routes and dial-a-ride service. Please refer to Table X for detailed information on Transit Market Areas and their corresponding levels of service. Figure X illustrates existing transit services and facilities within the city.
Table X. Transit Market Areas

<table>
<thead>
<tr>
<th>Market Area</th>
<th>Propensity to Use Transit</th>
<th>Service Characteristics</th>
<th>Typical Transit Service</th>
<th>Presence in Minnetonka</th>
</tr>
</thead>
<tbody>
<tr>
<td>I</td>
<td>Highest potential for transit ridership</td>
<td>Frequency: 15-30 min most modes</td>
<td>Dense network of local routes with highest levels of service accommodating a wide variety of trip purposes. Limited stop service supplements local routes where appropriate.</td>
<td>None</td>
</tr>
<tr>
<td>II</td>
<td>Approximately 1/2 ridership potential of Market Area I</td>
<td>Frequency: 15-60 min most modes</td>
<td>Similar network structure to Market Area I with reduced level of service as demand warrants. Limited stop services are appropriate to connect major destinations.</td>
<td>Opus Campus north of Bren Road.</td>
</tr>
<tr>
<td>III</td>
<td>Approximately 1/2 ridership potential of Market Area II</td>
<td>Frequency: 15-60 min most modes</td>
<td>Primary emphasis is on commuter express bus service. Suburban local routes providing basic coverage. General public dial-a-ride complements fixed route in some cases.</td>
<td>Areas north of 394, most of the area east of 494, bordering Hopkins, Glen Lake area, and near Purgatory Park and Minnetonka High School</td>
</tr>
<tr>
<td>IV</td>
<td>Approximately 1/2 ridership potential of Market Area III</td>
<td>Frequency: three trips per peak express bus</td>
<td>Peak period express service is appropriate as local demand warrants. General public dial-a-ride services are appropriate.</td>
<td>Central and western Minnetonka</td>
</tr>
<tr>
<td>V</td>
<td>Lowest potential for transit ridership</td>
<td>Frequency: 30 minutes, Commuter Rail</td>
<td>Not well-suited for fixed-route service. Primary emphasis is on general public dial-a-ride services.</td>
<td>None</td>
</tr>
<tr>
<td>Emerging Market Overlay</td>
<td>Varies, typically matches surrounding Market Area</td>
<td>Varies</td>
<td>Varies. Typically matches surrounding Market Area.</td>
<td>None</td>
</tr>
</tbody>
</table>

Source: Metropolitan Council Transportation Policy Plan 2015
Minnetonka is served by three different transit services, Metro Transit, Plymouth Metrolink, and Metro Mobility. Metro Transit offers fixed-route service with both local and express routes. With the construction and opening of the Southwest Light Rail Transit (Southwest LRT, METRO Green Line Extension), Metro Transit will also offer a light rail connection south to Eden Prairie.
and northeast to downtown Minneapolis via Hopkins and St. Louis Park. Metro Transit also offers demand-response services, like TransitLink and VanPool that may serve Minnetonka residents. Plymouth Metrolink offers express service to businesses in Plymouth, but also has a few stops north of I-394 in Minnetonka. Metro Mobility offers demand-response services for people with disabilities.

Fixed-Route Transit Bus Service
Fixed-route transit service includes both local and express bus services that operate on a regular schedule and follow consistent routes. Fixed-route transit service in Minnetonka is provided by Metro Transit and Plymouth Metrolink. Plymouth Metrolink routes serve locations north of I-394 before entering the City of Plymouth. Table X shows the characteristics of the routes serving Minnetonka, including where in Minnetonka they serve, what time they serve Minnetonka, and how frequently trips of each route serve Minnetonka. Routes 568, 612, 664, 665, 673, and 675 have been eliminated or re-routed so that they no longer serve Minnetonka, or combined with other routes since the last comprehensive plan. They are not included in Table X.
**Table X. Existing Transit Routes**

<table>
<thead>
<tr>
<th>Route</th>
<th>Type</th>
<th>Cities Served</th>
<th>Locations Served</th>
<th>Minnetonka Service Times</th>
<th>Frequency</th>
</tr>
</thead>
<tbody>
<tr>
<td>9</td>
<td>Local</td>
<td>Minnetonka, St. Louis Park, Golden Valley, Minneapolis</td>
<td>Green Briar Road</td>
<td>Weekdays 5am-Midnight, Weekends 7am-11pm</td>
<td>60 minutes</td>
</tr>
<tr>
<td>12</td>
<td>Local</td>
<td>Minnetonka, Hopkins, St. Louis Park, Minneapolis</td>
<td>Opportunity Partners</td>
<td>Weekdays 5am-Midnight, more trips for traditional commutes, peak, bi-directional</td>
<td>20-60 minutes</td>
</tr>
<tr>
<td>46</td>
<td>Local</td>
<td>Minnetonka, Edina, Minneapolis, Saint Paul</td>
<td>Opportunity Partners</td>
<td>weekdays, peak, no reverse, 46 D</td>
<td>One trip at peak</td>
</tr>
<tr>
<td>614</td>
<td>Local</td>
<td>Minnetonka</td>
<td>Ridgedale Center, Plymouth Road, Minnetonka Blvd, City Hall, Minnetonka Heights</td>
<td>Weekdays 5am to 7pm</td>
<td>60 minutes</td>
</tr>
<tr>
<td>615</td>
<td>Local</td>
<td>Minnetonka, Hopkins, Saint Louis Park</td>
<td>Ridgedale, Hopkins High School, Greenbrier</td>
<td>Monday through Saturday 7am to 8pm</td>
<td>60 minutes</td>
</tr>
<tr>
<td>643</td>
<td>Express</td>
<td>Minnetonka, Golden Valley, St. Louis Park, Minneapolis</td>
<td>Cedar Lake Road to Greenbrier Road.</td>
<td>Weekdays, peak, no reverse.</td>
<td>5 trips in am, 3 trips in pm</td>
</tr>
<tr>
<td>645</td>
<td>Express</td>
<td>Mound, Orono, Wayzata, Minnetonka, Golden Valley, St. Louis Park, Minneapolis</td>
<td>Carlson south of I-494, Ridgedale Center, Plymouth Road Park-and-Ride. County Road 73 Park-and-Ride.</td>
<td>7 days a week</td>
<td>20-30 minutes at peak, midday and weekend 60 minutes</td>
</tr>
<tr>
<td>652</td>
<td>Express</td>
<td>Minnetonka, Golden Valley, St Louis Park, University of Minnesota</td>
<td>County Road 73 Park-and-Ride, Plymouth Road Park-and-Ride</td>
<td>Weekdays, peak, no reverse.</td>
<td>2 trips in the am, 2 trips in the pm</td>
</tr>
<tr>
<td>663</td>
<td>Express</td>
<td>Minnetonka, St Louis Park, Minneapolis</td>
<td>Cedar Lake Road, Green Brier Road</td>
<td>Weekdays, peak, no reverse</td>
<td>8 trips at each peak period</td>
</tr>
<tr>
<td>664</td>
<td>Express</td>
<td>Minnetonka, Hopkins, St Louis Park, Minneapolis</td>
<td>North Opus</td>
<td>Weekdays, peak, no reverse</td>
<td>4 trips each peak period</td>
</tr>
<tr>
<td>667</td>
<td>Express</td>
<td>Minnetonka, Hopkins, St Louis Park, Minneapolis</td>
<td>Spans Minnetonka through County Road 101 and Highway 7</td>
<td>Weekdays, peak, no reverse</td>
<td>3 trips each peak period</td>
</tr>
<tr>
<td>670</td>
<td>Express</td>
<td>Excelsior, Minnetonka, Hopkins, Minneapolis</td>
<td>Follows Excelsior Blvd through Minnetonka</td>
<td>Weekdays, peak, no reverse</td>
<td>3 trips each peak period</td>
</tr>
<tr>
<td>671</td>
<td>Express</td>
<td>Orono, Tonka Bay, Shorewood, Excelsior, Greenwood, Deephaven, Minnetonka, Minneapolis</td>
<td>Follows Minnetonka Blvd through Minnetonka</td>
<td>Weekdays, peak, no reverse</td>
<td>3 trips each peak period</td>
</tr>
<tr>
<td>672</td>
<td>Express</td>
<td>Wayzata, Minnetonka, St Louis Park, Minneapolis</td>
<td>Plymouth Road Park-and-Ride, businesses north of I-394</td>
<td>Weekdays, peak, bi-directional</td>
<td>4 to 5 trips each direction during peak periods</td>
</tr>
<tr>
<td>673</td>
<td>Express</td>
<td>Minnetonka, Minneapolis</td>
<td>County Road 73 Park-and-Ride</td>
<td>Weekdays, peak, bi-directional</td>
<td>11 trips east in am, 4 trips west in am, 10 trips west in pm</td>
</tr>
<tr>
<td>679</td>
<td>Express</td>
<td>Minnetonka, Minneapolis</td>
<td>County Road 73 Park-and-Ride</td>
<td>Weekdays, pm peak, eastbound</td>
<td>5 trips</td>
</tr>
<tr>
<td>747</td>
<td>Express</td>
<td>Plymouth, Minnetonka, Minneapolis</td>
<td>Carlson Towers</td>
<td>Weekdays, reverse</td>
<td>11 trips am, 10 trips pm</td>
</tr>
</tbody>
</table>
Metro Mobility
Metro Mobility is the Americans with Disability Act (ADA) public paratransit service for persons with disabilities. Metro Mobility operates service in Minnetonka during the same span of service each day as the fixed route service operates. Metro Mobility is a shared ride system, in which customers make a reservation and routes are developed to the trip origins and destinations. Rider eligibility is based on a person’s functional inability to use regular-route services due to disability or health condition. The federal ADA provides parameters and requirements for the service structure that the Metropolitan Council must follow. Metro Mobility service is funded through appropriations from the Minnesota State Legislature, passenger fares and federal funding. The Metro Mobility service in Minnetonka is currently available to eligible customers from 5:00 a.m. to 2:00 a.m., seven days a week.

Park-And-Rides
Many express and local routes serve park-and-rides. There was a strong demand for park and ride service reported in the Minnetonka 2012 Transit Study. Minnetonka has four park-and-rides:

<table>
<thead>
<tr>
<th>Park and Ride</th>
<th>Number of Stalls</th>
</tr>
</thead>
<tbody>
<tr>
<td>County Road 73 South and I-394</td>
<td>732 Stalls</td>
</tr>
<tr>
<td>Plymouth Road and I-394</td>
<td>111 Stalls</td>
</tr>
<tr>
<td>Minnetonka Boulevard and Steele Street</td>
<td>25 Stalls</td>
</tr>
<tr>
<td>Minnetonka Boulevard and Baker Road</td>
<td>16 Stalls</td>
</tr>
</tbody>
</table>

There is a park-and-ride that mirrors County Road 73 South & I-394 on the north side of I-394 that opens for special events. It is possible that in the future, this northern parking lot may be formalized and serve riders year-round. County Road 73 South & I-394 Park-and-Ride utilization has held steady between 65 and 75 percent utilization in the past six years. This park-and-ride is served by five routes and has a three-level parking ramp, an indoor waiting area, heated shelters, and real-time arrival information.

Plymouth Road Park-and-Ride is planned to close by 2030. Although utilization was falling for a few years, it has begun to rise again. This park-and-ride is served by four routes and has bike lockers.

Both park-and-rides on Minnetonka Boulevard have low capacity and are served by the same two express routes, 614 and 671. Utilization at these park-and-rides have been low to moderate. Neither Minnetonka Boulevard and Steel Street nor Minnetonka Boulevard and Baker Road park-and-rides have bus shelters and both appear to serve as overflow lots for churches on the weekends.

Park-and-rides are planned at METRO Green Line Extension stations in and near Minnetonka. Opus Station is expected to have 80 stalls for parking.

Transit Advantages
Transit advantages is a term that describes physical features that provide a travel time advantage over automobiles using the same facility. These include bus-only shoulders, MnPASS lanes, and ramp-meter bypasses. Transit advantages improve the attractiveness of transit by allowing buses to move faster than automobiles making the same trip, effectively reducing the travel time for transit patrons relative to automobile users.
Bus only Shoulders
Bus-Only Shoulders (BOS) allow buses to use the roadway shoulder to bypass automobiles that are in the general flow of traffic. They may only be used when the speed in the general purpose lanes drops to 35 mph or lower. BOS are useful in those areas where there is chronic peak-period congestion and increase the attractiveness of peak-hour express buses by allowing express buses to maintain a minimum speed through congested areas and adhere to schedules.

BOS have been established in the following areas that benefit transit routes in Minnetonka:
- Both directions on Highway 7 between Highway 169 and Shady Oak Road
- On I-494 south of I-394

Ramp Meter Bypasses
Ramp meter bypass lanes allow buses and cars with two or more people to bypass congested on ramps during peak travel times. There are six ramp-meter bypass lanes within the Minnetonka service area:
- I-494 westbound ramp from Minnetonka Boulevard
- I-494 northbound ramp from Highway 62
- I-394 eastbound from County Road 73
- I-394 eastbound from Ridgedale Drive
- Highway 12 eastbound from County Road 101
- Highway 12 eastbound from Highway 101

High Occupancy Vehicle Lanes
There are bidirectional MnPASS lanes along I-394 through Minnetonka. MnPASS lanes provide toll lanes for private drivers and quick access to downtown for express routes. Express routes that do not use MnPASS also benefit from the less traffic on general purpose lanes of I-394. There is also a dedicated bus lane on Plymouth Road, connecting to Plymouth Road Park-and-Ride.

Transit Programs
Transit Strategies
Transit needs and strategies for the metropolitan area as a whole were identified in the Metropolitan Council’s 2040 Transportation Policy Plan (TPP), 2015. This document essentially emphasized similar transit development goals. The findings and recommendations from these plans relevant to Minnetonka are summarized below.

- Safety and Security. Safety and security are essential elements of the transit system. Their consideration should be integrated with all investments.
- Access to Destinations. Providing access is a fundamental role of the transit system. The 2040 TPP has multiple considerations for increasing ridership and the availability of transit throughout the investment factors. Equity is also an important investment factor to address gaps in access to opportunities that exist in the region.
- Competitive Economy. The 2040 TPP includes transitway system investments (Southwest LRT) that will make the region a more attractive place to live and do business. The Plan also includes an Increased Revenue Scenario that will broaden the investments to include more bus service, allowing transit to serve more parts of the region. Connecting to jobs is an important emphasis on the investment factors.
Healthy Environment. Considering impacts on the environment, particularly pollution related to congestion and also additional impacts could be related to land use planning that encourages a car-free lifestyle.

Leveraging Transportation Investment to Guide Land Use. Helping shape the growth of the region with transit investments as catalysts for livable places. Investment factors help guide transit to areas that are adequately planning for high-density, livable places.

Travel Demand Management

Travel Demand Management (TDM) includes strategies and actions for reducing single-occupant vehicle travel, increasing vehicle-occupancy rates, and reducing vehicle miles of travel. Changes in travel behavior for the metropolitan area are constantly being sought to more effectively manage existing transportation facilities. By modifying demand for travel, congestion and the need for facility (roadway) expansion can be lessened.

Minnetonka is a member and active participant in the I-494 Corridor Coalition and their I-494 Commuter Services. This coalition is a Transportation Management Organization (TMO) funded by the Metropolitan Council and ongoing federal Congestion Mitigation and Air Quality (CMAQ) grants.

TDM may include strategies and incentives to reduce trip-making activity, decrease single-occupant vehicle travel, shift travel away from congested locations, increase high-occupancy vehicle travel and decrease peak-hour travel. Most TDM actions are targeted toward the peak-hour work trip in highly congested areas. TDM programs are more effective where there are multiple strategies for changing behavior.

The actions selected depend upon the stated objectives and priorities of the TDM sponsor, funding availability, administrative resources, and participant support. Minnetonka completed a TDM policy study in 2013, which led to the creation of a TDM program. The program that requires developers to provide a sidewalk/trail alignment plan and describe efforts to promote walking, biking, transit and carpools with each development proposal. As part of the city's TDM program, they will also consider reduced zoning ordinance requirements such as a reduction in requirements for auto parking in transit-oriented developments or bike/walk districts. Other TDM strategies applicable to Minnetonka are discussed below:

1. **Ridesharing.** Minnesota Rideshare provides carpool and vanpool matching services, promotes ridesharing, and sponsors demonstration projects in the Twin Cities area. Ridesharing can be especially attractive for longer trips on congested corridors such as work trips from Minnetonka to other metropolitan centers.

2. **Transit/Ridesharing Incentives.** Employers can encourage employees to rideshare or use public transit if available. The benefits to the employer may include a reduction in the need for parking facilities and less traffic congestion around the employment site. Incentives from employers can include subsidized bus passes, on-site sale of bus passes, distribution of transit schedules and ridesharing information, subsidy of vanpools, and preferential parking for those ridesharing.

3. **Alternative Work Schedules and Telecommuting.** Variable work hours, flex time and the ability to work remotely can shift from the peak period or eliminate the trip altogether. However, changes in start-time tend to dilute the ability to share rides.

4. **MnPASS Express Lanes.** MnPASS facilities provide incentives for carpooling, vanpooling
and transit. As highways become congested, riders can use MnPASS lanes for a toll charged to driver MnPASS Express Lane accounts. On I-394, eastbound between County Road 101 to Highway 100 is charged between 6am and 10am. For westbound traffic on I-394 between Highway 100 and I-494 charge times are between 3pm and 7pm.

Carpool and Vanpool
Minnetonka residents are part of the regional car pool matching database, a service for those wishing to share a ride. Carpool participants: qualify for the regional guaranteed ride home program; may use MnPASS lanes and meter bypass ramps; receive parking discounts in some circumstances; and may participate in occasional promotional benefits. Minnetonka commuters also can participate in the regional Metro Vanpool program. Metro Vanpool is a regional vanpool program sponsored by the Metropolitan Council. Vanpools are made up of 5 to 15 commuters picked up along the vanpool route or at an agreed-upon location. Like buses and carpools, vanpools are eligible to use meter bypass lanes or ramps and MnPASS lanes.

Future Transit System
Local Public Transit Services
Minnetonka has been provided by the Legislature, the right to operate an independent suburban transit authority, with the ability to locally manage and operate transit services for residents and share in a portion of regional operating and capital transit funds. The city obtained this authority in 2002, and currently receives and oversees transit services from the Metropolitan Council via a Memorandum of Understanding. Minnetonka could elect in the future to directly contract for and operate these services if the City Council so chooses for any reason. With or without independent transit operations, city staff may direct and provide input for service redesigns annually under current agreements. Local bus service redesign can benefit residents and provide for changing travel patterns, increase transit access and availability in and around Minnetonka, potential population growth, and business growth where it is deemed appropriate, depending on resource availability and transit usage.

Southwest LRT
Southwest LRT is in the final stages of applying for federal funding and has begun accepting bids for construction. A route has been selected, and includes one station in Minnetonka, and two stations near the southeast borders of the city in Hopkins and Eden Prairie (see Figure X). The Southwest LRT will connect Eden Prairie, Minnetonka, Hopkins, and St. Louis Park with downtown Minneapolis with 15 miles of light rail. The line is scheduled to open in 2020. Stations will be served with transit as frequently as every 10 minutes at peak travel times.

Shady Oak Station is just on the Hopkins side of Minnetonka’s city border near Shady Oak Road and Excelsior Boulevard. This station serves nearby light-industrial businesses. It is expected that these light-industrial uses will turn to residential and office gradually. Today, there are nearly 3,000 jobs and more than 800 people living within a half-mile of the station. An operation maintenance facility for the light rail will be located just south of Shady Oak Station in Hopkins. There will be a park-and-ride lot that can handle more than 700 vehicles. This station
will feature a public plaza complete with access to the regional trail, bicycle parking, landscaping, and a passenger drop off area.

Opus Station will serve Opus Business Park in southeast Minnetonka. Among the many multifamily residential and office buildings, more than a thousand people reside and more than 5,000 work within a half-mile. Currently, Opus is served by a handful of trips each day on route 12 and route 46, so the new station will bring more frequent service to the area. A park-and-ride lot will be built east of the station with 80 parking spaces. There will be a plaza between the station and the parking area with lighting, seating spaces, bike parking, and landscaping. In further support of LRT in the transit corridor, the city has planned for transit supportive uses and densities within one-half mile of the Opus Station.

City West Station will serve UnitedHealth Group’s corporate campus just south of Minnetonka’s border at Highway 62 near US Highway 212 in Eden Prairie. The station is within a half-mile of more than 5,500 employment opportunities, but currently reaches less than 800 people living in the same area. Future development is expected to expand residential and commercial options. Connections to the Opus Campus will be much simpler with the METRO Green Line.

**Land Use Planning**

Land use planning, as well as provision of trails and pedestrian amenities, play a crucial role in the success of transit in a community. Adequate and safe sidewalks, bus stops, shelters, and transfer or waiting facilities all are necessary components of a convenient and successful transit system. Mixed-use developments and other Transit-Oriented Development (TOD) around METRO Green Line station areas are also key for increasing transit use as they lead to more people living and working near transit stations.

The City of Minnetonka plans to guide dense development around the Opus LRT station that will create an engaging environment for transit passengers and Opus residents and visitors. Continued planning on the Opus Campus is paramount to making sure that there is enough transit-oriented development to support needed ridership at the station.

**Improved Travel Demand Management**

As noted earlier, TDM strategies and travel options, have had some success affecting commuter travel, especially ridesharing, car-pooling, and van-pooling, but has not had a significant impact on congestion or travel flexibility. Strategies such as flex work hours have not been adopted widely in the Twin Cities, nor has telecommuting. These both offer good potential as future measures, especially telecommuting as computer networks continue to grow in capacity and sophistication.

New TDM options will be supported and explored by Minnetonka as they develop. These include systems like automated vehicles, car-sharing, and short-term rental services. Transit promotions, new fare tools and transit incentives including expanded specialty pass programs, and changes to taxi regulation and other commercial services are other TDM activities that may provide benefits to Minnetonka residents and employers.
Freight System Plan

The movement of goods and services is just as important and the movement of people in Minnetonka. To best achieve the successful movement of goods and services, there needs to be a thoughtful process for the interconnectivity between the regional and local roadway networks, how adjacent lands uses cohabitate between one another, and ultimately how best to minimize the impact of freight on the local system.

Existing Freight System

A major component of the City of Minnetonka’s freight system lies in its roadway network (Figure X). Interstate 394 (I-394) and interstate 494 (I-494) run through the city, converging along the city’s northern boundary. Key freight corridors within the city include Trunk Highway (TH) 7, segments of US Highway (US) 169 as well as segments of TH 62 along the city’s southern boundary.

The City of Minnetonka is located at a key area in the Twin Cities Metropolitan Region, at a critical crossroads within the regional freight system. The major roadways that pass through and along the borders of the city serve as major freight thoroughfares for interregional goods movement as well as the movement of goods from western Minnesota to markets in the Twin Cities.

The freight network is also comprised of rail. The rail network in the City of Minnetonka includes an active line that runs east-west across the northern third of the city operated by Burlington Northern Santa Fe (BNSF). Cutting across the southeastern corner of the city boundary runs a line that is operated by Canadian Pacific (CP) and Twin Cities & Western (TCWR) (Figure X). These lines intercept with all “Class I” railroads serving the Minneapolis-St. Paul area, providing connections to the entire North American rail network.

There are no barge facilities or intermodal freight terminals within the City of Minnetonka.

Freight Generators

Figure X illustrates the location of freight generators in the City of Minnetonka and includes major economic centers. Of these economic centers, the land uses located in proximity to I-494, I-394, US 169, and TH 62 are significant to the city’s freight network. These areas contain freight intensive clusters that generate substantial amounts of truck activity. These clusters primarily consist of manufacturing, wholesale trade, transportation and warehousing establishments, office complexes, and large retail and commercial establishments. The length of the I-394 corridor, stretching across the northern boundary of the city, is also a freight intensive cluster. Many major freight generators are located along its length, from US 169 in Golden Valley, west to the border with Wayzata. These businesses represent a variety of industries from food distributors, technology companies, financial firms, car dealerships, commercial retail space among others. Many of these businesses, and their employees, use US 169 as their primary route to transport goods to the area from the Twin Cities and other areas in Greater Minnesota.
Heavy Commercial Vehicle Volumes
Existing (2013) heavy commercial annual average daily traffic (HCAADT) volumes are depicted in Figure X. High volume corridors include I-494, I-394, TH 7, and TH 62. These roadways are estimated to support up to 1,200 trucks per day on the smaller trunk highways, 2,700 trucks per day along I-394, and up to 7,300 trucks per day on I-494. I-494 heavy commercial vehicles represent 15 percent of the total daily traffic based on 2013 MnDOT traffic volume data.

Safety and Capacity Issues
All industrial areas in the City of Minnetonka are located within adequate access to the metropolitan highway system (Figure X). US 169, TH 7 and TH 62 are part of either the National Truck Network or the Minnesota Twin Trailer Network, and are built to 10-ton axle loading standards, allowing extra capacity and flexibility for commercial trucking. This major highway coverage reduces the impact of truck traffic on local roadways and minimizes the potential for disruption of neighborhoods and areas of lower density.

It is important that commercial vehicle traffic from industrial, warehouse and commercial land uses be adequately considered. Increased traffic can be sufficiently accommodated through various measures including land uses, design standards, and signage (right sidebar).

Truck travel reliability and freight mobility concerns have been identified within the city’s freight network. Poor truck travel time reliability generally coincides with routes that contain several intersections and bottlenecks. I-394, I-494, TH 7, and US 169 are the most important freight corridors in Minnetonka.

Improvement Projects
Recent and planned projects of the US and County Roadway system that support the freight network in Minnetonka are identified below. Planned projects include:

− Ridgedale Avenue (MSAS 153): Reconstruction of ramps to provide full access, turn lanes, an underpass, and signaling from Ridgedale Avenue to CSAH 61 (2018-2021 TIP).
− TH 7: Mill and overlay and signaling from I-494 to Louisiana Avenue in St. Louis Park (2018-2021 TIP).
− TH 62: Mill and overlay and curb and gutter work from Beach Road to Tracy Avenue in Edina (2018-2021 TIP).
- US 169: Lengthen acceleration and deceleration lanes and installation of traffic management systems at Cedar Lake Road (2018-2021 TIP).
- County State-Aid Highway (CSAH) 101: Reconstruct of CSAH 101 as a multi-lane roadway from TH 62 to TH 3 (2017-2021 CIP).

Future Considerations
In recent years, e-commerce and day-of deliveries have become increasingly more important to the national economy. This phenomenon is also reflected at a regional level throughout the greater Twin Cities area. The demands of customers, to receive seemingly any product of their choosing within a moment’s notice has, and will continue to increase freight traffic on major and local roadways. Due to its location in the outer suburbs of the Minneapolis-St. Paul metropolitan area, Minnetonka is primarily residential. Minnetonka is already experiencing a rise in e-commerce deliveries in recent years as consumers now demand and expect items to be delivered within one or two days, sometimes within one to two hours. With population expected to increase dramatically by 2040, Minnetonka will see increases in e-commerce related deliveries which will put strains on the roadway and freight network. It is imperative that these trends be planned for to maintain traffic flows and avoid congestion along roadways in the City of Minnetonka.
Figure X. Freight System Connectivity
Aviation

There are no airports located within the Minnetonka. The closest airport to the city is the Flying Cloud Airport (FCM) located in the adjacent city of Eden Prairie. The US Federal Aviation Administration (FAA) classifies the FCM as a reliever airport on their National Plan of Integrated Airport Systems (NPIAS). As shown on Figure 9-1 in Chapter 9 of the Metropolitan Council’s 2040 Transportation Policy Plan, the southern half of the City of Minnetonka lies within the six-nautical mile radius of the FCM which prohibits the construction of any new landfills or wind towers within this area. A small area in the northeastern portion of the city falls within the six-nautical mile radius of the Crystal Airport (MIC). The airspace over Minnetonka is used by aircrafts operating from the other eight metropolitan area airports as well as airports outside of the metropolitan area.

As noted in the Metropolitan Council’s 2040 Transportation Policy Plan, no new general aviation airports are proposed in the future. There is adequate capacity at the airports surrounding the metropolitan area to support future growth.

Height and Safety Zoning

Structures which are 200 feet or higher above ground level may pose hazards to air navigation. Minnetonka has no existing structures of this height; does not permit such structures under its zoning ordinance, and has no plans to permit such structures in the future. Any applicant who proposes to construct such a structure shall notify the city and the Federal Aviation Agency (FAA) as defined under the provisions of Federal Regulation Title 14 Part 77, using the FAA Form 7460-1 “Notice of Proposed Construction or Alteration.” These forms must be submitted 30 days before alteration/construction begins or the construction permit is filed, whichever is earlier. MnDOT must also be notified (see MnDOT Rules Chapter 8800). The Minneapolis-St. Paul (MSP) airport/community zoning board’s land use safety zoning ordinance should also be considered when reviewing construction in the city that raises potential aviation conflicts.

Heliports

There are no heliports within the City of Minnetonka. Several heliports exist in the neighboring City of Plymouth, but are rarely used and do not affect Minnetonka airspace.

Float/Seaplanes

Wayzata Bay of Lake Minnetonka is designated in Minnesota State Rules Chapter 8800.2800 as authorized for purposes of safe seaplane use. The operation of seaplanes on Wayzata Bay must conform to all applicable marine traffic rules and regulations.
Resource Management Plan

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Consultant Report:
Barr Engineering

Resource Management Plan

This chapter of the comprehensive guide plan presents an inventory and resource protection strategies for the natural resources in Minnetonka. It is intended to complement the preceding chapters that center upon the built environment - Land Use and Housing. The wide variety of natural resources, many of which are preserved or maintained in their natural state, have attracted the variety of land uses and housing opportunities that currently exist in Minnetonka.

Further, the overall policies provide a context for the resource protection strategies described later in this chapter. It is recognized that continued efforts are needed to protect, manage and enhance important natural resources. Equally important is the need to balance development opportunities with responsible natural resource management strategies and programs, as well as provide on-going educational efforts for residents and businesses in Minnetonka.

The first sections (A and B) of this chapter present an overview of the existing upland and water resources found in Minnetonka. Particular emphasis is given to existing natural resources that influence or are affected by community development activities. Much of the information contained within this section was obtained from studies and inventories conducted by the city or by other agencies in collaboration with the city. The resources that are important in Minnetonka include the following features:

* Topography, with particular emphasis on steep slopes (over 12 percent and 20 percent)
* Natural communities of quality vegetation, and
* Water Resources, which includes wetlands, lakes, creeks, floodplains, and groundwater resources.

The later portions of this chapter identify specific management goals, practices and policies with particular emphasis on stormwater management as it affects surface water quantity and quality. Section C of this chapter includes the goals for upland and water resource areas, with emphasis on water resource protection goals identified in the 2018 Water Resources Management Plan (2018 WRMP).
Section D identifies the management practices for water resources and incorporates a summary of the more specific management practices included in the 2018 WRMP. The 2018 WRMP is referenced as an integral part of the 2040 Comprehensive Guide Plan, and is also used as an independent management plan. The 2018 WRMP contains specific information on the programs and policies that guide how the city manages stormwater and water resource protection. This includes protection activities, technical assistance programs, development requirements, regulation of land disturbing activities, and implementation tools.

The last portion of this chapter (Section E) identifies the existing and planned implementation strategies that the city will continue to utilize in the future to protect and manage important natural resources.

A. Upland Areas: Existing Conditions

An understanding of the existing natural environment is needed to:

* guide new development and redevelopment,
* protect, manage and restore significant natural resources such as trees, water and desirable habitat areas,
* determine requirements for municipal utility and roadway services, and
* comply with State and regional resource management requirements.

The natural resource information provides a basis and framework for the development of more detailed planning documents used by the city to plan and engineer public facilities such as the water supply and sanitary sewer system, and provide detailed regulation and management (i.e. 2018 WRMP) of potential impacts resulting from private and public development activities.

1. Ecological Classification

The Minnesota Department of Natural Resources (MnDNR) utilizes a classification system to describe areas within Minnesota that have similar natural characteristics (i.e. climate, geology, topography, soils, hydrology, and vegetation). According to the MnDNR Ecological Classification System, Minnetonka lies within the Minnesota and Northeast Iowa Morainal Section of the Eastern Broadleaf Forest Province of Minnesota.

At the time of early settlement in the county by European immigrants in the mid 18th century, the vegetation of western and central portions of the county was comprised “primarily of oak openings and barrens, with occasional inclusions of maple-basswood forest, conifer bogs and swamps, wet prairies and open water lake systems”. Minnetonka is situated in an area of Hennepin County where alterations to the original water and vegetation resources occurred because of farming and settlement activities.

According to the MnDNR, the city is located at the western edge of a predominant vegetation type in Hennepin County that is typified by oak openings and barrens. Directly to the west and southwest of the city, the vegetation represents a maple basswood forest characteristic of the “Big Woods” ecological subsection. It’s topography is gently to moderately rolling with soils formed from glacial outwash tills. Lakes and wetlands are common and drainage is to the Mississippi River.

2. Geological History and Landscape Formation

The landscapes of Minnetonka were formed by a series of melting and receding glaciers that left earth and rock material over bedrock. In the north part of the city, the depth to bedrock is 100'-200’ and in the southern part of the city, the bedrock depth ranges from 200’ to 300’. Platteville and Glenwood, St. Peter Sandstone, and “ribbons” of the Prairie du Chien bedrock groups
underlie the city.

The glacial sediments created surface materials that resulted in areas of sand, gravel and clay over the upland areas and materials that are organic in nature along streams and the lake areas. The southern two-thirds of Minnetonka contain many areas of sand and gravel deposits.

Several sand and gravel pit operations removed large quantities of materials before significant development occurred in the city as shown on Figure VI-1. Many of the quarry operations changed the original landscape where sand and gravel extraction occurred, resulting in significant reclamation efforts to prepare property for urban development. Today, remaining sand and gravel deposits are covered primarily by existing residential developments.
Please Refer to Topography Map (Figure VI-1)
3. **Topography**

An understanding of the local topographical characteristics of Minnetonka is important because the location and extent of terrain changes influence development patterns, and the characteristics and investments needed for local municipal services. Interesting and varied topography provide pleasing vistas for neighborhoods and contribute to community character. However, careful consideration of the topography is necessary to:

- protect topographic resources such as vegetation, steep slopes and views,
- prevent erosion and sedimentation resulting from building and construction activities, and
- determine the appropriate location and level of investment needed for municipal services such as lift stations, public water storage facilities, sanitary sewer line locations and roadway location and design.

The topography of Minnetonka is characterized by gently rolling terrain with several areas of steep slopes. The higher areas of the city (1,126’ elevation adjacent to Williston Road, south of TH 7) are located in the west central portion of the city. The lower areas of the city are in the north and west near Lake Minnetonka, and the southwest corner near Purgatory Creek where the elevation ranges from 860’ – 870’ as shown on Figure VI-1.

Figure VI-2 shows that areas of steep slopes (over 12 percent) are scattered throughout Minnetonka with pronounced areas over 18 percent in the north and south parts of the city. Although significant development has occurred over the past thirty years, many steep slope areas have been preserved due to municipal management standards and sensitive development strategies.

4. **Vegetation**

In 2000 – 2002, the city and the Hennepin Conservation District conducted an inventory of the land cover to assess the ecological quality of natural communities (vegetation and habitat areas) in Minnetonka. The inventory was conducted in accordance with the MnDNR Minnesota Land Cover Classification System. Although the inventory covered the entire city, it was focused upon the city’s open spaces and public parks, quality wetlands targeted for preservation, high quality natural areas, and other selected areas of the city. The document titled, *The Land Cover Classification and Natural Resource Inventory for City of Minnetonka, 2004* serves as the basis for information of this section of the Comprehensive Plan.

Chart 1 on page VI-6 summarizes the general land cover types by acreage within the city. The categories of land cover type are described as follows:

**Artificial surfaces** – urban land uses and artificial surfaces

**Planted and maintained vegetation** - includes maintained parklands, planted conifer stands, large lawns, recreational fields, and other maintained vegetation types not associated with impervious areas.

**Forest cover** - includes native community remnants such as maple-basswood forest, mesic (with moderate moisture) oak forest, tamarack swamp, lowland hardwood forest, and floodplain forest.

Non-native forest types within the city were predominantly disturbed second growth forest types comprised of elm, box elder, ash, and cottonwood, with occasional oak, basswood, and maple. Many degraded second-growth forest stands were frequently invaded by buckthorn,
Please Refer to Steep Slopes Map (Figure VI-2)
most commonly along the forest edges

**Woodland** - includes the two woodland types documented within the city, oak woodlands and altered/non-native deciduous woodlands.

**Shrublands** - predominantly associated with wetland systems in the form of native willow swamps and non-native dominated shrub swamps. In addition, one sphagnum bog was documented in association with a tamarack swamp southwest of Glen Lake on the Hennepin County home school property.

**Herbaceous vegetation** - includes natural communities such as cattail marshes, rich fens, a mixed emergent marsh, restored prairies, and non-native dominated cover types such as non-native species dominated wetlands (reed canary grass, cattail monotypes, and purple loosestrife), fallow old-fields, and other fallow herbaceous land.

**Open water** – the various lakes, creeks, and open water wetlands within the city.

The plant species that affected the quality of the natural plant communities in Minnetonka include those that are invasive in nature and pose potential threats to the biological diversity of native habitats. These invasive plant species include purple loosestrife, common buckthorn, garlic mustard, reed canary grass and giant reed grass.

The city contains over 230 individual natural community remnants totaling 1,793.5 acres that have been assessed for their ecological quality. The quality remnants are comprised of numerous types of natural communities consisting of forest, woodland, upland grassland, shrubland, and herbaceous wetland types. There are many other woodlands, forests, and wetlands within the city that were considered too disturbed and altered by past and present land use impacts to be classified as natural communities.

A ranking of the condition and quality of each natural community was assigned in the study according to the MnDNR Natural Heritage ranking scheme (A, B, C, and D) of which the “A” ranking are of highest quality. The highest quality natural communities include a large portion of the species typical of the community with few weedy plants present, most natural processes occurring, including disturbances such as fire or flooding, and little or no evidence of human disturbances. Most suburban settings contain “C” and “D” ranked stands unless preservation methods were applied before disturbance by land use practices (agriculture, development, etc.) at the time of settlement.

All natural community remnants within the city were determined to be “C” or “D” rank. Figure VI-3 depicts the natural communities in the city and the following describes each natural community type and the quality rankings occurring within the city.
Please Refer to Natural Communities Map (Figure VI-3)
a. Forests (Upland)

1.) Mesic Oak Forest

There are over forty mesic oak forest remnants in the city and appear to have been disturbed by historic and/or recent land use practices. The stands are second-growth forests and historically were dominated by northern red, white, or bur oaks and occur on sites where few severe fires occurred before settlement. Other tree species commonly present with the oaks include basswood, green ash, bitternut hickory, and big-toothed aspen.

The “C” ranked stands have often been grazed but not heavily enough to destroy the ground layer or result in dominance by invasive shrubs that characteristically establish following heavy grazing; if the site has been logged in recent past, the community remains intact and some tree regeneration (including oak species) is occurring; and young second growth (20-60 years old) stands that originated with good regeneration following clear cutting or burning.

The “D” ranked stands are characterized by heavily cut or heavily grazed forests with a dense shrub layer of invasive shrubs; and a ground layer of generally low diversity, with either compacted soils, or very loose, exposed soils with very few herbaceous plants, or dominated by invasive shrubs or by exotic species.

2.) Maple Basswood Forest

Eight maple-basswood forest remnants were documented within Minnetonka with the majority located in the southwest corner of the city near and around low to moderate density residential developments. These forest remnants appear to have been severely impacted by past land use practices.

The few maple basswood forest remnants remaining in the city lack diversity within the subcanopy, shrub layer, and herbaceous layer. Although mature stands of sugar maple, basswood, and oak do exist, these forest stands will require many years of restoration and management to return them to high-quality, diverse, sustainable systems.

The tree canopy of undisturbed maple-basswood forests is comprised mostly of basswoods, sugar maples, and (formerly) American elms. Other mesic trees, such as slippery elms, northern red oaks, bur oaks, white ashes, and green ashes are sometimes dominant locally.

b. Forests (Lowland)

1.) Tamarack Swamps

Three tamarack swamps were documented within the city. Minnetonka lies along the southwestern range of Tamarack Swamp in Minnesota, and these remnants are somewhat rare and unique to the southern and western twin cities area. Tamarack swamps within the city are relatively young stands, with most of the tamarack under 30’ in height. In addition, all of these remnants have invasive species such as cattails, reed canary grass, and purple loosestrife encroaching into the herbaceous and shrub layer.

2.) Lowland Hardwood Forest

Several lowland hardwood forests exist in the city and all remnants are “D” quality natural community remnants. American elms and black ashes are common canopy dominants, but most stands are mixed, with slippery elms, rock elms, basswoods, bur oaks, hackberries, yellow birches, green ashes, black ashes, quaking aspens, balsam poplars, and paper birches as important species.
3.) Floodplain Forests
Numerous small floodplain forests remnants were documented within the city, and are very
disturbed, small and fragmented. The remnants are considered “D” quality natural communities.
Floodplain forest is a seasonally wet forest community that occurs throughout Minnesota on the
active floodplains of major rivers and their tributary streams. The canopy of the community is
dominated by deciduous tree species tolerant of inundation, abrasion, and other disturbances
associated with flooding. The canopy is either composed of a mixture of tree species or
strongly dominated by a single tree species, such as silver maple or eastern cottonwood. Areas
beneath tree-canopy openings in the forests either are dominated by short-lived herbaceous
plants or, where erosion and disturbance from flooding tend to be repeated and severe, remain
unvegetated.

c. Woodlands
1.) Oak Woodlands and Oak Brushlands
Numerous stands of oak woodland/brushland are located within the city and nine were
assessed as “C” quality natural community remnants. In the Big Woods, oak woodlands are
dominated by white oak in areas with coarse-textured soils or in areas prone to occasional fires.
Natural woodlands are now extremely rare in this area because of logging, grazing, and fire
suppression.
The principal species in the tree canopy are bur oak, northern pin oak, white oak, and northern
red oak. Aspens may form up to 70% of the tree canopy cover. Significant diversity exists in the
underlying brush layer, which may include blackberries, raspberries, gooseberries, dogwoods,
cherries, hazelnuts, prickly ashes, and sprouts of oak and quaking aspen.

d. Shrublands
1.) Willow Swamp
Seven willow swamps were documented within city wetlands and all were assessed as “C”
quality natural communities. Minnetonka’s willow swamps often included invasive species such
as reed canary grass and purple loosestrife. Willow swamps are a type of wetland and include a
canopy of medium to tall shrubs dominated by willows and red-osier dogwood.

e. Herbaceous Wetlands
1.) Cattail Marsh
Numerous cattail marshes were found within the city and most were assessed as “C” quality.
These marshes do not include those that have been invaded by reed canary grass. A cattail
marsh is an emergent marsh dominated by cattails and occurs most commonly along lake
margins and in shallow basins. Associated species vary widely, but some of the most common
ones are certain sedges, bulrushes, and broad-leaved herbs such as northern marsh fern,
wamp milkweed, jewel-weed, broad-leaved arrowhead, mad-dog skullcap, marsh skullcap, and
blue vervain.
2.) Rich Fen Floating Mat Subtype
There are eight rich fen wetlands in the city and five were assessed as “C” quality natural
communities. These fens occur within small, topographically pronounced depressional wetland
basins throughout the city. Although rich fen communities are historically somewhat rare in
central Minnesota, there were likely many small rich fen wetland communities scattered
throughout the city’s many small depressional wetlands prior to European settlement (circa
1850).
Due to land use changes over the past 150 years and associated stormwater impacts, many fens within the city have converted to monotypic cattail and reed canary grass dominated wetlands. Furthermore, invasive weeds such as reed canary grass, purple loosestrife, and cattails are encroaching on the edges of these remaining fens, and are threatening the persistence of these diverse and unique communities within the city.

Within one of Minnetonka’s rich fens, a small population of water willow, (state special concern) was found. Water willow is a shrub-like plant within the loosestrife family, the same family as purple loosestrife.

3.) Mixed Emergent Marsh

One mixed emergent marsh was documented within the Minnetonka, and was assessed to be a “D” quality. Mixed emergent marsh is a broad community type, encompassing all marshes dominated by species other than cattails. Within high quality, undisturbed mixed emergent marshes, bulrushes are the most common dominants, especially hard-stemmed bulrush, river bulrush, softstem bulrush. Common reed grass, spike rushes, and (in some river backwaters) prairie cord grass are less common dominants.

Many mixed emergent marsh species are sensitive to fertilizer run-off and other artificial disturbances, and tend to convert to cattail marshes or become strongly dominated by reed canary grass or common reed grass, species that increase in abundance with disturbance.

4.) Wet Meadow

Three wet meadow remnants were documented within the city, were found to be low in native species diversity, and were all assessed as “D” quality communities. The ground layer of high-quality wet meadow communities is composed of dense, closed stands of predominately wide-leaved sedges or grasses. Forb cover and diversity usually are high and forbs such as spotted jое-pye weed, common mint, turtlehead, and swamp milkweed are conspicuous. Shrub cover in wet meadows ranges from zero to 70% and is composed of Bebb’s willows and pussy willows.

Wet meadow tends to succeed to shrub swamp communities in the absence of fire. Water-table lowering caused by drought or by ditching promotes succession of wet meadow to shrub swamps. Wet meadows on organic soils, like other communities that occur on organic soils, recover very slowly, if at all, once altered by artificial flooding or draining.

f. Upland Grasslands

1.) Mesic Prairie

There are seven prairie communities within the city. There are no native prairie remnants in the city and the five mesic prairies appear to have been planted within the past ten years. Generally, they are less diverse than native prairie remnants, and contain exotic weed species such as smooth brome and Kentucky blue grass among others. Non-native dominated upland grasslands occasionally support scattered native prairie grasses, such as big bluestem, little blue stem, and Indian grass.

Big bluestem, Indian grass, and prairie drop seed are the major native species on most sites, with little bluestem and porcupine grass important on drier sites, and switch grass and prairie cord grass common on wetter sites. The variation in species composition is caused by the amount of soil moisture.

Fragmentation of upland prairie since European settlement has reduced fire frequency throughout the prairie and deciduous forest-woodland zones, and most prairie remnants have more brush and trees than were present in the past. The introduced grass Kentucky bluegrass is present at most sites and is a function of the site’s disturbance history.
2.) Dry Prairie

The two dry prairie remnants are located in Minnetonka, with the larger prairie (near the Williston Road water storage facility) ranked as a “C” quality and the smaller (near Purgatory Park) was assessed as “D” category. The “C” ranked prairie was partially replanted in the mid-1980s, after the installation of water storage tanks. This prairie remnant contains many native grasses and forbs typical of dry prairie, such as bib bluestem, little bluestem, Indian grass, etc.

5. Wildlife Communities

Many areas within the city have excellent habitat for a variety of wildlife species. Habitat alone, however, does not assure the presence of wildlife population. Other factors such as native range and land use patterns have a significant effect on wildlife habitat and migration pattern.

The primary wildlife habitat areas within Minnetonka are the extensive wetland and floodplain areas and the wooded hillsides adjacent to these areas. Through careful planning and management, Minnetonka has been able to preserve this wildlife heritage and yet allow urban development.

The principal species of wildlife in Minnetonka are the ringed neck pheasant, several species of waterfowl, white tail deer, coyote, gray squirrel, fox, red squirrel, muskrat, mink, beaver, skunk and raccoon. As development has continued in the city, conflicts between human activities and certain wildlife communities (geese, deer and coyote, for example) have increased.

Three records of state-listed or otherwise rare plant and animal species were known to have occurred within Minnetonka. The dragon’s mouth orchid (not currently listed but very rare in the metro region) was documented 1931 in the tamarack swamp/graminoid bog complex associated with Glen Lake. Follow-up surveys for this orchid in 1998 and 2003 were unable to relocate this population, and it may have been destroyed.

Two state listed animals were also recorded in the past within Minnetonka. In 1981, a Blanding’s turtle (State Threatened) was discovered along a horse trail near Crane Lake in the northeastern part of the city. However, there have been no sightings of this turtle since the 1981 observation. Also, a pair of Red-Shouldered Hawk (State Special Concern) was documented in 1992 and in 1994, nesting within a deciduous woodlot along the Minnetonka/Deephaven border.
B. Existing Conditions - Water Resources

Much of the developed landscape of Minnetonka is shaped by its existing water features and resources. Surface waters have contributed to the attractive landscapes and recreational opportunities within the city, while underground water resources support the municipal water system as well as support the ecosystem of the region and state.

The interrelatedness of the subsurface and surface water resources requires that responsible planning and management activities take place by a variety of organizations, including the city to:

- ensure that the water quantity supply and control is protected and managed,
- maintain water quality, and
- preserve water quality resources for habitat areas, recreation, and aesthetic qualities.

The following section identifies characteristics of the water resources in Minnetonka, and planning activities to manage impacts caused by land use, development and other land disturbing activities. An inventory of existing subsurface and surface water conditions in Minnetonka are included within this section along with a synopsis of more detailed water planning activities recently completed by the city in its 2018 WRMP.

1. Subsurface Water Resources

The glacial activity and underlying bedrock provided the sub-surface water resources that exist in the city today. The sandy layers of outwash deposits of receding glaciers are the main areas for groundwater and some water producing wells. The depth to groundwater in Minnetonka is only a few feet in the low land areas, and 40 to 50 feet in higher topographic areas. The groundwater elevation is approximately 920 feet mean sea level (MSL) and the flow direction is to the east.

Due to the composition of surface materials, certain areas of Minnetonka are more susceptible to potential water table pollution than other areas. The source water sensitivity of the groundwater to potential pollution in Minnetonka is high in certain locations and very high in areas where the water table is less than 10 feet from the surface. Source water susceptibility refers to the likelihood that a contaminant will reach the source of drinking water and reflects the assessment of well and aquifer sensitivity, and water quality data. The susceptibility of the city’s source water is considered high due to high tritium content in water within the bedrock aquifer and the natural geologic conditions.

Three main bedrock aquifers underlay Minnetonka and include the Prairie du Chien-Jordan, Franconia-Ironton-Galesville, and Mt. Simon-Hinckley. The Prairie du Chien-Jordan aquifer is a sandstone aquifer that ranges in thickness from zero to 140 feet. The water table is at approximately 875 feet mean sea level (MSL) and the flow direction is east/southeast. In addition, the potential yield from the aquifer is greater than 2,000 gallons per minute. This aquifer's sensitivity to contamination is low to very low, and it is the primary source of potable water for Minnetonka.

The Franconia-Ironton-Galesville aquifer is at approximately 855 feet MSL and the potential yield is 400 to 800 gallons per minute. The deepest aquifer is the Mt. Simon-Hinckley aquifer where the water table level is 675 to 650 feet MSL and the flow direction is to the east/southeast.

2. Surface Water Resources

Minnetonka has many lakes, ponds, and creeks within and along its boundaries. Water entering
the city drains from west to east in the north and from north to south in the south. Generally, there is a continuous natural drainage that is augmented by storm water facilities and county ditches. The major drainage ways in Minnetonka include Minnehaha, Purgatory and Nine Mile Creeks. These drainageways channel storm and snow melt runoff into major tributaries, provide recreational opportunities and contribute to the natural aesthetic setting of the city.

a. Lakes

The City of Minnetonka has 13 lakes in total, including Crane Lake, Libbs Lake (considered part of Lake Minnetonka), Gleason Lake, Glen Lake, Gray’s Bay (also considered part of Lake Minnetonka), Holiday Lake, Lake Rose, Lone Lake, Lake Minnetoga, Shady Oak Lake, Shavers Lake, Lake Windsor, and Wing Lake.

Of the 13 lakes, 11 are primarily or entirely located within the city, with the two exceptions being Grays Bay (part of larger Lake Minnetonka) and Gleason Lake. The city monitors water quality on each of the 11 lakes within the city on a three year rotational basis to understand water quality trends. In particular, looking for indicators of eutrophication; the overabundance of nutrients within a waterbody. Eutrophication in freshwater ecosystems is typically represented by a high presence of phosphorus, a natural chemical constituent of soil. The overabundance of phosphorus can cause algal blooms, which in turn may deplete the oxygen available in the water column for other fish or invertebrates. Lower concentrations of phosphorus indicate better water quality.

Waterbodies have different amount of natural, background phosphorus depending on characteristics like depth, surrounding topography, and drainage area. In general, shallow lakes contain a higher concentration of phosphorus than deep lakes. Of the 11 lakes that are included in the water quality monitoring, seven are shallow (Crane, Libbs, Holiday, Rose, Shavers, Windsor, and Wing) and four are deep (Glen, Lone, Minnetoga, and Shady Oak). For more information on water quality, applicable water quality standards, and the health of the city’s waterbodies, refer to the 2018 Water Resources Management Plan. The 2014 – 2016 data for the lakes in the city is shown below (the next sample data will be available in 2019):

<table>
<thead>
<tr>
<th>Lake</th>
<th>2014-2016</th>
<th>Historical Average (1993-2016)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Crane Lake</td>
<td>15</td>
<td>88</td>
</tr>
<tr>
<td>Libbs Lake (Lake Mtka.)</td>
<td>50.8</td>
<td>27</td>
</tr>
<tr>
<td>Glen Lake</td>
<td>14</td>
<td>25</td>
</tr>
<tr>
<td>Holiday Lake</td>
<td>109</td>
<td>211</td>
</tr>
<tr>
<td>Lake Rose</td>
<td>130</td>
<td>100</td>
</tr>
<tr>
<td>Lone Lake</td>
<td>21.8</td>
<td>30</td>
</tr>
<tr>
<td>Lake Minnetoga</td>
<td>31.5</td>
<td>32</td>
</tr>
<tr>
<td>Shady Oak Lake</td>
<td>11</td>
<td>16</td>
</tr>
<tr>
<td>Shavers Lake</td>
<td>51</td>
<td>46</td>
</tr>
<tr>
<td>Windsor Lake</td>
<td>121</td>
<td>150</td>
</tr>
<tr>
<td>Wing Lake</td>
<td>95</td>
<td>106</td>
</tr>
</tbody>
</table>

Through the monitoring program, the city identifies water quality trends and works with public
and private partners where possible to continue improving the city’s waterbodies. More information on water quality parameters can be found in the 2018 Water Resources Management Plan, Chapters 3, 5, and 6.

b. Watersheds and Drainageways

Additionally, there are four creek watersheds within the city - Nine Mile Creek, Bassett Creek, Purgatory Creek, and Minnehaha Creek. Nine Mile Creek starts in Minnetonka and flows south into Edina. Minnehaha Creek starts at Grays Bay and flows east to the Mississippi River. Purgatory Creek runs from north to south and has a portion of its headwaters in the west central portion of the city. Bassett Creek lies north of the city and drains the northeast corner of Minnetonka.

The functions of the natural drainage ways can be significantly disrupted when land use patterns change unless proper management is followed and maintained on a continuous basis. Land use changes increase runoff volume from paved and hard surfaced areas, introduce pollutants to lakes and wetlands, and potentially increase occurrences of erosion and siltation from increased runoff volume.

The protection and regulation of the city’s shoreland areas is part of a statewide effort to protect water quality and aesthetic values of public waters. The public waters (as defined by the MnDNR) in Minnetonka are shown on Figure VI-4. The lakes within the city; Minnehaha, Purgatory and Nine Miles Creeks; and an unnamed tributary of Glen Lake are the public waters where shoreland management is applicable. The MnDNR defines shoreland areas as the land within 1000 feet of the ordinary high water level of a lake and 300 feet from the top of bank of a creek or the landward extension of the associated floodplain, whichever is greater.

3. Wetland and Floodplain Areas

Minnetonka is known by many throughout the region for the amount and variation of its wetland and floodplain resources. The city was spared much of the wetland and floodplain destruction that occurred in the heavily agricultural areas and subsequent suburban development because of the recognition of the values associated with wetland and floodplain areas.

In the early 1970s, the city began to regulate and manage wetlands and floodplains to prevent water pollution and protect the functions of wetland areas. Because of the early water management efforts of the city, these areas have been preserved from development and other pressures. City leaders recognized that wetlands and floodplain areas perform important functions to:

* provide habitat for waterfowl and other wildlife,
* store and stabilize water to prevent flooding and alleviate impacts from drought;
* recharge and store groundwater supplies,
* cleanse and purify surface waters by removing nutrients, and other contaminants present in storm water runoff.
* contribute to the open space landscapes, and
* enhance urban development activities.

Approximately 2,810 acres of land in Minnetonka are designated wetlands (inventoried by the city) and floodplains designated by the city and the Flood Emergency Management Agency (FEMA), and 643 acres are lakes and creeks. Many wetlands and floodplain areas are under protection as designated park land or open space. All of the wetlands and
floodplains are presently protected by city management regulations.

a. **Wetlands**

Wetlands are shallow depressions of marsh, peat bog and swamp and are not deeper than six and a half feet. In some cases, the wetlands in Minnetonka serve as sumps in that they drain very quickly and do not support a type of wetland vegetation. Other wetlands in the city are waterlogged or flooded year round or during the growing season and support wetland vegetation and associated wildlife habitat.

There are eight different types of wetlands in the state, that are characterized by:
Please Refer to Public Works Inventory Map (Figure VI-4)
∗ vegetation that is adapted to growing in wet environments such as rushes, sedges, wildflowers, and certain trees and shrubs,
∗ hydric (wet) soils or those soils that are normally saturated or wet, and
∗ seasonal differences in water at or near the soil surface.

Minnetonka contains seven of the eight wetland types as described in the following table and shown on Figure VI-5. Some wetlands have dual designations due to individual characteristics.

<table>
<thead>
<tr>
<th>Wetland Type</th>
<th>Soil Characteristics</th>
<th>Hydrology Description</th>
<th>Vegetation Description</th>
<th>Common Sites</th>
</tr>
</thead>
<tbody>
<tr>
<td>Type 1 - Seasonally Flooded Basin or Flat</td>
<td>Usually well-drained during much of the growing season</td>
<td>Covered with water or waterlogged during variable seasonal periods</td>
<td>Varies greatly according to season and duration of flooding from bottomland hardwoods to herbaceous plants</td>
<td>Upland depressions, bottomland hardwoods (floodplain forests)</td>
</tr>
<tr>
<td>Type 2 - Wet Meadow</td>
<td>Saturated or nearly saturated during most of the growing season</td>
<td>Usually without standing water during most of the growing season but waterlogged within at least a few inches of the surface</td>
<td>Grasses, sedges, rushes, various broad-leaved plants</td>
<td>May fill shallow basins, sloughs, or farmland sags; may border shallow marshes on the landward side and include low prairies, sedge meadows, and calcareous fens</td>
</tr>
<tr>
<td>Type 3 - Shallow Marsh</td>
<td>Usually waterlogged early during growing season</td>
<td>Often covered with 6 inches or more of water</td>
<td>Grasses; bulrush; spikerush; and various other marsh plants, such as cattail, arrowhead, pickerelweed, and smartweed</td>
<td>May nearly fill shallow lake basins or sloughs; may border deep marshes on landward side, commonly as seep areas near irrigated lands</td>
</tr>
<tr>
<td>Type 4 - Deep Marsh</td>
<td>Inundated</td>
<td>Usually covered with 6 inches to 3 feet or more of water during growing season</td>
<td>Cattail, reed, bulrush, spikerush, and wild rice; open areas may have pondweed, naiad, coontail, water milfoil, waterweed, duckweed, water lily, and spatterdock</td>
<td>May completely fill shallow lake basins, potholes, limestone sinks, and sloughs; may border open water in such depressions</td>
</tr>
<tr>
<td>Type 5 - Shallow Open Water</td>
<td>Inundated</td>
<td>Usually covered with less than 10-foot-deep water; includes shallow ponds and reservoirs</td>
<td>Fringe of emergent vegetation similar to open areas of Type 4</td>
<td>Shallow lake basins and may border large open water basins</td>
</tr>
<tr>
<td>Type 6 - Shrub Swamp</td>
<td>Usually waterlogged</td>
<td>Often covered with as much as</td>
<td>Includes alder, willow, buttonbrush,</td>
<td>Along sluggish streams, drainage</td>
</tr>
</tbody>
</table>

Resource Management Plan - Page 18
<table>
<thead>
<tr>
<th>Type 7 - Wooded Swamp</th>
<th>6 inches of water; water table is at or near the surface</th>
<th>dogwood, and swamp privet</th>
<th>depressions, and occasionally on floodplains</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>during growing season</strong></td>
<td>Waterlogged within a few inches of the surface during the growing season</td>
<td>Often covered with as much as 1 foot of water; water table is at or near the surface</td>
<td>Hardwood and coniferous swamps with tamarack, northern white cedar, black spruce, balsam fir, balsam poplar, red maple, and black ash; deciduous sites frequently support beds of duckweed and smartweed</td>
</tr>
</tbody>
</table>

Please Refer to Wetland Types and Floodplain Areas Map (Figure VI-5)
b. Floodplains

Floodplains are areas adjacent to creeks and lakes that are subject to periodic inundation. The 100-year floodplain elevation is the boundary of floodplain as defined by local, state and federal governments. A 100 year flood is considered one that has a 1 percent chance of occurring in any given year. Floodplain regulations not only fall under the auspices of the city of Minnetonka, but also involve the Watershed Districts, the MnDNR and FEMA.

The floodplain areas in Minnetonka are shown on Figure VI-6. Generally, the floodplain areas within the city align the edges of lakes and follow the major creeks.
Please Refer to 100-Year Floodplain Map (Figure VI-6)
C. Resource Management Goals

The following goals provide guidance for the management of important natural resources including upland areas, topography and water resources in accordance with community values articulated in Chapter I and the overall policies found in Chapter III of this plan. Additionally, this section includes a summary of the major goals and policies of the 2008 Water Resources Management Plan.

1. Upland Areas Goals

   Goal 1: To manage and balance future growth to encourage protection of natural resources and enhance environmental features in the city including significant vegetation, slopes and water resources.

   Goal 2: To encourage woodland and tree preservation throughout the city and reasonably limit the loss of mature trees during land development activities.

   Goal 3: Require all development and land disturbing activities to comply with the requirements of the 2008 Water Resources Management Plan, as may be amended, and the appropriate watershed management district rules and requirements.

2. Overall Water Quality Goals

   Goal 1: Manage the water resources within the city, with input from the public, so that the beneficial uses of wetlands, lakes and creeks remain available to the residents including aesthetic appreciation, wildlife observation, swimming, boating or other activities.

   Goal 2: Manage water on a regional basis to protect designated water bodies and meet regional water quality standards.

   Goal 3: Reduce unlawful discharge to the city’s storm sewers and receiving waters.

   Goal 4: Work to meet the phosphorous load reductions required by the city’s NPDES permit and the four watershed district organizations.

3. Creek Goals

   Goal 1: Maintain or enhance the natural beauty, public access and wildlife habitat value of creeks running through the city.

   Goal 2: Implement creek restoration measures whenever necessary to maintain health, safety, and ecological integrity.

   Goal 3: Minimize the volume of stormwater runoff entering creeks.

4. Wetlands Goal

   Goal 1: Continue to protect and restore wetlands to improve or maintain their functions and values in accordance with the Minnesota Wetland Conservation Act and the city’s wetland district provisions of the zoning ordinance.

5. Education and Public Involvement Goals

   Goal 1: Continue to involve and educate the residents in water resource related issues.

   Goal 2: Continue to offer programs, educational opportunities and information that facilitate an understanding of water resource issues in the city and areas downstream of Minnetonka.
6. **Water Quantity and Flooding Goals**
   - **Goal 1:** Manage the rate and volume of runoff entering rivers, creeks, lakes and wetlands within the city.
   - **Goal 2:** Manage floodplain areas to minimize flooding and protect the functions of the floodplain.
   - **Goal 3:** Protect the public from flooding through measures that ensure public safety and prevent inundation of occupied structures.
   - **Goal 4:** Minimize flooding potential while minimizing, to the greatest extent practical, the public capital expenditures necessary to control excessive volumes and rates of runoff.

7. **Groundwater Goal**
   - **Goal 1:** Protect groundwater quality and quantity to preserve it for sustainable and beneficial purposes.
   - **Goal 2:** Encourage efforts to conserve water supply use and provide water supply protection education for residents and businesses.

8. **Erosion and Sedimentation Goal**
   - **Goal 1:** Prevent sediment from entering the city’s surface water resources and control the erosion and sedimentation in drainage ways within the city.

9. **Funding Goal**
   - **Goal 1:** Provide sufficient funding to implement measures and policies contained in this plan and the 2008 Water Resources Management Plan.
D. Water Resources Management

Previous water management planning activities were conducted by the city in 1982 and 1999. The city’s 1982 water resources management plan (WRMP) established an integrated stormwater management system for the city, primarily controlling water quantity, and represented a “first generation” plan. In 1999, the city adopted a “second generation” WRMP that included previous stormwater management efforts along with new requirements to integrate flood control with wetland and water quality needs.

The 2008 WRMP incorporates stormwater management planning activities, as mandated by several federal, state and regional laws and programs, with water resource protection and preservation policies and requirements that meet metropolitan and the four watershed management organization goals. Further, the 2008 WRMP meets the requirements of the federal Environmental Protection Agency requirements for the Phase 1 National Pollutant Discharge Elimination System (NPDES) program for large municipal separate stormwater systems (referenced as MS4’s).

This plan establishes detailed management strategies for water resources and stormwater within the city that support the policies listed in Chapter III of this plan. The 2008 WRMP includes:

* a detailed inventory of water resources data;
* a listing of applicable state, federal and regional water resource regulations;
* specific water resource management goals and policies that meet state statute and Metropolitan Council requirements;
* an assessment of specific city water resources issues; and
* identifies implementation strategies to achieve the goals and policies including funding priorities.

The complete 2008 WRMP is an integral part of this comprehensive guide plan however, is a separate document due to its detail.

The following summarizes the important aspects of the 2008 WRMP affecting Minnetonka water resources.

1. Wetland Protection

In Minnetonka, the wetland protection and management program is based upon a classification system, and hierarchy of planning activities. The classification system is based upon a hydrologic and water quality analysis of each wetland and includes factors such as resource significance, local management potential, and susceptibility to stormwater input as detailed in the 2008 WRMP.

The planning activities identify the permitted actions for each wetland that avoids, minimizes, and mitigates impacts consistent with individual wetland classification, adequate flood control and water quality protection. The wetland management system reflects a “no net loss” of wetland function and values, as regulated by the state Wetland Conservation Act.

The wetland management classification system is based upon the following four categories for stormwater inflow purposes and management practices:
<table>
<thead>
<tr>
<th>Wetland Management Classification</th>
<th>Actions</th>
</tr>
</thead>
<tbody>
<tr>
<td>Preserve</td>
<td>Avoid and preserve if at all possible. No change in hydrology. No increase in nutrient load.</td>
</tr>
<tr>
<td>Manage 1</td>
<td>Minimize impacts. Control change in hydrology. Remove sediment and pre-treat water entering</td>
</tr>
<tr>
<td>Manage 2</td>
<td>Minimize impacts. Control change in hydrology. Remove sediment from water entering.</td>
</tr>
<tr>
<td>Utilize</td>
<td>Use for flood storage and pretreatment of water entering other wetlands.</td>
</tr>
</tbody>
</table>

Figure VI-7 depicts the management classification of the wetland areas.

The city’s 2008 WMRP identifies the wetlands that are susceptible to degradation by stormwater impacts and indicates protection and/or restoration methods to preserve wetland attributes, consistent with the classification, flood control and water quality protection. The management practices result in a “no net loss of wetland function and values” in keeping with the state Water Conservation Act requirements.

2. Water Quality

The city’s water quality protection system is designed to preserve beneficial uses of designated water bodies and wetland functions. A citywide water quality management program was developed based on sampling, classification, and the water quality modeling results. The city’s water quality program includes three components: a management system, management standards, and educational and related programs.

The city established a water quality classification system for water bodies to meet the water quality goals of the city and the four watershed management organizations. The classification system is based on the desired water quality that corresponds to the expected use of the water body. The city used the following criteria to determine the classification of water bodies for water quality protection:

- Ability to apply zoning restrictions or other means to avoid development pressures or other activity that are not consistent with the expected use,
- Ability to purchase property or use existing city property to implement Best Management Practices (BMPs) or measures to protect the expected use,
- The relative position of the wetland within the watershed and the relationship to other surface waters, and
- Local perceived resource significance.

The classification system also considers the wetland management classification of adjacent wetlands. This ensures that the management plan avoids or minimizes impacts to wetland functions and values. A summary of the sampling data of the major water bodies in the city is included in the 2008 WRMP. Water bodies where the expected use classifications warranted protection were classified with “water quality protect” local management potential designation.

There are several important creeks in the city, including Minnehaha Creek, Nine Mile Creek, and Purgatory Creek, that are impacted by the water quality of the upstream water bodies as well as the stormwater runoff reaching the creeks. Poor water quality usually indicates a
Please Refer to Wetland Classification Map (Figure VI-7)
situation where the resource receives more nutrients, or other pollutants, than can be processed naturally.

Additionally, several water bodies are listed on the draft 2008 MPCA impaired waters list:

1.) Minnehaha Creek – fish bioassessment, fecal coliform and chloride
2.) Nine Mile Creek – chloride, fish bioassessment, turbidity
3.) Windsor Lake – total phosphorus
4.) Lake Minnetonka – mercury

Water bodies on the impaired waters list are required to have an assessment (known as a total maximum daily load (TMDL) analysis) completed that addresses the causes and sources of the impairment. Water bodies on this list have exceeded the water quality criteria established by the MPCA for one or more measured parameters.

Additionally, the Metropolitan Council has a Priority Lakes list based on size, their high regional recreational value, primary water supply capabilities and high water clarity. The only lake within the city currently listed on the current Metropolitan Council priority waters list is Lake Minnetonka.

3. Water Quantity Control

Flood control planning depends on allocating flood storage in wetlands with minimal impact to wildlife or water quality functions. The city uses its hydrologic/hydraulic model to evaluate stormwater storage needs with respect to wetland protection and water quality goals. As with wetland protection and water quality, flood control planning depends on allocating flood storage in wetlands with minimal impact to wildlife or water quality functions.
E. Implementation Practices and Strategies

The following section indicates the protection and management practices to protect natural resources identified in this chapter. The management practices follow the policies for the natural environment included in Chapter III – Overall Policies.

Further, additional and more specific goals, policies and priorities for implementation strategies for water resource management are included in the 2008 Water Resource Management Plan, and are incorporated by reference in the 2030 Comprehensive Guide Plan.

1. Steep Slopes
   * Continue enforcement of development regulations to limit construction activities on steep slopes (over 12 percent and 18 percent).
   * Continue to regulate construction practices to prevent erosion and preserve significant vegetation on slopes.

2. Significant vegetation
   * Continue to limit removal of significant trees to encourage preservation of natural communities; and require a reasonable amount of replacement when new development or redevelopment is proposed.
   * Continue restoration efforts and management program within city parks.
   * Encourage private efforts to manage woodlands, such as currently practiced within the Cargill Corporate Park.
   * Continue education programs such as the “backyard conservation” program for:
     - restoration of native plant species,
     - removal and control of buckthorn, garlic mustard and other invasive species, and
     - replanting woodland herbaceous plants.

3. Erosion and sedimentation
   * Continue to enforce zoning and subdivision ordinance provisions for erosion and sediment control, tree preservation, and steep slope protection.

4. Shoreland Protection
   * Continued enforcement of the shoreland protection zoning district, as amended. Within the shoreland area, certain uses, setbacks of structures, amount of impervious surface, grading, certain building dimensions and buffers are regulated in compliance with MnDNR rules, along with flexibility, to protect the integrity of the shoreland area.
   * Continue application of regulations within city’s WRMP to control for the rate and quality of water run-off into surface water resources, including lakes, creeks and wetland areas. Run-off from proposed land use activities must also comply with requirements of the watershed districts, the state and the federal government.
   * Provide education to residents of the benefits of various shoreland protection measures and programs.

5. Wetland Protection

Since 1973, the city has regulated wetlands within its zoning ordinance. On a consistent basis, the city has strengthened the ordinance over the years to prevent wetland destruction and
degradation. The city plans to continue with the utilization of programs (for example, parts of the city Environmental Stewardship Program) to manage wetland resources:

1.) Protection

* Continue to enforce the wetland district provisions of the zoning ordinance, and update as necessary to incorporate new provisions of the 2008 WRMP and requirements of state and local management organizations, as appropriate.
* Continue to serve as the local government authority to enforce the state Wetland Protection Act passed in 1991, and as amended.
* Continue to coordinate activities with the four watershed management districts/organizations in the city to protect and manage wetlands.

2.) Wetland Buffers

Wetland buffers (measured in distance landward from the wetland edge) are beneficial to maintain the health of wetlands and help improve water quality. The use of native vegetation mixtures (maintained or planted) as a buffer help filter sediment, nutrients, and other pollutants before they drain into the wetland. In addition, the native vegetation provides food and shelter for a variety of desirable wildlife species.

A native vegetation buffer adjacent to the wetland reduces the impact of lawn care practices such as the increase for nutrients from lawn use that may infiltrate the wetlands. These excess nutrients can increase the growth of undesirable algae and noxious weeds.

* Continue to require wetland buffers for new land use activities that occur adjacent to wetland areas, creeks and shallow lakes (as regulated by the shoreland ordinance, as may be amended).
* Continue to manage buffer area size and type based upon the wetland management classification, adjacent lake and creek characteristics, and the type of activity. The city's wetland and shoreland zoning districts and WRMP include requirements for the buffer areas.

3.) Monitoring

* Continue lake, creek and wetland monitoring activities. The city cooperates with monitoring activities conducted by the four watershed management organizations, other government entities, and utilizes consultants, trained citizen volunteers to monitor wetlands using methods developed by the MPCA. The volunteers catalog plant and invertebrate species diversity and richness. Data is summarized in an annual report and reviewed by city staff to determine the health of our water resources.

6. Floodplain Protection

* Continue application of the floodplain district provisions of the zoning ordinance to protect existing floodplain areas by regulating:
  • uses within and adjacent to the 100 year floodplain; and
  • establishing minimum setbacks and building elevations to protect property.
* Continue to participate in the FEMA floodplain management program which, in part, allows property owners to qualify for flood insurance.
7. **Wildlife Management**
   
   * The city has instituted programs to educate residents and reduce the populations of certain animal species on public properties.

8. **Groundwater**

To protect the water supply and subsurface water resources from potential contamination, the city has started to implement the wellhead protection plan, as approved by the Minnesota Department of Health. Additionally, the city uses the development review process to protect its drinking water source areas.

   * To reduce the potential adverse affects of pollutants from surface infiltration, the city will consider the state Department of Health’s *Evaluating Proposed Stormwater Infiltration Projects in Vulnerable Wellhead Protection Areas*, as amended, as guidance in evaluating all proposed stormwater projects within or adjacent to vulnerable portions of the Drinking Water Supply Management Areas (DWSMA).

   * The city will utilize additional information (when available) in determining the potential adverse effects of stormwater infiltration to the vulnerable DWSMA. If the proposed infiltration/discharge is determined by the City to potentially cause adverse effects to the local drinking water supply, the City will prohibit the construction of the infiltration area or incorporate the necessary BMPs to reduce the identified pollutant(s) prior to infiltrating into the vulnerable portions of the DWSMA.

9. **Review of Development and Land Disturbing Activities**

In addition to the regulating activities noted above, the city actively reviews development proposals and requires permits for most land disturbing activities. The zoning and subdivision ordinances specify the requirements that are designed to manage activity that affect natural resources, including those that impact water resources. Water resource or stormwater-related city permits and/or approvals are required for most projects that involve preliminary and final plats, site plans, rezonings, land alterations, wetland or floodplain alteration permits among others.

Additionally, the city informs developers and other project applicants about the requirements of other review agencies including the watershed management organizations. By agreement, the city currently has full water resource permitting authority with the Riley-Purgatory Bluff Creek watershed district and permitting authority for certain activities with the Minnehaha Creek watershed district.

   * The city will continue to regulate development and land disturbing activities with the development review (zoning and subdivision) ordinances.

   * The city will review and incorporate stormwater design criteria for development as identified in the 2008 WRMP.

   * The city will continue to be proactive in using development controls and other tools to encourage improvements to the stormwater systems presented by redevelopment in compliance with the policies and requirements of the 2008 WRMP.

   * The city will review and update its existing ordinances and processes to ensure conformance with the policies and goals of the 2008 WRMP, the requirements of the four watershed management organizations of the city, and the NPDES MS4 Permit requirements.

   * The city will review the need to amend current standards for water quality treatment
best management practices for development projects, to achieve higher levels of water quality treatment than is currently required.

10. Municipal Stormwater System Management and Non-Degradation Requirements

Due to its population, Minnetonka is required to obtain a Municipal Separate Storm Sewer System (MS4) permit for managing non-point source storm water. A permit must be filed with the state Pollution Control Agency (MPCA) that indicates how the city will regulate and improve storm water discharges. The permit must include a Stormwater Pollution Prevention Program (SWPPP) that indicates how the city will meet the permit requirements.

The permit conditions require that the city continue to use best management practices (BMPs) and other strategies to meet the following other measures:

- public outreach and education
- public participation/involvement
- illegal discharge detection and elimination
- construction site runoff control
- post construction runoff control
- pollution prevention/good housekeeping

The 2008 WRMP explains in detail the requirements of the MS4 program in Minnetonka and the on-going detailed activities to achieve permit compliance.

In addition, Minnetonka is one of 30 cities in Minnesota selected to complete a pollutant loading assessment and non-degradation report to determine the need for additional measures to reduce pollutant loading. This report must assess the volume of total suspended solids (soil, sand and silt), phosphorus and water in storm water runoff and establish a plan and implementation measures to keep pollutant loadings at 1988 levels. This approach should result in the following:

- Receiving water quality should be improved for lakes, wetlands and streams in the city,
- Channel erosion and stream morphology changes will be minimized,
- Further protection will be provided for the physical and biological integrity of the stream and wetland corridors.
- Controlled “bounce” and duration of inundation in the city’s wetlands and preservation of the functions and values for each type of wetland classification.

11. Funding and Capital Improvement Programs

The capital improvement and implementation programs of the 2008 WRMP, along with the existing Surface Water Utility Fund provides adequate tools to correct current and future problems. The stormwater utility revenue is generated by fees according to impervious surface coverage and it is the primary funding source for all stormwater improvements related to the WRMP. The city periodically reviews this program to determine its adequacy for funding needed projects and programs.

- The city will continue to use the Surface Water Utility Fee program to fund stormwater related activities.
- The City will continue its efforts to actively seek opportunities and apply for grants and other funding as it becomes available. These funds can provide an important resource for funding water resource projects.
12. Partnerships
The Bassett Creek, Minnehaha Creek, Nine Mile Creek and Riley Purgatory watershed management organizations provide funds and assistance toward solving various water resource problems and completing water resource projects. These organizations have a long record of working successfully with the individual cities toward meeting shared goals.

* The City will continue to collaborate and contribute to these organizations and take advantage of the available benefits.
* The city will seek permitting authority for water related projects within the Bassett Creek and Nine Mile Creek watershed management organizations in an effort to streamline the permit review process and eliminate duplicated efforts.

13. Education and Public Involvement Program
The city maintains various education and communication programs (website, mailings and informational meetings) aimed at water resources issues. The City develops and distributes articles and information regarding the stormwater planning activities, along with those of the watershed district organizations, including information on:

- stormwater issues,
- non-point source pollution,
- NPDES regulation and guidance,
- annual public meetings,
- illegal discharges,
- erosion control,
- shoreline management,
- local agency contacts,
- stormwater website links,
- composting and pollution prevention.

* The city will continue to offer education and communication programs for stormwater management and resource protection activities.
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Staff Person: Carol Hejl

Summary of Chapter Minimums:

- Describe and map existing and proposed local parks, trails and recreation facilities.
- Include a capital improvement program for parks and open space facilities as part of your implementation program.

References utilized to draft chapter:

- Parks, Open Space and Trail (POST) plan
- Trail Improvement Plan (TIP)
- Mountain Bike Study
- Scope for Facility Needs Assessment Study
- Imagine Minnetonka Report
- Minnehaha Creek Corridor plan

Introduction: Vision for the Parks, Trails and Open Space System

The parks, opens space, and trails that connect them are what gives Minnetonka its unique character. The community feels like it is a part of nature, not apart from it. The strong connection the community has with its natural resources and open space will ensure Minnetonka is a community of choice where people live, work, play, and conduct business in a naturally beautiful environment. As a community with a dynamic population, it can be expected that the needs of individuals and families living in Minnetonka will continue to change and evolve through time. City staff are committed to providing a comprehensive, balanced, and sustainable system of parks, open space/natural areas, trails, and recreation oriented activities/programs that responds to the community’s values.

Since the City is fully developed, the priorities for the future are to preserve and enhance existing features to allow current and future generations to enjoy these spaces and to identify appropriate new opportunities as redevelopment occurs.

Goals

- Maintain, preserve, and enhance the parks, open spaces and trails that give Minnetonka its unique character.
- Equitable park facilities and programs that match the desires, needs, and abilities of residents
• Continue to develop a walkable/bikeable Minnetonka that will safely and comfortably connect people to parks, open space, and village centers, and build a culture of active living
• Protect and preserve the outstanding quality of life currently enjoyed in Minnetonka, and the desire to ensure the same quality of life is available for future generations.
• Identify opportunities for new parks and open space
• Foster resiliency of parks and open space to combat climate change and extreme weather events

History of Minnetonka Parks, Open Space and Trails
Minnetonka has a long history of taking care of its natural environment. The name Minnetonka comes from the Dakota Indian “mni tanka,” meaning “great water”. In 1967, some of Minnetonka’s leaders had the foresight to start the Minnehaha Creek Corridor Plan, which enabled the city to purchase over 80% of the riparian edge along the Minnehaha Creek and protect it for current and future generations.

The Minnetonka parks and recreation system expanded over time in conjunction with the development and growth of the city. Early community leaders and residents had the foresight to acquire and preserve land for parks and open spaces, and over the years city decision makers have continued to understand the importance of this value to residents.

Soon after Minnetonka incorporated as a village (1956), the city developed a comprehensive park plan. At the time the plan was developed in the early 1960s, the city owned 332 acres of parkland at 14 sites, but only 70 acres were usable as the other 262 acres were used for water storage.

The long-term plan was to acquire an additional 1,050 acres and an initial bond referendum to fund acquisition and improvements totaling $3,000,000 failed in 1969. The planned park activities included the acquisition and development of park lands, a year-round ice arena, an indoor swimming pool and golf course. In 1971, the comprehensive park system plan was updated and a new bond referendum was held in 1972. The voters approved $1,300,000 for park land acquisition, $980,000 for park improvements, and $134,000 for development of trails in the city.

Shortly after the bond referendum, the city started to experience significant development and subdivision of property. A large amount of acreage was obtained by the city, in addition to those acres acquired with park bonds, as a result of the park dedication requirements of the subdivision ordinance.

By 1984, the city had 43 park sites totaling 1,135 acres. In addition, significant acreage of floodplain and wetland areas were dedicated, donated and/or acquired by the city along Minnehaha Creek and Purgatory Creek. At that time, the city commissioned a planning document that included inventories and maps of every city park, along with a description of opportunities for development, if any, in each.

With a growing population and greater youth involvement in team sports, an athletic fields needs study was prepared in 1989 with updates in 1994 and 2004. As a result of the studies, several athletic fields were added to the city’s inventory and agreements to share in the use and development of athletic fields were established with the Hopkins and Minnetonka school
districts, and private athletic associations to maximize public athletic field needs.

In the mid-1990s, the city determined that a stewardship program was needed to effectively manage park properties and the growing acreage of open space in Minnetonka. A natural resources restoration and management plan for the city’s five community parks and three creek corridors was prepared in 1996 to combat the degrading condition of the city’s public natural areas. Further, due to continuing development pressure, the city council appointed a citizens task force in the late 1990s to determine strategies to preserve open space and criteria for the level of preservation in appropriate locations.

A comprehensive parks, open space and trail system plan update was completed October 2000 that incorporated the need to update existing recreational parks and more aggressively preserve open space. This plan was utilized for a successful referendum in 2001 that provided $15 million in bonds for parks renewal and open space preservation.

Current Trends
Recreation – Sports and Leisure
The Physical Activity Council, which tracks participation and trends in sports, fitness and recreation in the United States, has shown that while 72% of the U.S. population ages six and over are active, the level of activity continues to trend toward a lesser frequency. Further, trends in how people recreate continue to shift away from organized sports and toward more individualized activities and outdoor recreation. The City of Minnetonka and surrounding communities’ recreation departments have seen a decline in the number of teams registering for softball, basketball, kickball and football leagues. Though not specific to the United States, recent publications by the Australian Sports Commission explored this trend, noting that participation in many organized sports is in decline, while non-organized sports are growing in popularity. Reasons cited for this shift include:

- Organized sports focus too heavily on competition rather than fun and enjoyment
- Organized sports choose teams on the basis of talent rather than friendship groups
- Organized sports lack flexibility around scheduling
- Organized sports provide limited opportunities for people with poor sporting competency
- Many adolescents report being self-conscious about poor sporting ability and find organized sporting environments intimidating and humiliating

Pedestrian and Bike
Residents who participated in Imagine Minnetonka were adamant about the need to improve pedestrian safety at key intersections and their desire for more connected bike and hike paths. The city has a comprehensive trail improvement plan, and is currently evaluating funding approaches.

Mobility is intrinsic to quality of life. Pedestrian and bicycling infrastructure such as sidewalks and trails can be used for transportation, recreation and fitness. These types of infrastructure have been shown to create many benefits for their users as well as the rest of the community. The benefits of pedestrian and bike infrastructure are integrated. Some of these benefits are economic, such as increased revenues and jobs for local businesses, and some are non-
economic benefits such as reduced congestion, better air quality, safer travel routes, and improved health outcomes.

**Economic Benefits**
- Sidewalks increase foot traffic in retail centers, delivering the customers that local shops and restaurants need in order to thrive.

**Safety Benefits**
- Pedestrian and bicycle infrastructure that is physically separated from vehicles can help increase bicycle use, especially by less confident riders, and support safe travel.

**Health Benefits**
- People who live in neighborhoods with sidewalks are 47 percent more likely than residents of areas without sidewalks to be active at least 30 minutes a day.
- Active lifestyles improve physical health, mental health, as well as dramatically reduces likelihood of chronic disease.

**Air Quality Benefits**
- Reduced human exposure to transportation-related emissions and reduced transportation's contribution to air pollution.

**Roadway Benefits**
- Reduced wear and tear on roadways and reduced congestion and traffic.

**Community Benefits**
- Sidewalks are conduits for pedestrian movement and play a vital role in community life to enhance connectivity across generations & backgrounds to foster social interaction and build inclusiveness.

**Equity Benefits**
- Removes barriers to mobility for people who are unable to, or choose not to, drive and increases the number of people who are able to walk, bike and access transit.

Expanding and improving bicycle and pedestrian infrastructure means ensuring that a network of infrastructure is in place to make bicycling or walking viable modes of travel. It also means ensuring that the infrastructure is safe and comfortable to use.

**Adapting to Climate Change**
Resiliency to climate change - especially heavier rain and storms and longer and dryer periods between them - will impact Minnetonka’s woods and wetlands. As the climate changes, Minnetonka needs to be vigilant about mitigation, adaptation, and proactive resource management.

Conservation will become as important as recreation. As climate change begins to impact wildlife and landscapes ever more directly, the natural values of every park, possibly taken for granted, will be considered one of the more important community-based means of adapting to climate-change conditions. Parks will be appreciated for their conservation values - places that reduce urban temperatures, habitats that protect nature and biodiversity, landscapes that naturally manage stormwater, and places that protect and preserve clean air and pure water. The public will turn out in ever greater numbers to volunteer for conservation activities in parks. Parks will play an increasingly important role in contributing to climate change response. Agencies will begin to utilize parks in new ways to respond to climate change such as providing emergency services to their communities in times of extreme weather events. Adaptation
strategies will include developing ‘sponge parks’ in urban areas, acquiring and expanding open space parks in flood plains, and designing vegetative buffer parks to protect homes and development.

Changing Demographics
Different recreation needs. A community’s preparation for increasing diversity can have a large impact on how residents respond and how smoothly newcomers are integrated into the community. The Met Council projects that Minnetonka will add 10,000 residents and 5,500 households by 2040. Between 2000 and 2013, Minnetonka attracted 2,300 residents of color. In the three major Minnetonka school districts, there are between 40 and 42 languages spoken. Approximately 29% of East Africans in the US are located in the greater Minneapolis metro area. This is on par with the Twin Cities metro region where 92% of population growth is from people of color. Demographic shifts in the coming decades will result in a different Twin Cities region than we know today and have known in years past. Our region will grow, age and become more racially and ethnically diverse. These shifts are not just in our future, however; recent data from the U.S. Census Bureau show these changes are well underway, especially when it comes to diversity in the region.

In addition to this, Minnetonka has an aging population, and is likely to see a changeover in housing stock in the coming years. There is a strong desire by many aging residents to ‘age in place’ i.e. remain located and active their community. This will lead to new, younger families moving in to the single family homes and the addition of new senior housing options. It is important to consider acknowledging the different needs of user groups to ensure Minnetonka’s parks reflect the needs of all residents and are welcoming, inclusive places.

The Sharing Economy
The Internet is the engine driving the sharing economy, connecting people at unprecedented levels and enabling peer-to-peer transactions. This model provides more flexibility and reduces upfront investment for people, for example, who are looking to rent or borrow rather than own equipment. An example of this in parks and recreation is the high popularity of bike-share, kayak-share and scooter-share in the Twin Cities area. As these trends continue to evolve, it will be important for Minnetonka to engage with residents and neighboring municipalities to determine how to successfully adopt these strategies and ensure seamless use & accessibility.

A Desire to Be More Connected to the Land
As society is ever more connected and plugged in via the internet and smart phones, there is also an increasing desire to un-plug and get back to the land and each other. This manifests itself in a variety of ways that can include: community supported agriculture (CSAs) and farmer’s markets, buy local/eat local movements, nature watching, national night out events, and support for pollinators, etc. There is also an increasing desire to know where products we buy are produced or grown, who makes it and how. This can be attributed to increased knowledge and awareness of fair labor practices, unhealthy processing practices, the desire to transfer knowledge from older to younger generations, a changed economy since the Great Recession, or a rejection of hyper consumerism, to name a few. This will lead to changes in public space and programming including what is designed and how it is managed.
‘Tribal’ Identity Politics
Due to demographic changes and a more partisan political atmosphere, many communities, regions and states have a growing number of factions or “tribes”. This has a tendency to divide (versus unite) communities. If ignored, tribalism and identity politics could impact Minnetonka, dividing the community among age, class, racial or other “tribal” lines. One example: throughout the Imagine Minnetonka process, several residents pulled consultants and staff aside to share their concerns privately (vs in front of their peers) about "those people" in the community. The implied message was that "those people" are the source of crime and are deflating Minnetonka's housing values and reputation as a great place to live. Data does not support their claims, but tribalism is often built on not on facts, but on fears. This is one small example of how identity politics can take root in a community. People can come together and connect with each other in parks and through shared experiences.

Parks, Open Space and Trails as Drivers of Economic Development
Parks and recreation improves the quality of life in communities and benefits the local economic development of a region. A recent survey in Area Development notes that three-quarters of corporate executives rate quality-of-life features as important factors when choosing a location for a headquarters, factory or other company facility. Many local park and recreation agency amenities spur tourism to their respective locales, generating significant economic activity, including (but not limited to) increased sales at local restaurants/bars and hotels. An August 2017 National Recreation and Parks Association (NRPA) Park Pulse poll found that park and recreation amenities - such as beaches, parks, trails and secluded and relaxing places - are important to people when choosing a vacation destination. Economic research has demonstrated consistently that homes and properties located near parklands have higher values than those farther away. Higher home values not only benefit the owners of these properties but also add to the tax base of local governments. Eighty-five percent of respondents to the 2017 NRPA Americans’ Engagement with Parks Survey seek high-quality park and recreation amenities when they are choosing a place to live.

Summary of Current Local Conditions
Minnetonka Parks & Open Space
The City of Minnetonka is blessed with a diverse and generally well-balanced parks and open space system that is well positioned to continue to serve the community and enhance residents’ quality of life. This park system is more than a collection of individual park units. It represents a comprehensive system of parks and recreational facilities that give the community a variety of recreational opportunities and natural amenities to appreciate and experience.

Minnetonka's natural resources are its distinguishing feature, and the one feature of the city residents cherish most. From the headwaters of Minnehaha Creek to the many wetlands and forested areas, Minnetonka provides an oasis of natural beauty amid a major metropolitan area. More than 20 percent of the city’s land area is wetlands and lakes, with more than 400 acres of maintained parkland in 51 parks; 33 miles of trails; and 1,000 acres of natural public open spaces.

Minnetonka residents place a high value on the city's park and trail systems and the surrounding natural environments. Community survey results show high support for this expansive and diverse system. The system is currently comprised of the following:
• 51 parks
• 33 miles of trails
• 400 acres of maintained parkland
• 1,000 acres of natural public open space

Recreational opportunities for youth and adults are available in Minnetonka’s Park System year round, including programs and activities and non-programmed activities. These include picnicking, canoeing, fishing, skating, swimming and play equipment. Individual amenities vary from park to park. Please see the Park Facilities Chart figure XX for a complete list of amenities at each park.

Community Parks

Big Willow Park
Located between Minnetonka Boulevard and Cedar Lake Road, just west of the Minnetonka Public Works facility, Big Willow Park’s 95 acres makes it the smallest of the city’s five community parks. Big Willow’s features include views of Minnehaha Creek, expansive open spaces and extensive trails along with community athletic fields, a play area and a canoe launch. Big Willow Park is one of the key parks in the community with a city-wide visitor draw. The park has two key functions. The first is to provide community athletic facilities for youth and adult sports, which is the premier facility in the city for these activities. The second is to provide natural open space within a developed area of the city. The community preserve portion of the site is kept natural and exhibits wooded areas, wetland areas and Minnehaha Creek running through it.

Civic Center Park
Located in the center of the city, just north of Minnetonka City Hall, the Civic Center Park’s 146 acres features a soccer field, play equipment, trails, canoe launch on Minnehaha Creek and an outdoor amphitheater. This park plays host to a number of community activities including Summerfest, the Minnetonka Farmer’s Market and movies & music in the park. This park provides neighborhood recreation facilities for non-structured activities, is a social center for the community and provides open space for informal play.

Meadow Park
Located in north central Minnetonka, Meadow Park is a large 110-acre community park, with the majority of the site dedicated to natural areas. Meadow Park is classified under both a community park and preserve due to its dual role of servicing local neighborhood park needs and protecting natural open space. Trails crisscross the park through the natural areas and wetlands. The park boasts many amenities, from a tot lot and play equipment to tennis and basketball courts and two all-season hockey rinks. The combination of these functions provides a full spectrum of outdoor recreation opportunities.

Lone Lake Park
Located in south east Minnetonka, Lone Lake Park is a large 146-acre community park and preserve and is comprised of a large high quality natural area as well as recreation features
including: soccer fields; tennis, pickleball and basketball courts; tot play area; picnic shelter and open picnic areas; dock; and 1.7 miles of trails. The park has two key functions: to provide community park facilities and natural open space within a developed area of the city. The close proximity to Shady Oak Beach expands recreational opportunities for the area as well as the broader community.

**Purgatory Park**

Located in the southwest corner of Minnetonka, Purgatory Park’s 155 acres makes it the largest of the city’s five community parks, with views of Purgatory Creek, expansive open spaces and extensive trails. A 1.2 mile trail loop that starts at the parking lot offers scenic views of the various ecological areas of the park, including wetlands, woodlands and prairies. The primary function of Purgatory Park is to preserve natural open space in a developed part of the city and provide passive recreational opportunities.

Restrooms and drinking fountains are available at each of the five community parks – Civic Center, Meadow and Purgatory (all year), and Lone Lake and Big Willow (seasonally).

**Neighborhood Parks**

Neighborhood parks serve as the backbone of the Minnetonka park system and serve as the recreational and social focal points of individual neighborhoods. As such, they focus on informal active and passive recreation that service day-to-day park and general recreation needs. There are twenty three identified neighborhood park service areas (NPSAs) within the City of Minnetonka, and over *40* neighborhood parks.

**Minnetonka Trail System**

The goals of the original trail system plan were to: create a system of interlinking and looped trails throughout the city as well as other local, state and regional trails, to provide trail access to natural resource amenities, provide linkages to neighborhoods, and a reasonable degree of universal accessibility. This plan recognized that the needs and skill levels of individual users are quite broad and are an important factor in successful implementation.

The trail system connects all of Minnetonka’s cultural and commercial activity centers and many of those in adjoining communities. It also directly connects to several regional amenities including transit facilities, Bryant Lake Regional Park, and the Three Rivers Park District’s combined 27-mile Lake Minnetonka and Minnesota River Bluffs LRT Trails.

Trails are located off road wherever possible and follow the city’s three major creek corridors: Minnehaha, Nine Mile and Purgatory. These existing trails wind through many city parks and natural open space areas, providing access to wetlands, lakes, marshes and woodlands. Users of the trail system experience much of the natural environment characteristic of Minnetonka. Throughout the height of the season, trails are patrolled regularly by Minnetonka Police Department personnel on bicycle and in special police vehicles. In addition, Three Rivers Park District rangers patrol the Three Rivers LRT Trails from April through November.

The City of Minnetonka has developed a list and map of multi-use trail corridors for future expansion. These multi-use trails differ from the original trail plan in that they follow the street corridors and serve a transportation as well as recreational use. They are prioritized by high use
segments and degree of difficulty to construct. These trails often involve multiple agency stakeholders such as MnDOT and Hennepin County as well as individual property owners along to corridor for right of way.

Trails are usually eight to ten feet wide and provide ample room for two-way bike & pedestrian traffic. Surfaces are either compacted crushed limestone or asphalt, depending on the area and terrain. At some uncontrolled intersections with major roadways, the trail will cross the road via a pedestrian underpass or overpass to minimize conflicts with traffic.

**Future**

The parks, opens space, and trails that connect them will continue to give Minnetonka its unique character. The community will continue to feel like it is a part of nature, not apart from it. The strong connection the community has with its natural resources and open space will ensure Minnetonka is a community of choice where people live, work, play, and conduct business in a naturally beautiful environment.

A look to the future of our community is important to meet the resident demands on these systems. Through extensive community engagement, a number of ideas, policies and considerations were shared. A few themes began to emerge:

- Growing – Where additional densities are planned, add more parks and trails
- Adapting – Programming of spaces, amenities and activities should reflect community desires
- Connecting – Not only do parks and trails need physical connectedness, they also need to relate to and connect with the diversity of people in the community

**Implementation Plan - How we will get there**

Parks and open space are essential to a high quality of life, and are highly regarded by residents in Minnetonka. As the needs of the community change through time and the city experiences population growth, the parks and open space will become even more important. The policies and strategies below address the current parks, open spaces, and trails as well as potential future additions to the system.

**Policies and Strategies**

**Policy 1 - Maintain, preserve, and enhance the existing wetlands, parks and open spaces that give Minnetonka its unique character and provide a high quality of life for all residents**

Specific Strategies:

- Evaluate the park dedication fee ordinance to establish metrics for decision making
- Update the 2001 Parks, Open Space & Trail (POST) plan to reflect changing population, values, trends and opportunities
- Assess use of community level parks to determine optimal levels of programming and use
- Develop master plans for all community level parks within the city
• Consider accommodating urban agriculture and edible landscapes within parks and open space

Policy 2 - Park facilities and programs that match the desires, needs, and abilities of residents

Specific strategies:
• Integrate equity into decision making for recreation programs so these opportunities are available and accessible to all residents
• Continue to engage with the community and monitor and evaluate program registrations, regional trends and user satisfaction to consider additional programming and educational opportunities that reflect the changing needs of the community
• Continue to cooperate with the Minnetonka and Hopkins school districts in supporting community use of facilities
• Complete a facility and programming space study to assess the City’s current space, and provide direction for future development and growth opportunities
• Collaborate with partner agencies and other non-profit organizations to provide recreation and programming opportunities for the community
• Create public/private partnerships to support recreation programs and opportunities
• Engage with employers to encourage employee recreational participation
• Consider public art incorporation into appropriate park and open spaces
• Continue to provide recreation program scholarships as funds are available

Policy 3 – A walkable/bikeable Minnetonka that will safely and comfortably connect people to parks, open space, and village centers, and build a culture of active living

Specific strategies:
• Continue to implement and evaluate the Minnetonka Trail Improvement Plan (TIP)
• Build off the existing TIP to create an active transportation masterplan. [or complete streets policy]
• Continue to partner with peer agencies such as MnDOT, Hennepin County, Three Rivers Park District, and neighboring cities to implement trail connections
• Invest in walkability and cycling as a means of economic development
• Establish standards for bicycle and pedestrian facilities at community parks and village centers including but not limited to: racks, secure storage lockers, bicycle repair facilities, drinking fountains and benches
• Pursue designation as a bicycle friendly city through BikeMN
• Continue to partner with Three Rivers Park District around planning, implementation and maintenance of regional bike trails that travel through Minnetonka
• Identify a consistent funding source to implement the trail improvement plan

Policy 4 - Identify opportunities for new parks and open space

Specific Strategies:
• Creation of new signature community level park/plaza space at Ridgedale and within Opus that creates a sense of place and provides recreational opportunities
• Identify parts of the city that do not have easy access to parks and open space to ascertain and prioritize land acquisition opportunities or facilitate trail connectivity to existing parks.
• Evaluate land use plans to determine future park and open space needs
• Identify opportunities for privately owned, publicly accessible space
• Continue to work with interested residents and property owners around land donations or conservation easements
• Designate the Ann Cullen Smith property and develop natural resources preservation & celebration based use

Policy 5 - Resiliency of parks & open space to climate change and extreme weather events

Specific Strategies:
• Continue to partner with the natural resources division to implement the Natural Resources Management Plan in park spaces
• Foster partnerships and cooperation with peer agencies
• Connect people to the benefits of nature and the outdoors to foster appreciation and protection of natural resources and open spaces through increased access and recreational opportunities within natural resource areas, as appropriate
• Use or specify native plant materials for new plantings in parks & open spaces as appropriate
• Increase emphasis on minimizing runoff volumes, through implementation of storm water best management practices and other environmental practices that are technically acceptable and financially feasible
• Expand environmental education & recreation programs with partnerships in schools and in the community
• Design and install educational and interpretive signage in natural areas in parks and open spaces
Planning for Climate Resilience: Natural Resources
On January 17, 2018 the City of Minnetonka Comprehensive Plan Steering Committee participated in a three-hour workshop focused on building community resilience to local climate change impacts, with a specific focus on both natural and water resources. Workshop participants were asked to identify climate-related hazards and potential impacts within the City of Minnetonka, along with strategies and priorities for the city to focus on to increase resilience throughout the community. The top climate-related hazards and priority recommendations identified by these participants are contained within this report.

Links to additional information related to climate and resilience:

- National Climate Resilience Toolkit: [https://toolkit.climate.gov/](https://toolkit.climate.gov/)
- Climate Change in Minnesota:
  - Minnesota Pollution Control Agency
    [https://www.pca.state.mn.us/air/climate-change-minnesota](https://www.pca.state.mn.us/air/climate-change-minnesota)
  - Minnesota Department of Natural Resources
    [http://www.dnr.state.mn.us/climate/climate_change_info/index.html](http://www.dnr.state.mn.us/climate/climate_change_info/index.html)
  - Minnesota Department of Health
    [http://www.health.state.mn.us/divs/climatechange/](http://www.health.state.mn.us/divs/climatechange/)
  - Minnesota Environmental Quality Board
    [https://www.eqb.state.mn.us/content/climate-change](https://www.eqb.state.mn.us/content/climate-change)
TOP CLIMATE HAZARDS

Based on current and expected climatologic trends, the top four climate-related hazards identified by participants include:

**Extreme Heat**
Although not currently experiencing abnormal extreme heat events yet, Minnetonka is experiencing greater summer humidity in general, which pushes up the heat index and makes it harder to cool off. Extreme heat is predicted for the not too-distant future, according to Minnesota’s State Climatology Office.

**Intense Rainfall**
An increase in large storm events is documented in Minnesota. Minnetonka experienced this during several intense rainfall events, including June, 2014, and the super storm of 1987. Duluth’s staggering 2012 extreme rainfall event demonstrated the serious impacts of such storms. Back to back years of wet weather can also exacerbate high water level issues throughout the City.

**Severe Storms and Wind**
Strong winds are on the increase as evidenced by the number of electrical lines brought down by falling branches or entire trees. The pattern of dangerous storms grows more uncertain with climate change. Tornado alley is predicted to eventually move north into Minnesota.

**Warming Low Temperatures**
Minnetonka is currently experiencing an increase in winter nighttime low temperatures. Consequences include better survival of invasive species moving into the area, changes in plant and tree species that thrive in the city, and inconsistent conditions for winter recreational activities as snow and ice season shortens.
NATURAL RESOURCE AREAS OF CONCERN

Participants identified areas of vulnerability to our changing climate for both natural and water resources. Specific features that are considered at-risk for impacts both now and in the future include:

Woodlands and Urban Canopy
Woodland protection - both existing, old growth forests and newly planted areas - is a top concern for the City of Minnetonka. Canopy cover and biodiversity among woodland species provides many benefits to the city, including habitat value, water resource protection, and shade. Increasing severe storms, wind, ice, and changes in temperatures will significantly impact the amount and types of trees that grow in the city.

Water Resources - Lakes, Streams, Ponds, Wetlands, and Floodplain
Impacts of concern to water resources include declining lake water quality (chlorides, excess nutrients), loss of plant diversity and invasive species, impacts to fisheries, as well as wetland and floodplain loss and loss of flood storage capacity throughout the City.

Native Habitat and Plant Biodiversity
Loss of tree canopy and vegetation from both natural and open areas (parks, trails) was identified as a significant concern, along with changes due to invasive species displacing native species. An increase in loss of vegetation also leads to more soil erosion, especially on steep slopes.

Groundwater
Minnetonka depends on groundwater for its drinking water supply. Protecting groundwater aquifers from both depletion and contamination (e.g. nitrates and chlorides) is of concern to the City.
CITY-WIDE STRATEGIES TO ADAPT

Participants identified specific strategies the City could adopt to reduce local climate vulnerabilities and maintain current strengths related to both natural and water resource features. These strategies encompass a breadth of policy considerations, planning needs, programmatic needs, and specific project implementation. City-wide strategies identified include:

**Restore, Maintain and Protect Native Habitats**
Specific strategies include invasive species removal (e.g. buckthorn) to restore woodland areas, protecting wetland areas through vegetation maintenance (buffers) and education of landowners, controlling for invasive species (EAB, buckthorn), continuing tree sales and promote plantings, and reducing turf through native plantings in open spaces.

**Develop Management Plans**
Developing management plans for preserving and protecting the City’s natural and water resources is important and can supplement the City’s existing plans. New plans could include:
- Lake management plans
- Woodland management plans
- Invasive species rapid response plans

**Promote Green Infrastructure Principles and Practices**
Green infrastructure - both large scale natural areas (wetlands, floodplains, forests) as well as constructed practices (raingardens and other infiltration practices) - are an important adaptation strategy for the City. Benefits include flood mitigation, water quality protection, increase in plant biodiversity and wildlife/pollinator habitat, and reduction in hard surfaces that generate runoff when it rains.

**Increase Plant Biodiversity**
A higher diversity in vegetative cover provides the best protection from climate-related impacts to plants, such as intense storms, changing temperatures, increased length of growing season, and heightened risk of invasive species. Removing current invasive species such as buckthorn, planting new diverse plant species (trees and herbaceous plants) that are
climate-tolerant, reducing bare soil areas and erosion by planting deep-rooted plants are all important. Fundamentally, planting the ‘right plant in the right place’ is beneficial to the City.

**Educate Citizens and other Stakeholders**

An educated citizenry is an important strategy for a community to increase climate resilience. The City should make sure that landowners are aware of issues pertaining to the City’s natural and water resources, including chloride contamination of both surface and groundwater, the benefits of green infrastructure to water and habitat, the importance of increasing plant biodiversity and deep-rooted plants in both landscaped and woodland areas, the importance of invasive species management, and proper tree care management to maintain urban canopy are seen as important to the community.
Along with city-wide strategies, several specific areas of concern and local actions were identified throughout the City, both public and privately owned. The table below includes more information for the City to consider when planning projects and programs to increase community resilience:

### Location-Specific Vulnerabilities and Strategies to Adapt

<table>
<thead>
<tr>
<th>Identified Feature</th>
<th>Ownership</th>
<th>Adaptation Strategies</th>
</tr>
</thead>
<tbody>
<tr>
<td>Bantas Point Road - flooding</td>
<td>City-Owned</td>
<td>Pursue property acquisition; road reconstruction to mitigate flooding; setbacks; native shoreline restoration</td>
</tr>
<tr>
<td>Recreation Trails - flooding and erosion</td>
<td>City-Owned</td>
<td>Rebuild and/or re-route; communicate hot spots to users; consider water issues when building new</td>
</tr>
<tr>
<td>Hilloway Park</td>
<td>City-Owned</td>
<td>Keep groundcover, leave the trees; limit heavy impact activities; replace trees for active restoration</td>
</tr>
<tr>
<td>Lone Lake</td>
<td>City-Owned</td>
<td>Continue monitoring buffers</td>
</tr>
<tr>
<td>Meadow Park - flooding trails</td>
<td>City-Owned</td>
<td>Rebuild and/or re-route; communicate hot spots to users; consider water issues when building new</td>
</tr>
<tr>
<td>Big Willow Park - flooding trails</td>
<td>City-Owned</td>
<td>Rebuild and/or re-route; communicate hot spots to users; consider water issues when building new</td>
</tr>
<tr>
<td>Jidana Park (near City Hall) - flooding trails</td>
<td>City-Owned</td>
<td>Rebuild and/or re-route; communicate hot spots to users; consider water issues when building new</td>
</tr>
<tr>
<td>Shady Oak Lake</td>
<td>Public and Private</td>
<td>Continue monitoring buffers</td>
</tr>
<tr>
<td>Industrial Areas - flooding and contamination</td>
<td>Private</td>
<td>Continue updating management plans; keep up with emerging threats</td>
</tr>
<tr>
<td>Ann Lane Homes</td>
<td>Private</td>
<td>Pursue property acquisition; road reconstruction to mitigate flooding; setbacks; native shoreline restoration</td>
</tr>
<tr>
<td>Ridgedale Mall - Outflow</td>
<td>Private</td>
<td></td>
</tr>
<tr>
<td>Grays Bay Dam</td>
<td>Public (MCWD)</td>
<td>Keep it working</td>
</tr>
<tr>
<td>Minnehaha Creek - Flooding</td>
<td>Public and Private</td>
<td>Pursue property acquisition; adequate dam management; protect existing and create more floodplain</td>
</tr>
<tr>
<td>Westwood Road/Circle - Flooding</td>
<td>Public and Private</td>
<td>Pursue property acquisition; road reconstruction to mitigate flooding; setbacks; native shoreline restoration</td>
</tr>
</tbody>
</table>
### Results from 1/17/18 steering committee exercise

<table>
<thead>
<tr>
<th>Feature</th>
<th>Location</th>
<th>Ownership</th>
<th>V/S/B</th>
<th>Hazard 1 - Intense Rains</th>
<th>Hazard 2 - Extreme Heat</th>
<th>Hazard 3 - Severe Storms</th>
<th>Hazard 4 - Warming lows</th>
<th>Priority</th>
<th>Timeline</th>
</tr>
</thead>
<tbody>
<tr>
<td>Bantas Point Road</td>
<td>Specific</td>
<td>City</td>
<td>V</td>
<td>Buy-out private property, road reconstruction - flood mitigation</td>
<td>Continue adopting new/innovative practices, increase street sweeping, pilot testing now, educate residents for private property</td>
<td></td>
<td></td>
<td>Low</td>
<td>Long</td>
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<tr>
<td>Chloride Reduction Practices</td>
<td>City-wide</td>
<td>All</td>
<td>S</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td>Medium</td>
<td>Ongoing</td>
</tr>
<tr>
<td>Wetlands - lots of them to hold water</td>
<td>City-wide</td>
<td>Public/Private</td>
<td>V</td>
<td>Buy-outs, MC dam management, protect/create more floodplain</td>
<td>Buy-out private property, road reconstruction - flood mitigation</td>
<td>Woodland maintenance, tree education, manage buckthorn, continue these, fire risk/kindling, increase biodiversity (new species)</td>
<td></td>
<td>Medium</td>
<td>Ongoing</td>
</tr>
<tr>
<td>Minnehaha Creek Flooding - homes</td>
<td>Specific</td>
<td>Public/Private</td>
<td>V</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td>Medium</td>
<td>Ongoing</td>
</tr>
<tr>
<td>Westwood Rd/Circle Flooding</td>
<td>Specific</td>
<td>City/Private</td>
<td>V</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td>Low</td>
<td>Long</td>
</tr>
<tr>
<td>Oak/Woodland Communities (City Hall on map)</td>
<td>City-wide</td>
<td>Public/Private</td>
<td>B</td>
<td>Emerging management plans - continue updating, keep up with emerging threats Burying lines when possible, trim trees regularly Woodland maintenance, tree education, manage buckthorn, continue these, fire risk/kindling, increase biodiversity (new species)</td>
<td></td>
<td></td>
<td></td>
<td>High</td>
<td>Ongoing</td>
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<tr>
<td>Industrial areas/contamination</td>
<td>Specific</td>
<td>Private</td>
<td>V</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td>High</td>
<td>Ongoing</td>
</tr>
<tr>
<td>Trees/power issues</td>
<td>City-wide</td>
<td>Private-utility</td>
<td>V</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td>High</td>
<td>Ongoing</td>
</tr>
<tr>
<td>Tree Canopy throughout city</td>
<td>City-wide</td>
<td>Public/Private</td>
<td>B</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td>High</td>
<td>Ongoing</td>
</tr>
<tr>
<td>Underwater Trails - recreation, erosion issues</td>
<td>Specific</td>
<td>City</td>
<td>V</td>
<td>Rebuild or re-route, communicate hot spots, consider water issues when building new Buy-out private property, road reconstruction - flood mitigation Implement lake management policies, foster public/private partnerships Keep up maintenance, evaluate maintenance schedules, maintain flood storage capacity Reduce runoff, filter water naturally, help water soak in, green infrastructure Reduce pavement where possible, especially with parking that is excessive, create more infiltration, keeping water where it falls</td>
<td></td>
<td></td>
<td></td>
<td>Low</td>
<td>Ongoing</td>
</tr>
<tr>
<td>Anna Lane Homes Lakes - city-wide, algae, cattails</td>
<td>Specific</td>
<td>Private</td>
<td>V</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td>Low</td>
<td>Long</td>
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<tr>
<td>Storm Ponds</td>
<td>City-wide</td>
<td>Public/Private</td>
<td>V/S</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td>Medium</td>
<td>Ongoing</td>
</tr>
<tr>
<td>Purgatory Creek</td>
<td>Minnetonka</td>
<td>WD</td>
<td>V</td>
<td></td>
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<td></td>
<td></td>
<td>High</td>
<td>Short</td>
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<tr>
<td>Minnehaha Creek</td>
<td>Minnetonka</td>
<td>WD</td>
<td>V</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td>Medium</td>
<td>Ongoing</td>
</tr>
<tr>
<td>Bantas Point</td>
<td>Specific</td>
<td>Private</td>
<td>V</td>
<td></td>
<td></td>
<td></td>
<td>Keep it working Keep groundcover, leave the trees, limit heavy impact activities, replace trees, active restoration</td>
<td></td>
<td>Low</td>
</tr>
<tr>
<td>Grays Bay Dam</td>
<td>Specific</td>
<td>ACE/WD</td>
<td>V/S</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td>Low</td>
<td>Long</td>
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<tr>
<td>Hillwood Park</td>
<td>Specific</td>
<td>City</td>
<td>V/S</td>
<td></td>
<td></td>
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<td>Low</td>
<td>Long</td>
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<tr>
<td>Parks</td>
<td>Minnetonka</td>
<td>City</td>
<td>V/S</td>
<td>Management plan</td>
<td>Defer to arborist</td>
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<tr>
<td>Oaks</td>
<td>Minnetonka</td>
<td>Public/Private</td>
<td>V/S</td>
<td>Reduce runoff (volume and rate), holding ponds</td>
<td>Parking lots/pavement reduced, trees along shore</td>
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<tr>
<td>Maple - Basswood</td>
<td>Minnetonka</td>
<td>Public/Private</td>
<td>V/S</td>
<td>Keep it, remove buckthorn and other bads, encourage right plant right place, cover bare soil, plant appropriate for new climate</td>
<td>Plant southern</td>
<td></td>
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<tr>
<td>Lakes</td>
<td>Minnetonka</td>
<td>Public, City, WD</td>
<td>V/S</td>
<td>Right plant for right place, diversity, deep-rooted plants, more rain gardens, infiltration, irrigation management/drought tolerant, ban watering lawn</td>
<td>Reduce chlorides</td>
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<tr>
<td>Vegetation</td>
<td>Minnetonka</td>
<td>Public/Private</td>
<td>V/S</td>
<td>Water reuse/storage and use, watering bans, more infiltration, education, native deep rooted plants, adjust public norm/perception</td>
<td>Healthy soils, drought tolerant</td>
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<tr>
<td>Cold Weather Conifers</td>
<td>Minnetonka</td>
<td>Public/Private</td>
<td>V/S</td>
<td>Replace/active restoration, continue tree sale, offer southern climate trees</td>
<td>Watering plan to protect trees, especially new plantings</td>
<td></td>
<td>Good replacement plan</td>
<td></td>
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<tr>
<td>Gardens</td>
<td>Minnetonka</td>
<td>Private (some pub)</td>
<td>V/S</td>
<td>Plant more pollinator species, less turf, more fescue</td>
<td>Provide shelter/water</td>
<td></td>
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<tr>
<td>Aquifers</td>
<td>Minnetonka</td>
<td>Public</td>
<td>V</td>
<td>Keep them, enhance educate on what no to do with wetlands, maintain and protect wetland veg., set expectations for what you can reasonably expect from living on a wetland</td>
<td>Irrigation, maintain, proactive replacements - clean up afterwards</td>
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<tr>
<td>Wetlands/ponds</td>
<td>Minnetonka</td>
<td>Public</td>
<td>V/S</td>
<td>Plant more, don't cut, maintain crowns near power line (education for tree contractors), diversity in age and species</td>
<td>Water plants</td>
<td></td>
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<tr>
<td>Biodiversity and age of trees</td>
<td>Minnetonka</td>
<td>Public/Private</td>
<td>V/S</td>
<td>Buy properties as available and restore Model hyd. impacts of future rain, design wetlands accordingly, provide/protect buffers</td>
<td>Buy properties and restore, protect shorelines, no turf</td>
<td></td>
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<tr>
<td>Diversity of wildlife</td>
<td>Minnetonka</td>
<td>Public/Private</td>
<td>V/S</td>
<td>Maintain trees and restrictions on development, monitor vulnerable areas, educate homeowners about where they are vulnerable</td>
<td>Will need more capacity - expand capacity, dredge, maintain</td>
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<tr>
<td>Established Canopy</td>
<td>Minnetonka</td>
<td>Public/Private</td>
<td>V/S</td>
<td>Will need more capacity - expand capacity, dredge, maintain</td>
<td>Continue monitoring buffers</td>
<td></td>
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<tr>
<td>Wetlands</td>
<td>DNR, WD, City</td>
<td>V/S</td>
<td></td>
<td></td>
<td></td>
<td>M</td>
<td>L (unless tree canopy changes)</td>
<td>O</td>
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<tr>
<td>Floodplain</td>
<td>Minnetonka</td>
<td>Public/Private</td>
<td>V/S</td>
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<tr>
<td>Steep Slopes</td>
<td>Private/City ord.</td>
<td>V</td>
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<tr>
<td>Stormwater Ponds</td>
<td>WD, commercial, city</td>
<td>S</td>
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<tr>
<td>Lone Lake</td>
<td>City</td>
<td>V</td>
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<tr>
<td>Maintenance of ponds/wetlands</td>
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<tr>
<td>Outflow from Ridgedale Mall</td>
<td>Private, commercial</td>
<td>V/S</td>
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<tr>
<td>Meadow Park</td>
<td>City</td>
<td>V/S</td>
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</tbody>
</table>

**Notes:**
- **V/S:** Variable Management System
- **V:** Variable
- **S:** Semi-variable
- **B:** Baseline
- **M:** Maintenance
- **H:** High
- **O:** Other
<table>
<thead>
<tr>
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</tr>
</thead>
<tbody>
<tr>
<td>Minnehaha Creek</td>
<td>WD, City</td>
<td>V/S</td>
<td></td>
<td>Retain/hire foresters/naturalists to help protect and maintain urban trees. Diversify types of trees</td>
<td></td>
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<td>O</td>
</tr>
<tr>
<td>Open Spaces - preservation and acquisition</td>
<td>Mostly city</td>
<td>S</td>
<td></td>
<td></td>
<td>EAB planning, provide incentive to replant, educate on how to identify when a replacement is needed, tree sales</td>
<td></td>
<td></td>
<td>H</td>
<td></td>
</tr>
<tr>
<td>Trees (urban forest)</td>
<td>Citizens</td>
<td>V/S</td>
<td></td>
<td></td>
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<td>H</td>
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<tr>
<td>Woodland preservation zones</td>
<td>Private, City ord.</td>
<td>S</td>
<td></td>
<td>Maintenance</td>
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<td>H</td>
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</tr>
<tr>
<td>Old growth trees</td>
<td>Private</td>
<td>V/S</td>
<td></td>
<td>Maintenance</td>
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<tr>
<td>Trails</td>
<td>City</td>
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<td></td>
<td>Maintenance</td>
<td></td>
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<td></td>
<td>L</td>
<td>O</td>
</tr>
<tr>
<td>Shady Oak Lake</td>
<td>City (Hopkins and M</td>
<td>V/S</td>
<td></td>
<td>Maintenance, continue monitoring buffers</td>
<td>Maintenance, continue monitoring buffers</td>
<td></td>
<td></td>
<td>M</td>
<td>L</td>
</tr>
<tr>
<td>Other lakes</td>
<td>WD, City, DNR</td>
<td>V/S</td>
<td></td>
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<td>not much power here</td>
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<td>Fisheries</td>
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<td>V</td>
<td></td>
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<td>Rapid response plan</td>
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<td>Invasive species</td>
<td>DNR</td>
<td>V</td>
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<tr>
<td>Big Willow Park</td>
<td>City</td>
<td>V/S</td>
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<tr>
<td>Jidana Park (near City Hall)</td>
<td>City</td>
<td>V/S</td>
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